

**VALVES & SOLUTIONS**



# MANUALE USO E MANUTENZIONE VALVOLE OLEODINAMICHE

Questo manuale è indirizzato a personale specializzato e competente che non può in ogni caso sostituire la professionalità e la competenza dell'installatore. La Casa Produttrice declina ogni responsabilità per danni alle persone ed agli oggetti dovuti a una cattiva o impropria installazione delle valvole. La **Oleoweb Srl** è orientata ad una continua ricerca e sviluppo dei propri prodotti e pertanto si riserva il diritto di modificare in qualunque momento e senza alcun preavviso tutte le caratteristiche tecniche ritenute necessarie. Il presente manuale potrà subire variazioni e integrazioni, ma non potrà in alcun caso ritenersi superato. Il presente manuale e la documentazione tecnica della **Oleoweb Srl** hanno lo scopo di fornire ulteriori informazioni tecniche a utilizzatori competenti del settore (collaboratori competenti).



## PERSONA COMPETENTE

È una persona che, per merito dell'addestramento tecnico e dell'esperienza, possiede una sufficiente conoscenza del settore. L'utilizzatore è responsabile della scelta del suo prodotto e dei suoi accessori. Risulta quindi importante che l'utilizzatore analizzi le problematiche della propria applicazione, eseguendo analisi e prove adeguate. È inoltre il responsabile dell'applicazione, delle sicurezze e delle avvertenze richieste dalle direttive in vigore.

## STAMPIGLIATURA

Le valvole **Oleoweb** sono identificabili per mezzo della stampigliatura posta sulla valvola:

- Logo aziendale
- Schema idraulico
- Codice
- Mese e anno di fabbricazione (in estensione al codice)

## USO PREVISTO DELLE VALVOLE

Le valvole **Oleoweb** sono destinate a costruttori di macchine e attrezzature a comando oleodinamico. Data la vastità applicativa delle valvole oleodinamiche e non essendo sempre nota la destinazione finale del prodotto, questo manuale è stato realizzato limitatamente alle generiche applicazioni conosciute.



## LIMITI DI IMPIEGO

La **Oleoweb Srl** diffida ogni utilizzatore/cliente o costruttore nell'impiegare le valvole nelle seguenti applicazioni:

- Ambienti dove esista il pericolo di esplosione o incendio;
- Veicoli e impianti aeronautici e spaziali;
- Sistemi e impianti sterzanti su veicoli e su mezzi adibiti al trasporto di persone, cose ed animali;
- Sistemi frenanti, di blocco e di stallo in genere;
- Attrezzature ed impianti di applicazione in campo militare, nucleare, medicale ed ospedaliero;

TUTTAVIA LA DIREZIONE TECNICA DELLA OLEOWEB SRL SI RISERVA, DIETRO RICHIESTA DELL'UTILIZZATORE, DI VALUTARE CASO PER CASO LE APPLICAZIONI SOPRA CITATE E DI DARNE QUALORA LO RITENGA OPPORTUNO L'AUTORIZZAZIONE.



## SPECIFICHE MECCANICHE

- Non manomettere alcun tipo di valvola, un semplice allentamento di una valvola potrebbe provocare la caduta libera di carichi o il cedimento di strutture.
- Tutte le operazioni d'installazione, montaggio, manutenzione e smontaggio delle valvole e dei componenti a esse applicati devono essere eseguiti nel massimo rispetto delle norme di sicurezza. Durante queste operazioni, all'interno del circuito oleodinamico non deve mai essere presente pressione (pressione zero) e non deve gravare nessun tipo di carico sulla struttura dell'attrezzatura o della macchina a cui la valvola è applicata (carico zero).



## SPECIFICHE ELETTRICHE

- Tutti i collegamenti e scollegamenti elettrici devono essere eseguiti da personale specializzato e competente.
- Prima di procedere a qualsiasi tipo di operazione o di intervento sulle valvole, queste devono essere scollegate dalla linea elettrica di alimentazione.



## SPECIFICHE DI SICUREZZA

- Usare protezioni antinfortunistiche;
- Lavorare in condizioni di massima pulizia;
- Lavorare in condizioni di massima sicurezza;
- Usare strumenti, attrezzi e banchi di servizio adatti e puliti;
- Durante le operazioni di avviamento, normale lavoro, manutenzione, regolazione, sfiato dell'impianto, intervento e azionamento di valvole e vari elementi di controllo POSSONO VERIFICARSI DEGLI SCHIZZI IMPROVVISI E DELLE FUORIUSCITE DI FLUIDO IDRAULICO, IL QUALE PUÒ RAGGIUNGERE TEMPERATURE TALI DA CAUSARE USTIONI ALLA PELLE. Il fluido idraulico può essere pericoloso per la salute in quanto il contatto con la pelle e gli occhi può causare gravi danni. Attenersi scrupolosamente alle disposizioni di protezione e sicurezza imposte dal produttore del fluido idraulico riportate sulla scheda tecnica e tossicologica del prodotto. Il fluido idraulico può essere un prodotto inquinante. È perciò buona norma evitare perdite di fluido idraulico con prodotti oleoassorbenti. Rapide variazioni di temperatura possono pregiudicare sia le caratteristiche che la durata del prodotto, pertanto è indispensabile proteggerlo da queste situazioni.



## MONTAGGIO

Un montaggio ed una corretta installazione sono fattori essenziali per il buon funzionamento nel tempo di un impianto oleodinamico. Polvere e sporcizia sono comuni fattori di malfunzionamento per gli impianti oleodinamici. Durante l'installazione preoccuparsi quindi della massima pulizia effettuando le principali operazioni di collegamento in un locale pulito e non polveroso. Le valvole devono essere montate in modo tale da permettere una facile accessibilità ai comandi, alle ispezioni, alla manutenzione e alla riparazione; inoltre è altrettanto indispensabile che esse vengano montate in zone protette da urti accidentali e riparate da casuali contatti fisici, poiché la temperatura raggiunta durante il funzionamento può essere causa di ustioni.



## MOVIMENTAZIONE

Le valvole oleodinamiche sono prodotti da maneggiare con cura e attenzione. Per loro caratteristica presentano protuberanze soggette a rottura.

## STOCCAGGIO

Le valvole oleodinamiche devono essere stoccate in un luogo protetto, possibilmente chiuso, al riparo da polvere, sporcizia, umidità e intemperie, a una temperatura non inferiore a -15° C e non superiore a +50° C; inoltre, l'imballaggio deve evitare la perdita di fluido idraulico rimasto nella valvola dopo il collaudo e non consentire l'accesso di corpi estranei, che potrebbero pregiudicare il buon funzionamento e la durata della valvola.



## SMALTIMENTO VALVOLE

Le valvole oleodinamiche sono costruite principalmente in lega di alluminio, in lega di acciaio e in materiale plastico; possono essere smaltite come normali materiali inviati al riciclaggio con avvertenza di effettuare lo svuotamento dal fluido idraulico in tutte le sue parti.

## SMALTIMENTO FLUIDO IDRAULICO

I fluidi idraulici sono soggetti a speciali prescrizioni di smaltimento: rispettare le indicazioni e le istruzioni dei produttori e attenersi alle disposizioni legislative vigenti nel Paese di utilizzazione.



## NON DISPERDERE NELL'AMBIENTE IL FLUIDO SOSTITUITO

## MANUTENZIONE

Un impianto oleodinamico ben installato e curato nella fase di montaggio e messa in esercizio assicura una lunga durata senza inconvenienti e non necessita di particolari cure manutentive. Il principio di base è la necessità di controllare spesso la qualità e lo stato del fluido che trasmette potenza e assicurarsi dell'assenza di impurità nel circuito cui è rapportata l'affidabilità di qualsiasi macchina oleodinamica. Infatti, fra le cause principali di fuori servizio o di guasto, si può segnalare il bloccaggio di apparecchiature a seguito di grippaggi o di rotture dovuti a usura e a invecchiamento del fluido che trasmette potenza, con conseguente perdita delle sue proprietà chimico-fisiche.

È ormai accertato che la causa principale di tutti questi inconvenienti è dovuta alla presenza di particolari e microparticelle che circolano nel fluido e che costituiscono motivo di usura. Queste microparticelle, se lasciate circolare nel sistema, agiscono come una miscela abrasiva scalfando le superfici con cui vengono a contatto e trascinando in ciclo ulteriore contaminante; i danni sono, ovviamente, tanto più gravi quanto più sono sofisticate le apparecchiature installate. Dalla messa in marcia dell'impianto, la manutenzione è fatta fondamentalmente di piccole operazioni che per essere veramente efficaci devono essere compiute con regolarità. È pertanto estremamente importante che tali operazioni di controllo e di verifica siano programmate e riportate su schede di macchine o di impianto.

### PULIZIA ESTERNA

Permette una facile localizzazione di eventuali perdite e dunque l'immediato intervento.

### CONTROLLO CONTINUO DELLA TEMPERATURA DELL'OLIO

L'alterazione del fluido a causa della temperatura è un motivo di inquinamento e di degradazione dell'impianto. La formazione dei prodotti di degradazione degli idrocarburi è particolarmente favorita dal calore: la velocità di ossidazione si può ritenere circa costante fino a 60°C, raddoppiando a partire da questo punto ad ogni incremento di 10°C. La presenza di morchie e di sedimenti nel fluido, causa di un aspetto torbido, segnala lo stato di degradazione dello stesso.

### CAMBIO FLUIDO

Assicurare nel tempo le migliori condizioni di lavoro, con frequente controllo del fluido e sua periodica sostituzione. Mediamente dopo le prime 100 ore di lavoro, poi ogni 2000 ore o comunque una volta all'anno. A ogni cambio sostituire i filtri ed eseguire la pulizia del serbatoio. Prima di eseguire il cambio del fluido idraulico svuotare completamente l'impianto dallo stesso.

## GARANZIA

### CONDIZIONI GENERALI DI GARANZIA

I prodotti di nostra fabbricazione sono garantiti da eventuali avarie imputabili a difetti di fabbricazione o a materiali impiegati. La durata della garanzia sarà di 12 mesi dalla spedizione dal nostro stabilimento. Eventuali interventi di revisione in garanzia, dovranno essere effettuati dai servizi di Assistenza Tecnica da noi autorizzati, oppure presso il nostro stabilimento dove i prodotti dovranno essere inviati in porto franco con un imballo adeguato. Sarà considerata decaduta la garanzia in caso di incauto utilizzo, di manomissione, di modifica e/o di riparazione eseguita da personale non da noi autorizzato.

### ASSISTENZA TECNICA FUORI GARANZIA

La **Oleoweb Srl** è a disposizione per le riparazioni dei prodotti anche decoro il termine di garanzia.

La **Oleoweb Srl** effettuerà la riparazione anche trascorsi diversi anni d'impiego (sempre che sia economicamente conveniente).

Il costo della riparazione dei nostri prodotti non più in garanzia viene normalmente calcolato a consuntivo. L'eventuale richiesta di un preventivo dovrà essere fatta espressamente al momento della consegna del prodotto da riparare. Nel caso che il preventivo non venga accettato, saranno comunque addebitate le spese da noi sostenute per la formulazione dello stesso.

Ogni prodotto reso per la revisione deve essere accompagnato da:

1. Regolare bolla completa di dati, come da disposizione di legge.
2. Lettera di indicazione del difetto riscontrato e dati di riferimento di un Tecnico Responsabile per eventuali chiarimenti.

MESE DI FABBRICAZIONE	ANNO DI FABBRICAZIONE											
	2020	2021	2022	2023	2024	2025	2026	2028	2029	2030	2031	
GENNAIO	20M	21M	22M	23M	24M	25M	26M	28M	29M	30M	31M	
FEBBRAIO	20N	21N	22N	23N	24N	25N	26N	28N	29N	30N	31N	
MARZO	20P	21P	22P	23P	24P	25P	26P	28P	29P	30P	31P	
APRILE	20Q	21Q	22Q	23Q	24Q	25Q	26Q	28Q	29Q	30Q	31Q	
MAGGIO	20R	21R	22R	23R	24R	25R	26R	28R	29R	30R	31R	
GIUGNO	20S	21S	22S	23S	24S	25S	26S	28S	29S	30S	31S	
LUGLIO	20T	21T	22T	23T	24T	25T	26T	28T	29T	30T	31T	
AGOSTO	20U	21U	22U	23U	24U	25U	26U	28U	29U	30U	31U	
SETTEMBRE	20V	21V	22V	23V	24V	25V	26V	28V	29V	30V	31V	
OTTOBRE	20Z	21Z	22Z	23Z	24Z	25Z	26Z	28Z	29Z	30Z	31Z	
NOVEMBRE	20X	21X	22X	23X	24X	25X	26X	28X	29X	30X	31X	
DICEMBRE	20Y	21Y	22Y	23Y	24Y	25Y	26Y	28Y	29Y	30Y	31Y	

## OLIO · OIL

Utilizzare esclusivamente olio idraulico a base minerale ISO 6743/4 (DIN 51524).

Use only ISO 6743/4 (DIN 51524) hydraulic mineral oil.

## VISCOSITÀ · VISCOSITY

La Viscosità deve essere secondo i parametri ISO 3448 (DIN51519). Il grado di viscosità viene indicato con le lettere ISO VG seguito da un numero che indica la viscosità cinematica media a 40° C in mm<sup>2</sup>/s o centiStokes (cSt).

The viscosity must be according to ISO 3448 (DIN51519) standards. The viscosity degree is stated by ISO VG letters followed by a number showing the average kinematic viscosity at 40° C in mm<sup>2</sup>/s or centistokes (cSt).

GRADI DI VISCOSITÀ ISO ISO VISCOSITY DEGREES	VISCOSITÀ CINEMATICA MEDIA AVERAGE KINEMATIC VISCOSITY mm <sup>2</sup> /s at 40° C	LIMITI VISCOSITÀ CINEMATICA KINEMATIC VISCOSITY LIMITS mm <sup>2</sup> /s at 40° C	
		Min.	Max.
ISO VG 15	15	13,5	16,5
ISO VG 22	22	19,8	24,2
ISO VG 32	32	28,8	35,2
<b>ISO VG 46</b>	<b>46</b>	<b>41,4</b>	<b>50,6</b>
ISO VG 68	68	61,2	74,8
ISO VG 100	100	90,0	110

## TEMPERATURA · TEMPERATURE

Temperatura ambiente da -20°C a 50°C / Temperatura Olio da -20°C a 80°C.

Environment temperature from -20°C to 50°C / Oil Temperature from -20°C to 80°C.

## FILTRAZIONE CONTAMINAZIONE · FILTRATION CONTAMINATION

Tutti i costruttori di prodotti oleodinamici riconoscono che l'eccessiva contaminazione dell'olio è la principale causa del malfunzionamento negli impianti idraulici. È dunque indispensabile l'utilizzo di un filtro per proteggere le valvole. Oleoweb consiglia Filtrazione 15 µm - Classe di contaminazione ISO 4406: 1999 classe 19/17/14.

All manufacturers of hydraulic products recognize that excessive fluid contamination is the main cause of hydraulic installations bad working. It is necessary a filter use to protect the valves. Oleoweb advise filtration 15 µm - Contamination class ISO 4406: 1999 19/17/14.

## MATERIALI · MATERIALS

Tutte le valvole sono prodotte in acciaio di alta qualità. I blocchi sono realizzati in acciaio o alluminio in relazione alla pressione di lavoro. Corpi e componenti in acciaio sono protetti superficialmente mediante zincatura trivalente CRIII. Su richiesta è disponibile il trattamento di zinco-nichel.

All products are made out high quality steel. The manifolds are produced in steel or aluminium in relation to the working pressure. Bodies and components are protected from corrosion with CRIII zinc plating. Under request zinc-nickel treatment is available.

## GUARNIZIONI · SEALING

Le valvole Oleoweb montano guarnizioni in NBR. Per applicazioni con particolari temperature di lavoro sono disponibili su richiesta guarnizioni in viton o poliuretano.

Oleoweb Valves mount NBR seals as standard. For application exposed to particular temperatures, viton or polyurethane seals are available.

## CONDIZIONI DI PROVA · TESTING CONDITIONS

Tutte le curve di funzionamento riportate a catalogo sono state eseguite utilizzando olio minerale con grado di viscosità ISO VG46 alla temperatura di 40°C e un grado di filtrazione assoluta di 15 µm.

All technical curves show in the present catalogue have been made using mineral oil with ISO VG46 viscosity degree at the temperature of 40°C and degree of absolute filtering of 15 µm.

**I DATI PRESENTI NEL CATALOGO POSSONO ESSERE SOGGETTI A VARIAZIONI, OLEOWEB SI RISERVA IL DIRITTO DI APPORVI MODIFICHE IN QUALUNQUE MOMENTO E SENZA ALCUN PREAVVISO.**

**OLEOWEB RESERVES THE RIGHT TO MODIFY THE PRODUCTS AT ANY TIME AND WITHOUT NOTICE: THE TECHNICAL DATA OF THE CATALOGUE CAN CONSEQUENTLY CHANGE.**

## VALVOLE AD INSERTO - Insert valves

CIRCUITO IDRAULICO Hydraulic circuit	CODICE Model code	PORTATA Flow (l/min)	PRESSIONE Pressure (bar)	FILETTO Thread	PAGINA Page
	VUI	20	350	BSPP 1/4	2
		30		BSPP 3/8	
		50		BSPP 1/2	
		80		BSPP 3/4	
	VUC	20	350	BSPP 1/4	3
		30		BSPP 3/8	
	VUP	60		BSPP 1/2	4
		80		BSPP 3/4	


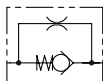
## VALVOLE A CARTUCCIA - Cartridge valves

CIRCUITO IDRAULICO Hydraulic circuit	CODICE Model code	PORTATA Flow (l/min)	PRESSIONE Pressure (bar)	CAVITÀ Cavity	PAGINA Page
	CUR6	25	350	SAE8/2	106
	CUR2015	25		C2015/2	109
	CUR10N	40		SAE10/2	108
	CUR2215	40		C2215/2	110
	CUR2615	60		C2615/2	111
	CUR6M	25	350	SAE8/2	107

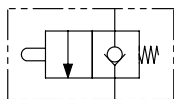
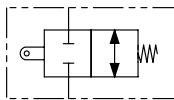
## VALVOLE IN LINEA - In-line valves

CIRCUITO IDRAULICO Hydraulic circuit	CODICE Model code	PORTATA Flow (l/min)	PRESSIONE Pressure (bar)	DIMENSIONE Size	PAGINA Page
	VUR-BSPP	5	400	BSPP 1/8"	16
		15		BSPP 1/4"	
		30		BSPP 3/8"	
		50		BSPP 1/2"	
		90	BSPP 3/4"		
		150	350	BSPP 1"	
		200		BSPP 1-1/4"	
		300		BSPP 1-1/2"	
	430	BSPP 2"			
	VMF	15	400	BSPP 1/4"	20
		30		BSPP 3/8"	
		50		BSPP 1/2"	
		90		BSPP 3/4"	
		150	350	BSPP 1"	
	VUN	5	500	BSPP 1/4"	22
		15		BSPP 3/8"	
		30		BSPP 1/2"	
		50		BSPP 3/4"	
		90		BSPP 1"	
	VUR-SAE	15	400	7/16-20 UNF	18
		30		9/16-18 UNF	
		50		3/4-16 UNF	
		90		1-1/16-12 UN	
		150	350	1-5/16-12 UN	
200		1-5/8-12 UN			
300		1-7/8-12 UN			
430		2-1/2-12 UN			

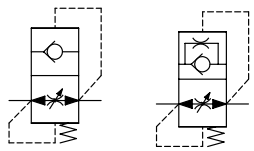
**VALVOLE UNIDIREZIONALI - Check valves**

CIRCUITO IDRAULICO Hydraulic circuit	CODICE Model code	PORTATA Flow (l/min)	PRESSIONE Pressure (bar)	DIMENSIONE Size	PAGINA Page
	VUR-NPTF	5	400	1/8 NPTF	19
		15		1/4 NPTF	
		30		3/8 NPTF	
		50		1/2 NPTF	
		90	350	3/4 NPTF	
		150		1 NPTF	
		200		1-1/4 NPTF	
		300		1-1/2 NPTF	
430	2 NPTF				
	VUR-H	5	400	BSPP 1/8"	17
		15		BSPP 1/4"	
		30		BSPP 3/8"	
		50		BSPP 1/2"	
		90	350	BSPP 3/4"	
		150		BSPP 1"	
		200		BSPP 1-1/4"	
		300		BSPP 1-1/2"	
	430	250	BSPP 2"		
	VMF-H	15	400	BSPP 1/4"	21
		30		BSPP 3/8"	
		50		BSPP 1/2"	
		90		BSPP 3/4"	
		150	350	BSPP 1"	
	VUN-H	5	500	BSPP 1/4"	23
		15		BSPP 3/8"	
30		BSPP 1/2"			
50		BSPP 3/4"			
90		BSPP 1"			


**VALVOLE DI FINE CORSA  
End stroke valves**

VALVOLE IN LINEA - In-line valves					
CIRCUITO IDRAULICO Hydraulic circuit	CODICE Model code	PORTATA Flow (l/min)	PRESSIONE Pressure (bar)	ATTACCHI Ports	PAGINA Page
	FCM	40	350	BSPP 1/4"	46
		60	300	BSPP 1/2"	
	FCT	60	250	BSPP 3/8"	
		80		BSPP 1/2"	
		100	200	BSPP 3/4"	
		140		BSPP 1"	

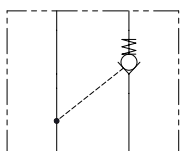

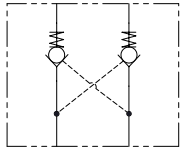
**VALVOLE DI SICUREZZA PER TUBAZIONI**  
 Hose burst valves

VALVOLE AD INSERTO - Insert valves					
CIRCUITO IDRAULICO Hydraulic circuit	CODICE Model code	PORTATA Flow (l/min)	PRESSIONE Pressure (bar)	CAVITÀ Cavity	PAGINA Page
	VUBA	25	350	BSPP 1/4"	6-7
		50		BSPP 3/8"	
		80		BSPP 1/2"	
		150		BSPP 3/4"	
		180		BSPP 1"	
	VUBA-DIN	50	315	BSPP 3/8" - M16x1,5	5
				BSPP 3/8" - M18x1,5	
				BSPP 3/8" - M22x1,5	
				BSPP 1/2" - M22x1,5	

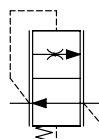
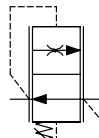
**VALVOLE DI BLOCCO**  
 PO check valves

VALVOLE A CARTUCCIA - Cartridges valves					
CIRCUITO IDRAULICO Hydraulic circuit	CODICE Model code	PORTATA Flow (l/min)	PRESSIONE Pressure (bar)	CAVITÀ Cavity	PAGE Pagina
	VPR	15	350	SAE8/3	133
		30		SAE10/3	
	VPR22	50		C2215/3	134

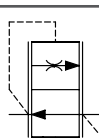
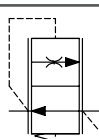





**VALVOLE DI BLOCCO - PO check valves**

VALVOLE IN LINEA - In-line valves						
CIRCUITO IDRAULICO Hydraulic circuit	CODICE Model code	PORTATA Flow (l/min)	PRESSIONE Pressure (bar)	ATTACCHI Ports	PAGINA Page	
	VRP	35	350	BSPP 3/8"	52	
		50		BSPP 1/2"		
	VRSE	15	320	BSPP 1/4"	47	
				35		BSPP 3/8"
			300	45		BSPP 1/2"
				70		BSPP 3/4"
	VRSD	10	320	BSPP 1/4" - pipe Ø8	49	
				15		BSPP 1/4" - pipe Ø12
				35		BSPP 3/8" - pipe Ø12
				45		BSPP 1/2" - pipe Ø15
	VRPE	25	350	BSPP 1/4"	51	
		40		BSPP 3/8"		
		60		BSPP 1/2"		
		300	100	BSPP 3/4"		
			150	BSPP 1"		
	VRDE	15	320	BSPP 1/4"	48	
		35		BSPP 3/8"		
		300	45	BSPP 1/2"		
			70	BSPP 3/4"		
	VRDD	10	320	BSPP 1/4" - pipe Ø8	50	
				15		BSPP 1/4" - pipe Ø12
				35		BSPP 3/8" - pipe Ø12
				45		BSPP 1/2" - pipe Ø15
	VRDL	35	350	BSPP 1/4"	53	
				50		BSPP 1/2"
	VRDF	35	350	BSPP 3/8" - Ø6	54	
				50		BSPP 1/2" - Ø7

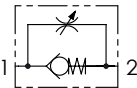
**VALVOLE DI CONTROLLO PORTATA**  
Flow control valves

VALVOLE AD INSERTO - Insert Valves					
CIRCUITO IDRAULICO Hydraulic circuit	CODICE Model code	PORTATA Flow (l/min)	PRESSIONE Pressure (bar)	FILETTO Thread	PAGE Pagina
	VCC	12	250	BSPP 1/4"	<b>8</b>
		18		BSPP 3/8"	<b>9</b>
		47		BSPP 1/2"	<b>10</b>
	VSCR6	12	250	Ø12,7	<b>11</b>
	VRD	20	300	BSPP 1/4"	<b>12-13</b>
		35		BSPP 3/8"	
		65		BSPP 1/2"	
		150		BSPP 3/4"	

**VALVOLE DI CONTROLLO PORTATA**  
Flow control valves


VALVOLE A CARTUCCIA - Cartridges Valves					
CIRCUITO IDRAULICO Hydraulic circuit	CODICE Model code	PORTATA Flow (l/min)	PRESSIONE Pressure (bar)	CAVITÀ Cavity	PAGINA Page
	VSC6	12	250	SAE8/2	<b>112</b>
	VCF6	18	350	SAE8/2	<b>113</b>
	VRF6	40	350	SAE8/2	<b>115</b>
	VBF6	30	350	SAE8/2	<b>114</b>
	SV	15	350	SAE8/3	<b>135</b>
		30		SAE10/3	
	VDRF	40	350	SAE10/4	<b>116</b>
	CP10	50	350	SAE10/3	<b>117</b>

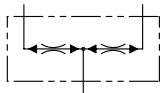
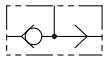
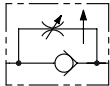
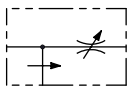
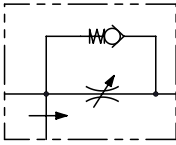
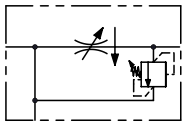
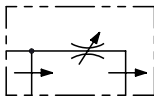
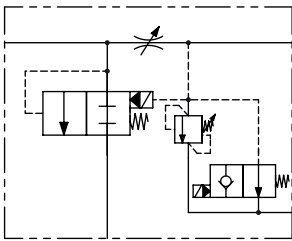
**VALVOLE IN LINEA - In-line valves**

CIRCUITO IDRAULICO Hydraulic circuit	CODICE Model code	PORTATA Flow (l/min)	PRESSIONE Pressure (bar)	ATTACCHI Ports	PAGINA Page
	VURF	5	350	BSPP 1/8"	24
		15		BSPP 1/4"	
		30		BSPP 3/8"	
		45	300	BSPP 1/2"	
		85		BSPP 3/4"	
		150	250	BSPP 1"	
		200		BSPP 1-1/4"	
	STU-BSPP	10	400	BSPP 1/8"	26
		15		BSPP 1/4"	
		30		BSPP 3/8"	
		50	350	BSPP 1/2"	
		80		BSPP 3/4"	
		150	350	BSPP 1"	
		200		BSPP 1-1/4"	
	300	BSPP 1-1/2"			
	STUF-BSPP	10	400	BSPP 1/8"	27
		15		BSPP 1/4"	
		30		BSPP 3/8"	
		50	350	BSPP 1/2"	
		80		BSPP 3/4"	
		150	350	BSPP 1"	
		200		BSPP 1-1/4"	
	300	BSPP 1-1/2"			
	STU-NPTF	10	400	1/8 NPTF	28
		15		1/4 NPTF	
		30		3/8 NPTF	
		50	350	1/2 NPTF	
		80		3/4 NPTF	
150		350	1 NPTF		
200			1-1/4 NPTF		
300	1-1/2 NPTF				
STUF-NPTF	10	400	1/8 NPTF	29	
	15		1/4 NPTF		
	30		3/8 NPTF		
	50	350	1/2 NPTF		
	80		3/4 NPTF		
	150	350	1 NPTF		
	200		1-1/4 NPTF		
300	1-1/2 NPTF				
STU-SAE	15	400	7/16-20 UNF	30	
	30		9/16-18 UNF		
	50		3/4-16 UNF		
	80	350	1-1/16-12 UN		
	150		1-5/16-12 UN		
	200	350	1-5/8-12 UN		
300	1-7/8-12 UN				
STUF-SAE	15	400	7/16-20 UNF	31	
	30		9/16-18 UNF		
	50		3/4-16 UNF		
	80	350	1-1/16-12 UN		
	150		1-5/16-12 UN		
	200	350	1-5/8-12 UN		
300	1-7/8-12 UN				



**VALVOLE DI CONTROLLO PORTATA - Flow control valves**

CIRCUITO IDRAULICO Hydraulic circuit	CODICE Model code	PORTATA Flow (l/min)	PRESSIONE Pressure (bar)	ATTACCHI Ports	PAGINA Page
	VBRF	5	350	BSPP 1/8"	25
		15		BSPP 1/4"	
		30		BSPP 3/8"	
		45		BSPP 1/2"	
		85	300	BSPP 3/4"	
		150	250	BSPP 1"	
		200		BSPP 1-1/4"	
	STB-BSPP	10	400	BSPP 1/8"	32
		15		BSPP 1/4"	
		30		BSPP 3/8"	
		50		BSPP 1/2"	
		80	BSPP 3/4"		
		150	BSPP 1"		
		200	350	BSPP 1-1/4"	
	300	BSPP 1-1/2"			
	STBF-BSPP	10	400	BSPP 1/8"	33
		15		BSPP 1/4"	
		30		BSPP 3/8"	
		50		BSPP 1/2"	
		80	BSPP 3/4"		
		150	BSPP 1"		
		200	350	BSPP 1-1/4"	
	300	BSPP 1-1/2"			
	STB-NPTF	10	400	1/8 NPTF	34
		15		1/4 NPTF	
		30		3/8 NPTF	
		50		1/2 NPTF	
		80	3/4 NPTF		
		150	1 NPTF		
		200	350	1-1/4 NPTF	
300	1-1/2 NPTF				
STBF-NPTF	10	400	1/8 NPTF	35	
	15		1/4 NPTF		
	30		3/8 NPTF		
	50		1/2 NPTF		
	80	3/4 NPTF			
	150	1 NPTF			
	200	350	1-1/4 NPTF		
300	1-1/2 NPTF				
STB-SAE	15	400	7/16-20 UNF	36	
	30		9/16-18 UNF		
	50		3/4-16 UNF		
	80		1-1/16-12 UN		
	150	1-5/16-12 UN			
	200	350	1-5/8-12 UN		
	300		1-7/8-12 UN		
STBF-SAE	15	400	7/16-20 UNF	37	
	30		9/16-18 UNF		
	50		3/4-16 UNF		
	80		1-1/16-12 UN		
	150	1-5/16-12 UN			
	200	350	1-5/8-12 UN		
	300		1-7/8-12 UN		

CIRCUITO IDRAULICO Hydraulic circuit	CODICE Model code	PORTATA Flow (l/min)	PRESSIONE Pressure (bar)	ATTACCHI Ports	PAGINA Page
	DRF10	40	250	BSPP 3/8" - BSPP 3/8"	<b>40</b>
				BSPP 3/8" - BSPP 1/2"	
				BSPP 1/2" - BSPP 3/8"	
				BSPP 1/2" - BSPP 1/2"	
	VUSF	20	350	BSPP 1/4"	<b>39</b>
		40		BSPP 3/8"	
		60		BSPP 1/2"	
	VRC	10	250	BSPP 1/4"	<b>38</b>
		18		BSPP 3/8"	
		33		BSPP 1/2"	
	VPT	50	250	BSPP 3/8"	<b>41</b>
		90		BSPP 1/2"	
		150		BSPP 3/4"	
		240		BSPP 1"	
	VPT-AR	50	250	BSPP 3/8"	<b>42</b>
		90		BSPP 1/2"	
	VPT-RV	50	250	BSPP 3/8"	<b>43</b>
		90		BSPP 1/2"	
		150		BSPP 3/4"	
	VPP	50	250	BSPP 3/8"	<b>44</b>
		90		BSPP 1/2"	
		150		BSPP 3/4"	
	VPP-RV	50	250	BSPP 3/8"	<b>45</b>
		90		BSPP 1/2"	

**VALVOLE DI MASSIMA - Relief valves**

<b>VALVOLE A CARTUCCIA - Cartridges valves</b>					
<b>CIRCUITO IDRAULICO</b> Hydraulic circuit	<b>CODICE</b> Model code	<b>PORTATA</b> Flow (l/min)	<b>PRESSIONE</b> Pressure (bar)	<b>CAVITÀ</b> Cavity	<b>PAGINA</b> Page
	VMD1N	20	350	SAE8/2	<b>125</b>
	VMD10	20	350	SAE8/2	<b>126</b>
	VMD8	40	350	SAE10/2	<b>127</b>
	VMD30	30	320	C2015/30	<b>128</b>
	VMD40S	40	350	C2015/1415/2	<b>129</b>
	VMD90	80	350	C2415/2	<b>130</b>
	VMD120	120	350	C2815/2	<b>131</b>
	VMD160	160	380	SAE12/2	<b>132</b>

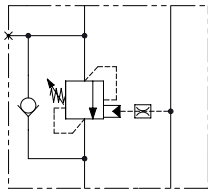
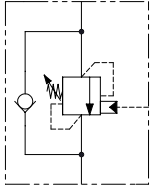
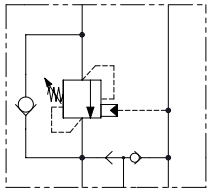
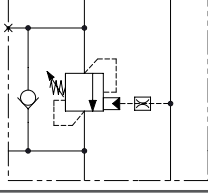
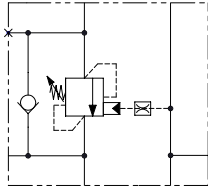
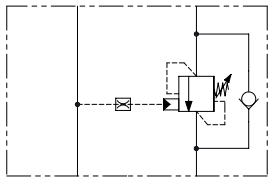
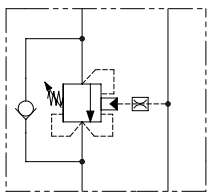
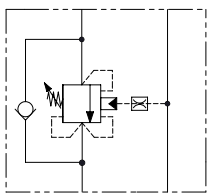
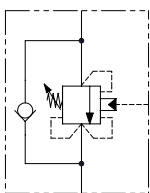
**VALVOLE DI SEQUENZA - Sequence valves**

<b>VALVOLE IN LINEA - In-line valves</b>					
<b>CIRCUITO IDRAULICO</b> Hydraulic circuit	<b>CODICE</b> Model code	<b>PORTATA</b> Flow (l/min)	<b>PRESSIONE</b> Pressure (bar)	<b>ATTACCHI</b> Ports	<b>PAGINA</b> Page
	VMDR40	40	350	BSPP 3/8" BSPP 1/2"	<b>59</b>
	VMDR90	80	350	BSPP 1/2" BSPP 3/4"	<b>60</b>
	VMDR120	120	350	BSPP 3/4" BSPP 1"	<b>61</b>
	VBDC	40	350	BSPP 3/8" BSPP 1/2"	<b>55</b>
	DCV	40	350	BSPP 1/2" - Ø21	<b>56</b>
	DCF	40	350	BSPP 1/2" - Ø19	<b>57</b>
	DCM	40	350	BSPP 1/2" - Ø19	<b>58</b>

**VALVOLE DI BILANCIAMENTO SINGOLE - Single counterbalance valves**

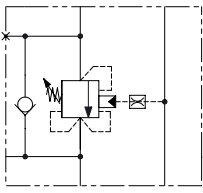
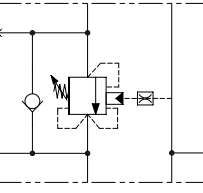
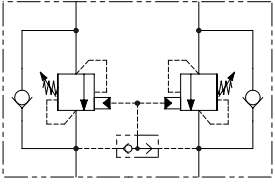
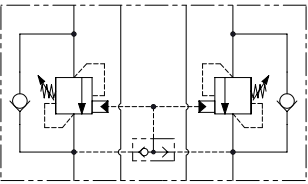
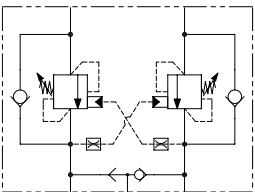
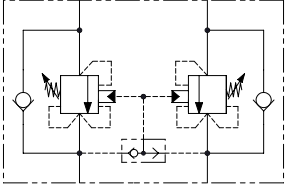
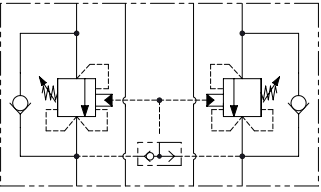
<b>CIRCUITO IDRAULICO</b> Hydraulic circuit	<b>CODICE</b> Model code	<b>PORTATA</b> Flow (l/min)	<b>PRESSIONE</b> Pressure (bar)	<b>ATTACCHI</b> Ports	<b>PAGINA</b> Page
	VSL	20	350	BSPP 1/4"	<b>62</b>
		40		BSPP 3/8"	
				BSPP 1/2"	

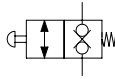
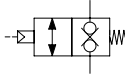
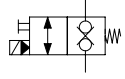
<b>VALVOLE DI BILANCIAMENTO - Counterbalance valves</b>					
<b>CIRCUITO IDRAULICO</b> Hydraulic circuit	<b>CODICE</b> Model code	<b>PORTATA</b> Flow (l/min)	<b>PRESSIONE</b> Pressure (bar)	<b>ATTACCHI</b> Ports	<b>PAGINA</b> Page
	VBCB	40	350	BSPP 3/8" + BANJO BOLT	<b>64</b>
	VBCL	30	350	BSPP 1/4"	<b>66</b>
		40		BSPP 3/8"	
		60		BSPP 1/2"	
		120		BSPP 3/4"	
	VBCL-SAE	30	350	7/16-20UNF	<b>67</b>
		40		9/16-18UNF	
		60		3/4-16UNF	

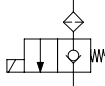
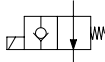
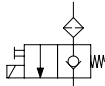
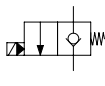
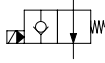
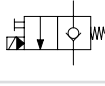
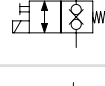
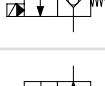
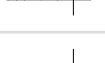
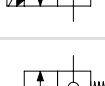
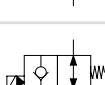
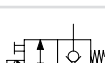

CIRCUITO IDRAULICO Hydraulic circuit	CODICE Model code	PORTATA Flow (l/min)	PRESSIONE Pressure (bar)	ATTACCHI Ports	PAGINA Page
	VBLP	40	350	BSPP 3/8"	<b>70</b>
		60		BSPP 1/2"	
	VBCR	30	350	BSPP 1/4"	<b>72</b>
		40		BSPP 3/8"	
		60		BSPP 1/2"	
	VBFP	40	350	BSPP 3/8"	<b>74</b>
	VBLH	40	350	BSPP 3/8" - Ø9	<b>75</b>
	VBLF	40	350	BSPP 3/8" - Ø9	<b>77</b>
		60		BSPP 1/2" - Ø9	
	SCVB	60	350	OMP - OMR	<b>89</b>
	VCCB	40	350	BSPP 3/8"	<b>65</b>
	VCCL	30	350	BSPP 1/4"	<b>68</b>
		40		BSPP 3/8"	
	VCCL-SAE	60	350	BSPP 1/2"	<b>69</b>
		30		7/16-20UNF	
		40		9/16-18UNF	
60	3/4-16UNF				
	VCLP	40	350	BSPP 3/8"	<b>71</b>
		60		BSPP 1/2"	
	VCCR	30	350	BSPP 1/4"	<b>73</b>
		40		BSPP 3/8"	
		60		BSPP 1/2"	

**VALVOLE DI BILANCIAMENTO SINGOLE**  
Single counterbalance valves

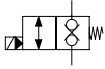
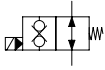
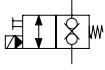
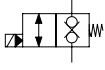
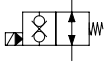
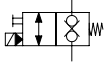
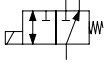
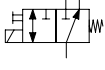
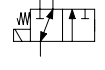
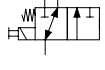
**VALVOLE DI BILANCIAMENTO DOPPIE**  
Double counterbalance valves

CIRCUITO IDRAULICO Hydraulic circuit	CODICE Model code	PORTATA Flow (l/min)	PRESSIONE Pressure (bar)	ATTACCHI Ports	PAGINA Page
	VCLH	40	350	BSPP 3/8" - Ø9	76
		60		BSPP 1/2" - Ø9	
	VCLF	40	350	BSPP 3/8" - Ø9	78
		60		BSPP 1/2" - Ø9	
	VBCA	40	350	BSPP 3/8" + BANJO BOLT	79
	VBCD	30	350	BSPP 1/4"	80
		40		BSPP 3/8"	
		60		BSPP 1/2"	
		120		BSPP 3/4"	
	VBCD-SAE	30	350	7/16-20UNF	81
		40		9/16-18UNF	
		60		3/4-16UNF	
	SOVBCD	30	350	BSPP 1/4"	84
		40		BSPP 3/8"	
		60		BSPP 1/2"	
	VBCF	30	350	BSPP 1/4" - Ø9	85
40		BSPP 3/8" - Ø9			
60		BSPP 1/2" - Ø9			
	VBSC	40	350	CETOP 3	87
	DCVB	60	350	OMP - OMR	90
	VBCC	30	350	BSPP 1/4"	82
		40		BSPP 3/8"	
		60		BSPP 1/2"	
	VBCC-SAE	30	350	7/16-20UNF	83
		40		9/16-18UNF	
		60		3/4-16UNF	
VBCM	30	350	BSPP 1/4" - Ø9	86	
	40		BSPP 3/8" - Ø9		
	60		BSPP 1/2" - Ø9		
	VBCT	40	350	CETOP 3	88

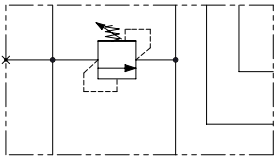
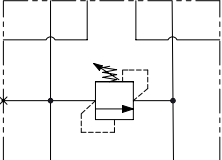
VALVOLE A CARTUCCIA - Cartridges valves					
CIRCUITO IDRAULICO Hydraulic circuit	CODICE Model code	PORTATA Flow (l/min)	PRESSIONE Pressure (bar)	CAVITÀ Cavity	PAGINA Page
	VEM6	30	320	SAE8/2	123
	VEM10	50		SAE10/2	
	VPN6	40	350	SAE8/2	124
	CM60	25	320	SAE8/2	118
	CM6M				

VALVOLE A CARTUCCIA - Cartridges valves					
CIRCUITO IDRAULICO Hydraulic circuit	CODICE Model code	PORTATA Flow (l/min)	PRESSIONE Pressure (bar)	CAVITÀ Cavity	PAGINA Page
	EC082A-CNN	22	210	SAE8/2	94
	EC082A-ONN				
	EC082A-CNV				
	EC082B-CNN	40	350	SAE8/2	96
	EC082B-ONN				
	EC082B-CNV				
	ED082A	22	210	SAE8/2	95
	EC082C-CNN	40	350	SAE8/2	97
	EC082C-ONN				
	EC082C-CNV				
	EC102A-CNN	70	350	SAE10/2	100
	EC102A-ONN				
	EC102A-CNV				

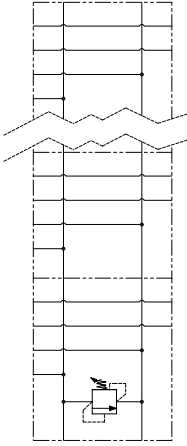
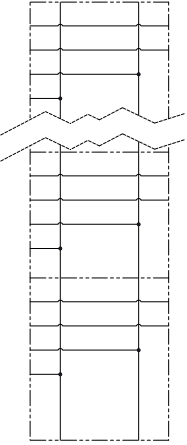
**VALVOLE A COMANDO ELETTRICO - Electrical valves**

CIRCUITO IDRAULICO Hydraulic circuit	CODICE Model code	PORTATA Flow (l/min)	PRESSIONE Pressure (bar)	CAVITÀ Cavity	PAGINA Page
	ED082B-CNN	40	350	SAE8/2	98
	ED082B-ONN				
	ED082B-CNV				
	ED102A-CNN	70	350	SAE10/2	101
	ED102A-ONN				
	ED102A-CNV				
	ES083A-1NN	12	210	SAE8/3	99
	ES083A-1NV				
	ES083A-2NN				
	ES083A-2NV				

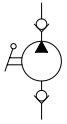
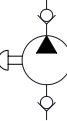
**BASI MULTIPLE - Cetop manifolds**

CIRCUITO IDRAULICO Hydraulic circuit	CODICE Model code	PORTATA Flow (l/min)	PRESSIONE Pressure (bar)	CETOP	ATTACCHI CETOP CETOP ports		PAGINA Page
					P-T	A-B	
	BS3	40	21	CETOP 3	BSPP 3/8"	BSPP 3/8"	138
	BP3	40	210	CETOP 3	BSPP 3/8"	BSPP 3/8"	139
	BS5	80	210	CETOP 5	BSPP 1/2"	BSPP 1/2"	140

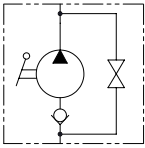
### BASI MULTIPLE - Cetop manifolds

CIRCUITO IDRAULICO Hydraulic circuit	CODICE Model code	PORTATA Flow (l/min)	PRESSIONE Pressure (bar)	CETOP	ATTACCHI CETOP CETOP ports		PAGINA Page
					P-T	A-B	
	BM-RV	40	210	CETOP 3	BSPP 1/2"	BSPP 3/8"	141
	BM	40	210	CETOP 3	BSPP 1/2"	BSPP 3/8"	142

### POMPE A CARTUCCIA - Cartridge pumps

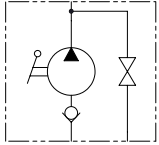
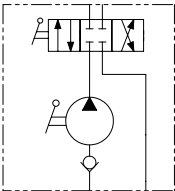
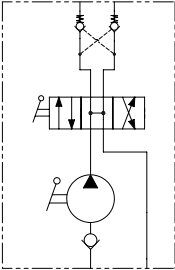
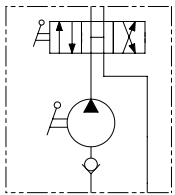
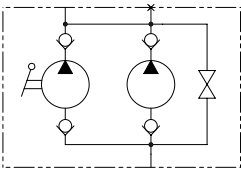
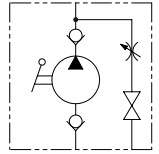
CIRCUITO IDRAULICO Hydraulic circuit	CODICE Model code	PORTATA Flow (l/min)	PRESSIONE Pressure (bar)	CAVITÀ Cavity	PAGINA Page
	PME	1	300	SAE8/2	119
		2	200		
		3	120		
	PME10	10	200	SAE10/2	120-121
	PME5P	1	50	SAE8/2	122

### POMPE A MANO - Hand pumps

	PM	20	350	BSPP 1/2" - BSPP 3/8"	152-153
		50	280	BSPP 1/2" - BSPP 1/2"	154-155
		70	200	BSPP 1/2" - BSPP 1/2"	156-157
	PMS	6	500	Pipe - BSPP 3/8"	158-159
		12	380	Pipe - BSPP 3/8"	
		25	350	Pipe - BSPP 3/8"	
		45	280	Pipe - BSPP 3/8"	



POMPE A MANO - Hand pumps

CIRCUITO IDRAULICO Hydraulic circuit	CODICE Model code	CILINDRATA Displacement (cm <sup>3</sup> )	PRESSIONE Pressure (bar)	ATTACCHI CETOP CETOP Ports	PAGINA Page
				IN - OUT	
	PME2	20	240	Pipe - BSPP 1/4"	168-169
		30	185	Pipe - BSPP 1/4"	
		40	160	Pipe - BSPP 1/4"	
	PME1	8	380	Pipe - BSPP 1/4"	166-167
		15	350	Pipe - BSPP 1/4"	
	PMI	6	500	Pipe - BSPP 3/8"	160-161
		12	380	Pipe - BSPP 3/8"	
		25	350	Pipe - BSPP 3/8"	
		45	280	Pipe - BSPP 3/8"	
	PMT	6	500	Pipe - BSPP 1/4"	162-163
		12	380	Pipe - BSPP 1/4"	
		25	350	Pipe - BSPP 1/4"	
		45	280	Pipe - BSPP 1/4"	
	PMA	6	500	Pipe - BSPP 3/8"	164-165
		12	380	Pipe - BSPP 3/8"	
		25	350	Pipe - BSPP 3/8"	
		45	280	Pipe - BSPP 3/8"	
	PMD	5	500	BSPP 3/8" - BSPP 3/8"	170
		10	250	BSPP 3/8" - BSPP 3/8"	
		17	150	BSPP 3/8" - BSPP 3/8"	
	PME3	14	200	- - BSPP 1/4"	171

**VALVOLE IN LINEA - In-line valves**

CIRCUITO IDRAULICO Hydraulic circuit	CODICE Model code	PORTATA Flow (l/min)	PRESSIONE Pressure (bar)	ATTACCHI Ports	PAGINA Page	
	RAS2-BSPP	15	500	BSPP 1/8"	<b>188</b>	
		25		BSPP 1/4"		
		35		BSPP 3/8"		
		60	400	BSPP 1/2"		
		100		BSPP 3/4"		
		150		BSPP 1"		
	RAS2-NPTF	15	500	1/8 NPTF	<b>191</b>	
		25		1/4 NPTF		
		35		3/8 NPTF		
		60	400	1/2 NPTF		
		100		3/4 NPTF		
		150		1 NPTF		
	RAS3-BSPP	15	400	BSPP 1/8"	<b>189</b>	
		25		BSPP 1/4"		
		35		BSPP 3/8"		
		60	350	BSPP 1/2"		
		100		BSPP 3/4"		
		150		BSPP 1"		
	RAS3-NPTF	15	400	BSPP 1/8"	<b>192</b>	
		25		BSPP 1/4"		
		35		BSPP 3/8"		
		60	350	BSPP 1/2"		
		100		BSPP 3/4"		
		150		BSPP 1"		
	RAS4-BSPP	25	500	BSPP 1/4"	<b>190</b>	
		35	400	BSPP 3/8"		
		60	350	BSPP 1/2"		
		100		BSPP 3/4"		
		150		BSPP 1"		
		RAS4-NPTF	25	500		1/4 NPTF
	35		400	3/8 NPTF		
	60		350	1/2 NPTF		
	100			3/4 NPTF		
	150			1 NPTF		
			DDFA3-N	40	500	BSPP 1/4"
		60		BSPP 3/8"		
100		BSPP 1/2"				
180		BSPP 3/4"				
DDF3-BSPP		60	350	BSPP 1/4"	<b>178</b>	
		90		BSPP 3/8"		
		120	300	BSPP 1/2"		
		200		BSPP 3/4"		
DDF3-SAE		60	350	BSPP 1"	<b>179</b>	
		90		3/4-16UNF		
		120	300	7/8-14UNF		
		200		1-1/16-12UN		

**DEVIATORI E VALVOLE A SFERA - Flow diverters and ball valves**

**DEVIATORI E VALVOLE A SFERA**  
**Flow diverters and ball valves**

CIRCUITO IDRAULICO Hydraulic circuit	CODICE Model code	PORTATA Flow (l/min)	PRESSIONE Pressure (bar)	ATTACCHI Ports	PAGINA Page
 	DDF6-BSPP	60	350	BSPP 1/4"	180
		90		BSPP 3/8"	
		120		BSPP 1/2"	
		200		BSPP 3/4"	
	DDF6-SAE	60	300	3/4-16UNF	181
		90		7/8-14UNF	
120		1-1/16-12UN			
200		1-5/16-12UN			
 	IDF4-BSPP	60	350	BSPP 1/4"	182
		90		BSPP 3/8"	
		120		BSPP 1/2"	
		200		BSPP 3/4"	
	IDF4-SAE	60	300	3/4-16UNF	183
		90		7/8-14UNF	
120		1-1/16-12UN			
200		1-5/16-12UN			
 	IDF8-BSPP	60	350	BSPP 1/4"	184
		90		BSPP 3/8"	
		120		BSPP 1/2"	
		200		BSPP 3/4"	
	IDF8-SAE	60	300	3/4-16UNF	185
		90		7/8-14UNF	
120		1-1/16-12UN			
200		1-5/16-12UN			

**COMPONENTI VARI - Hydraulic components**

CIRCUITO IDRAULICO Hydraulic circuit	CODICE Model code	PORTATA Flow (l/min)	PRESSIONE Pressure (bar)	FILETTO Thread	PAGINA Page			
	GGIL	25	400	BSPP 1/4"	194			
		35		BSPP 3/8"				
		60		BSPP 1/2"				
		100		BSPP 3/4"				
		180		BSPP 1"				
	GG90	25	400	BSPP 1/4"	195			
		35		BSPP 3/8"				
		60		BSPP 1/2"				
		100		BSPP 3/4"				
		180		BSPP 1"				
	SOV	-	400	BSPT 1/4" - BSPP 1/4" BSPP 1/4" - BSPP 1/4" BSPT 1/4" - BSPP 1/4" BSPT 1/4" - BSPP 1/4" BSPP 1/4" - BSPP 1/4" BSPT 1/4" - BSPP 1/4"	196-197			
	MNP-BSPP	-	630	BSPP 1/8"	198			
				BSPP 1/4"				
				BSPP 3/8"				
	MNP-NPTF			BSPP 1/2"		630	1/8 NPTF	199
				1/4 NPTF				
				3/8 NPTF				
				1/2 NPTF				

**SERBATOI - Reservoirs**

CIRCUITO IDRAULICO Hydraulic circuit	CAPACITÀ (l) Capacity (l)	PAGINA Page
TNK	1	172
	2	
	3	
	5	
	7	
	10	
	13	
TNA	15	173
	20	
	1	
	2	
	3	
	5	

**BLOCCHI - Manifolds**

CODICE Model code	CAVITÀ Cavity	ATTACCHI Ports	PAGINA Page
62200032	SAE8/2	BSPP 1/4"	143
62200051		BSPP 3/8"	
62200369		BSPP 1/4"	
62200370		BSPP 3/8"	
62200357	SAE8/3	BSPP 1/4"	144
62200358		BSPP 3/8"	
62200451	SAE10/2	BSPP 3/8"	144
62200452		BSPP 1/2"	
62200367		BSPP 3/8"	
62200368		BSPP 1/2"	
62200373	SAE10/3	BSPP 3/8"	144
62200374		BSPP 1/2"	
62200023		BSPP 1/4"	

**BOBINE - Coil**

<b>CODICE</b> Model code	<b>POTENZA</b> Power (W)	<b>TENSIONE</b> Voltage (V)	<b>Ø CANOTTO</b> Bore size (mm)	<b>PAGINA</b> Page
EC	18	12 - VDC	Ø13	102
	18	24 - VDC		
	18	220 - 50/60Hz 220 RAC	Ø13	
	18			
EC36	22	12 - VDC	Ø13	
	22	24 - VDC	Ø13	
	22	220 - 50/60Hz 220 RAC	Ø13	

**CONNETTORI - Connectors**

<b>CODICE</b> Model code	<b>TIPO - Type</b>	<b>PAGINA</b> Page
88100002	STANDARD - With rectifier	103
88100003		

**CAVITÀ - Cavities**

<b>CODICE</b> Model code	<b>CAVITÀ</b> Cavity	<b>PAGINA</b> Page
SAE /2	3/4-16UNF	145
	7/8-14UNF	
	1-1/16-12UNF	
	1-5/16-12UNF	
SAE /3	3/4-16UNF	146
	7/8-14UNF	
	1-1/16-12UNF	
	1-5/16-12UNF	
SAE /4	3/4-16UNF	147
	7/8-14UNF	
	1-1/16-12UNF	
	1-5/16-12UNF	
C2015/2	M20x1,5	148
C2015/30	M20x1,5	
C2015/1415/2	M20x1,5 - M14x1,5	
C2215/2	M22x1,5	149
C2215/3	M22x1,5	
C2415/2	M24x1,5	
C2615/2	M26x1,5	
C2815/2	M28x1,5	

---

# notes

A series of horizontal dotted lines for taking notes.



# VALVOLE A INSERTO

## INSERT VALVES

Valvole a inserto unidirezionali, per il controllo della portata, di sicurezza anti rottura tubo e di regolazione della velocità di discesa degli attuatori.

Insert check valves, Flow control valves pressure compensated, Hose burst valves, Lowering speed control valves.





**CODICE ORDINAZIONE**  
ORDERING CODE

01	02
<b>VUI</b>	

<b>01</b>	VALVOLE UNIDIREZIONALI A SFERA (CHECK VALVES - BALL TYPE)	<b>VUI</b>	
<b>02</b>	DIMENSIONE (SIZE)	BSPP 1/4	<b>140</b>
		BSPP 3/8	<b>380</b>
		BSPP 1/2	<b>120</b>
		BSPP 3/4	<b>340</b>

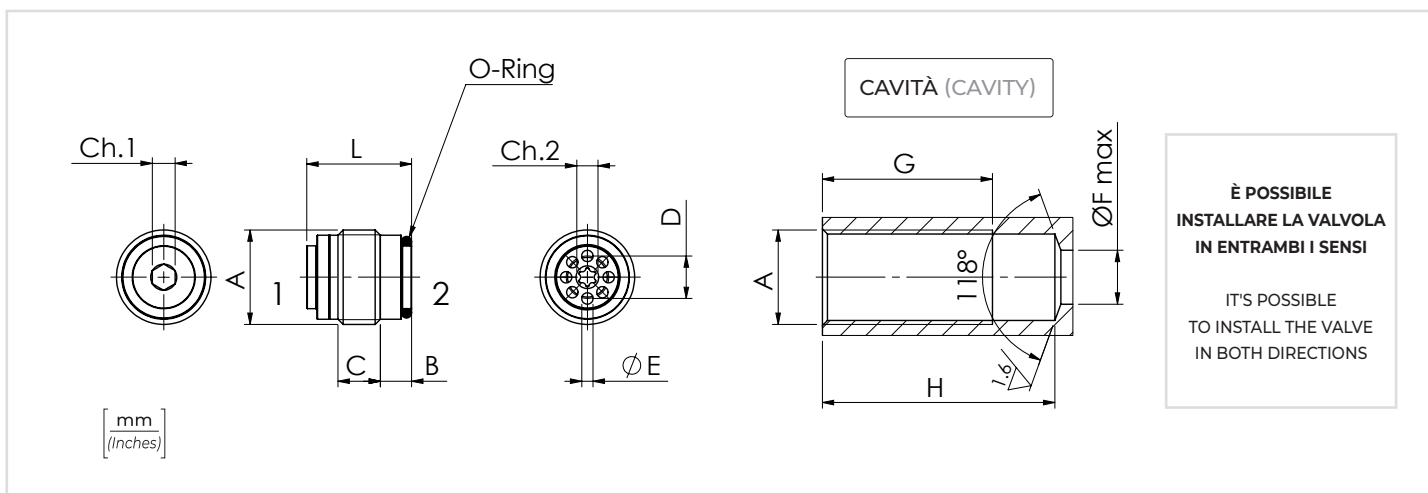
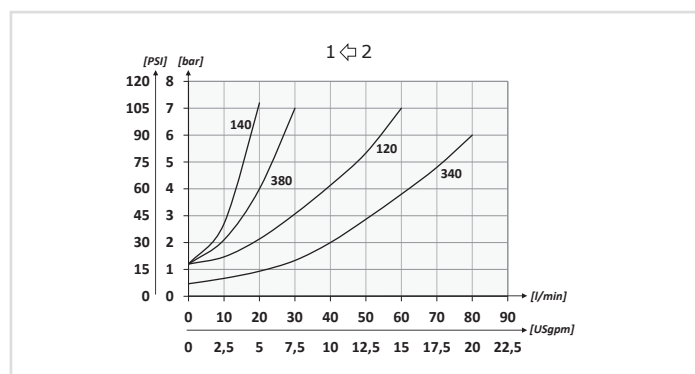
**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**DATI TECNICI / TECHNICAL DATA**

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F +176°F
<b>Temperatura ambiente</b> - Ambient temperature	<b>-20°C +50°C</b> -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	
<b>Trafilamento massimo</b> Max leakage	<b>0,25 cm<sup>3</sup>/min - 5 gocce/min</b> 0,015 in <sup>3</sup> /min - 5 drops/min
<b>Pressione d'apertura</b> - Cracking pressure	<b>0,5 bar - 7.25 PSI</b>

**PERFORMANCES**



**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	B	C	D	E	F	G	H	L	CH. 1	CH. 2	COPPIA DI SERRAGGIO TIGHTENING TORQUE Nm-lbt ft	O-RING	PESO APPROX APPROX WEIGHT kg-lbt
VUI140	BSPP 1/4	20 (5.3)	350 (5075)	5,5 (0.22)	6 (0.24)	6 (0.24)	1,3 (0.05)	7 (0.28)	28 (1.10)	31 (1.22)	17 (0.67)	3	Torx T15	4 (35)	9 x 1	0,01 (0.022)
VUI380	BSPP 3/8	30 (7.9)			7,5 (0.30)	7,5 (0.30)	2 (0.08)	9 (0.35)	31 (1.22)	34 (1.34)	18,5 (0.73)	4	Torx T15	6 (53)	10,82 x 1,78	0,018 (0.040)
VUI120	BSPP 1/2	50 (13.2)		7 (0.28)	8,5 (0.34)	10 (0.39)	2,5 (0.10)	12 (0.47)	35 (1.38)	38 (1.50)	22,5 (0.88)	6	5	10 (88)	14 x 1,78	0,033 (0.073)
VUI340	BSPP 3/4	80 (21.1)		8 (0.31)	12,5 (0.49)	14 (0.55)	3 (0.12)	16 (0.63)	41 (1.61)	45 (1.77)	28,5 (1.12)	8	8	20 (177)	18,72 x 2,62	0,07 (0.16)





**CODICE ORDINAZIONE**  
ORDERING CODE

01	02
<b>VUC</b>	

<b>01</b>	VALVOLE UNIDIREZIONALI AD OTTURATORE (CHECK VALVES - POPPET TYPE)		<b>VUC</b>
<b>02</b>	DIMENSIONE (SIZE)	BSPP 1/4	<b>140</b>
		BSPP 3/8	<b>380</b>

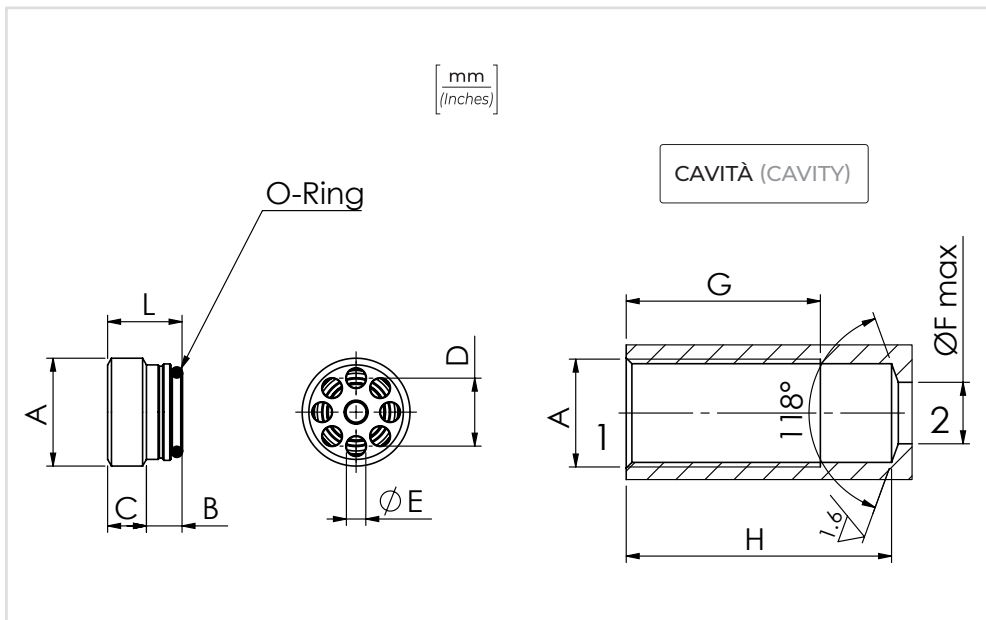
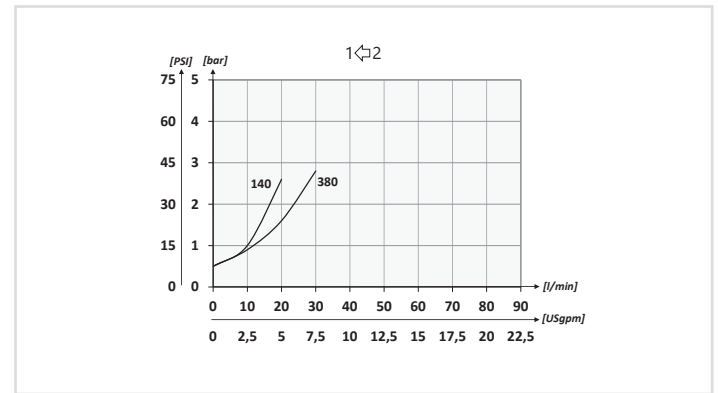
**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**DATI TECNICI / TECHNICAL DATA**

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F +176°F
<b>Temperatura ambiente</b> - Ambient temperature	<b>-20°C +50°C</b> -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	
<b>Trafilamento massimo</b> Max leakage	<b>0,25 cm<sup>3</sup>/min - 5 gocce/min</b> 0,015 in <sup>3</sup> /min - 5 drops/min
<b>Pressione d'apertura</b> - Cracking pressure	<b>0,5 bar - 7.25 PSI</b>

**PERFORMANCES**



<b>CHIAVE</b> TOOL		
<b>DIMENSIONE</b> (DIMENSIONS)		
<b>TIPO CHIAVE</b> TOOL'S TYPE	<b>TIPO</b> TYPE	<b>PESO (kg)</b> WEIGHT (lb)
<b>61700005</b>	<b>VUC140</b>	<b>0,12 (0.27)</b>
<b>61700031</b>	<b>VUC380</b>	<b>0,13 (0.29)</b>

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	B	C	D	E	F	G	H	L	COPPIA DI SERRAGGIO TIGHTENING TORQUE Nm-lbt ft	O-Ring	PESO APPROX APPROX WEIGHT kg-lbt
VUC140	BSPP 1/4	20 (5.3)	350 (5075)	4 (0.16)	5 (0.20)	7 (0.28)	2,2 (0.94)	7 (0.28)	22 (0.87)	24 (0.94)	9 (0.35)	6 (53)	9 x 1	0,01 (0.022)
VUC380	BSPP 3/8	30 (7.9)		5,5 (0.22)	6 (0.24)	10,5 (0.41)	3 (0.12)	9 (0.35)	27 (1.06)	29 (1.14)	11,5 (0.45)	6 (53)	10,82 x 1,78	



**CODICE ORDINAZIONE**  
ORDERING CODE

01	02
<b>VUP</b>	

<b>01</b>	VALVOLE UNIDIREZIONALI A DISCO (CHECK VALVES - DISK TYPE)	<b>VUP</b>
<b>02</b>	DIMENSIONE (SIZE)	BSPP 1/2 <b>120</b>
		BSPP 3/4 <b>340</b>

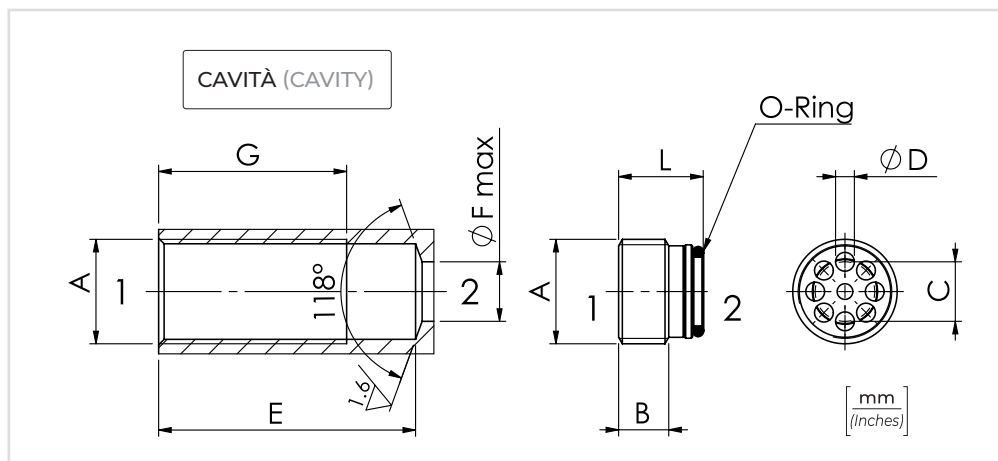
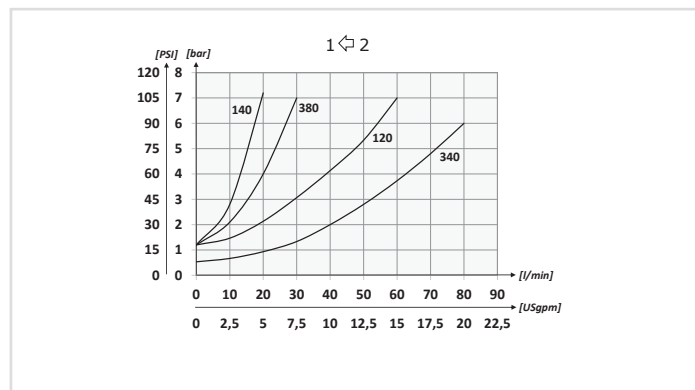
**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**DATI TECNICI / TECHNICAL DATA**

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F + 176°F
<b>Temperatura ambiente</b> - Ambient temperature	<b>-20°C +50°C</b> -4°F + 122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	
<b>Trafilamento massimo</b> Max leakage	<b>0,25 cm<sup>3</sup>/min - 5 gocce/min</b> 0,015 in <sup>3</sup> /min - 5 drops/min
<b>Pressione d'apertura</b> - Cracking pressure	<b>0,5 bar - 7.25 PSI</b>

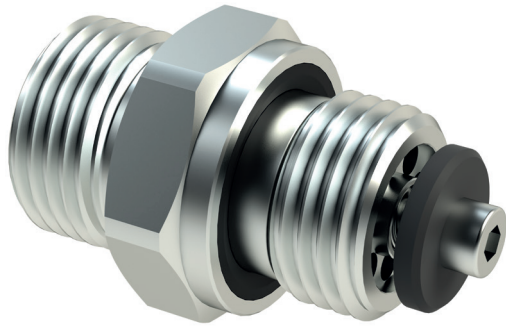
**PERFORMANCES**



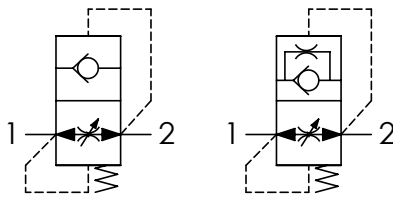
<b>CHIAVE</b> TOOL		
<b>DIMENSIONE</b> (DIMENSIONS)		
<b>TIPO CHIAVE</b> TOOL'S TYPE	<b>TIPO</b> TYPE	<b>PESO (kg)</b> WEIGHT (lb)
<b>61700003</b>	<b>VUP120</b>	<b>0,15</b> (0.33)
<b>61700030</b>	<b>VUP340</b>	<b>0,18</b> (0.40)

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	B	C	D	E	F	G	L	COPPIA DI SERRAGGIO TIGHTENING TORQUE Nm-lbt ft	O-Ring	PESO APPROX APPROX WEIGHT kg-lbt
<b>VUP120</b>	<b>BSPP 1/2</b>	<b>60</b> (15.9)	<b>350</b> (5075)	<b>10</b> (0.39)	<b>12</b> (0.47)	<b>4</b> (0.16)	<b>32</b> (1.26)	<b>12</b> (0.47)	<b>29</b> (1.14)	<b>16,1</b> (0.63)	<b>10</b> (88)	<b>14 x 1,78</b>	<b>0,02</b> (0.044)
<b>VUP340</b>	<b>BSPP 3/4</b>	<b>80</b> (21.1)		<b>10,5</b> (0.41)	<b>16</b> (0.63)	<b>4,75</b> (0.19)	<b>37</b> (1.46)	<b>16</b> (0.63)	<b>33</b> (1.30)	<b>20,2</b> (0.80)	<b>20</b> (177)	<b>18,72 x 2,62</b>	<b>0,043</b> (1.12)



### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



CON FORO  
(WITH ORIFICE)

### CODICE ORDINAZIONE ORDERING CODE

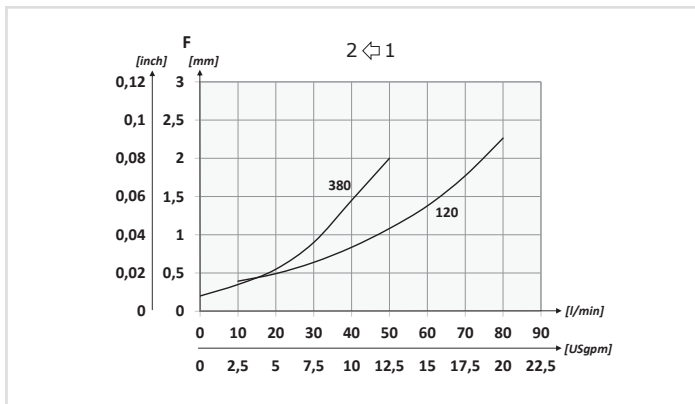
	01	02	03	04	05
<b>VUBA</b>					

01	VALVOLE DI SICUREZZA PER TUBAZIONI DIN (DIN HOSE BURST VALVES)		VUBA
02	DIMENSIONE (SIZE)	BSP 3/8	<b>380</b>
		BSP 1/2	<b>120</b>
03	DIMENSIONE (SIZE)	<b>Tubo Ø 10</b> (For Ø 10 pipe)	<b>T10</b>
		<b>Tubo Ø 12</b> (For Ø 12 pipe)	<b>T12</b>
		<b>Tubo Ø 15</b> (For Ø 15 pipe, only for VUBA120)	<b>T15</b>
04	REGOLAZIONE (SETTING)	Esempio: regolazione 0,7 mm (Example: setting 0.7 mm) <b>F 0,7</b>	<b>F__</b>
		*Omettere se non richiesto (Omit if not required)	
05	FORO SUL PIATTELLO (ORIFICE ON FLAT POPET)	Esempio: foro 1,5 mm (Example: hole 1,5 mm) <b>P 1,5</b>	<b>P__</b>
		Omettere se non richiesto (Omit if not required)	

\*Se ommesso questo valore, le valvole vengono fornite senza alcuna taratura di fabbrica e i dadi non sono serrati. Per garantire il loro corretto funzionamento è necessario che venga eseguito il settaggio da parte dell'installatore finale.

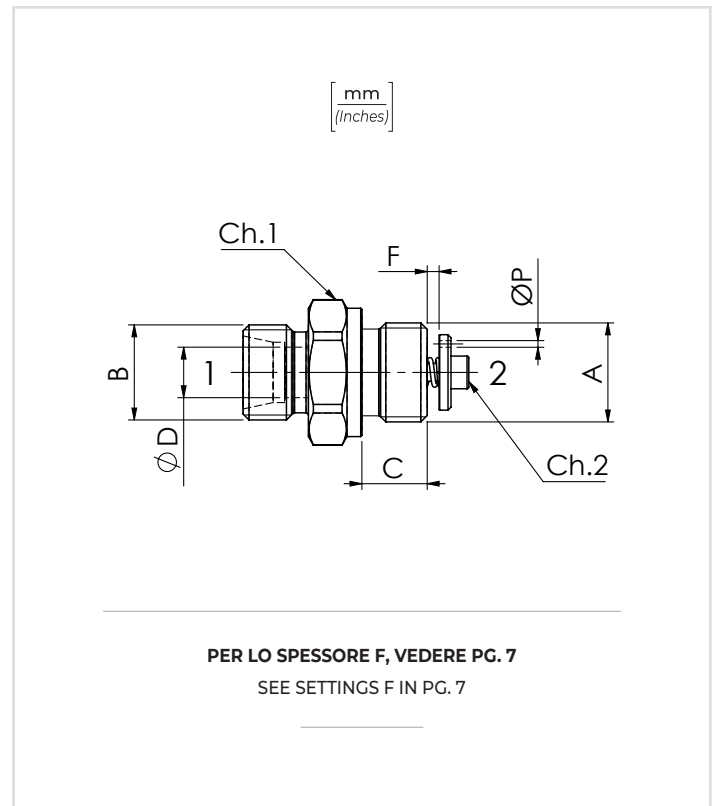
If omitted this value, the valves are supplied without factory setting and nuts are not tightened. For the correct operating it is needed a calibration of the valve made by final installer.

### REGOLAZIONE "F" / SETTING "F"



### DATI TECNICI / TECHNICAL DATA

Olivo idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Ambient temperature	-20°C +50°C -4°F +122°F
È indispensabile la presenza di un filtro nel circuito idraulico per proteggere la valvola (filtrazione consigliata 15 µm) A filter into the hydraulic circuit necessary to protect the valve (advised filtration 15 µm)	
Trafilamento massimo Max leakage	0,25 cm <sup>3</sup> /min - 5 gocce/min 0,015 in <sup>3</sup> /min - 5 drops/min

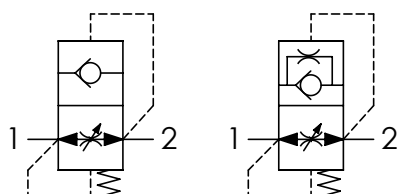


### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	mm - inch				COPPIA MAX DI SERRAGGIO RACCORDO (Nm) MAX FITTING TIGHTENING TORQUE (lbt in)	COPPIA MAX DI SERRAGGIO TUBO (Nm) MAX TIGHTENING TORQUE FOR HOSE (lbt in)	PESO APPROX APPROX WEIGHT kg-lbt
				B	C	D	Ch.			
VUBA380T10	BSP 3/8	50 (13.2)	315 (4568)	M16 x 1,5	10 (0.39)	22	2,5	45 (33.2)	20 (15)	0,044 (0.097)
VUBA380T12				M18 x 1,5	11 (0.43)	22			40 (30)	
VUBA380T15				M22 x 1,5	15 (0.59)	24			70 (50)	
VUBA120T15	BSP 1/2	80 (21.1)			13 (0.51)	27	3	60 (44.3)	0,077 (0.17)	



### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



CON FORO  
(WITH ORIFICE)

### CODICE ORDINAZIONE ORDERING CODE

01	02	03	04
<b>VUBA</b>			

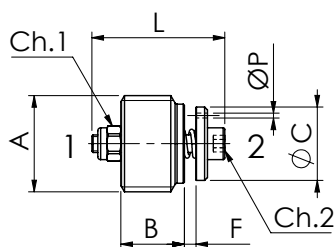
<b>01</b>	VALVOLE DI SICUREZZA PER TUBAZIONI (HOSE BURST VALVES)	<b>VUBA</b>
<b>02</b>	DIMENSIONE (SIZE)	BSPP 1/4 <b>140</b>
		BSPP 3/8 <b>380</b>
		BSPP 1/2 <b>120</b>
		BSPP 3/4 <b>340</b>
		BSPP 1 <b>100</b>
<b>03</b>	REGOLAZIONE (SETTING)	Esempio: regolazione 0,7 mm (Example: setting 0.7 mm) <b>F 0,7</b>
		Omettere se non richiesto (Omit if not required)
<b>04</b>	FORO SUL PIATTELLO (ORIFICE ON FLAT POPPET)	Esempio: foro 1,5 mm (Example: hole 1,5 mm) <b>P 1,5</b>
		*Omettere se non richiesto (Omit if not required)

\*Se ommesso questo valore, le valvole vengono fornite senza alcuna taratura di fabbrica e i dadi non sono serrati. Per garantire il loro corretto funzionamento è necessario che venga eseguito il settaggio da parte dell'installatore finale.

If omitted this value, the valves are supplied without factory setting and nuts are not tightened. For the correct operating it is needed a calibration of the valve made by final installer.

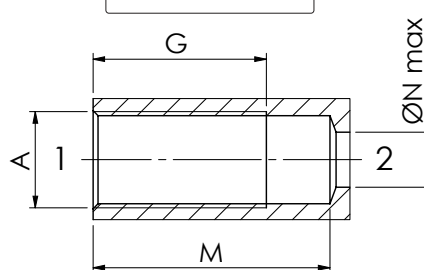
Regolazione F a richiesta  
F setting on request

Foro su piattello a richiesta  
Orifice on flat poppet  
on request



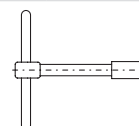
[mm]  
[Inches]

CAVITÀ (CAVITY)



### DATI TECNICI / TECHNICAL DATA

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F + 176°F
<b>Temperatura ambiente</b> - Ambient temperature	<b>-20°C +50°C</b> -4°F + 122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	
<b>Trafilamento massimo</b> Max leakage	<b>0,25 cm<sup>3</sup>/min - 5 gocce/min</b> 0,015 in <sup>3</sup> /min - 5 drops/min



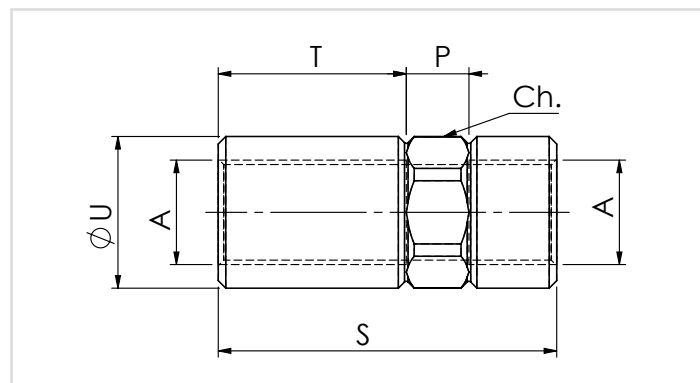
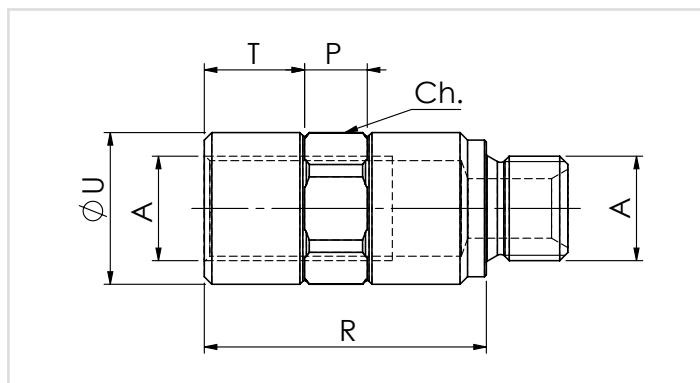
**CHIAVE  
TOOL**

### Dimensione/Dimensions

Tipo chiave Tool's Type	Tipo Type	Peso/Weight kg-lbt
<b>61700001</b>	<b>VUBA140</b>	<b>0,12</b> (0.27)
<b>61700002</b>	<b>VUBA380</b>	<b>0,13</b> (0.29)
<b>61700003</b>	<b>VUBA120</b>	<b>0,15</b> (0.33)
<b>61700004</b>	<b>VUBA340</b>	<b>0,18</b> (0.40)

### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	mm - inch								Ch. 1	Ch. 2	COPPIA DI SERRAGGIO TIGHTENING TORQUE Nm-lbt ft	PESO APPROX APPROX WEIGHT kg-lbt
				B	C	D	G	H	L	M	N				
VUBA140	BSPP 1/4	25 (6.6)	350 (5075)	8,2 (0.32)	10,4 (0.41)	8 (0.31)	25 (0.98)	2,5 (0.10)	19 (0.75)	35 (1.38)	7 (0.28)	5,5	2,5	2 (1.5)	0,008 (0.017)
VUBA380	BSPP 3/8	50 (13.2)		11 (0.43)	12,7 (0.50)	10 (0.39)	30 (1.18)	3,25 (0.13)	23 (0.90)	41 (1.61)	9,5 (0.37)			3 (2.5)	0,014 (0.030)
VUBA120	BSPP 1/2	80 (21.1)		13 (0.51)	15 (0.59)	11,5 (0.45)	33 (1.30)	4 (0.16)	29 (1.14)	46 (1.81)	12 (0.47)	7	3	4 (3)	0,025 (0.055)
VUBA340	BSPP 3/4	150 (39.6)		18 (0.71)	18 (0.71)	14,5 (0.57)	42 (1.65)	5,2 (0.20)	34 (1.34)	55 (2.17)	16 (0.63)			10 (7.5)	0,054 (0.12)
VUBA100	BSPP 1	180 (47.5)		20 (0.79)	26 (1.02)	19 (0.75)	48 (1.89)	7 (0.28)	40 (1.57)	63 (2.48)	22 (0.87)	8	4	12 (9)	0,1 (0.22)



### COLONNETTE - HOUSINGS M/F

TIPO TYPE	A	R	P	T	U	Ch.	PESO APPROX APPROX WEIGHT kg-lbt
61100087	BSPP 1/4	39 (1.53)	10 (0.39)	13 (0.51)	20.5 (0.80)	19	0.07 (0.16)
61100088	BSPP 3/8	45 (1.77)	10 (0.39)	16 (0.63)	24.5 (0.96)	22	0.10 (0.22)
61100089	BSPP 1/2	52 (2.05)	10 (0.39)	19 (0.75)	29.5 (1.16)	27	0.17 (0.37)
61100090	BSPP 3/4	61 (2.40)	12 (0.47)	23 (0.90)	35.5 (1.32)	32	0.26 (0.57)
61100091	BSPP 1	67 (2.63)	15 (0.59)	25.5 (1)	44.5 (1.75)	41	0.4 (0.88)

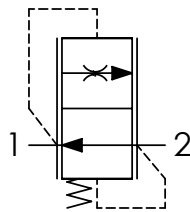
### COLONNETTE - HOUSINGS F/F

TIPO TYPE	A	S	P	T	U	Ch.	PESO APPROX APPROX WEIGHT kg-lbt
61100092	BSPP 1/4	48 (1.89)	10 (0.39)	13 (0.51)	20.5 (0.80)	19	0.09 (0.20)
61100093	BSPP 3/8	54 (2.13)	10 (0.39)	30 (1.18)	24.2 (0.95)	22	0.11 (0.24)
61100094	BSPP 1/2	73 (2.87)	10 (0.39)	46.5 (1.83)	29.2 (1.14)	27	0.20 (0.44)
61100095	BSPP 3/4	74 (2.91)	12 (0.47)	44 (1.73)	35.5 (1.32)	32	0.27 (0.59)

TARATURA SETTING mm	Portata (l/min) - Flow rate (Usgpm) Tolleranza ± 10% - Tolerance ± 10%				
	VUBA140	VUBA380	VUBA120	VUBA340	VUBA100
0	0	0	0	0	0
0,1	3,0 (0,8)	3,0 (0,8)	4,0 (1,1)	9,0 (2,4)	3,5 (0,9)
0,2	6,0 (1,6)	6,0 (1,6)	8,0 (2,1)	18,0 (4,8)	7,0 (1,8)
0,3	9,3 (2,5)	10,0 (2,6)	12,7 (3,3)	25,3 (6,7)	12,0 (3,2)
0,4	12,7 (3,3)	14,0 (3,7)	17,3 (4,6)	32,7 (8,6)	17,0 (4,5)
0,5	16,0 (4,2)	18,0 (4,8)	22,0 (5,8)	40,0 (10,6)	22,0 (5,8)
0,6	17,0 (4,5)	20,5 (5,4)	26,5 (7,0)	48,5 (12,8)	27,5 (7,3)
0,7	18,0 (4,8)	23,0 (6,1)	31,0 (8,2)	57,0 (15,0)	33,0 (8,7)
0,8	19,2 (5,1)	25,0 (6,6)	34,0 (9,0)	61,7 (16,3)	39,0 (10,3)
0,9	20,3 (5,4)	27,0 (7,1)	37,0 (9,8)	66,3 (17,5)	45,0 (11,9)
1	21,5 (5,7)	29,0 (7,7)	40,0 (10,6)	71,0 (18,7)	51,0 (13,5)
1,1	22,3 (5,9)	30,0 (7,9)	42,5 (11,2)	77,0 (20,3)	53,5 (14,1)
1,2	23,0 (6,1)	31,0 (8,2)	45,0 (11,9)	83,0 (21,9)	56,0 (14,8)
1,3	23,7 (6,2)	32,3 (8,5)	47,7 (12,6)	88,7 (23,4)	60,7 (16,0)
1,4	24,3 (6,4)	33,7 (8,9)	50,3 (13,3)	94,3 (24,9)	65,3 (17,2)
1,5	25,0 (6,6)	35,0 (9,2)	53,0 (14,0)	100,0 (26,4)	70,0 (18,5)
1,6	25,4 (6,7)	36,4 (9,6)	55,8 (14,7)	106,0 (28,0)	72,4 (19,1)
1,7	26,0 (6,9)	37,0 (9,8)	58,6 (15,5)	111,0 (29,3)	74,8 (19,7)
1,8	26,3 (7,0)	38,7 (10,2)	61,4 (16,2)	116,0 (30,6)	77,2 (20,4)
1,9	26,7 (7,0)	40,3 (10,6)	64,2 (16,9)	120,0 (31,7)	79,6 (21,0)
2	27,0 (7,1)	42,0 (11,1)	67,0 (17,7)	124,0 (32,7)	82,0 (21,6)



### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



TIPO TYPE	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	COPPIA DI SERRAGGIO TIGHTENING TORQUE Nm-lbt ft	PESO APPROX APPROX WEIGHT kg-lbt
VCC140	15 (3.96)	250 (3625)	4 (3)	0,014 (0.031)

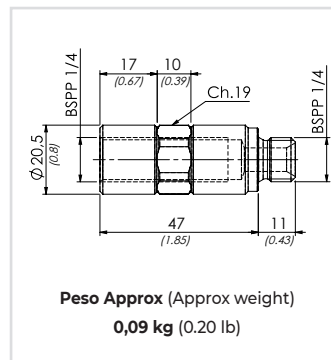
### DATI TECNICI / TECHNICAL DATA

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F + 176°F
<b>Temperatura ambiente</b> - Ambient temperature	<b>-20°C +50°C</b> -4°F + 122°F
<b>È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)</b> It is necessary a filter use to protect the valve (advised filtration 15 µm)	

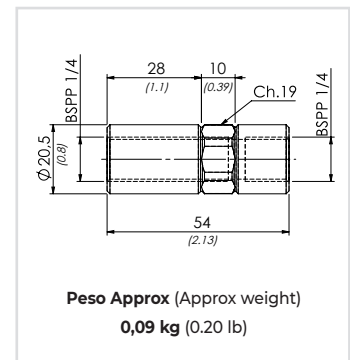
<b>CODICE ORDINAZIONE</b> ORDERING CODE	01	02	03
<b>VCC140</b>			

<b>01</b>	VALVOLE CONTROLLO DISCESA FISSE COMPENSATE (FIXED FLOW CONTROL VALVES - PRESSURE COMPENSATED)		<b>VCC140</b>
<b>02</b>	VERSIONE (VERSION)	L = 26,5 (1.02)	<b>C</b>
		L = 23 (0.90)	
<b>03</b>	PORTATA CONTROLLATA A 100 BAR ± 10% (CONTROLLED FLOW AT 100 BAR ± 10 %)	1 l/min (0.26 USgpm)	<b>1</b>
		2 l/min (0.53 USgpm)	<b>2</b>
		3 l/min (0.79 USgpm)	<b>3</b>
		4 l/min (1.06 USgpm)	<b>4</b>
		5 l/min (1.32 USgpm)	<b>5</b>
		6 l/min (1.58 USgpm)	<b>6</b>
		7 l/min (1.85 USgpm)	<b>7</b>
		8 l/min (2.11 USgpm)	<b>8</b>
		9 l/min (2.38 USgpm)	<b>9</b>
		10 l/min (2.64 USgpm)	<b>10</b>
		11 l/min (2.90 USgpm)	<b>11</b>
		12 l/min (3.17 USgpm)	<b>12</b>
		15 l/min (3.96 USgpm)	<b>15</b>

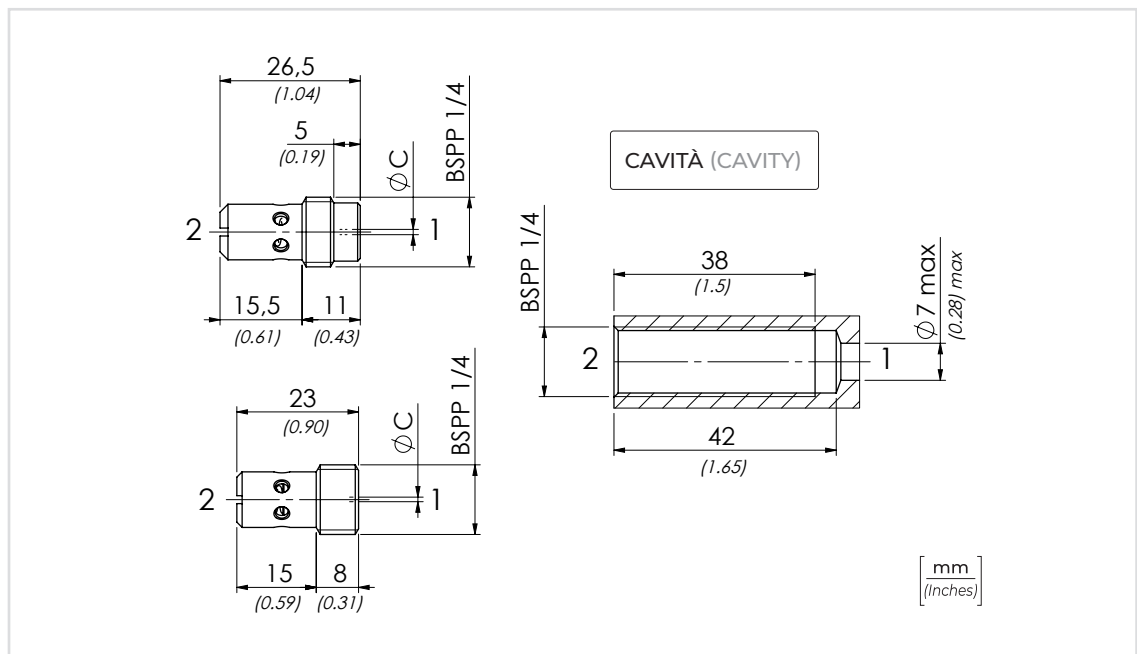
### TIPO / TYPE 61100160



### TIPO / TYPE 61100159

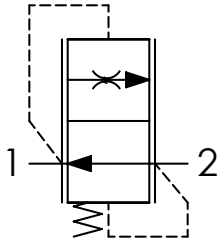


TIPO (TYPE)	Ø C
VCC1401	1 (0.04)
VCC1402	1,2 (0.05)
VCC1403	1,5 (0.06)
VCC1404	1,7 (0.07)
VCC1405	1,9 (0.07)
VCC1406	2,1 (0.08)
VCC1407	2,3 (0.09)
VCC1408	2,4 (0.09)
VCC1409	2,7 (0.11)
VCC14010	2,8 (0.11)
VCC14011	3,1 (0.12)
VCC14012	3,3 (0.13)
VCC14015	5 (0.20)





### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



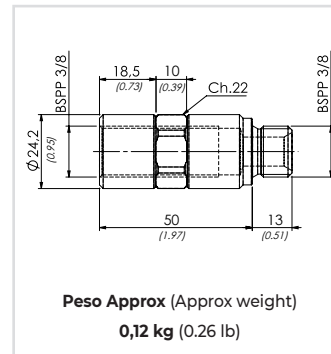
### DATI TECNICI / TECHNICAL DATA

Olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Ambient temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	

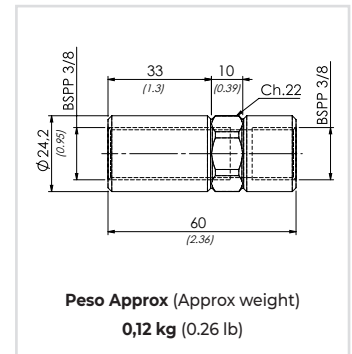
CODICE ORDINAZIONE ORDERING CODE	01	02
	<b>VCC380</b>	

01	VALVOLE CONTROLLO DISCESA FISSE COMPENSATE (FIXED FLOW CONTROL VALVES - PRESSURE COMPENSATED)	VCC380
02	PORTATA CONTROLLATA A 100 BAR ± 10% (CONTROLLED FLOW AT 100 BAR ± 10 %)	1 l/min (0.26 USgpm) <b>1</b>
		2 l/min (0.53 USgpm) <b>2</b>
		3 l/min (0.79 USgpm) <b>3</b>
		4 l/min (1.06 USgpm) <b>4</b>
		5 l/min (1.32 USgpm) <b>5</b>
		6 l/min (1.58 USgpm) <b>6</b>
		7 l/min (1.89 USgpm) <b>7</b>
		8 l/min (2.11 USgpm) <b>8</b>
		9 l/min (2.38 USgpm) <b>9</b>
		10 l/min (2.64 USgpm) <b>10</b>
		11 l/min (2.90 USgpm) <b>11</b>
		12 l/min (3.17 USgpm) <b>12</b>
		16 l/min (4.22 USgpm) <b>16</b>
		18 l/min (4.75 USgpm) <b>18</b>

### TIPO / TYPE 61100162

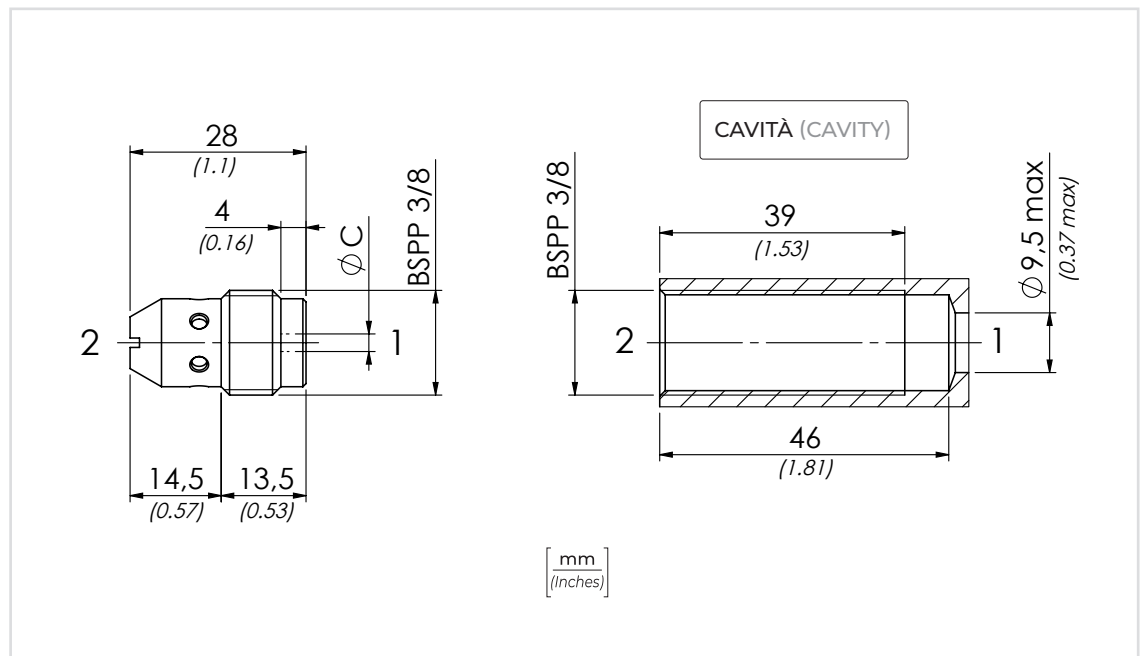


### TIPO / TYPE 61100161



TIPO TYPE	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	COPPIA DI SERRAGGIO TIGHTENING TORQUE Nm-lbt ft	PESO APPROX APPROX WEIGHT kg-lbt
VCC380	18 (4.8)	250 (3625)	6 (4.5)	0,024 (0.053)

TIPO (TYPE)	Ø C
VCC3801	0,6 (0.02)
VCC3802	1,4 (0.06)
VCC3803	1,7 (0.07)
VCC3804	2 (0.08)
VCC3805	2,3 (0.09)
VCC3806	2,6 (0.10)
VCC3807	2,8 (0.11)
VCC3808	3,1 (0.12)
VCC3809	3,3 (0.13)
VCC38010	3,5 (0.14)
VCC38011	3,7 (0.15)
VCC38012	4 (0.16)
VCC38016	5 (0.12)
VCC38018	5,5 (0.22)



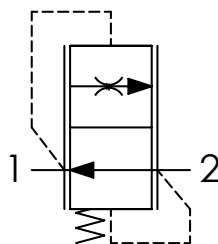
01 02

**CODICE ORDINAZIONE**  
ORDERING CODE

**VCC120**



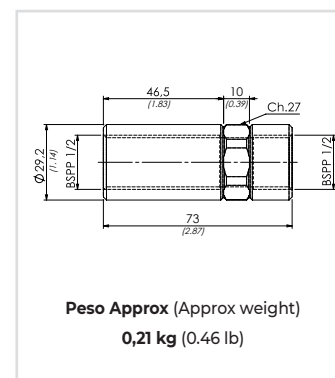
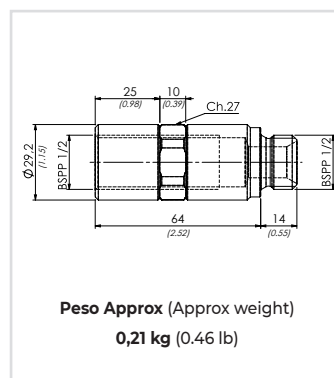
**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



01	VALVOLE CONTROLLO DISCESA FISSE COMPENSATE (FIXED FLOW CONTROL VALVES - PRESSURE COMPENSATED)	VCC120
02	PORTATA CONTROLLATA A 100 BAR ± 10% (CONTROLLED FLOW AT 100 BAR ± 10%)	9 l/min (2.38 USgpm) <b>9</b>
		12 l/min (3.17 USgpm) <b>12</b>
		15 l/min (3.96 USgpm) <b>15</b>
		17 l/min (4.49 USgpm) <b>17</b>
		21 l/min (5.54 USgpm) <b>21</b>
		25 l/min (6.60 USgpm) <b>25</b>
		27 l/min (7.1 USgpm) <b>27</b>
		32 l/min (8.45 USgpm) <b>32</b>
		35 l/min (9.24 USgpm) <b>35</b>
		40 l/min (10.56 USgpm) <b>40</b>
		47 l/min (12.4 USgpm) <b>47</b>

**TIPO / TYPE**  
**61100033**

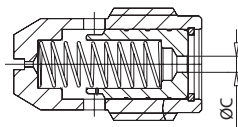
**TIPO / TYPE**  
**61100094**



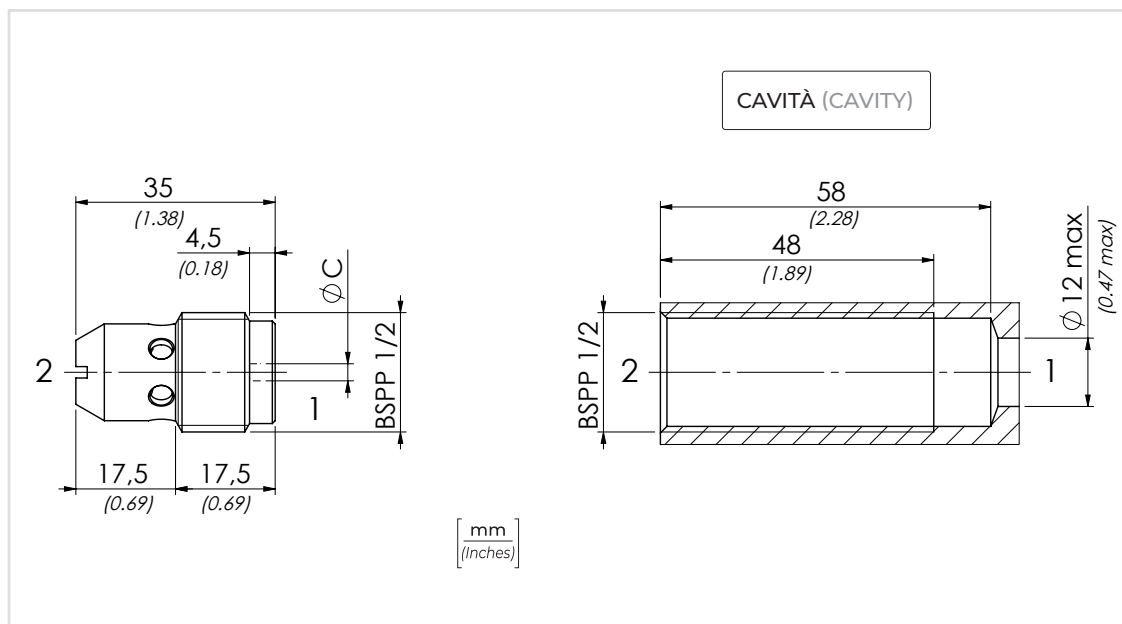
**DATI TECNICI / TECHNICAL DATA**

<b>Olio idraulico - Mineral oil</b>	<b>ISO 6743/4 (DIN 51524)</b>
<b>Viscosità olio - Oil viscosity</b>	<b>15-250 mm<sup>2</sup>/s (15 to 250 cSt)</b>
<b>Classe di contaminazione max Max contamination index</b>	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio - Oil temperature</b>	<b>-20°C +80°C -4°F +176°F</b>
<b>Temperatura ambiente - Ambient temperature</b>	<b>-20°C +50°C -4°F +122°F</b>
<b>È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)</b>	

TIPO TYPE	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	COPPIA DI SERRAGGIO TIGHTENING TORQUE Nm-lbt ft	PESO APPROX APPROX WEIGHT kg-lbt
VCC120	47 (12.4)	250 (3625)	10 (7.5)	0,050 (0.11)



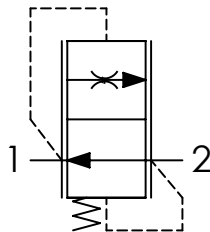
TIPO (TYPE)	Ø C
VCC1209	2 (0.08)
VCC12012	2,5 (0.10)
VCC12015	3 (0.12)
VCC12017	3,2 (0.13)
VCC12021	3,5 (0.14)
VCC12025	4 (0.16)
VCC12027	4,2 (0.17)
VCC12032	4,5 (0.18)
VCC12035	5 (0.20)
VCC12040	5,5 (0.22)
VCC12047	6 (0.24)





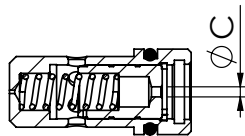


### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### DATI TECNICI / TECHNICAL DATA

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F +176°F
<b>Temperatura ambiente</b> - Ambient temperature	<b>-20°C +50°C</b> -4°F +122°F
<b>È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)</b> It is necessary a filter use to protect the valve (advised filtration 15 µm)	

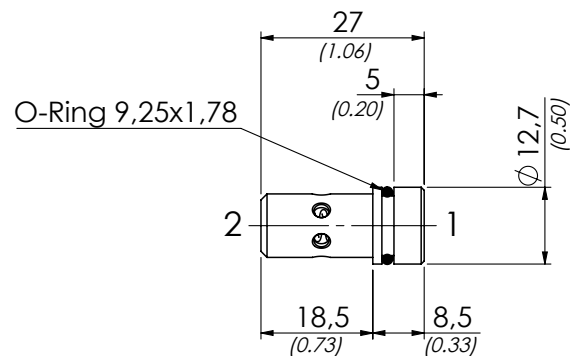


TIPO (TYPE)	Ø C
VSCR61	1 ( 0.04)
VSCR62	1,2 ( 0.05)
VSCR63	1,5 ( 0.06)
VSCR64	1,7 ( 0.07)
VSCR65	1,9 ( 0.07)
VSCR66	2,1 ( 0.08)
VSCR67	2,3 ( 0.09)
VSCR68	2,4 ( 0.09)
VSCR69	2,7 ( 0.11)
VSCR610	2,8 ( 0.11)
VSCR611	3,1 ( 0.12)
VSCR612	3,3 ( 0.13)

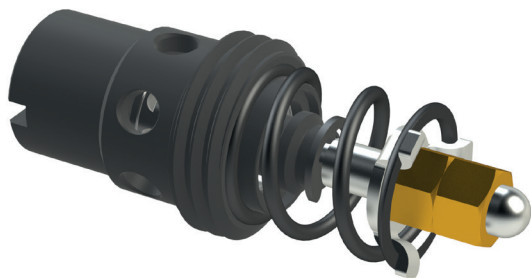
### CODICE ORDINAZIONE / ORDERING CODE

01	02
<b>VSCR6</b>	

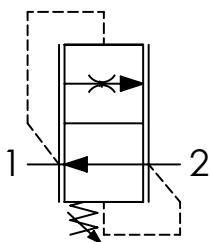
01	VALVOLE CONTROLLO DISCESA FISSE COMPENSATE (FIXED FLOW CONTROL VALVES - PRESSURE COMPENSATED)	VSCR6
02	PORTATA CONTROLLATA A 100 BAR ± 10% (CONTROLLED FLOW AT 100 BAR ± 10%)	1 l/min (0.26 USgpm) <b>1</b>
		2 l/min (0.53 USgpm) <b>2</b>
		3 l/min (0.79 USgpm) <b>3</b>
		4 l/min (1.06 USgpm) <b>4</b>
		5 l/min (1.32 USgpm) <b>5</b>
		6 l/min (1.58 USgpm) <b>6</b>
		7 l/min (1.85 USgpm) <b>7</b>
		8 l/min (2.11 USgpm) <b>8</b>
		9 l/min (2.38 USgpm) <b>9</b>
		10 l/min (2.64 USgpm) <b>10</b>
		11 l/min (2.90 USgpm) <b>11</b>
		12 l/min (3.17 USgpm) <b>12</b>



TIPO TYPE	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	PESO APPROX APPROX WEIGHT kg-lbt
VSCR6	12 (3.20)	250 (3625)	0,012 (0.026)

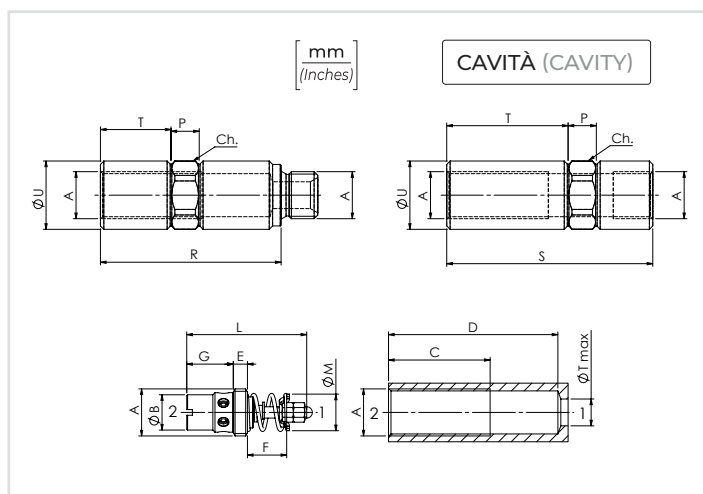


### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### DATI TECNICI / TECHNICAL DATA

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4 (DIN 51524)</b>		
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s (15 to 250 cSt)</b>		
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>		
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C</b>	<b>+80°C</b>	<b>-4°F + 176°F</b>
<b>Temperatura ambiente</b> - Ambient temperature	<b>-20°C</b>	<b>+50°C</b>	<b>-4°F + 122°F</b>
<b>È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)</b> It is necessary a filter use to protect the valve (advised filtration 15 µm)			



### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	B	C	D	E	T	G	L	M	R	S	PESO APPROX APPROX WEIGHT kg-lbt	COPPIA DI SERRAGGIO TIGHTENING TORQUE Nm-lbt ft
VRD140	BSPP 1/4	20 (5.3)	300 (4350)	10 (0.39)	33 (1.30)	53 (2.09)	6 (0.24)	7 (0.28)	13,5 (0.53)	39 (1.54)	10 (0.39)	57 (2.24)	66 (2.60)	0,013 (0.029)	6 (4.5)
VRD380	BSPP 3/8	35 (9.2)		12,5 (0.49)	36 (1.42)	60 (2.63)	5 (0.20)	9.5 (0.37)	15,5 (0.61)	45 (1.77)	14 (0.55)	64 (2.52)	73 (2.87)	0,024 (0.053)	8 (6)
VRD120	BSPP 1/2	65 (17.2)		16 (0.63)	39 (1.54)	63 (2.48)	7 (0.28)	12 (0.47)	16 (0.63)	51 (2.01)	18 (0.71)	69 (2.72)	81 (3.19)	0,037 (0.082)	12 (9)
VRD340	BSPP 3/4	150 (39.6)		20 (0.79)	50 (1.97)	81 (3.19)	10 (0.39)	16 (0.63)	21 (0.83)	62 (2.44)	23 (0.91)	87 (3.43)	99 (3.90)	0,079 (0.18)	15 (11.25)

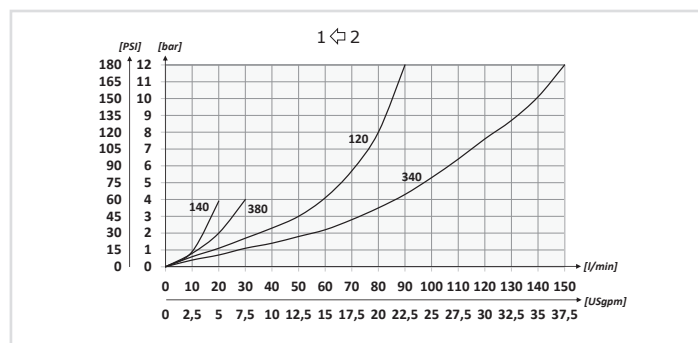
<b>CODICE ORDINAZIONE</b> ORDERING CODE	01	02	03	04
<b>VRD</b>				

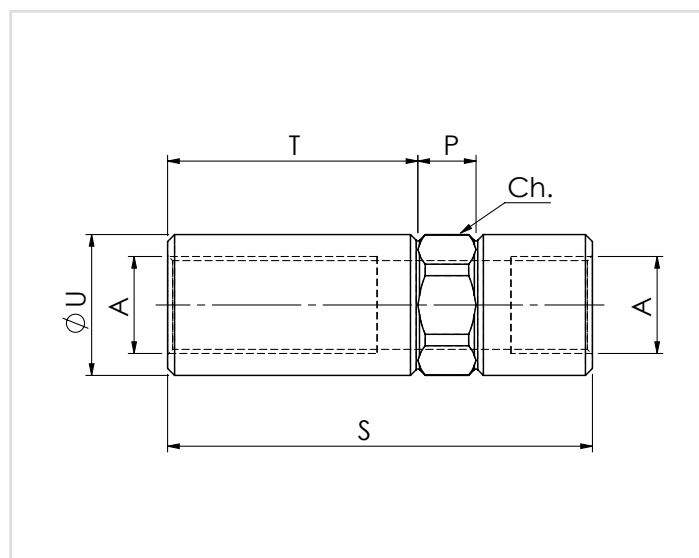
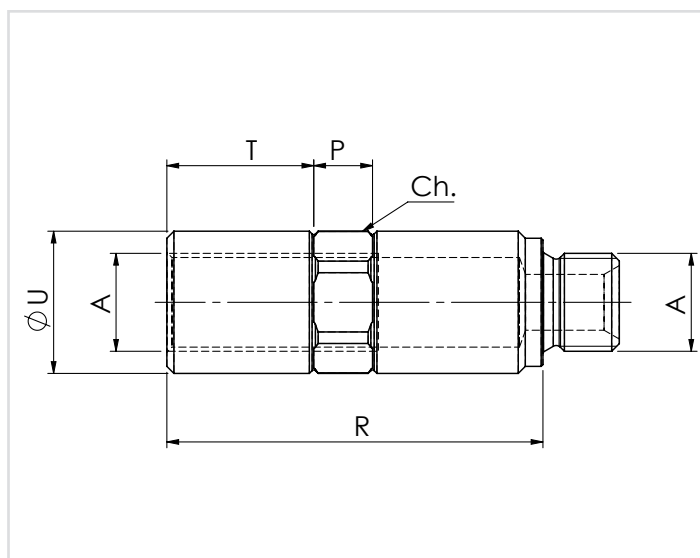
<b>01</b>	VALVOLE CONTROLLO DISCESA REGOLABILI COMPENSATE (ADJUSTABLE FLOW CONTROL VALVES - PRESSURE COMPENSATED)						<b>VRD</b>		
<b>02</b>	DIMENSIONE (SIZE)	BSPP 1/4					<b>140</b>		
		BSPP 3/8					<b>380</b>		
		BSPP 1/2					<b>120</b>		
		BSPP 3/4					<b>340</b>		
<b>03</b>	FLUSSO CONTROLLATO A 50 BAR (CONTROLLED FLOW AT 50 BAR)	A	B	C	D	E	F	<b>VRD140</b>	
		l/min-USgpm							
		1,4/4,2 (0,37/1,11)	2,4/7,8 (0,63/2,06)	3,8/9 (1/2,38)	6/13,4 (1,58/3,54)	8,6/17,5 (2,27/4,62)	12,2/24 (3,22/6,34)		
		1,7/3,7 (0,45/0,98)	3/5,5 (0,79/1,45)	5/10,5 (1,32/2,77)	10/18 (2,64/4,75)	16,5/25,4 (4,36/6,71)	19,5/33 (5,15/8,71)		<b>VRD380</b>
		15,5/23,8 (4,09/6,28)	19,7/32,5 (5,20/8,58)	22,8/38,4 (6,02/10,14)	32/51,4 (8,45/13,57)	40,5/71,6 (10,69/18,9)		<b>VRD120</b>	
		39,8/57,1 (10,51/15,07)	45,2/68,2 (11,93/18)	63,2/83,3 (16,68/21,99)	67/107 (17,69/28,25)	105/151 (27,72/39,86)		<b>VRD340</b>	
<b>04</b>	REGOLAZIONE (SETTING)	ESEMPIO: REGOLAZIONE 15 MM (EXAMPLE: SETTING 15 MM) <b>F 15</b> <b>(TOLLERANZA IN PORTATA ± 10%)</b> (TOLERANCE OF SETTING FLOW RATE ± 10%)					<b>F__</b>		
		*OMESSO SE NON RICHIESTO (OMITTED IF NOT REQUIRED)							

\*Se ommesso questo valore, le valvole vengono fornite senza alcuna taratura di fabbrica e i dadi non sono serrati. Per garantire il loro corretto funzionamento è necessario che venga eseguito il settaggio da parte dell'installatore finale.

If omitted this value, the valves are supplied without factory setting and nuts are not tightened. For the correct operating it is needed a calibration of the valve made by final installer.

### PERFORMANCES





### COLONNETTE - HOUSING M/F

TIPO TYPE	A	R	P	T	U	Ch.	PESO APPROX APPROX WEIGHT kg-lbt
61100057	BSPP 1/4	57 (2.24)	10 (0.39)	22 (0.87)	20.5 (0.81)	19	0.11 (0.16)
61100058	BSPP 3/8	64 (2.52)	10 (0.39)	25 (0.98)	24.5 (0.96)	22	0.14 (0.20)
61100059	BSPP 1/2	69 (2.71)	10 (0.39)	28 (1.10)	29.5 (1.16)	27	0.24 (0.30)
61100060	BSPP 3/4	87 (3.42)	12 (0.47)	36 (1.42)	35.5 (1.40)	32	0.34 (0.48)

### COLONNETTE - HOUSING F/F

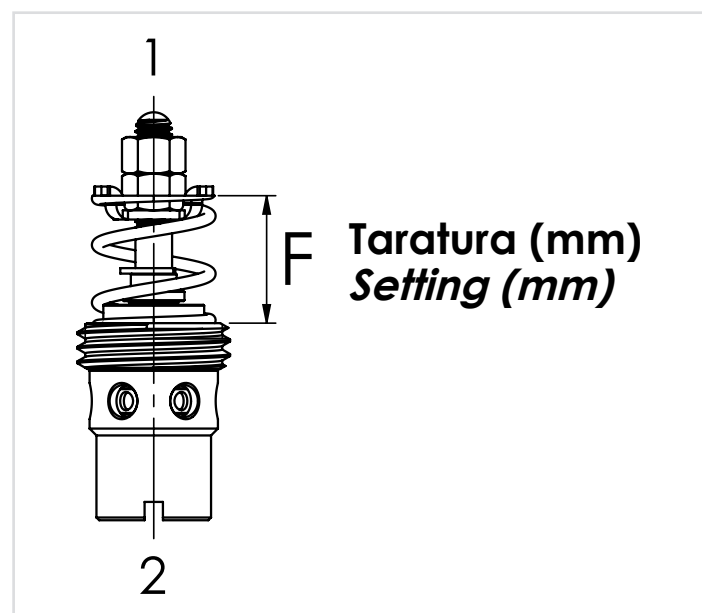
TIPO TYPE	A	S	P	T	U	Ch.	PESO APPROX APPROX WEIGHT kg-lbt
61100051	BSPP 1/4	66 (2.60)	10 (0.39)	38 (1.50)	20.5 (0.81)	19	0.11 (0.16)
61100052	BSPP 3/8	73 (2.87)	10 (0.39)	43 (1.69)	24.5 (0.96)	22	0.12 (0.20)
61100053	BSPP 1/2	81 (3.19)	10 (0.39)	50.5 (1.99)	29.5 (1.16)	27	0.20 (0.33)
61100054	BSPP 3/4	99 (3.90)	12 (0.47)	57 (2.24)	35.5 (1.40)	32	0.29 (0.50)

TARATURA SETTING mm	F <sub>-</sub>	VRD140 Portata (l/min) - Flow rate (Usgpm)					
		A	B	C	D	E	F
10		1,4 (0,37)	2,4 (0,63)	3,8 (1,00)	6 (1,58)	8,6 (2,27)	12,2 (3,22)
9		1,9 (0,50)	3,1 (0,82)	4,7 (1,24)	7,6 (2,01)	10,3 (2,72)	15,4 (4,07)
8		2,1 (0,55)	3,8 (1,00)	5,6 (1,48)	8,9 (2,35)	12 (3,17)	18,6 (4,91)
7		3,3 (0,87)	5,9 (1,56)	7,2 (1,90)	10,6 (2,80)	13,1 (3,46)	18,8 (4,96)
6		4,2 (1,11)	7,8 (2,06)	9 (2,38)	13,4 (3,54)	17,5 (4,62)	24 (6,34)

TARATURA SETTING mm	F <sub>-</sub>	VRD340 Portata (l/min) - Flow rate (Usgpm)				
		A	B	C	D	E
23		39,8 (10,51)	45,2 (11,93)	63,2 (16,68)	67 (17,69)	105 (27,72)
22		42,1 (11,11)	48 (12,67)	65,7 (17,34)	69,7 (18,40)	112,5 (29,70)
21		45,1 (11,91)	51,8 (13,68)	68 (17,95)	76,6 (20,22)	119 (31,42)
20		47 (12,41)	54,9 (14,49)	70,7 (18,66)	81,9 (21,62)	126,2 (33,32)
19		50,2 (13,25)	58,1 (15,34)	73,4 (19,38)	90,1 (23,79)	133,7 (35,30)
18		51,8 (13,68)	62,3 (16,45)	77,1 (20,35)	95 (25,08)	140,2 (37,01)
17		54,5 (14,39)	64,8 (17,11)	80,2 (21,17)	101 (26,66)	145,4 (38,39)
16		57,1 (15,07)	68,2 (18,00)	83,3 (21,99)	107 (28,25)	151 (39,86)

TARATURA SETTING mm	F <sub>-</sub>	VRD380 Portata (l/min) - Flow rate (Usgpm)					
		A	B	C	D	E	F
15		1,7 (0,45)	3 (0,79)	5 (1,32)	10 (2,64)	16,5 (4,36)	19,5 (5,15)
14		2,3 (0,61)	3,8 (1,00)	6,2 (1,64)	13 (3,43)	20 (5,28)	23,4 (6,18)
13		2,6 (0,69)	4,7 (1,24)	8,2 (2,16)	15,6 (4,12)	22 (5,81)	26,9 (7,10)
12		3 (0,79)	5,2 (1,37)	9,4 (2,48)	16,6 (4,38)	23,5 (6,20)	29,8 (7,87)
11		3,7 (0,98)	5,5 (1,45)	10,5 (2,77)	18 (4,75)	25,4 (6,71)	33 (8,71)

TARATURA SETTING mm	F <sub>-</sub>	VRD120 Portata (l/min) - Flow rate (Usgpm)				
		A	B	C	D	E
20		15,5 (4,09)	19,7 (5,20)	22,8 (6,02)	32 (8,45)	40,5 (10,69)
19		17 (4,49)	21,7 (5,73)	25,8 (6,81)	35,4 (9,35)	44,3 (11,70)
18		18 (4,75)	24,3 (6,42)	28 (7,39)	38,7 (10,22)	49,3 (13,02)
17		19,4 (5,12)	26,2 (6,92)	31,2 (8,24)	41,8 (11,04)	54,8 (14,47)
16		20,4 (5,39)	28,1 (7,42)	33,5 (8,84)	44 (11,62)	59,2 (15,63)
15		21,6 (5,70)	29,2 (7,71)	34,2 (9,03)	46,2 (12,20)	62,9 (16,61)
14		22,6 (5,97)	31 (8,18)	36,1 (9,53)	49,2 (12,99)	67,7 (17,87)
13		23,8 (6,28)	32,5 (8,58)	38,4 (10,14)	51,4 (13,57)	71,6 (18,90)



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## notes

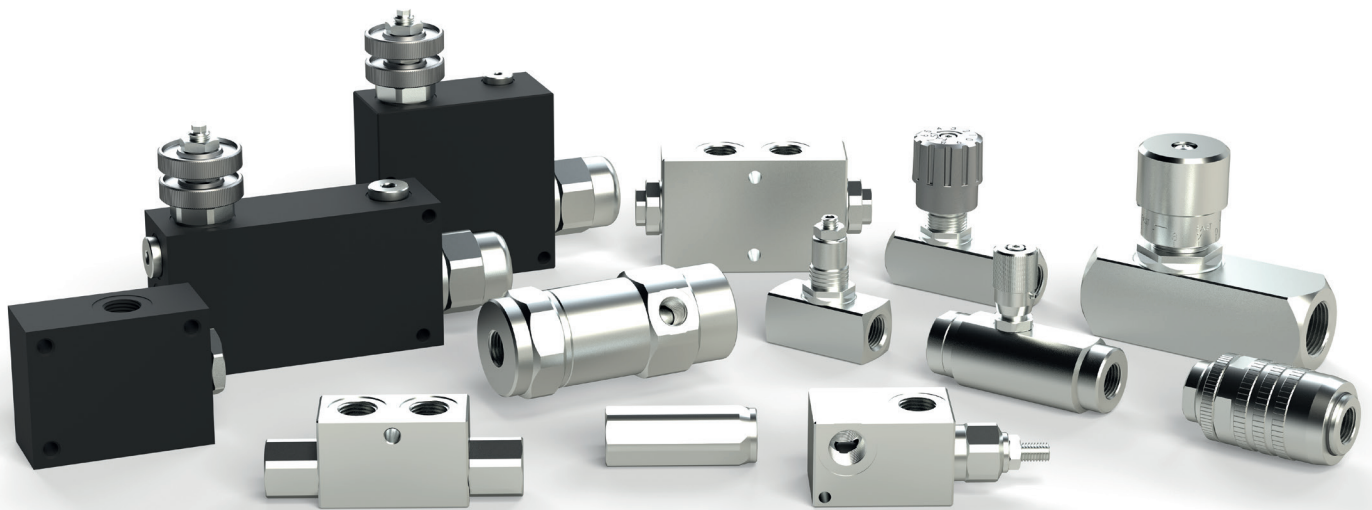
A series of horizontal dotted lines for taking notes.

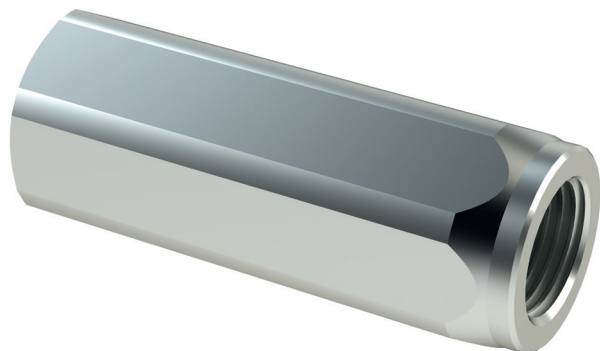
# VALVOLE IN LINEA

## IN-LINE VALVES

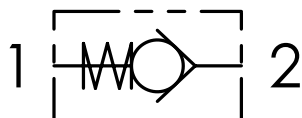
Le famiglia delle valvole in linea comprende: valvole di regolazione della portata unidirezionali, bidirezionali, valvole per il controllo di portata compensate, valvole divisori/riunificatori di flusso, valvole finecorsa, valvole di blocco singole e doppie, valvole antiurto doppie, valvole limitatrici di pressione per montaggio in linea e valvole di sequenza.

Unidirectional flow control valves, bidirectional flow control valves, flow control valves pressure compensated, flow dividers, end-stroke valves, single or double acting pilot check valves, double cross direct acting relief valves, direct acting relief valves and sequence valves.



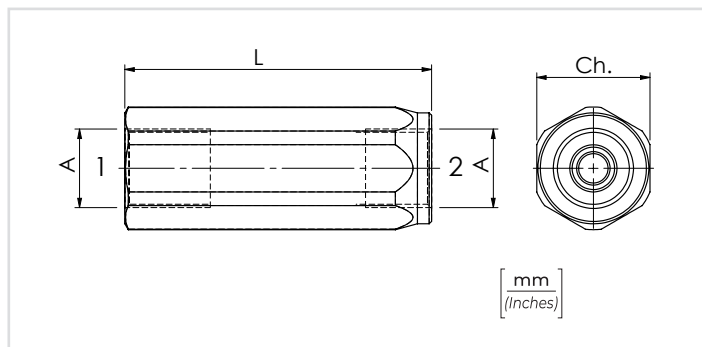


### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### DATI TECNICI / TECHNICAL DATA

Olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	
Trafilamento massimo Max leakage	0,25 cm <sup>3</sup> /min - 5 gocce/min 0,015 in <sup>3</sup> /min - 5 drops/min

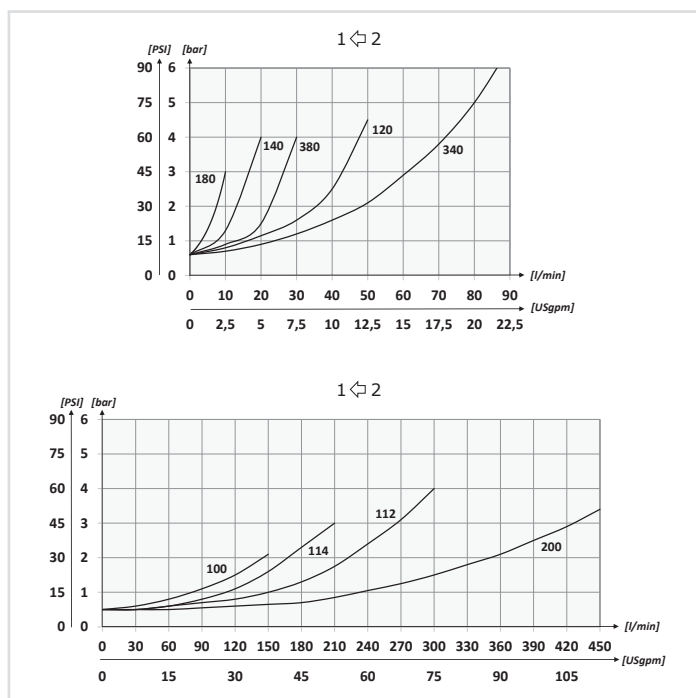


### CODICE ORDINAZIONE ORDERING CODE

01	02	03	04
<b>VUR</b>			

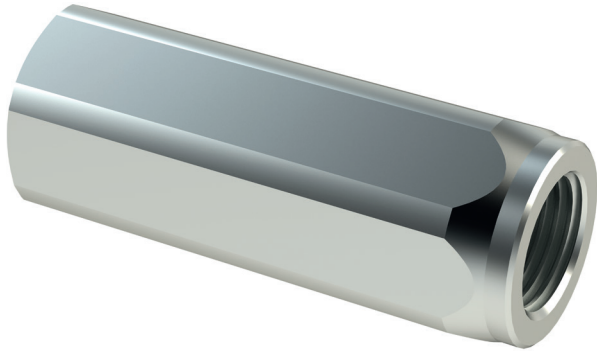
<b>01</b>	VALVOLE UNIDIREZIONALI A COLONNETTA F/F (F/F CHECK HOUSING VALVES)		<b>VUR</b>
<b>02</b>	DIMENSIONE (SIZE)	BSPP 1/8	<b>180</b>
		BSPP 1/4	<b>140</b>
		BSPP 3/8	<b>380</b>
		BSPP 1/2	<b>120</b>
		BSPP 3/4	<b>340</b>
		BSPP 1	<b>100</b>
		BSPP 1-1/4	<b>114</b>
		BSPP 1-1/2	<b>112</b>
<b>03</b>	TENUTA (SEALING)	Tenuta a sfera solo per VUR180/140/380/120 e molla 0,5 bar (Ball sealing only for VUR180/140/380/120 and spring 0,5 bar)	<b>SF</b>
		Tenuta a cono (Poppet sealing)	<b>SP</b>
<b>04</b>	MOLLA (SPRING)	<b>0,5 bar</b> Standard (7.25 PSI)	<b>0,5</b>
		<b>3 bar</b> (43.5 PSI)	<b>3</b>
		<b>4,5 bar</b> (65.25 PSI)	<b>4,5</b>
		<b>6 bar</b> (87 PSI)	<b>6</b>
		<b>10 bar</b> (145 PSI)	<b>Solo versione 120</b> (Only 120 version)

### PERFORMANCES

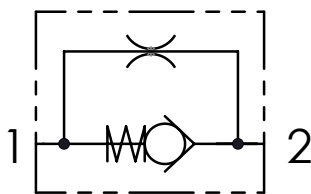


### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO TYPE	A	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	L	Ch.	PESO APPROX (kg) APPROX WEIGHT (lb)
VUR180	BSPP 1/8	5 (1.3)	400 (5800)	47 (1.85)	14	0,05 (0.11)
VUR140	BSPP 1/4	15 (4.0)		55 (2.17)	19	0,10 (0.22)
VUR380	BSPP 3/8	30 (7.9)		65 (2.56)	24	0,18 (0.40)
VUR120	BSPP 1/2	50 (13.2)		75 (2.95)	27	0,23 (0.50)
VUR340	BSPP 3/4	90 (23.8)		86,5 (3.41)	35	0,45 (1)
VUR100	BSPP 1	150 (39.6)	350 (5075)	110 (4.33)	41	0,73 (1.6)
VUR114	BSPP 1-1/4	200 (52.8)		123 (4.84)	54	1,5 (3.3)
VUR112	BSPP 1-1/2	300 (79.2)		138 (5.43)	59	1,85 (4.07)
VUR200	BSPP 2	430 (113.5)	250 (3625)	145 (5.71)	69	2,7 (6)

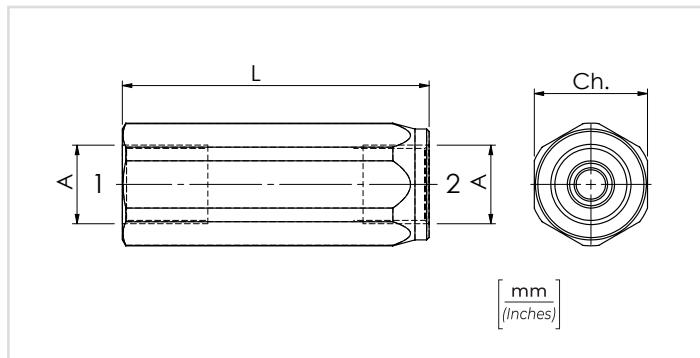


**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**DATI TECNICI / TECHNICAL DATA**

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F + 176°F
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b> -4°F + 122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	

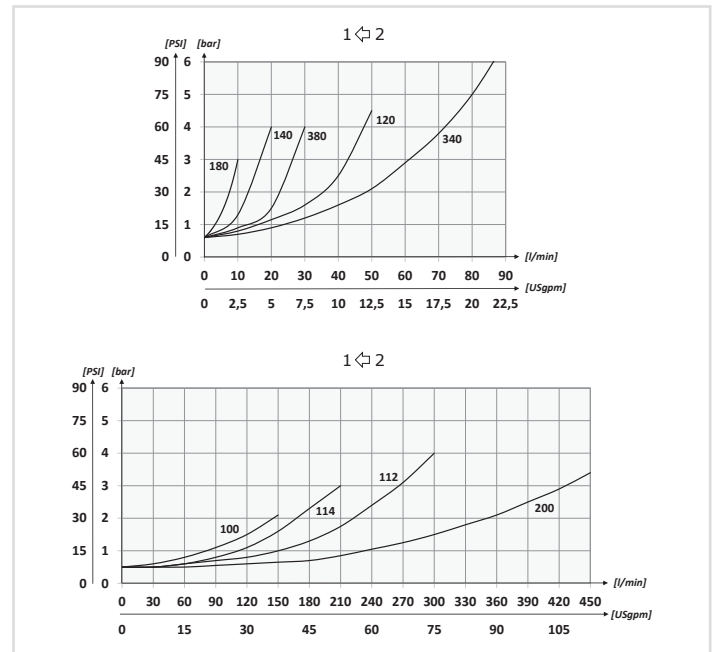


**CODICE ORDINAZIONE**  
ORDERING CODE

01	02	03	04	05
<b>VUR</b>		<b>SP</b>		

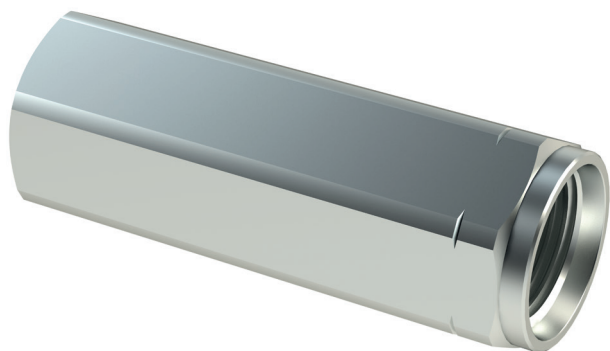
<b>01</b>	VALVOLE UNIDIREZIONALI F/F A COLONNETTA CON FORO DI STROZZATURA (F/F CHECK HOUSING VALVES WITH RESTRICTION HOLE)	<b>VUR</b>
<b>02</b>	DIMENSIONE (SIZE)	BSPP 1/8 <b>180</b>
		BSPP 1/4 <b>140</b>
		BSPP 3/8 <b>380</b>
		BSPP 1/2 <b>120</b>
		BSPP 3/4 <b>340</b>
		BSPP 1 <b>100</b>
		BSPP 1-1/4 <b>114</b>
		BSPP 1-1/2 <b>112</b>
<b>03</b>	TENUTA (SEALING)	<b>Tenuta a cono</b> (Poppet sealing) <b>SP</b>
	<b>04</b>	MOLLA (SPRING)
<b>3 bar</b> (43.5 PSI) <b>3</b>		
<b>4,5 bar</b> (65.25 PSI) <b>4,5</b>		
<b>6 bar</b> (87 PSI) <b>6</b>		
<b>10 bar</b> (145 PSI) <b>Solo versione 120</b> (Only 120 version) <b>10</b>		
<b>05</b>	FORO DI STROZZATURA (RESTRICTION HOLE)	Indicare il diametro del foro. Esempio: VUR380SP0,5 con foro Ø 1,5 mm Cod. <b>VUR380SP0,5-1,5</b> State the hole diameter. Example: VUR380SP0.5-1.5 with Ø 0,06 in hole Cod. <b>VUR380SP0,5-1,5</b>

**PERFORMANCES**

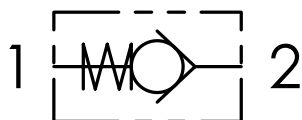


**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	A	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	L	Ch.	PESO APPROX (kg) APPROX WEIGHT (lbt)
VUR180-H	BSPP 1/8	5 (1.3)	400 (5800)	47 (1.85)	14	0,05 (0.11)
VUR140-H	BSPP 1/4	15 (4.0)		55 (2.17)	19	0,10 (0.22)
VUR380-H	BSPP 3/8	30 (7.9)		65 (2.56)	24	0,18 (0.40)
VUR120-H	BSPP 1/2	50 (13.2)		75 (2.95)	27	0,23 (0.50)
VUR340-H	BSPP 3/4	90 (23.8)		86,5 (3.41)	35	0,45 (1)
VUR100-H	BSPP 1	150 (39.6)	350 (5075)	110 (4.33)	41	0,73 (1.6)
VUR114-H	BSPP 1-1/4	200 (52.8)		123 (4.84)	55	1,5 (3.3)
VUR112-H	BSPP 1-1/2	300 (79.2)		138 (5.43)	60	1,85 (4.07)
VUR200-H	BSPP 2	430 (113.5)	250 (3625)	145 (5.71)	70	2,7 (6)

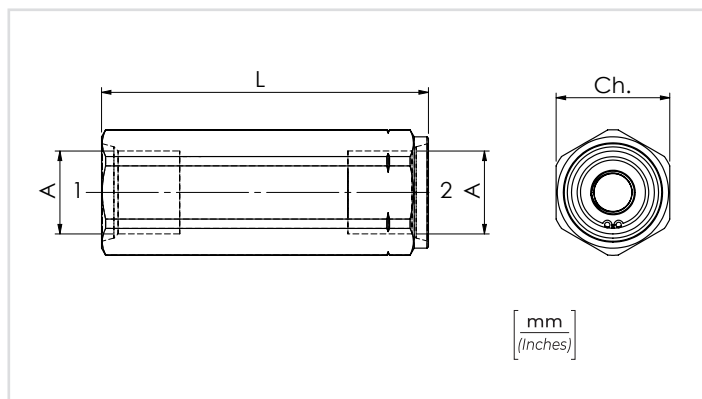


### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### DATI TECNICI / TECHNICAL DATA

Olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	
Trafilamento massimo Max leakage	0,25 cm <sup>3</sup> /min - 5 gocce/min 0,015 in <sup>3</sup> /min - 5 drops/min

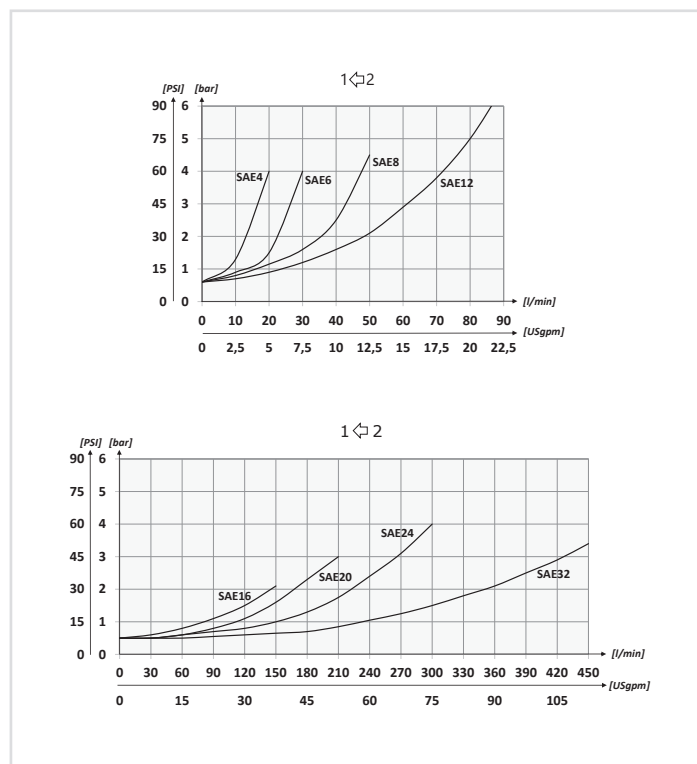


### CODICE ORDINAZIONE ORDERING CODE

01	02	03	04
<b>VUR</b>		<b>SP</b>	

<b>01</b>	VALVOLE UNIDIREZIONALI A COLONNETTA F/F (F/F CHECK HOUSING VALVES)	<b>VUR</b>	
<b>02</b>	DIMENSIONE (SIZE)	7/16-20UNF	<b>4</b>
		9/16-18UNF	<b>6</b>
		3/4-16UNF	<b>8</b>
		1-1/16-12UN	<b>12</b>
		1-5/16-12UN	<b>16</b>
		1-5/8-12UN	<b>20</b>
		1-7/8-12UN	<b>24</b>
	2-1/2-12UN	<b>32</b>	
<b>03</b>	TENUTA (SEALING)	Tenuta a cono (Poppet sealing)	<b>SP</b>
<b>04</b>	MOLLA (SPRING)	0,5 bar Standard (7.25 PSI)	<b>0,5</b>
		3 bar (43.5 PSI)	<b>3</b>
		4,5 bar (65.25 PSI)	<b>4,5</b>
		6 bar (87 PSI)	<b>6</b>

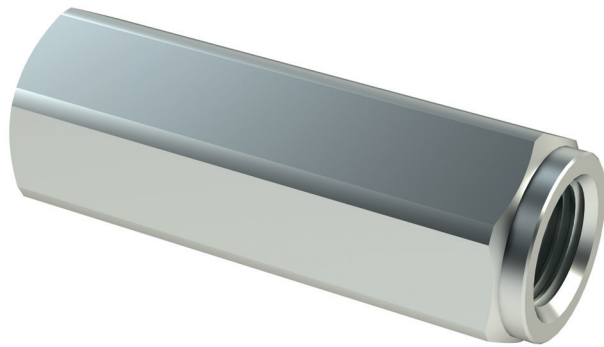
### PERFORMANCES



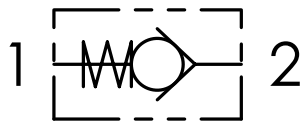
### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO TYPE	A	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	L	Ch.	PESO APPROX (kg) APPROX WEIGHT (lbt)
VUR4	7/16-20UNF	15 (4)	400 (5800)	55 (2.17)	19	0,11 (0.24)
VUR6	9/16-18UNF	30 (7.9)		58 (2.28)	19	0,09 (0.20)
VUR8	3/4-16UNF	50 (13.2)		69 (2.71)	24	0,18 (0.40)
VUR12	1-1/16-12UN	90 (23.8)		88,5 (3.48)	35	0,45 (1)
VUR16	1-5/16-12UN	150 (39.6)	350 (5075)	110 (4.33)	41	0,73 (1.6)
VUR20	1-5/8-12UN	200 (52.8)		120 (4.72)	54	1,5 (3.43)
VUR24	1-7/8-12UN	300 (79.2)		138 (5.43)	59	2,5 (5.5)
VUR32	2-1/2-12UN	430 (113.5)			69	2,9 (6.4)



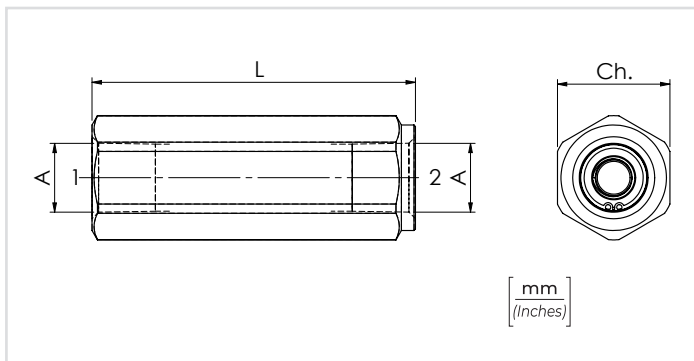


### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### DATI TECNICI / TECHNICAL DATA

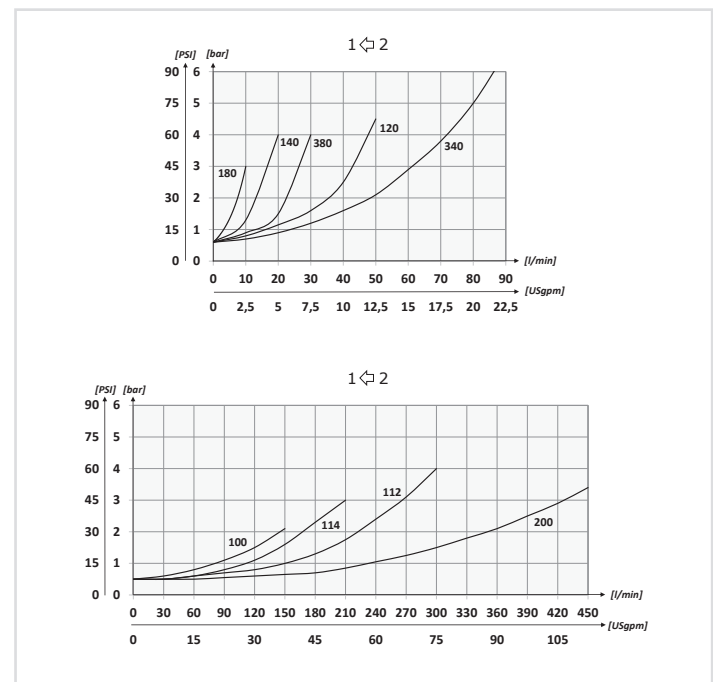
olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	
Trafilamento massimo Max leakage	0,25 cm <sup>3</sup> /min - 5 gocce/min 0,015 in <sup>3</sup> /min - 5 drops/min



<b>CODICE ORDINAZIONE</b> ORDERING CODE	01 <b>VUR</b>	02	03 <b>SP</b>	04
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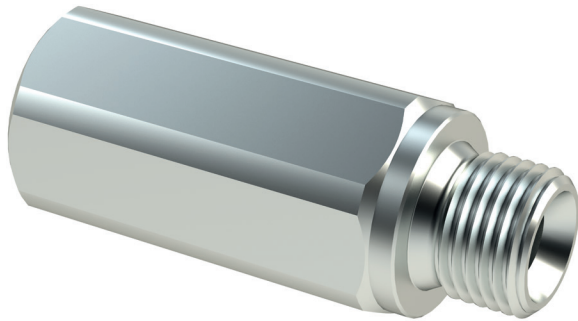
<b>01</b>	VALVOLE UNIDIREZIONALI A COLONNETTA F/F (F/F CHECK HOUSING VALVES)		<b>VUR</b>
<b>02</b>	DIMENSIONE (SIZE)	1/8 NPTF	<b>180N</b>
		1/4 NPTF	<b>140N</b>
		3/8 NPTF	<b>380N</b>
		1/2 NPTF	<b>120N</b>
		3/4 NPTF	<b>340N</b>
		1 NPTF	<b>100N</b>
		1-1/4 NPTF	<b>114N</b>
		1-1/2 NPTF	<b>112N</b>
<b>03</b>	TENUTA (SEALING)	Tenuta a cono (Poppet sealing)	<b>SP</b>
		0,5 bar Standard (7.25 PSI)	<b>0,5</b>
<b>04</b>	MOLLA (SPRING)	3 bar (43.5 PSI)	<b>3</b>
		4,5 bar (65.25 PSI)	<b>4,5</b>
		6 bar (87 PSI)	<b>6</b>
		10 bar (145 PSI)	<b>10</b>
		Solo versione 120N (Only 120N version)	<b>10</b>

### PERFORMANCES

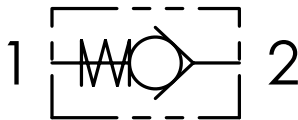


### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO TYPE	A	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	L	Ch.	PESO APPROX (kg) APPROX WEIGHT (lb)
VUR180N	1/8 NPTF	5 (1,3)	400 (5800)	47 (1.85)	14	0,05 (0.11)
VUR140N	1/4 NPTF	15 (4)		58 (2.28)	19	0,10 (0.22)
VUR380N	3/8 NPTF	30 (7.9)		69 (2.72)	24	0,18 (0.40)
VUR120N	1/2 NPTF	50 (13.2)		75 (2.95)	27	0,23 (0.50)
VUR340N	3/4 NPTF	90 (23.8)		88,5 (3.48)	35	0,45 (1)
VUR100N	1 NPTF	150 (39.6)	350 (5075)	110 (4.33)	41	0,75 (1.7)
VUR114N	1-1/4 NPTF	200 (52.8)		120 (4.72)	54	1,5 (3.3)
VUR112N	1-1/2 NPTF	300 (79.2)		138 (5.43)	59	2,6 (5.7)
VUR200N	2 NPTF	430 (113.5)			69	3 (6.60)

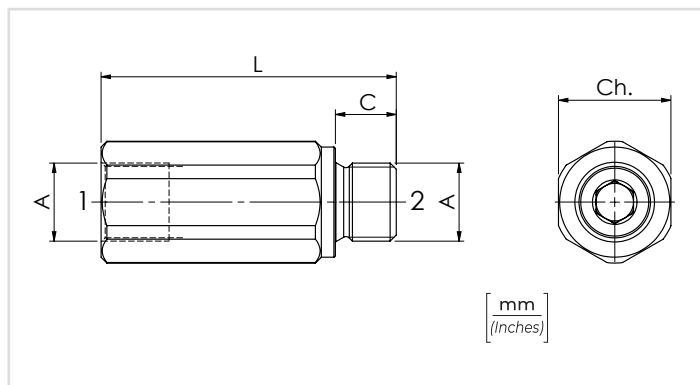


**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**DATI TECNICI / TECHNICAL DATA**

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F + 176°F
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b> -4°F + 122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	
<b>Trafilamento massimo</b> Max leakage	<b>0,25 cm<sup>3</sup>/min - 5 gocce/min</b> 0,015 in <sup>3</sup> /min - 5 drops/min



**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

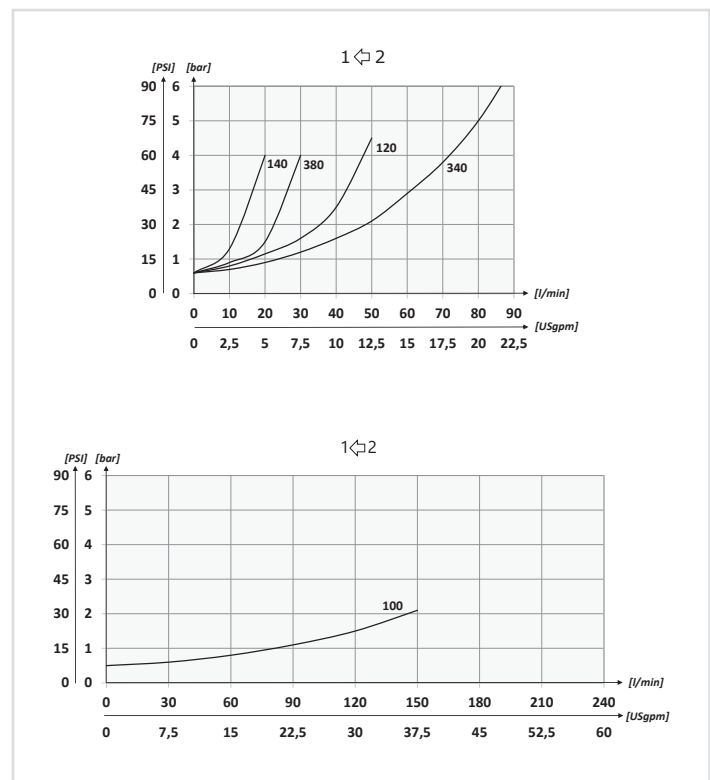
TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	L	C	Ch.	PESO APPROX APPROX WEIGHT kg-lbt
VMF140	BSPP 1/4	15 (4)	400 (5800)	50 (1.96)	11 (0.43)	19 (0.75)	0,08 (0.18)
VMF380	BSPP 3/8	30 (8)		63 (2.48)	13 (0.51)	24 (0.94)	0,16 (0.35)
VMF120	BSPP 1/2	50 (13)		70 (2.75)	14 (0.55)	27 (1.06)	0,20 (0.44)
VMF340	BSPP 3/4	90 (23)		82 (3.23)	17 (0.67)	35 (1.38)	0,39 (0.86)
VMF100	BSPP 1	150 (40)	350 (5075)	100,5 (3.95)	19 (0.75)	41 (1.61)	0,63 (1.38)

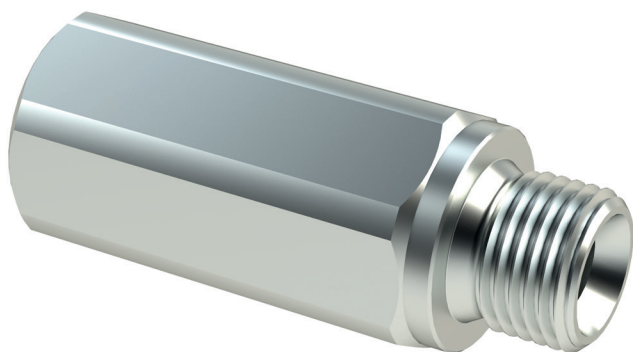
**CODICE ORDINAZIONE**  
ORDERING CODE

01	02	03	04
<b>VMF</b>			

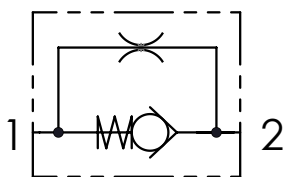
01	VALVOLE UNIDIREZIONALI A COLONNETTA M/F (M/F CHECK HOUSING VALVES)	VMF	
02	DIMENSIONE (SIZE)	BSPP 1/4	140
		BSPP 3/8	380
		BSPP 1/2	120
		BSPP 3/4	340
		BSPP 1	100
03	TENUTA (SEALING)	Tenuta a sfera solo per VMF140/380/120 e molla 0,5 bar (Ball sealing only for VMF140/380/120 and spring 0,5 bar)	SF
		Tenuta a cono (Poppet sealing)	SP
04	MOLLA (SPRING)	0,5 bar Standard (7.25 PSI)	0,5
		3 bar (43.5 PSI)	3
		4,5 bar (65 PSI)	4,5
		6 bar (87 PSI)	6
		10 bar (145 PSI)	Solo versione 120 (Only 120 version)

**PERFORMANCES**



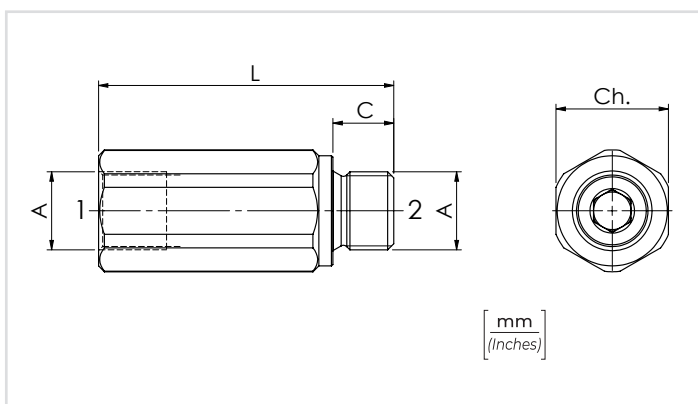


### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### DATI TECNICI / TECHNICAL DATA

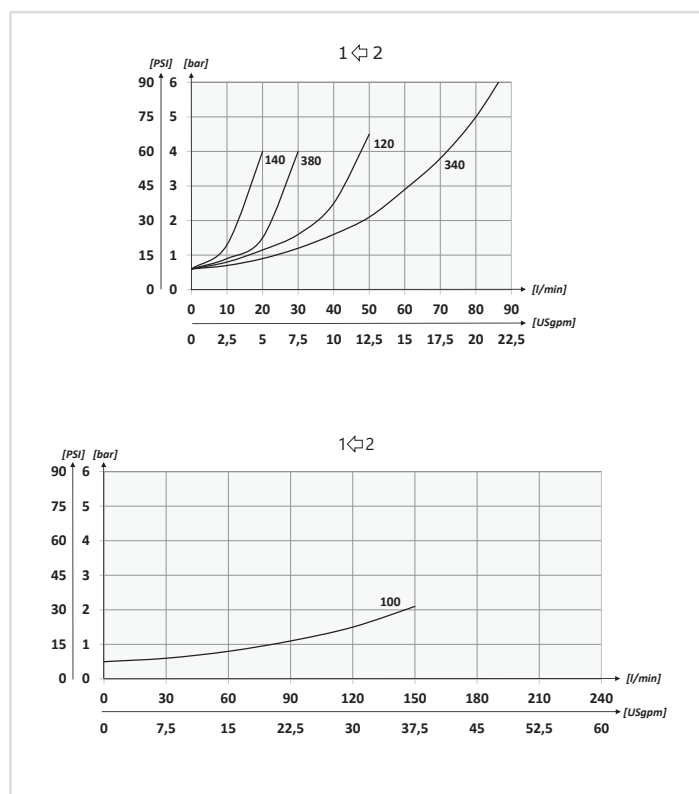
Olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	
Trafilamento massimo Max leakage	0,25 cm <sup>3</sup> /min - 5 gocce/min 0,015 in <sup>3</sup> /min - 5 drops/min



	01	02	03	04	05
<b>CODICE ORDINAZIONE</b> ORDERING CODE	<b>VMF</b>		<b>SP</b>		

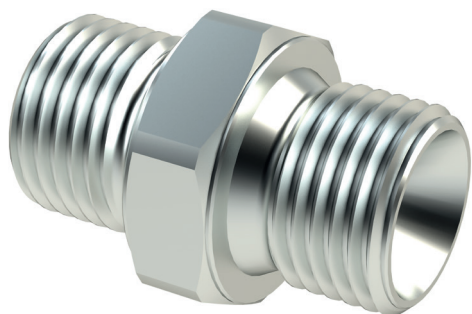
<b>01</b>	VALVOLE UNIDIREZIONALI A COLONNETTA M/F (M/F CHECK HOUSING VALVES)	<b>VMF</b>	
<b>02</b>	DIMENSIONE (SIZE)	BSPP 1/4	<b>140</b>
		BSPP 3/8	<b>380</b>
		BSPP 1/2	<b>120</b>
		BSPP 3/4	<b>340</b>
		BSPP 1	<b>100</b>
<b>03</b>	TENUTA (SEALING)	Tenuta a cono (Poppet sealing)	<b>SP</b>
<b>04</b>	MOLLA (SPRING)	0,5 bar Standard (7.25 PSI)	<b>0,5</b>
		3 bar (43.5 PSI)	<b>3</b>
		4,5 bar (65 PSI)	<b>4,5</b>
		6 bar (87 PSI)	<b>6</b>
		10 bar (145 PSI)	<b>10</b>
		Solo versione 120 (Only 120 version)	
<b>05</b>	FORO DISTROZZATURA (RESTRICTION HOLE)	Indicare il diametro del foro. Esempio: VMF380SP0,5 con foro Ø1,5 mm Cod. VMF380SP0,5-1,5 State the hole diameter Example: VMF380SP0,5 with Ø 0,06 in hole Cod. VMF380SP0,5-1,5	

### PERFORMANCES

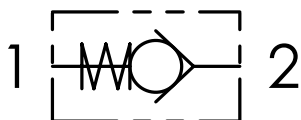


### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO TYPE	A	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	L	C	Ch.	PESO APPROX (kg) APPROX WEIGHT (lb)
VMF140-H	BSPP 1/4	15 (4)	400 (5800)	50 (1.96)	11 (0.43)	19 (0.75)	0,08 (0.18)
VMF380-H	BSPP 3/8	30 (8)		63 (2.48)	13 (0.51)	24 (0.94)	0,16 (0.35)
VMF120-H	BSPP 1/2	50 (13)		70 (2.75)	14 (0.55)	27 (1.06)	0,20 (0.44)
VMF340-H	BSPP 3/4	90 (23)		82 (3.23)	17 (0.67)	35 (1.38)	0,39 (0.86)
VMF100-H	BSPP 1	150 (40)	350 (5075)	100,5 (3.95)	19 (0.75)	41 (1.61)	0,63 (1.38)



SCHEMA IDRAULICO / HYDRAULIC CIRCUIT

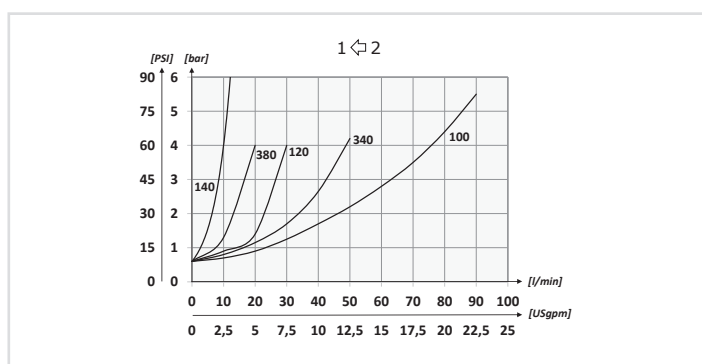


**CODICE ORDINAZIONE**  
ORDERING CODE

01	02	03	04
<b>VUN</b>			

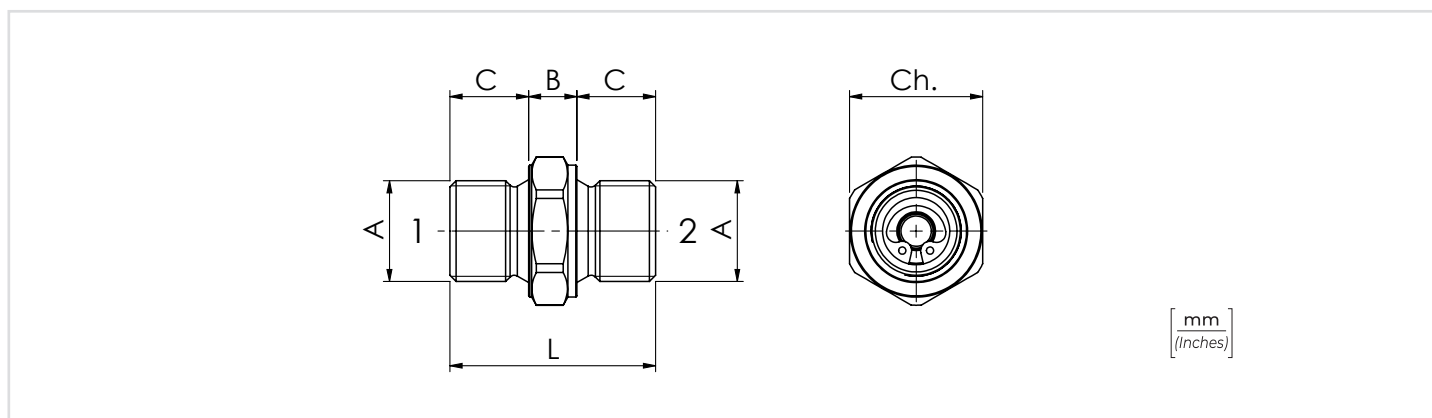
<b>01</b>	VALVOLE UNIDIREZIONALI M/M (M/M CHECK VALVES)	<b>VUN</b>	
<b>02</b>	DIMENSIONE (SIZE)	BSPP 1/4	<b>140</b>
		BSPP 3/8	<b>380</b>
		BSPP 1/2	<b>120</b>
		BSPP 3/4	<b>340</b>
		BSPP 1	<b>100</b>
<b>03</b>	TENUTA (SEALING)	Tenuta a sfera solo per VUN140/380/120 e molla 0,5 bar (Ball sealing only for VUN140/380/120 and spring 0,5 bar)	<b>SF</b>
		Tenuta a cono (Poppet sealing)	<b>SP</b>
<b>04</b>	MOLLA (SPRING)	0,5 bar Standard (7.25 PSI)	<b>0,5</b>
		3 bar (43.5 PSI)	<b>3</b>
		4,5 bar (65.25 PSI)	<b>4,5</b>
		6 bar (87 PSI)	<b>6</b>

**PERFORMANCES**



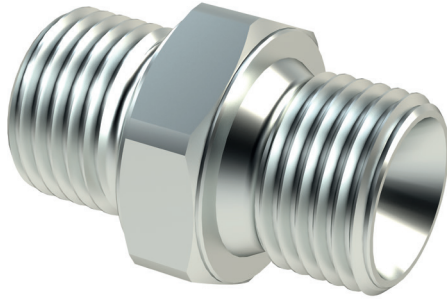
**DATI TECNICI / TECHNICAL DATA**

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F + 176°F
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b> -4°F + 122°F
<b>È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)</b> It is necessary a filter use to protect the valve (advised filtration 15 µm)	
<b>Trafilamento massimo</b> Max leakage	<b>0,25 cm<sup>3</sup>/min - 5 gocce/min</b> 0,015 in <sup>3</sup> /min - 5 drops/min

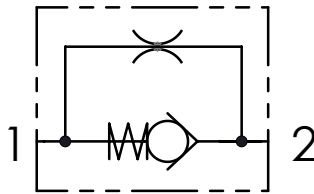


**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

CODICE CODE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	L	B	C	Ch.	COPPIA DI SERRAGGIO TIGHTENING TORQUE Nm-lbt ft	COPPIA MAX DI SERRAGGIO TUBO (Nm) MAX TIGHTENING TORQUE FOR HOSE (lbt in)	PESO APPROX APPROX WEIGHT kg - (lbt)
VUN140	BSPP 1/4	5 (1.3)	500 (7250)	29 (0.28)	7 (1.27)	11 (0.43)	19	30 (22.2)	20 (14.75)	0,03 (0.066)
VUN380	BSPP 3/8	15 (4)		34 (1.34)	8 (0.31)	13 (0.51)	22	45 (33.2)	35 (25.8)	0,05 (0.01)
VUN120	BSPP 1/2	30 (7.9)		44 (1.73)	16 (0.63)	14 (0.55)	27	60 (44.3)	50 (36.8)	0,11 (0.24)
VUN340	BSPP 3/4	50 (13.2)		50 (1.97)	16 (0.63)	17 (0.67)	32	100 (73.75)	90 (66.3)	0,18 (0.40)
VUN100	BSPP 1	90 (23.8)		57 (2.24)	19 (0.75)	19 (0.75)	41	140 (103.3)	120 (88.5)	0,32 (0.71)



### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT

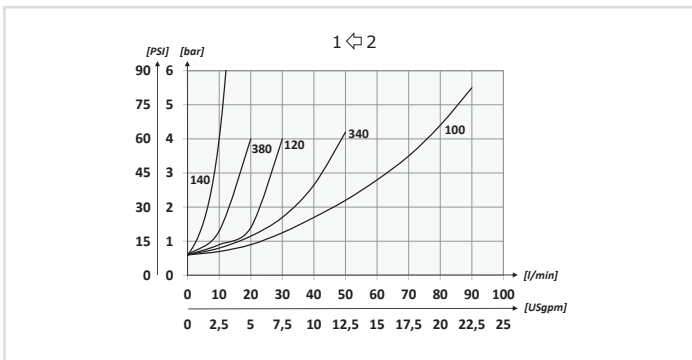


### CODICE ORDINAZIONE / ORDERING CODE

01	02	03	04	05
<b>VUN</b>		<b>SP</b>		

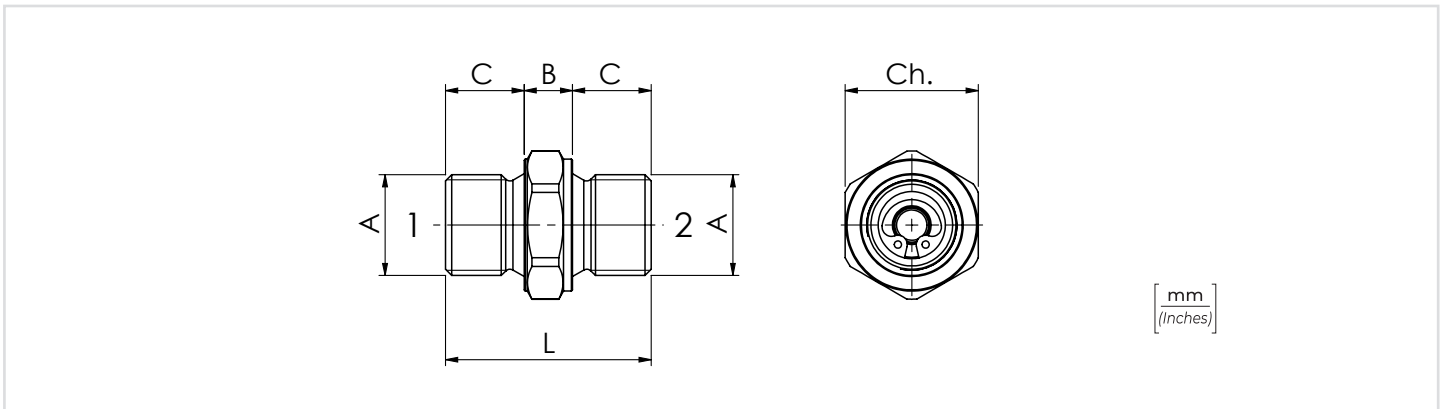
<b>01</b>	VALVOLE UNIDIREZIONALI M/M CON FORO DI STROZZATURA (M/M CHECK VALVES WITH RESTRICTION HOLE)	<b>VUN</b>
<b>02</b>	DIMENSIONE (SIZE)	BSPP 1/4 <b>140</b>
		BSPP 3/8 <b>380</b>
		BSPP 1/2 <b>120</b>
		BSPP 3/4 <b>340</b>
		BSPP 1 <b>100</b>
<b>03</b>	TENUTA (SEALING)	Tenuta a cono (Poppet sealing) <b>SP</b>
<b>04</b>	MOLLA (SPRING)	0,5 bar Standard (7.25 PSI) <b>0,5</b>
		3 bar (43.5 PSI) <b>3</b>
		4,5 bar (65.25 PSI) <b>4,5</b>
		6 bar (87 PSI) <b>6</b>
<b>05</b>	FORO DI STROZZATURA (RESTRICTION HOLE)	Indicare il diametro del foro. Esempio: VUN380SP0,5 con foro Ø 1,5 mm Cod. <b>VUN380SP0,5-1,5</b> State the hole diameter Example: VUN380SP0,5 with Ø 0,06 in hole Cod. <b>VUN380SP0,5-1,5</b>

### PERFORMANCES



### DATI TECNICI / TECHNICAL DATA

Olío idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	
Trafilamento massimo Max leakage	0,25 cm <sup>3</sup> /min - 5 gocce/min 0,015 in <sup>3</sup> /min - 5 drops/min



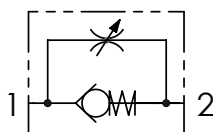
### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

CODICE CODE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	L	B	C	Ch.	COPPIA DI SERRAGGIO TIGHTENING TORQUE Nm-lbt ft	COPPIA MAX DI SERRAGGIO TUBO (Nm) MAX TIGHTENING TORQUE FOR HOSE (lbt in)	PESO APPROX (kg) APPROX WEIGHT (lbt)
VUN140-H	BSPP 1/4	5 (1.3)	500 (7250)	29 (0.28)	7 (1.27)	11 (0.43)	19	30 (22.2)	20 (14.75)	0,03 (0.066)
VUN380-H	BSPP 3/8	15 (4)		34 (1.34)	8 (0.31)	13 (0.51)	22	45 (33.2)	35 (25.8)	0,05 (0.01)
VUN120-H	BSPP 1/2	30 (7.9)		44 (1.73)	16 (0.63)	14 (0.55)	27	60 (44.3)	50 (36.8)	0,11 (0.24)
VUN340-H	BSPP 3/4	50 (13.2)		50 (1.97)	16 (0.63)	17 (0.67)	32	100 (73.75)	90 (66.3)	0,18 (0.40)
VUN100-H	BSPP 1	90 (23.8)		57 (2.24)	19 (0.75)	19 (0.75)	41	140 (103.3)	120 (88.5)	0,32 (0.71)



**TENUTA A SFERA SOLO PER VURF 140/380/120**  
**BALL SEALING ONLY FOR VURF 140/380/120**

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**

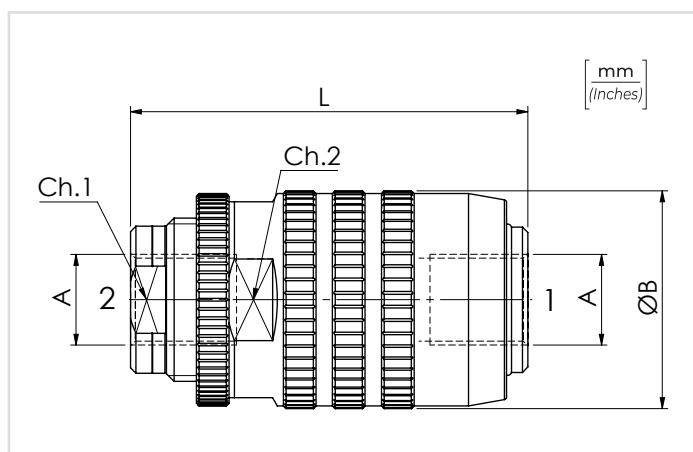


**DATI TECNICI / TECHNICAL DATA**

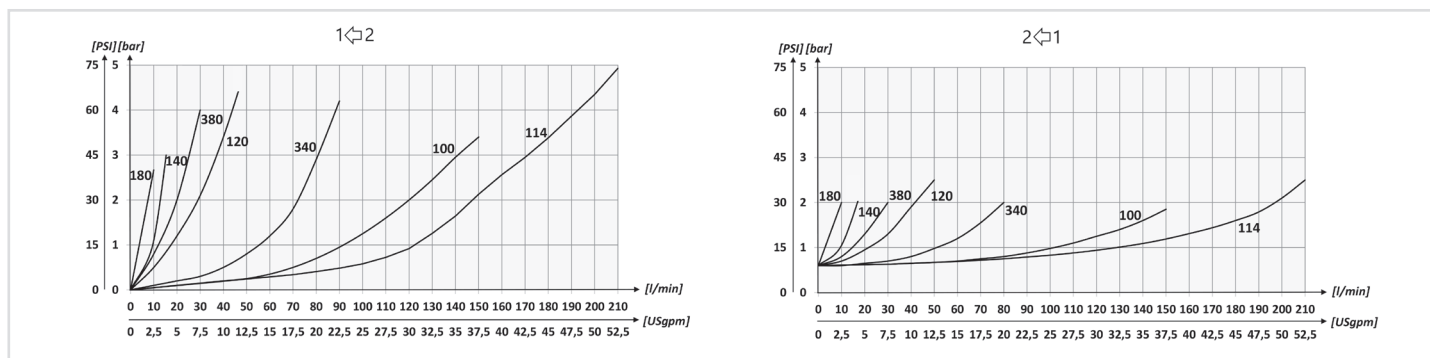
Olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile la presenza di un filtro nel circuito idraulico per proteggere la valvola (filtrazione consigliata 15 µm)	
A filter into the hydraulic circuit necessary to protect the valve (advised filtration 15 µm)	

<b>CODICE ORDINAZIONE</b> <b>ORDERING CODE</b>	01	02
	<b>VURF</b>	

<b>01</b>	VALVOLE DI CONTROLLO FLUSSO UNIDIREZIONALI (UNIDIRECTIONAL FLOW CONTROL VALVES)	<b>VURF</b>
<b>02</b>	DIMENSIONE SIZE	BSPP 1/8
		BSPP 1/4
		BSPP 3/8
		BSPP 1/2
		BSPP 3/4
		BSPP 1
		BSPP 1-1/4



**PERFORMANCES**

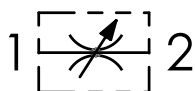


**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	mm - inch		Ch. 1	Ch. 2	PESO APPROX APPROX WEIGHT kg-lbt
				B	L			
VURF180	BSPP 1/8	5 (1,3)	350 (5075)	25 (0,98)	48 (1,89)	14	22	0,12 (0,26)
VURF140	BSPP 1/4	15 (4)		34 (1,34)	62 (2,44)	19	30	0,28 (0,6)
VURF380	BSPP 3/8	30 (7,9)		39 (1,54)	73 (2,87)	24	36	0,46 (1,01)
VURF120	BSPP 1/2	45 (11,9)		44 (1,73)	83 (3,27)	30	42	0,66 (1,45)
VURF340	BSPP 3/4	85 (22,4)	300 (4350)	54 (2,13)	102 (4,02)	36	50	1,10 (2,42)
VURF100	BSPP 1	150 (39,6)	250 (3625)	65 (2,56)	124,5 (4,90)	42	60	1,9 (4,20)
VURF114	BSPP 1-1/4	200 (52,8)		75 (2,95)	144 (5,67)	50	70	2,95 (6,32)



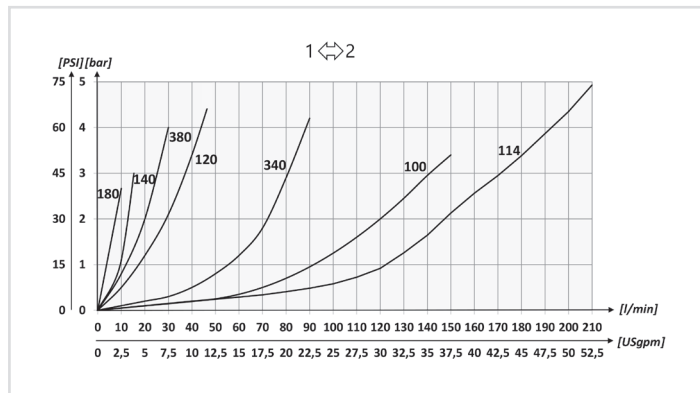
### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



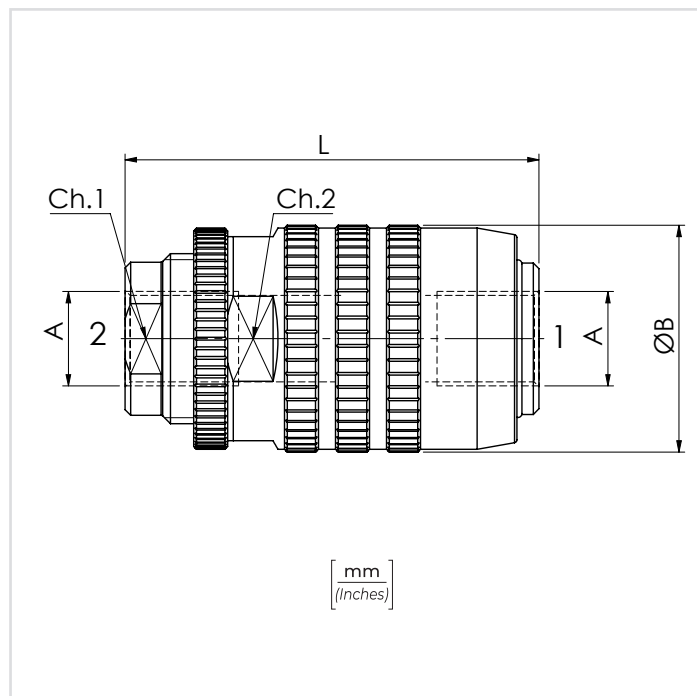
### DATI TECNICI / TECHNICAL DATA

olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile la presenza di un filtro nel circuito idraulico per proteggere la valvola (filtrazione consigliata 15 µm)	
A filter into the hydraulic circuit necessary to protect the valve (advised filtration 15 µm)	

### PERFORMANCES



CODICE ORDINAZIONE / ORDERING CODE		01	02
		<b>VBRF</b>	
<b>01</b>	VALVOLE DI CONTROLLO FLUSSO BIDIREZIONALI (BIDIRECTIONAL FLOW CONTROL VALVES)		<b>VBRF</b>
<b>02</b>	DIMENSIONE SIZE	BSPP 1/8	<b>180</b>
		BSPP 1/4	<b>140</b>
		BSPP 3/8	<b>380</b>
		BSPP 1/2	<b>120</b>
		BSPP 3/4	<b>340</b>
		BSPP 1	<b>100</b>
		BSPP 1-1/4	<b>114</b>



### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	mm - inch		Ch. 1	Ch. 2	PESO APPROX APPROX WEIGHT kg-lbt
				B	L			
VBRF180	BSPP 1/8	5 (1,3)	350 (5075)	25 (0.98)	48 (1.89)	14	22	0,12 (0.26)
VBRF140	BSPP 1/4	15 (4)		34 (1.34)	62 (2.44)	19	30	0,28 (0.6)
VBRF380	BSPP 3/8	30 (7.9)		39 (1.54)	73 (2.87)	24	36	0,45 (1)
VBRF120	BSPP 1/2	45 (11.9)		44 (1.73)	83 (3.27)	30	42	0,63 (1.4)
VBRF340	BSPP 3/4	85 (22.4)	300 (4350)	54 (2.13)	102 (4.02)	36	50	1,06 (2.33)
VBRF100	BSPP 1	150 (39.6)	250 (3625)	65 (2.56)	124,5 (4.90)	42	60	1,8 (4)
VBRF114	BSPP 1-1/4	200 (52.8)		75 (2.95)	144 (5.67)	50	70	2,78 (5.96)

# STU-BSPP VALVOLE DI CONTROLLO FLUSSO UNIDIREZIONALI UNIDIRECTIONAL FLOW CONTROL VALVES



POMELLO IN ALLUMINIO PRESSOFUSO  
DIE CAST ALUMINIUM HANDKNOB

POMELLO IN ALLUMINIO TORNITO  
TURNED ALUMINIUM HANDKNOB

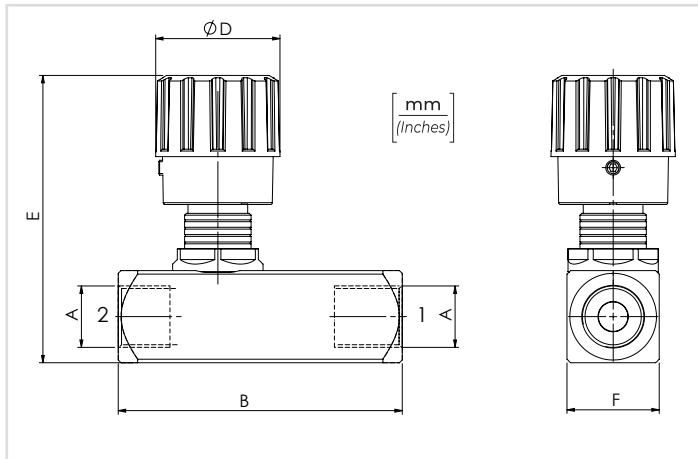


BSPP STU140 - STU380 - STU120

BSPP STU180 - STU340 - STU100 - STU114 - STU112

## DATI TECNICI / TECHNICAL DATA

olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	



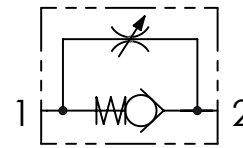
## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	B	D	E	F	PESO APPROX APPROX WEIGHT kg-lbt
STU180	BSPP 1/8	10 (2.6)	400 (5800)	58 (2.28)	20 (0.79)	53 (2.09)	20 (0.79)	0,19 (0.42)
STU140	BSPP 1/4	15 (4)		66 (2.60)	30 (1.18)	71,5 (2.81)	25 (0.98)	0,34 (0.75)
STU380	BSPP 3/8	30 (7.9)		77 (3.03)				
STU120	BSPP 1/2	50 (13.2)		91 (3.58)	33 (1.30)	72 (2.83)	30 (1.18)	0,60 (1.3)
STU340	BSPP 3/4	80 (21.1)		112,5 (4.43)	42 (1.65)	94 (3.70)	40 (1.57)	1,33 (3)
STU100	BSPP 1	150 (39.6)	350 (5075)	141 (5.55)	53 (2.09)	99 (3.90)	45 (1.77)	1,83 (4.03)
STU114	BSPP 1-1/4	200 (52.8)		155 (6.10)				
STU112	BSPP 1-1/2	300 (79.2)		168 (6.61)	131,5 (5.18)	65 (2.56)	4,5 (10)	

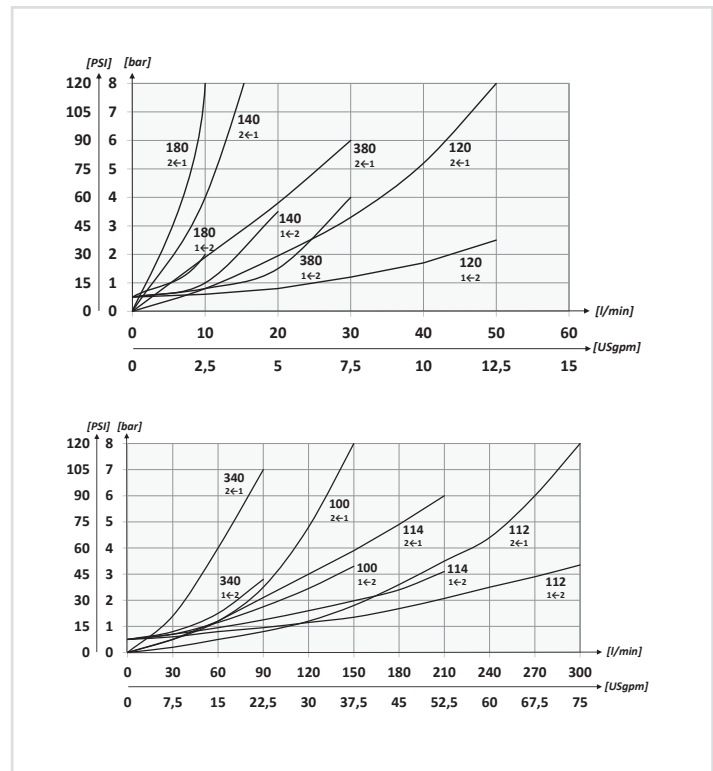
CODICE ORDINAZIONE ORDERING CODE	01 <b>STU</b>	02
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01	VALVOLE DI CONTROLLO FLUSSO UNIDIREZIONALI (UNIDIRECTIONAL FLOW CONTROL VALVES)	STU	
02	DIMENSIONE (SIZE)  Tenuta a sfera solo per STU180/140/380/120  Ball sealing only for STU180/140/380/120	BSPP 1/8	180
		BSPP 1/4	140
		BSPP 3/8	380
		BSPP 1/2	120
		BSPP 3/4	340
		BSPP 1	100
		BSPP 1-1/4	114
	BSPP 1-1/2	112	

## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## PERFORMANCES





# STUF-BSPP VALVOLE DI CONTROLLO FLUSSO UNIDIREZIONALI UNIDIRECTIONAL FLOW CONTROL VALVES



POMELLO IN ALLUMINIO PRESSOFUSO  
DIE CAST ALUMINIUM HANDKNOB

POMELLO IN ALLUMINIO TORNITO  
TURNED ALUMINIUM HANDKNOB



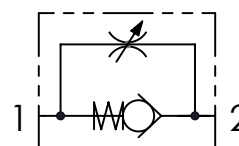
BSPP STUF140 - STUF380 - STUF120

BSPP STUF180 - STUF340 - STUF100 -  
STUF114 - STUF112

	01	02
<b>CODICE ORDINAZIONE</b> ORDERING CODE	<b>STUF</b>	

01	VALVOLE DI CONTROLLO FLUSSO UNIDIREZIONALI (UNIDIRECTIONAL FLOW CONTROL VALVES)	STUF
02	DIMENSIONE (SIZE)	BSPP 1/8 <b>180</b>
		BSPP 1/4 <b>140</b>
		BSPP 3/8 <b>380</b>
		BSPP 1/2 <b>120</b>
	Tenuta a sfera solo per STU180/140/380/120	BSPP 3/4 <b>340</b>
	Ball sealing only for STU180/140/380/120	BSPP 1 <b>100</b>
		BSPP 1-1/4 <b>114</b>
	BSPP 1-1/2 <b>112</b>	

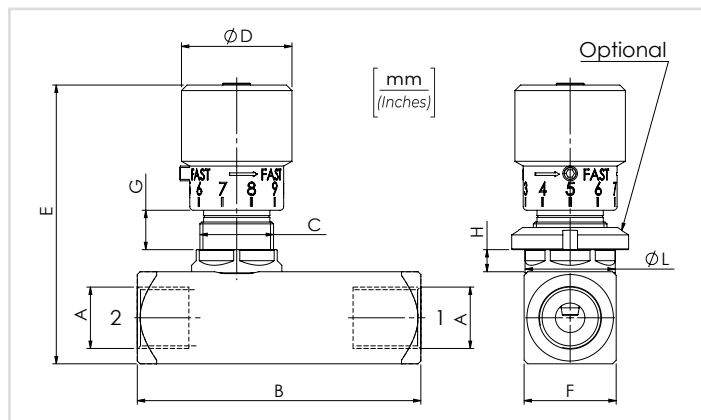
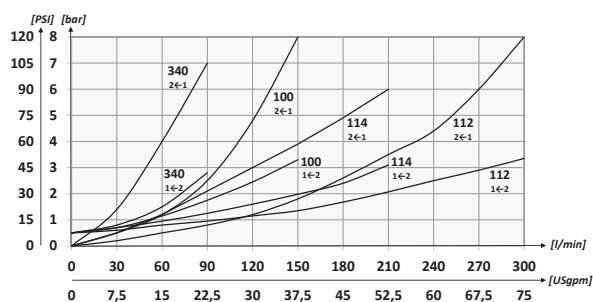
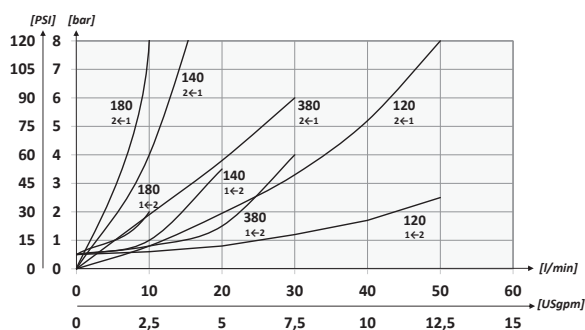
## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## DATI TECNICI / TECHNICAL DATA

Olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	

## PERFORMANCES



## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	B	C	D	E	F	G	H	L	OPTIONAL TYPE	PESO APPROX APPROX WEIGHT kg-lbt
STUF180	BSPP 1/8	10 (2.6)	400 (5800)	58 (2.28)	M15x1	20 (0.79)	60,5 (2.38)	20 (0.79)	8 (0.31)	5,5 (0.21)	19,5 (0.76)	84100031	0,20 (0.44)
STUF140	BSPP 1/4	15 (4)		66 (2.60)	M20x1	33 (1.30)	75 (2.95)	25 (0.98)	7,5 (0.29)	6 (0.23)	24,5 (0.96)	84100022	0,38 (0.84)
STUF380	BSPP 3/8	30 (7.9)		77 (3.03)	M25x1,5		81 (3.19)	30 (1.18)	9 (0.35)	7 (0.27)	29,5 (1.16)	84100023	0,63 (1.40)
STUF120	BSPP 1/2	50 (13.2)		91 (3.58)	M35x1,5	42 (1.65)	110 (4.33)	40 (1.57)	15,5 (0.61)	8 (0.31)	39,5 (1.55)	84100024	1,45 (3.2)
STUF340	BSPP 3/4	80 (21.1)		112,5 (4.43)	M45x1,5		115 (4.53)	45 (1.77)	55 (2.17)	13,5 (0.53)	10 (0.39)	50 (1.96)	84100030
STUF100	BSPP 1	150 (39.6)		350 (5075)	141 (5.55)	53 (2.09)	137 (5.39)	65 (2.56)	13,5 (0.53)	10 (0.39)	50 (1.96)	50 (1.96)	84100030
STUF114	BSPP 1-1/4	200 (52.8)	155 (6.10)		147 (5.79)		4,7 (10.3)						
STUF112	BSPP 1-1/2	300 (79.2)	168 (6.61)										

# STU-NPTF VALVOLE DI CONTROLLO FLUSSO UNIDIREZIONALI

## UNIDIRECTIONAL FLOW CONTROL VALVES



POMELLO IN ALLUMINIO PRESSOFUSO  
DIE CAST ALUMINIUM HANDKNOB

POMELLO IN ALLUMINIO TORNITO  
TURNED ALUMINIUM HANDKNOB



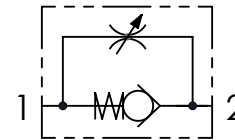
NPTF STU140N - STU380N - STU120N

NPTF STU180N - STU340N - STU100N - STU114N - STU112N

<b>CODICE ORDINAZIONE</b> ORDERING CODE	01	02
	<b>STU</b>	

<b>01</b>	VALVOLE DI CONTROLLO FLUSSO UNIDIREZIONALI (UNIDIRECTIONAL FLOW CONTROL VALVES)	<b>STU</b>	
<b>02</b>	DIMENSIONE (SIZE)	NPTF 1/8	<b>180N</b>
		NPTF 1/4	<b>140N</b>
		NPTF 3/8	<b>380N</b>
		NPTF 1/2	<b>120N</b>
		NPTF 3/4	<b>340N</b>
		NPTF 1	<b>100N</b>
		NPTF 1-1/4	<b>114N</b>
NPTF 1-1/2	<b>112N</b>		

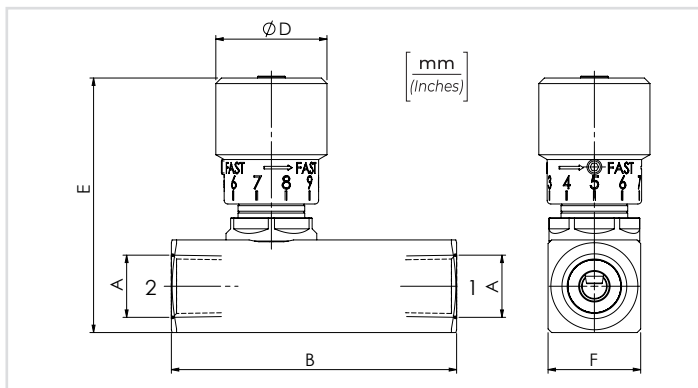
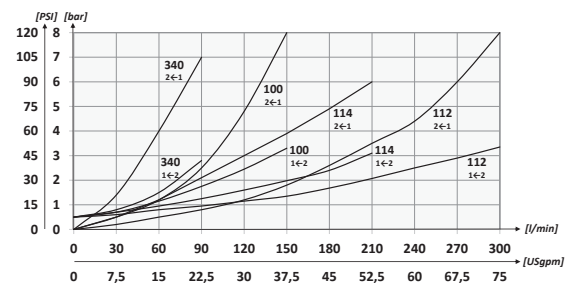
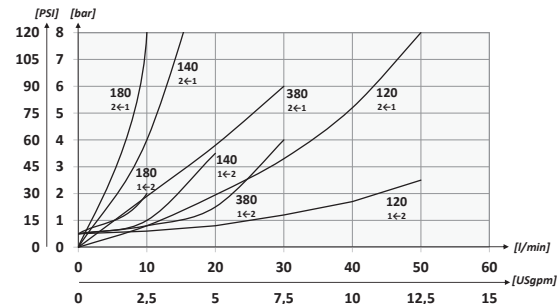
### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### DATI TECNICI / TECHNICAL DATA

Olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	

### PERFORMANCES



### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO TYPE	A	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	B	D	E	F	PESO APPROX (kg) APPROX WEIGHT (lb)
STU180N	NPTF 1/8	10 (2.6)	400 (5800)	58 (2.28)	20 (0.79)	53 (2.08)	20 (0.79)	0,19 (0.42)
STU140N	NPTF 1/4	15 (4)		66 (2.60)				0,37 (0.75)
STU380N	NPTF 3/8	30 (7.9)		77 (3.03)				0,40 (0.9)
STU120N	NPTF 1/2	50 (13.2)		91 (3.58)				0,60 (1.3)
STU340N	NPTF 3/4	80 (21.1)		112,5 (4.43)				1,40 (3.09)
STU100N	NPTF 1	150 (39.6)	350 (5075)	141 (5.55)	42 (1.65)	99 (3.90)	45 (1.77)	1,9 (4.2)
STU114N	NPTF 1-1/4	200 (52.8)		155 (6.10)				3,06 (6.73)
STU112N	NPTF 1-1/2	300 (79.2)		168 (6.61)				53 (2.09)
						131,5 (5.17)	65 (2.56)	4,5 (10)

# STUF-NPTF

VALVOLE DI CONTROLLO FLUSSO UNIDIREZIONALI  
UNIDIRECTIONAL FLOW CONTROL VALVES



POMELLO IN ALLUMINIO PRESSOFUSO  
DIE CAST ALUMINIUM HANDKNOB

POMELLO IN ALLUMINIO TORNITO  
TURNED ALUMINIUM HANDKNOB



NPTF STUF140N - STUF380N - STUF120N

NPTF STUF180N - STUF340N -  
STUF100N - STUF14N - STUF12N

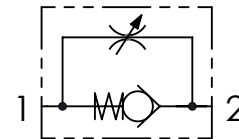
01 02

**CODICE ORDINAZIONE**  
ORDERING CODE

**STUF**

<b>01</b>	VALVOLE DI CONTROLLO FLUSSO UNIDIREZIONALI (UNIDIRECTIONAL FLOW CONTROL VALVES)	<b>STUF</b>
<b>02</b>	DIMENSIONE (SIZE)	NPTF 1/8 <b>180N</b>
		NPTF 1/4 <b>140N</b>
		NPTF 3/8 <b>380N</b>
		NPTF 1/2 <b>120N</b>
		NPTF 3/4 <b>340N</b>
		NPTF 1 <b>100N</b>
		NPTF 1-1/4 <b>114N</b>
		NPTF 1-1/2 <b>112N</b>

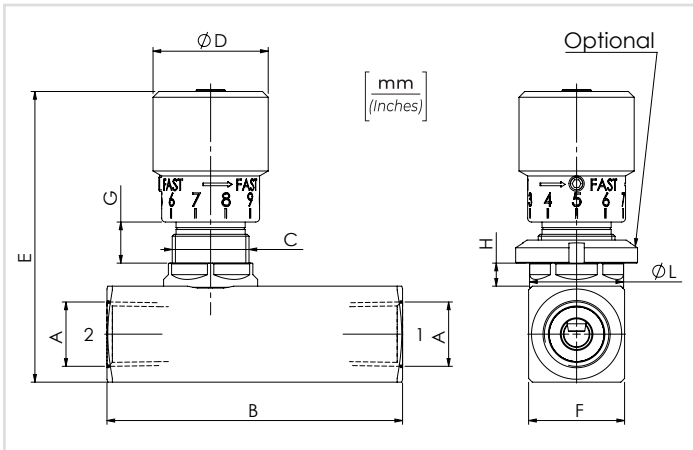
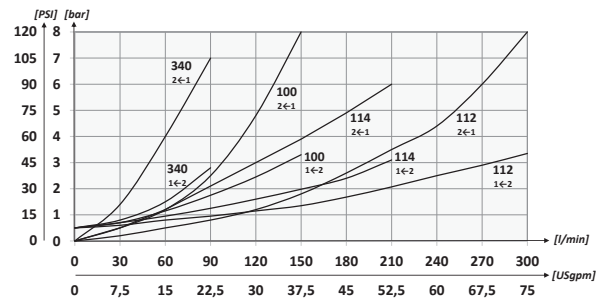
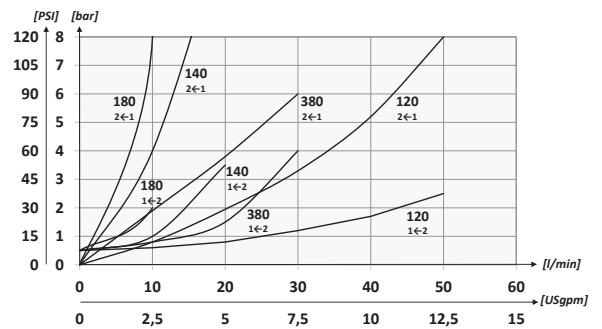
**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**DATI TECNICI / TECHNICAL DATA**

Olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	

**PERFORMANCES**



**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	B	C	D	E	F	G	H	L	OPTIONAL TYPE	PESO APPROX APPROX WEIGHT kg-lbt
STUF180N	NPTF 1/8	10 (2.6)	400 (5800)	58 (2.28)	M15x1	20 (0.79)	60,5 (2.38)	20 (0.79)	8 (0.31)	5,5 (0.22)	19,5 (0.77)	84100031	0,20 (0.44)
STUF140N	NPTF 1/4	15 (4)		66 (2.60)	M20x1	33 (1.30)	75 (2.95)	25 (0.98)	7,5 (0.30)	6 (0.24)	24,5 (0.96)	84100022	0,40 (0.88)
STUF380N	NPTF 3/8	30 (7.9)		77 (3.03)	M25x1,5	81 (3.19)	30 (1.18)	9 (0.35)	7 (0.28)	29,5 (1.16)	84100023	0,63 (1.40)	
STUF120N	NPTF 1/2	50 (13.2)		91 (3.58)	M35x1,5	42 (1.65)	110 (4.33)	40 (1.57)	15,5 (0.61)	8 (0.31)	39,5 (1.56)	84100024	1,5 (3.3)
STUF340N	NPTF 3/4	80 (21.1)	350 (5075)	112,5 (4.43)	M45x1,5	53 (2.09)	115 (4.53)	45 (1.77)	13,5 (0.53)	10 (0.39)	50 (1.97)	84100030	2 (4.4)
STUF100N	NPTF 1	150 (39.6)		141 (5.55)	137 (5.39)	55 (2.17)	147 (5.79)	65 (2.56)	10 (0.39)	50 (1.97)	84100030	3,2 (7.05)	
STUF114N	NPTF 1-1/4	200 (52.8)		155 (6.10)	147 (5.79)	65 (2.56)							4,7 (10.3)
STUF112N	NPTF 1-1/2	300 (79.2)		168 (6.61)									



POMELLO IN ALLUMINIO PRESSOFUSO  
DIE CAST ALUMINIUM HANDKNOB

POMELLO IN ALLUMINIO TORNITO  
TURNED ALUMINIUM HANDKNOB



SAE STUF4 - STUF6 - STUF8

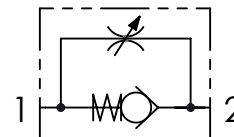
SAE STU4S - STUF12  
STUF16 - STUF20 - STUF24

**CODICE ORDINAZIONE**  
ORDERING CODE

01	02
<b>STU</b>	

<b>01</b>	VALVOLE DI CONTROLLO FLUSSO UNIDIREZIONALI (UNIDIRECTIONAL FLOW CONTROL VALVES)	<b>STU</b>
<b>02</b>	DIMENSIONE (SIZE)	7/16-20UNF Small
		7/16-20UNF
		9/16-18UNF
		3/4-16UNF
		1-1/16-12UN
		1-5/16-12UN
		1-5/8-12UN
1-7/8-12UN		

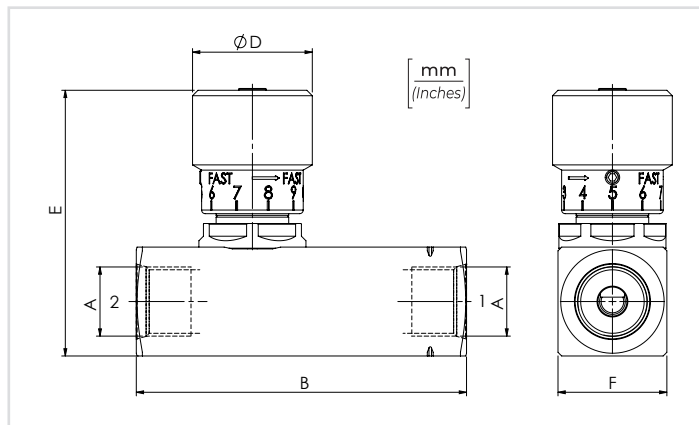
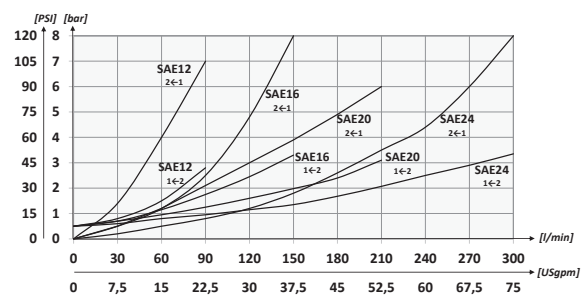
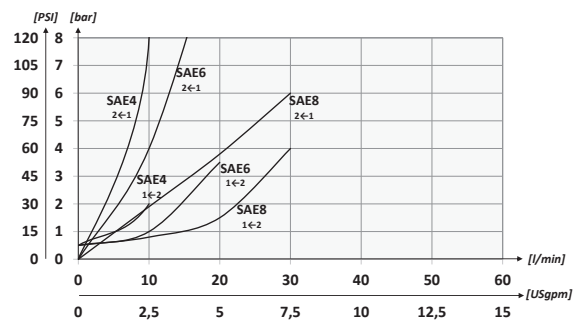
**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**DATI TECNICI / TECHNICAL DATA**

Olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	

**PERFORMANCES**



**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	A	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	B	D	E	F	PESO APPROX (kg) APPROX WEIGHT (lbt)	
STU4S	7/16-20UNF	10 (2.6)	400 (5800)	66 (2.60)	33 (1.30)	68 (2.68)	20 (0.79)	0,21 (0.46)	
STU4							25 (0.98)	0,39 (0.85)	
STU6							30 (1.18)	0,40 (0.9)	
STU8	3/4-16UNF	15 (4)		350 (5075)	70,5 (2.78)	42 (1.65)	94 (3.70)	40 (1.57)	1,28 (2.80)
STU12	1-1/16-12UN	80 (21.1)			91 (3.58)		99 (3.90)	45 (1.77)	1,87 (4.11)
STU16	1-5/16-12UN	150 (39.6)			112,5 (4.43)		121,5 (4.78)	55 (2.17)	3,06 (6.73)
STU20	1-5/8-12UN	200 (52.8)	155 (6.10)	168 (6.61)	53 (2.09)	131,5 (5.18)	65 (2.56)	4,5 (10)	
STU24	1-7/8-12UN	300 (79.2)							

# STUF-SAE VALVOLE DI CONTROLLO FLUSSO UNIDIREZIONALI

## UNIDIRECTIONAL FLOW CONTROL VALVES



POMELLO IN ALLUMINIO PRESSOFUSO  
DIE CAST ALUMINIUM HANDKNOB

POMELLO IN ALLUMINIO TORNITO  
TURNED ALUMINIUM HANDKNOB



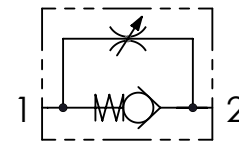
SAE STUF4 - STUF6 - STUF8

SAE STUF4S - STUF12  
STUF16 - STUF20 - STUF24

<b>CODICE ORDINAZIONE</b> ORDERING CODE	01	02
	<b>STUF</b>	

<b>01</b>	VALVOLE DI CONTROLLO FLUSSO UNIDIREZIONALI (UNIDIRECTIONAL FLOW CONTROL VALVES)	<b>STUF</b>
<b>02</b>	DIMENSIONE (SIZE)	7/16-20UNF Small
		7/16-20UNF
		9/16-18UNF
		3/4-16UNF
		1-1/16-12UN
		1-5/16-12UN
		1-5/8-12UN
		1-7/8-12UN

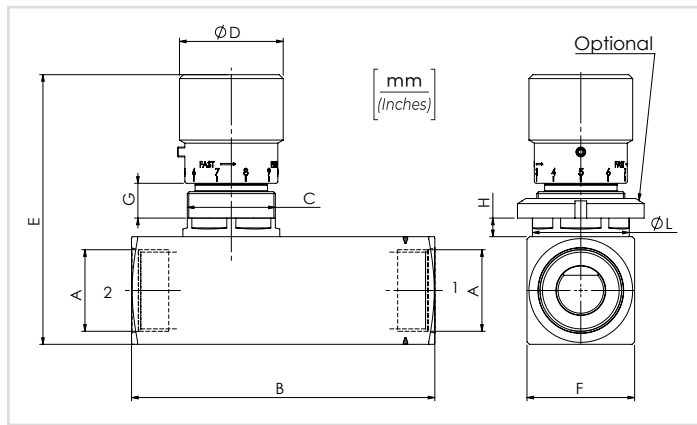
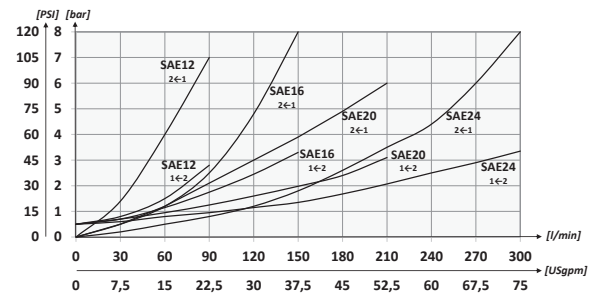
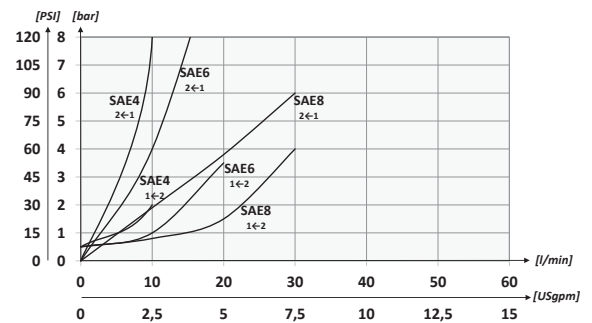
### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### DATI TECNICI / TECHNICAL DATA

Olivo idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	

### PERFORMANCES



### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	B	C	D	E	F	G	H	L	OPTIONAL TYPE	PESO APPROX APPROX WEIGHT kg-lbt	
STUF4S	7/16-20UNF	10 (2.6)	400 (5800)	66 (2.60)	M20x1	33 (1.30)	75 (2.95)	20 (0.79)	7,5 (0.30)	6 (0.24)	24,5 (0.96)	84100022	0,22 (0.48)	
STUF4								25 (0.98)					0,41 (0.90)	
STUF6								70,5 (2.78)					0,42 (0.92)	
STUF8	9/16-18UNF	15 (4)		350 (5075)	91 (3.58)	M25x1,5	42 (1.65)	81 (3.19)	30 (1.18)	9 (0.35)	7 (0.28)	29,5 (1.16)	84100023	0,63 (1.40)
STUF12	112,5 (4.43)	1,40 (3.10)												
STUF16	141 (5.55)	2 (4.4)												
STUF20	1-5/16-12UN	150 (39.6)	350 (5075)	141 (5.55)	M35x1,5	42 (1.65)	110 (4.33)	40 (1.57)	15,5 (0.61)	8 (0.31)	39,5 (1.56)	84100024	1,40 (3.10)	
STUF16	115 (4.53)	2 (4.4)												
STUF20	137 (5.39)	3,3 (7.25)												
STUF24	1-7/8-12UN	300 (79.2)	350 (5075)	168 (6.61)	M45x1,5	53 (2.09)	147 (5.79)	55 (2.17)	13,5 (0.53)	10 (0.39)	50 (1.97)	84100030	4,7 (10.3)	
STUF24	147 (5.79)	4,7 (10.3)												

# STB-BSPP VALVOLE DI CONTROLLO FLUSSO BIDIREZIONALI

## BIDIRECTIONAL FLOW CONTROL VALVES



POMELLO IN ALLUMINIO PRESSOFUSO  
DIE CAST ALUMINIUM HANDKNOB

POMELLO IN ALLUMINIO TORNITO  
TURNED ALUMINIUM HANDKNOB



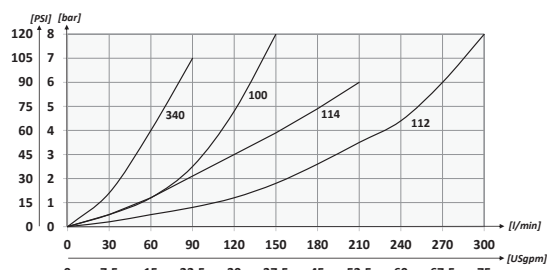
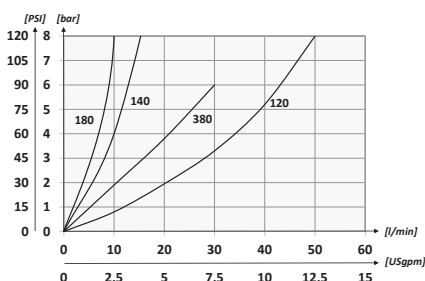
BSPP STB140 - STB380 - STB120

BSPP STB180 - STB340 - STB100 - STB114 - STB112

### DATI TECNICI / TECHNICAL DATA

olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	

### PERFORMANCES



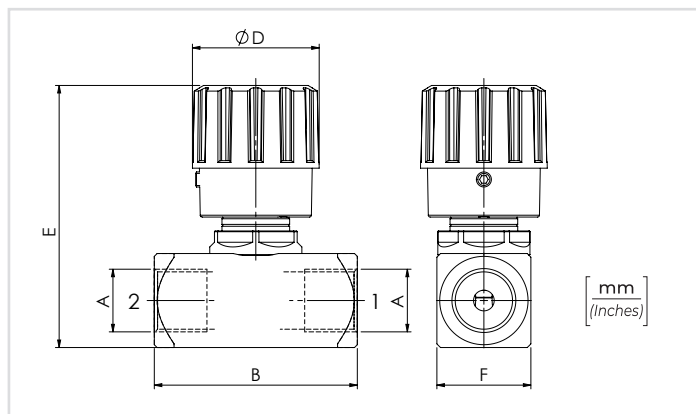
### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO TYPE	A	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	B	D	E	F	PESO APPROX (kg) APPROX WEIGHT (lb)
STB180	BSPP 1/8	10 (2.6)	400 (5800)	44 (1.73)	20 (0.79)	53 (2.09)	20 (0.79)	0,15 (0.33)
STB140	BSPP 1/4	15 (4)		54 (2.13)				0,29 (0.70)
STB380	BSPP 3/8	30 (7.9)		33 (1.30)	71,5 (2.81)	25 (0.98)	0,26 (0.57)	
STB120	BSPP 1/2	50 (13.2)			64 (2.52)	72 (2.83)	30 (1.18)	0,45 (1)
STB340	BSPP 3/4	80 (21.1)	350 (5075)	81 (3.19)	42 (1.65)	94 (3.70)	40 (1.57)	1,02 (2.25)
STB100	BSPP 1	150 (39.6)		102 (4.01)				99 (3.90)
STB114	BSPP 1-1/4	200 (52.8)			53 (2.09)	121,5 (4.78)	55 (2.17)	2,2 (4.8)
STB112	BSPP 1-1/2	300 (79.2)		131,5 (5.18)		65 (2.56)	3 (6.6)	

CODICE ORDINAZIONE ORDERING CODE	01 <b>STB</b>	02
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01	VALVOLE DI CONTROLLO FLUSSO BIDIREZIONALI (BIDIRECTIONAL FLOW CONTROL VALVES)	STB	
02	DIMENSIONE (SIZE)	BSPP 1/8	180
		BSPP 1/4	140
		BSPP 3/8	380
		BSPP 1/2	120
		BSPP 3/4	340
		BSPP 1	100
		BSPP 1-1/4	114
		BSPP 1-1/2	112

### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



# STBF-BSPP VALVOLE DI CONTROLLO FLUSSO BIDIREZIONALI

## BIDIRECTIONAL FLOW CONTROL VALVES



POMELLO IN ALLUMINIO PRESSOFUSO  
DIE CAST ALUMINIUM HANDKNOB

POMELLO IN ALLUMINIO TORNITO  
TURNED ALUMINIUM HANDKNOB



BSPP STBF140 - STBF380 - STBF120



BSPP STBF180 - STBF340 - STBF100 - STBF114 - STBF112

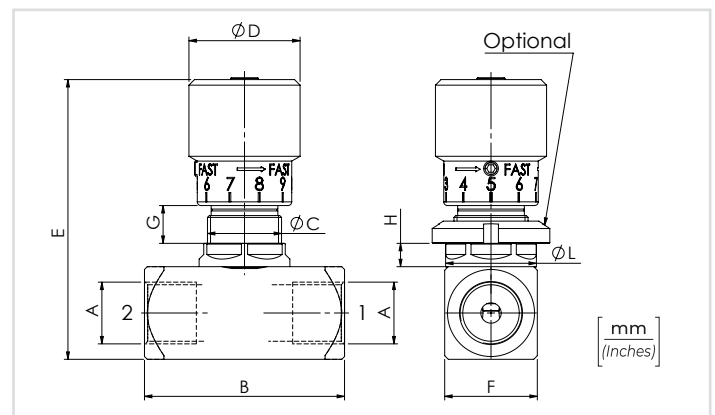
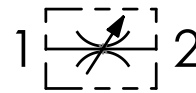
### DATI TECNICI / TECHNICAL DATA

Olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	

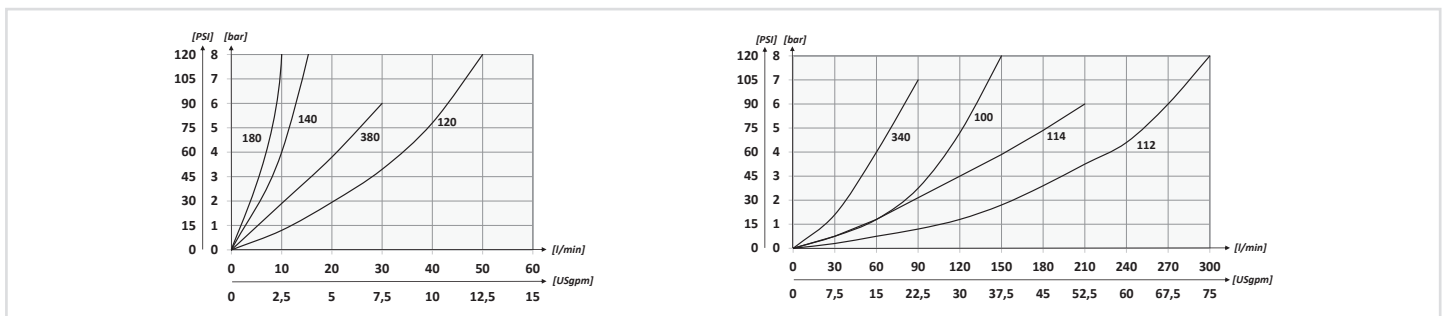
01		02	
CODICE ORDINAZIONE ORDERING CODE		STBF	

01	VALVOLE DI CONTROLLO FLUSSO BIDIREZIONALI (BIDIRECTIONAL FLOW CONTROL VALVES)	STBF	
02	DIMENSIONE (SIZE)	BSPP 1/8	180
		BSPP 1/4	140
		BSPP 3/8	380
		BSPP 1/2	120
		BSPP 3/4	340
		BSPP 1	100
		BSPP 1-1/4	114
		BSPP 1-1/2	112

### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### PERFORMANCES



### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO TYPE	A	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	B	C	D	E	F	G	H	L	OPTIONAL TYPE	PESO APPROX (kg) APPROX WEIGHT (lbt)
STBF180	BSPP 1/8	10 (2.6)	400 (5800)	44 (1.73)	M15x1	20 (0.79)	60,5 (2.38)	20 (0.79)	8 (0.31)	5,5 (0.22)	19,5 (0.77)	84100031	0,16 (0.36)
STBF140	BSPP 1/4	15 (4)		54 (2.13)	M20x1	33 (1.30)	75 (2.95)	25 (0.98)	7,5 (0.30)	6 (0.24)	24,5 (0.96)	84100022	0,31 (0.68)
STBF380	BSPP 3/8	30 (7.9)		64 (2.52)	M25x1,5		81 (3.19)	30 (1.18)	9 (0.35)	7 (0.28)	29,5 (1.16)	84100023	0,28 (0.62)
STBF120	BSPP 1/2	50 (13.2)		81 (3.19)	M35x1,5	42 (1.65)	110 (4.33)	40 (1.57)	15,5 (0.61)	8 (0.31)	39,5 (1.56)	84100024	0,48 (1.06)
STBF340	BSPP 3/4	80 (21.1)		102 (4.01)	M45x1,5		53 (2.09)	115 (4.53)	45 (1.77)	8 (0.31)	10 (0.39)	50 (1.97)	84100030
STBF100	BSPP 1	150 (39.6)	350 (5075)	102 (4.01)	M45x1,5	53 (2.09)	137 (5.39)	55 (2.17)	13,5 (0.53)	10 (0.39)	50 (1.97)	84100030	1,50 (3.3)
STBF114	BSPP 1-1/4	200 (52.8)					147 (5.79)	65 (2.56)	10 (0.39)	50 (1.97)	2,37 (5.21)		
STBF112	BSPP 1-1/2	300 (79.2)					3,17 (7)						

# STB-NPTF VALVOLE DI CONTROLLO FLUSSO BIDIREZIONALI BIDIRECTIONAL FLOW CONTROL VALVES



POMELLO IN ALLUMINIO PRESSOFUSO  
DIE CAST ALUMINIUM HANDKNOB

POMELLO IN ALLUMINIO TORNITO  
TURNED ALUMINIUM HANDKNOB



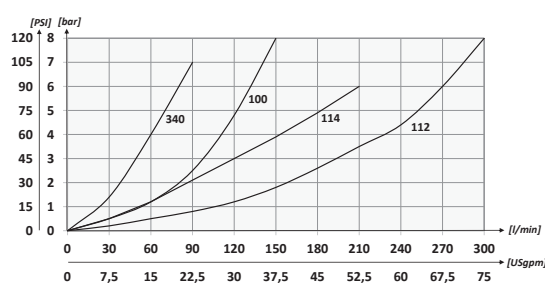
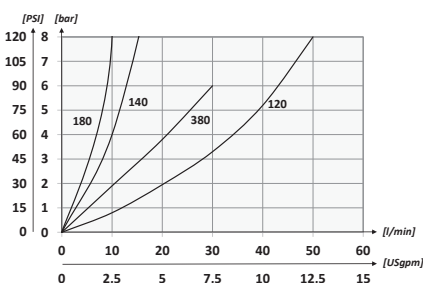
NPTF STB140N - STB380N - STB120N

NPTF STB180N - STB340N -  
STB100N - STB114N - STB112N

## DATI TECNICI / TECHNICAL DATA

Olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	

## PERFORMANCES



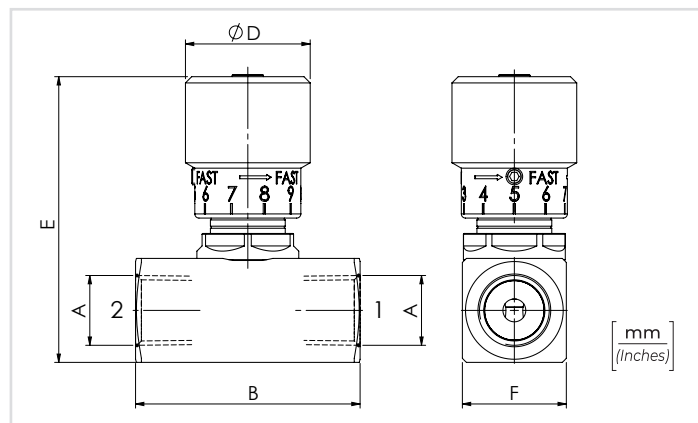
## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO TYPE	A	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	B	D	E	F	PESO APPROX (kg) APPROX WEIGHT (lbt)
STB180N	NPTF 1/8	10 (2.6)	400 (5800)	44 (1.73)	20 (0.79)	53 (2.09)	20 (0.79)	0,15 (0.33)
STB140N	NPTF 1/4	15 (4)		54 (2.13)	33 (1.30)	68 (2.68)	25 (0.98)	0,32 (0.71)
STB380N	NPTF 3/8	30 (7.9)		64 (2.52)		72 (2.83)	30 (1.18)	0,30 (0.66)
STB120N	NPTF 1/2	50 (13.2)		81 (3.19)	42 (1.65)	94 (3.70)	40 (1.57)	0,47 (1.03)
STB340N	NPTF 3/4	80 (21.1)	350 (5075)	102 (4.02)	53 (2.09)	99 (3.90)	45 (1.77)	1,49 (3.95)
STB100N	NPTF 1	150 (39.6)				121,5 (4.78)	55 (2.16)	2,27 (5.21)
STB114N	NPTF 1-1/4	200 (52.8)		131,5 (5.18)	65 (2.56)	3 (6.6)		
STB112N	NPTF 1-1/2	300 (79.2)						

CODICE ORDINAZIONE ORDERING CODE	01 <b>STB</b>	02
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01	VALVOLE DI CONTROLLO FLUSSO BIDIREZIONALI (BIDIRECTIONAL FLOW CONTROL VALVES)	STB	
02	DIMENSIONE (SIZE)	NPTF 1/8	180N
		NPTF 1/4	140N
		NPTF 3/8	380N
		NPTF 1/2	120N
		NPTF 3/4	340N
		NPTF 1	100N
		NPTF 1-1/4	114N
		NPTF 1-1/2	112N

## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT





# STBF-NPTF VALVOLE DI CONTROLLO FLUSSO BIDIREZIONALI BIDIRECTIONAL FLOW CONTROL VALVES



POMELLO IN ALLUMINIO PRESSOFUSO  
DIE CAST ALUMINIUM HANDKNOB

POMELLO IN ALLUMINIO TORNITO  
TURNED ALUMINIUM HANDKNOB



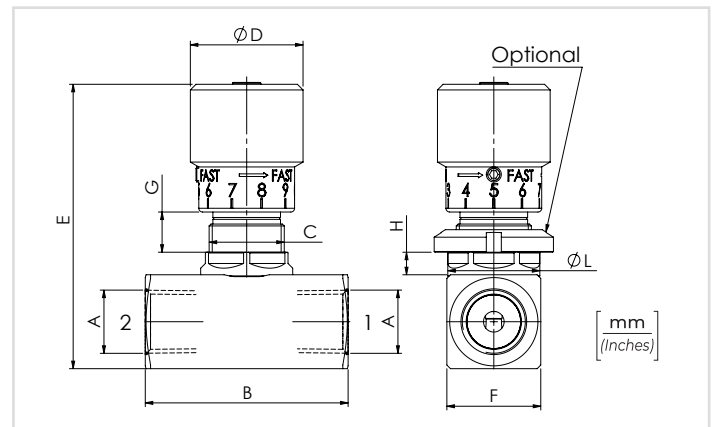
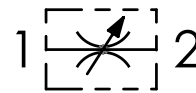
NPTF STBF140N - STBF380N - STBF120N

NPTF STBF180N - STBF340N - STBF100N -  
STBF114N - STBF112N

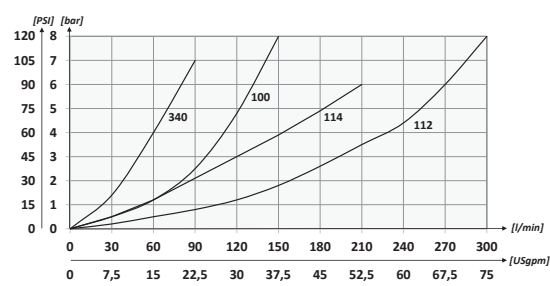
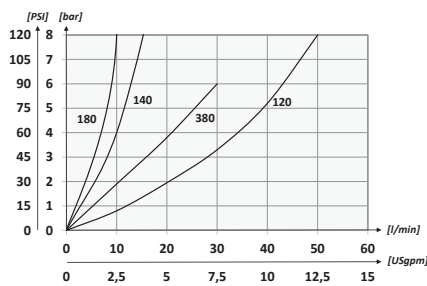
## DATI TECNICI / TECHNICAL DATA

Olivo idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	

## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## PERFORMANCES



## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO TYPE	A	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	B	C	D	E	F	G	H	L	OPTIONAL TYPE	PESO APPROX (kg) APPROX WEIGHT (lb)
STBF180N	NPTF 1/8	10 (2.6)	400 5800	44 (1.73)	M15x1	20 (0.79)	60,5 (2.38)	20 (0.79)	8 (0.31)	5,5 (0.22)	19,5 (0.77)	84100031	0,16 (0.36)
STBF140N	NPTF 1/4	15 (4)		54 (2.13)	M20x1	33 (1.30)	75 (2.95)	25 (0.98)	7,5 (0.30)	6 (0.24)	24,5 (0.96)	84100022	0,34 (0.75)
STBF380N	NPTF 3/8	30 (7.9)		64 (2.52)	M25x1,5	81 (3.19)	81 (3.19)	30 (1.18)	9 (0.35)	7 (0.28)	29,5 (1.16)	84100023	0,50 (1.1)
STBF120N	NPTF 1/2	50 (13.2)		81 (3.19)	M35x1,5	42 (1.65)	110 (4.33)	40 (1.57)	15,5 (0.61)	8 (0.31)	39,5 (1.55)	84100024	1,15 (2.53)
STBF340N	NPTF 3/4	80 (21.1)	350 (5075)	102 (4.01)	M45x1,5	53 (2.09)	115 (4.53)	45 (1.77)	13,5 (0.53)	10 (0.39)	50 (1.96)	84100030	1,49 (3.30)
STBF100N	NPTF 1	150 (39.6)					137 (5.39)	55 (2.17)					2,54 (5.6)
STBF114N	NPTF 1-1/4	200 (52.8)					147 (5.78)	65 (2.56)					3,17 (7)
STBF112N	NPTF 1-1/2	300 (79.2)											



POMELLO IN ALLUMINIO PRESSOFUSO  
DIE CAST ALUMINIUM HANDKNOB

POMELLO IN ALLUMINIO TORNITO  
TURNED ALUMINIUM HANDKNOB



SAE STB4 - STB6 - STB8

SAE STB4S - STB12 - STB16  
STB20 - STB24

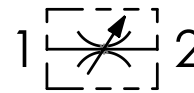
**CODICE ORDINAZIONE**  
ORDERING CODE

O1  
**STB**

O2

O1	VALVOLE DI CONTROLLO FLUSSO BIDIREZIONALI (BIDIRECTIONAL FLOW CONTROL VALVES)	STB	
O2	DIMENSIONE (SIZE)	7/16-20UNF Small	<b>4S</b>
		7/16-20UNF	<b>4</b>
		9/16-18UNF	<b>6</b>
		3/4-16UNF	<b>8</b>
		1-1/16-12UN	<b>12</b>
		1-5/16-12UN	<b>16</b>
		1-5/8-12UN	<b>20</b>
	1-7/8-12UN	<b>24</b>	

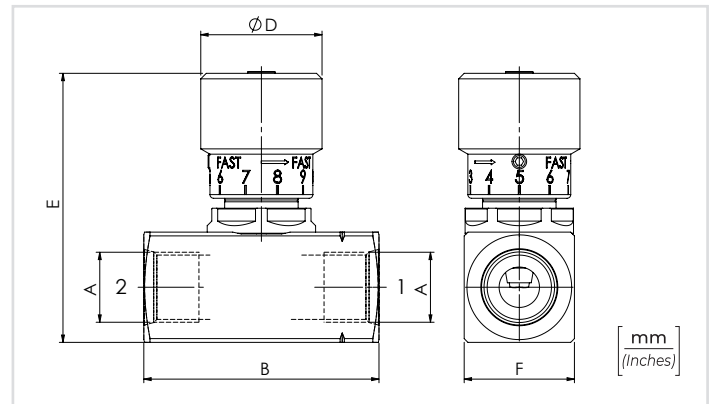
**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



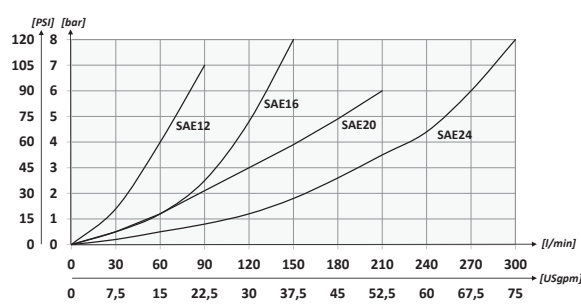
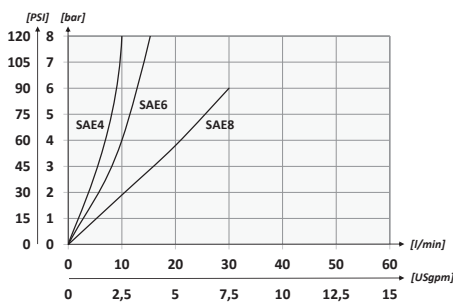
**DATI TECNICI / TECHNICAL DATA**

Olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F

È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)  
It is necessary a filter use to protect the valve (advised filtration 15 µm)



**PERFORMANCES**



**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	A	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	B	D	E	F	PESO APPROX (kg) APPROX WEIGHT (lbt)			
STB4S	7/16-20UNF	10 (2.6)	400 (5800)	54 (2.13)	33 (1.30)	68 (2.68)	20 (0.79)	0,21 (0.46)			
STB4							25 (0.98)	0,32 (0.71)			
STB6							30 (1.18)	0,45 (0.99)			
STB8	9/16-18UNF	15 (4)		350 (5075)	64 (2.52)	42 (1.65)	94 (3.70)	40 (1.57)	1 (2.2)		
STB12	1-1/16-12UN	80 (21.1)			81 (3.19)			99 (3.90)	45 (1.77)	1,35 (3)	
STB16	1-5/16-12UN	150 (39.6)			102 (4.02)			53 (2.09)	121,5 (4.78)	55 (2.17)	2,37 (5.21)
STB20	1-5/8-12UN	200 (52.8)	131,5 (5.17)			65 (2.56)	3 (6.6)				
STB24	1-7/8-12UN	300 (79.2)									

# STBF-SAE VALVOLE DI CONTROLLO FLUSSO BIDIREZIONALI

## BIDIRECTIONAL FLOW CONTROL VALVES



POMELLO IN ALLUMINIO PRESSOFUSO  
DIE CAST ALUMINIUM HANDKNOB

POMELLO IN ALLUMINIO TORNITO  
TURNED ALUMINIUM HANDKNOB



SAE **STBF4 - STBF6 - STBF8**

SAE **STBF4S STBF12 - STBF16  
STBF20 - STBF24**

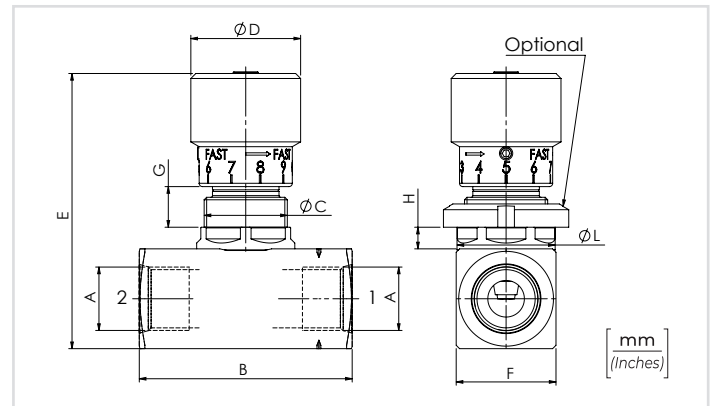
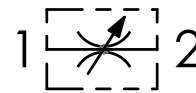
### DATI TECNICI / TECHNICAL DATA

Olivo idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	

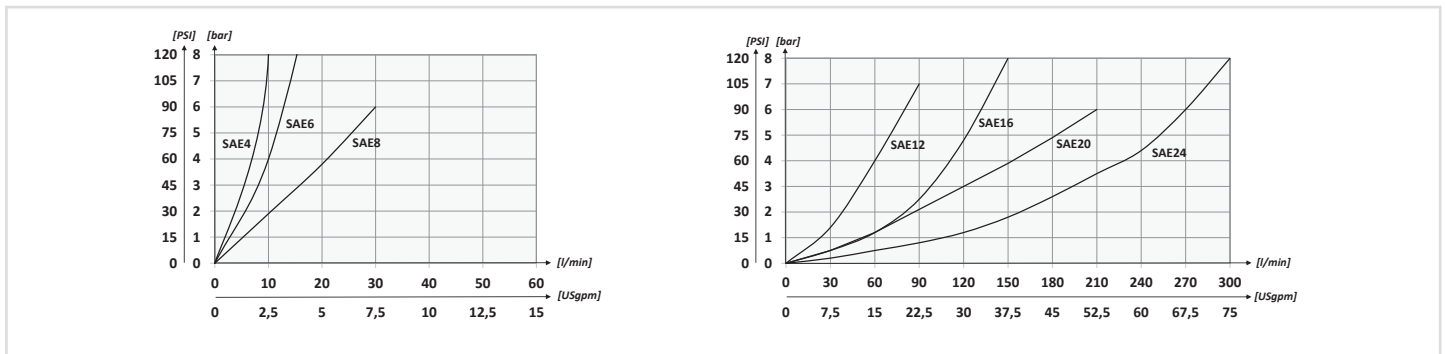
CODICE ORDINAZIONE ORDERING CODE	01	02
	<b>STBF</b>	

<b>01</b>	VALVOLE DI CONTROLLO FLUSSO BIDIREZIONALI (BIDIRECTIONAL FLOW CONTROL VALVES)	<b>STBF</b>	
<b>02</b>	DIMENSIONE (SIZE)	7/16-20UNF Small	<b>4S</b>
		7/16-20UNF	<b>4</b>
		9/16-18UNF	<b>6</b>
		3/4-16UNF	<b>8</b>
		1-1/16-12UN	<b>12</b>
		1-5/16-12UN	<b>16</b>
		1-5/8-12UN	<b>20</b>
		1-7/8-12UN	<b>24</b>

### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### PERFORMANCES



### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO TYPE	A	PRESSIONE MAX MAX PRESSURE bar-PSI	PRESSIONE MAX MAX PRESSURE bar-PSI	B	C	D	E	F	G	H	L	OPTIONAL TYPE	PESO APPROX (kg) APPROX WEIGHT (lbt)
STBF4S	7/16-20UNF	10 (2.6)	400 (5800)	54 (2.13)	M20x1	33 (1.30)	75 (2.95)	20 (0.79)	7,5 (0.29)	6 (0.24)	24,5 (0.96)	84100022	0,22 (0.48)
STBF4							25 (0.98)	0,34 (0.75)					
STBF6	9/16-18UNF	15 (4)		64 (2.52)	M25x1,5	81 (3.19)	30 (1.18)	9 (0.35)	7 (0.28)	29,5 (1.16)	84100023	0,32 (0.71)	
STBF8	3/4-16UNF	30 (7.9)		81 (3.19)	M35x1,5	42 (1.65)	110 (4.33)	40 (1.57)	15,5 (0.61)	8 (0.31)	39,5 (1.55)	84100024	1,1 (2.42)
STBF12	1-1/16-12UN	80 (21.1)		102 (4.02)	M45x1,5	53 (2.09)	115 (4.53)	45 (1.77)	13,5 (0.53)	10 (0.39)	50 (1.96)	84100030	1,45 (3.2)
STBF16	1-5/16-12UN	150 (39.6)		102 (4.02)	M45x1,5	53 (2.09)	137 (5.39)	55 (2.17)	13,5 (0.53)	10 (0.39)	50 (1.96)	84100030	2,45 (5.39)
STBF20	1-5/8-12UN	200 (52.8)		102 (4.02)	M45x1,5	53 (2.09)	147 (5.78)	65 (2.56)	13,5 (0.53)	10 (0.39)	50 (1.96)	84100030	3,17 (7)
STBF24	1-7/8-12UN	300 (79.2)		102 (4.02)	M45x1,5	53 (2.09)	147 (5.78)	65 (2.56)	13,5 (0.53)	10 (0.39)	50 (1.96)	84100030	3,17 (7)

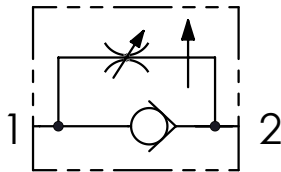


**CODICE ORDINAZIONE**  
ORDERING CODE

01	02
<b>VRC</b>	

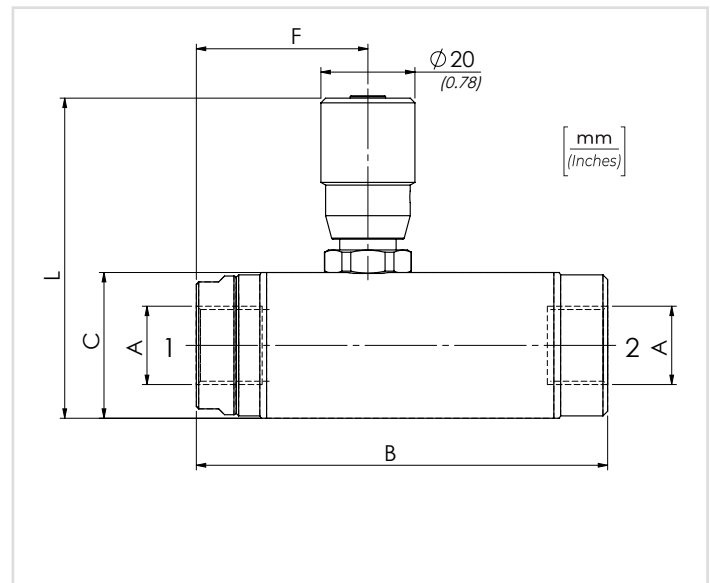
<b>01</b>	VALVOLE DI CONTROLLO FLUSSO 2 VIE COMPENSATE (2 WAYS FLOW CONTROL VALVES - PRESSURE COMPENSATED)	<b>VRC</b>
<b>02</b>	DIMENSIONE (SIZE)	BSPP 1/4 <b>140</b>
		BSPP 3/8 <b>380</b>
		BSPP 1/2 <b>120</b>

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**

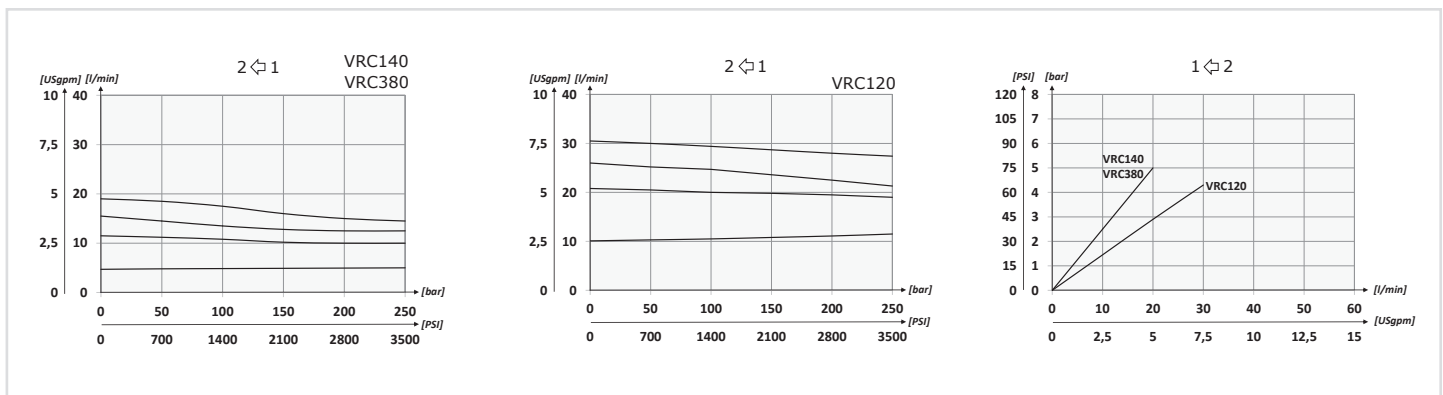


**DATI TECNICI / TECHNICAL DATA**

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> <b>-4°F +176°F</b>
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b> <b>-4°F +122°F</b>
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	

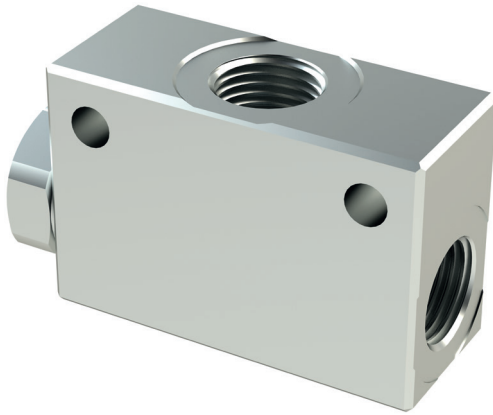


**PERFORMANCES**



**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

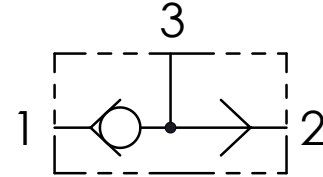
TIPO TYPE	A	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	B	C	F	L	PESO APPROX (kg) APPROX WEIGHT (lb)
VRC140	BSPP 1/4	10 (2.6)	250 (3625)	87,5 (3.44)	31 (1.22)	36,5 (1,44)	68 (2.68)	0,51 (1.12)
VRC380	BSPP 3/8	18 (4.8)						0,50 (1.10)
VRC120	BSPP 1/2	33 (8.7)		107,5 (4.31)	36 (1.42)	46 (1.81)	73 (2.87)	0,76 (1.67)



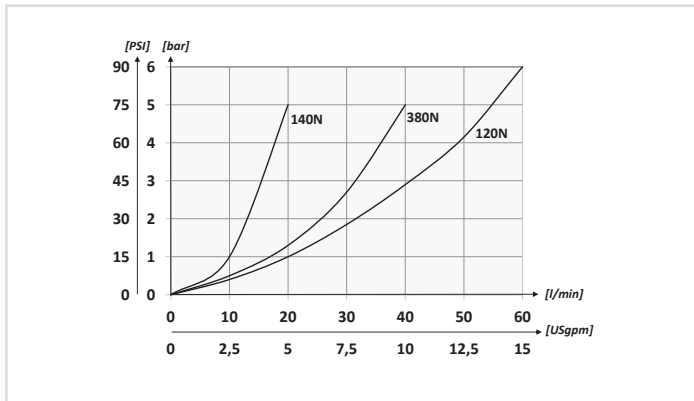
	01	02
<b>CODICE ORDINAZIONE</b> ORDERING CODE	<b>VUSF</b>	

<b>01</b>	VALVOLE SELETTRICI (LOAD SHUTTLE VALVES)	<b>VUSF</b>
<b>02</b>	DIMENSIONE (SIZE)	BSPP 1/4
		BSPP 3/8
		BSPP 1/2

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



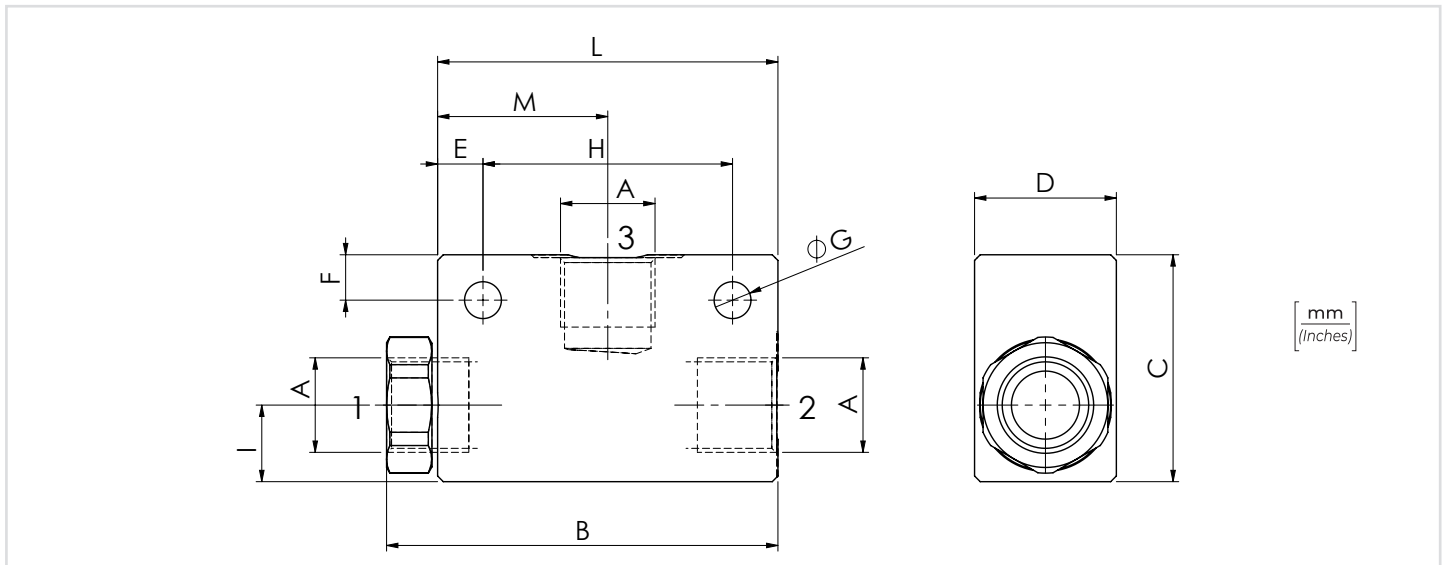
**PERFORMANCES**



**DATI TECNICI / TECHNICAL DATA**

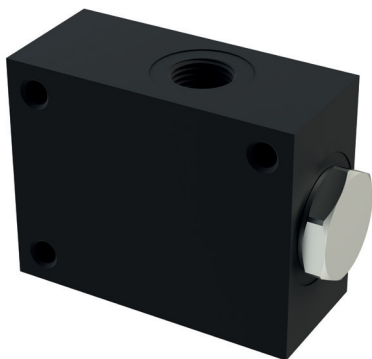
<b>Olio idraulico - Mineral oil</b>	<b>ISO 6743/4 (DIN 51524)</b>
<b>Viscosità olio - Oil viscosity</b>	<b>15-250 mm<sup>2</sup>/s (15 to 250 cSt)</b>
<b>Classe di contaminazione max Max contamination index</b>	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio - Oil temperature</b>	<b>-20°C +80°C -4°F +176°F</b>
<b>Temperatura ambiente - Environment temperature</b>	<b>-20°C +50°C -4°F +122°F</b>

È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)  
It is necessary a filter use to protect the valve (advised filtration 15 µm)

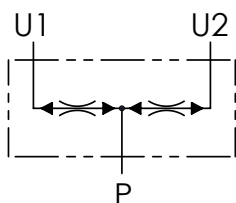


**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	B	C	D	E	F	G	H	I	L	PESO APPROX APPROX WEIGHT kg-lbt
VUSF140N	BSPP 1/4	20 (5.3)	350 (5075)	57,3 (2.26)	35 (1.38)	25 (0.98)	9 (0.35)	8 (0.31)	6,5 (0.26)	34 (1.34)	12 (0.47)	52 (2.05)	0,29 (0.65)
VUSF380N	BSPP 3/8	40 (10.6)		69 (2.72)	40 (1.57)		8 (0.31)			44 (1.73)	13,5 (0.53)	60 (2.36)	0,37 (0.81)
VUSF120N	BSPP 1/2	60 (15.8)		73,8 (2.90)	50 (1.97)	35 (1.38)	10 (0.39)	10 (0.39)	8,5 (0.33)	45 (1.79)	18 (0.71)	65 (2.56)	0,71 (1.56)



### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### CODICE ORDINAZIONE / ORDERING CODE

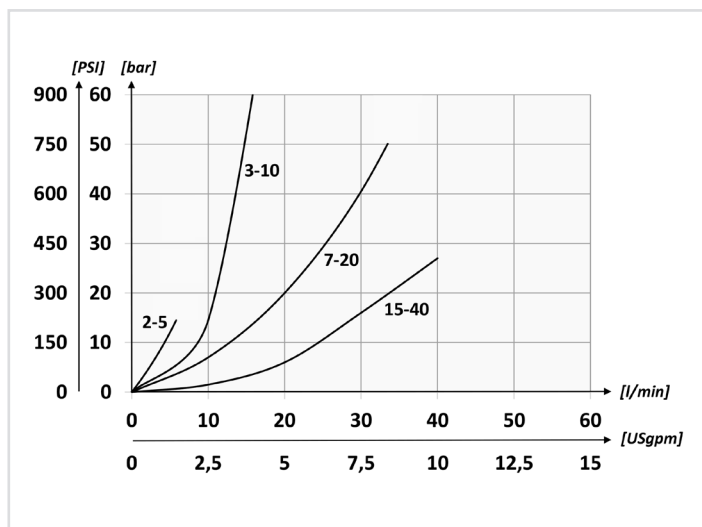
01	02	03	04
<b>DRF10</b>			

<b>01</b>	VALVOLA DIVISORE/RIUNIFICATORE DI FLUSSO (FLOW DIVIDER/COMBINER VALVES)		<b>DRF10</b>
<b>02</b>	CAMPO DI PORTATA IN INGRESSO (L/MIN) INLET FLOW RANGE (USGPM)	2-5 (0.5-1.3)	<b>1</b>
		3-10 (0.8-2.6)	<b>2</b>
		7-20 (1.8-5.2)	<b>3</b>
		15-40 (3.9-10.4)	<b>4</b>
<b>03</b>	CONNESSIONE P (PORT P)	BSPP 3/8	<b>380</b>
		BSPP 1/2	<b>120</b>
<b>04</b>	CONNESSIONE U1/U2 (PORT U1/U2)	BSPP 3/8	<b>380</b>
		BSPP 1/2	<b>120</b>

### DATI TECNICI / TECHNICAL DATA

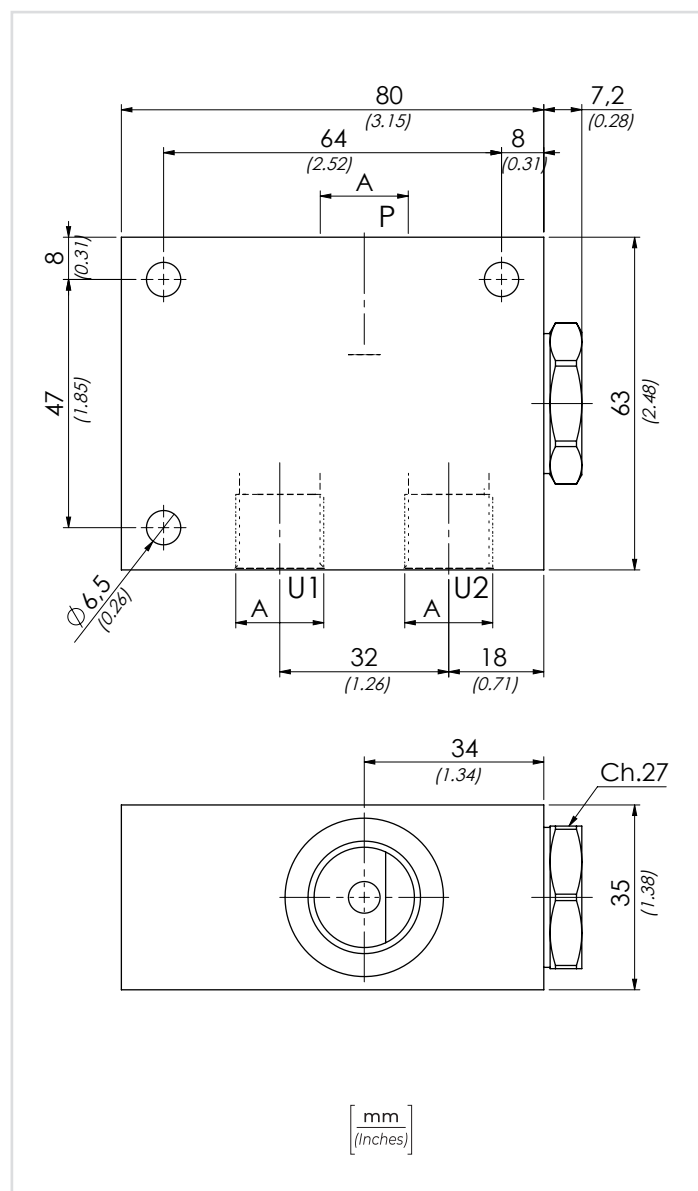
olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	

### PERFORMANCES



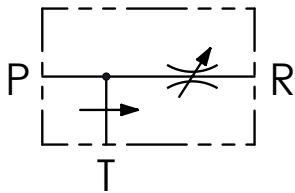
### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO TYPE	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	PESO APPROX APPROX WEIGHT kg-lbt
DRF10	40 (10.6)	250 (3625)	0,52 (1.14)





**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**CODICE ORDINAZIONE / ORDERING CODE**

01	02	03
<b>VPT</b>		<b>V</b>

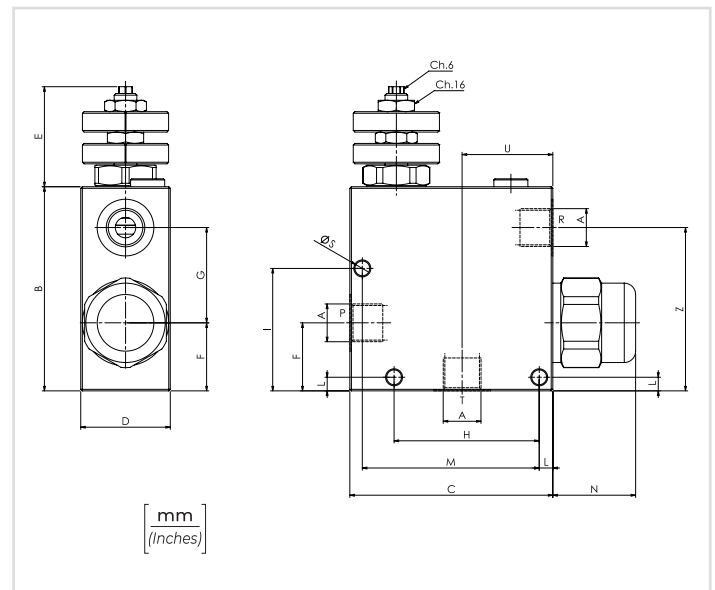
<b>01</b>	REGOLATORI DI FLUSSO 3 VIE - COMPENSATI, CON ECCEDEZZA IN SCARICO (3 WAYS FLOW CONTROL VALVES - PRESSURE COMPENSATED, EXCEEDING FLOW TO TANK)	<b>VPT</b>
<b>02</b>	DIMENSIONE (SIZE)	BSPP 3/8 <b>380</b>
		BSPP 1/2 <b>120</b>
		BSPP 3/4 <b>340</b>
		BSPP 1 <b>100</b>
<b>03</b>	REGOLAZIONE (SETTING)	Volantino (Hand wheel) <b>V</b>

**PORTATA MASSIMA L/MIN - MAX FLOW USGPM**

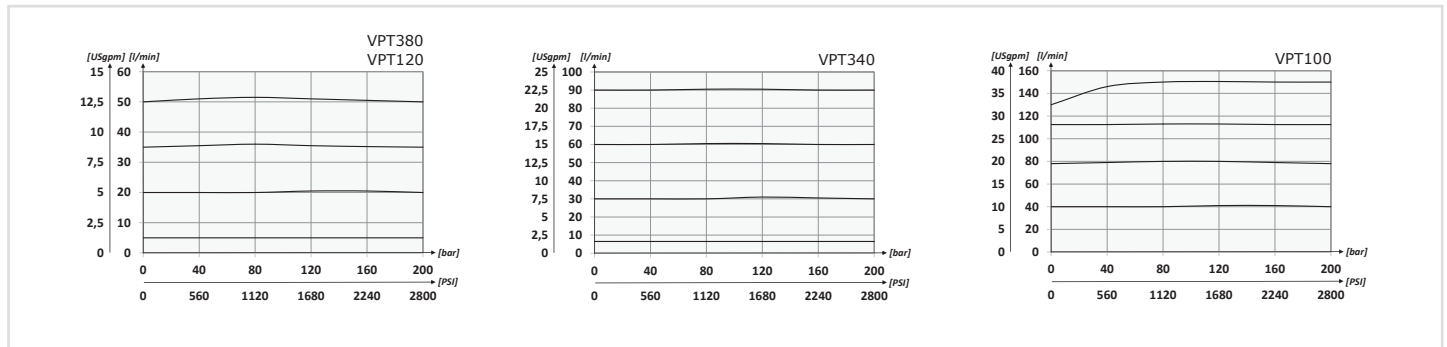
50 L/MIN CON 30 L/MIN IN R (13,3 USGPM WITH 8 USGPM IN R)	<b>380</b>
80 L/MIN CON 50 L/MIN IN R (21,3 USGPM WITH 13,3 USGPM IN R)	<b>120</b>
150 L/MIN CON 80 L/MIN IN R (40 USGPM WITH 21,3 USGPM IN R)	<b>340</b>
240 L/MIN CON 150 L/MIN IN R (64 USGPM WITH 40 USGPM IN R)	<b>100</b>

**DATI TECNICI / TECHNICAL DATA**

<b>Olio idraulico - Mineral oil</b>	<b>ISO 6743/4 (DIN 51524)</b>
<b>Viscosità olio - Oil viscosity</b>	<b>15-250 mm<sup>2</sup>/s (15 to 250 cSt)</b>
<b>Classe di contaminazione max Max contamination index</b>	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio - Oil temperature</b>	<b>-20°C +80°C -4°F +176°F</b>
<b>Temperatura ambiente - Environment temperature</b>	<b>-20°C +50°C -4°F +122°F</b>
<b>È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)</b>	



**PERFORMANCES**



**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	B	C	D	E	F	G	H	I	L	M	N	S	U	Z	PESO APPROX (kg) APPROX WEIGHT (lb)
VPT380	BSPP 3/8	50 (13.2)	250 (3625)	90 (3.54)	89,5 (35.24)	39,5 (15.55)	47,5 (1.87)	30 (1.18)	42 (1.65)	64 (2.52)	54 (2.13)	6 (0.24)	78 (3.07)	36,5 (1.44)	6,5 (0.26)	40 (1.57)	/	1,39 (3.06)
VPT120	BSPP 1/2	90 (23.8)		110 (4.33)	110 (4.33)	50 (1.97)	49,5 (1.95)	35 (1.38)	50 (1.97)	88 (3.46)	63,5 (2.50)	8,5 (0.33)	100 (3.70)	34,7 (1.37)	8,5 (0.33)	44 (1.73)	/	1,37 (3.02)
VPT340	BSPP 3/4	150 (39.6)		110 (4.33)	110 (4.33)	50 (1.97)	49,5 (1.95)	35 (1.38)	50 (1.97)	88 (3.46)	63,5 (2.50)	8,5 (0.33)	100 (3.70)	34,7 (1.37)	8,5 (0.33)	44 (1.73)	/	1,94 (4.28)
VPT100	BSPP 1	240 (63.4)		110 (4.33)	110 (4.33)	50 (1.97)	52,5 (2.07)	47 (1.85)	/	/	/	/	10 (0.39)	/	36,5 (1.44)	8,5 (0.33)	44 (1.73)	87 (3.45)

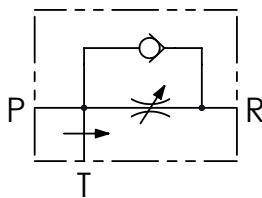


**CODICE ORDINAZIONE**  
 ORDERING CODE

01	02	03	04
<b>VPT</b>		<b>V</b>	<b>AR</b>

<b>01</b>	REGOLATORI DI FLUSSO 3 VIE - COMPENSATI, CON ECCEDEZZA IN SCARICO E VALVOLA DI RITEGNO PER FLUSSO INVERSO 3 WAYS FLOW CONTROL VALVES - PRESSURE COMPENSATED, EXCEEDING FLOW TO TANK AND CHECK VALVE FOR FREE REVERSE FLOW	<b>VPT</b>
<b>02</b>	DIMENSIONE (SIZE)	BSPP 3/8 <b>380</b>
		BSPP 1/2 <b>120</b>
<b>03</b>	REGOLAZIONE (SETTING)	Volantino (Hand wheel) <b>V</b>
<b>04</b>	Con valvola di ritegno per flusso inverso (check valve for free reverse flow)	<b>AR</b>

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



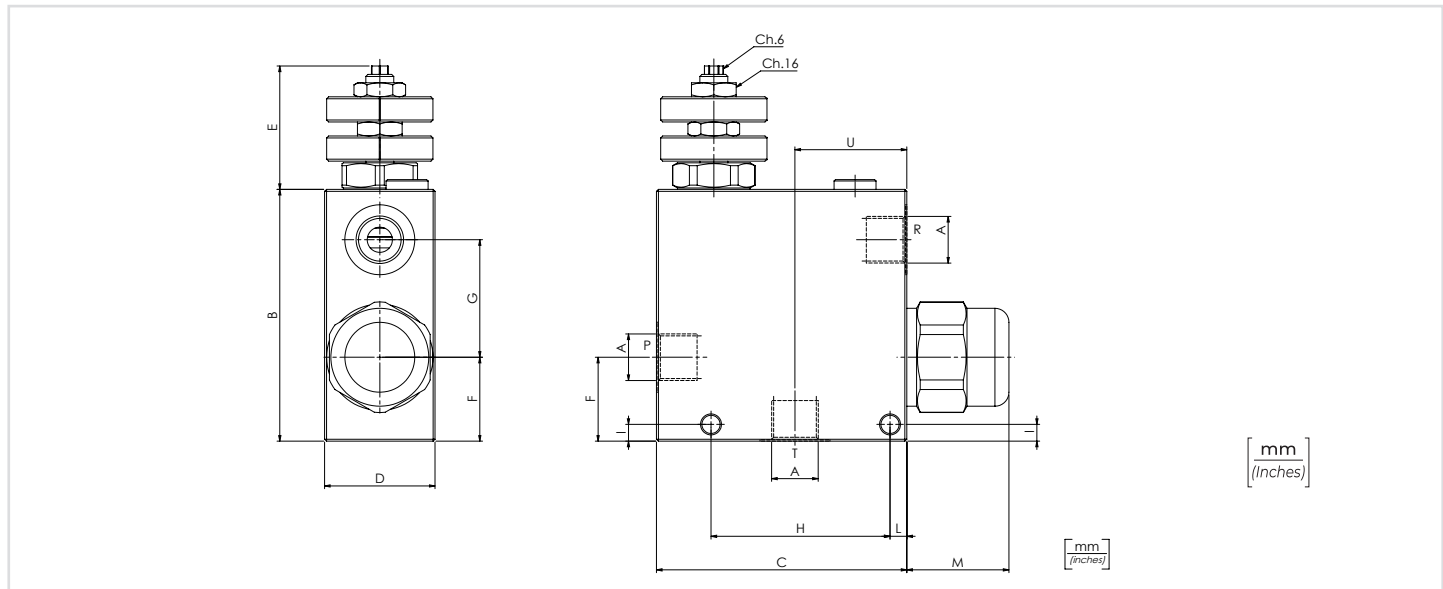
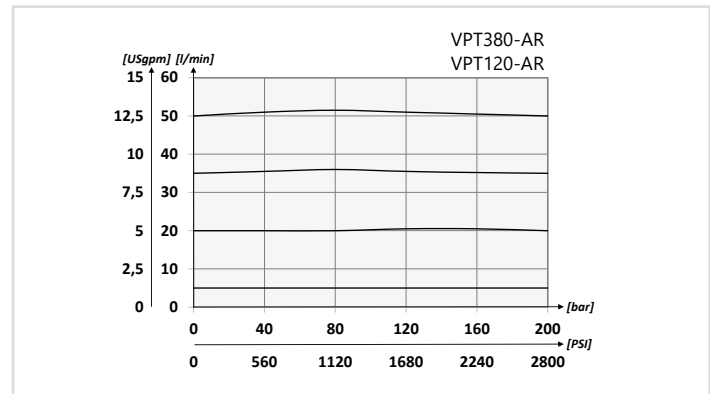
**DATI TECNICI / TECHNICAL DATA**

Olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	

**PORTATA MASSIMA L/MIN - MAX FLOW USGPM**

50 L/MIN CON 30 L/MIN IN R (13,3 USGPM WITH 8 USGPM IN R)	<b>380</b>
80 L/MIN CON 50 L/MIN IN R (21,3 USGPM WITH 13,3 USGPM IN R)	<b>120</b>

**PERFORMANCES**



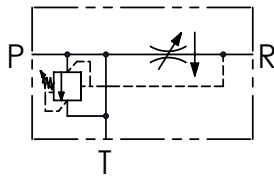
**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

CODICE CODE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	B	C	D	E	F	G	H	I	L	M	S	U	PESO APPROX APPROX WEIGHT kg-lbt
VPT380-AR	BSPP 3/8	50 (13.2)	250 (3625)	89,5 (3.52)	110 (4.33)	39,5 (1.55)	47,5 (1.87)	30 (1.18)	42 (1.65)	57 (2.24)	6 (0.24)	13 (0.50)	36,5 (1.44)	6,5 (0.26)	40 (1.57)	1,60 (3.52)
VPT120-AR	BSPP 1/2	90 (23.8)		89,5 (3.52)	110 (4.33)	39,5 (1.55)	47,5 (1.87)	30 (1.18)	42 (1.65)	57 (2.24)	6 (0.24)	13 (0.50)	36,5 (1.44)	6,5 (0.26)	40 (1.57)	1,61 (3.54)

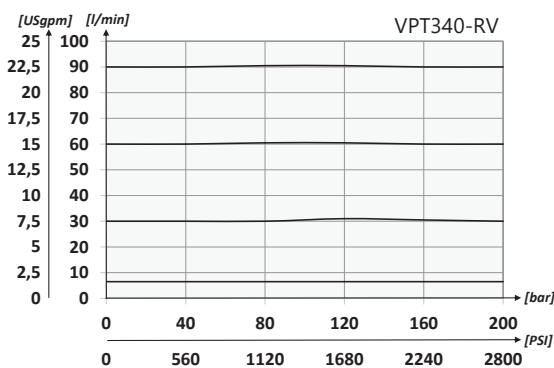
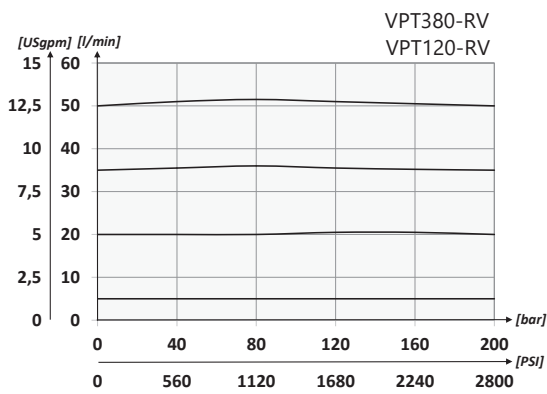




**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**PERFORMANCES**



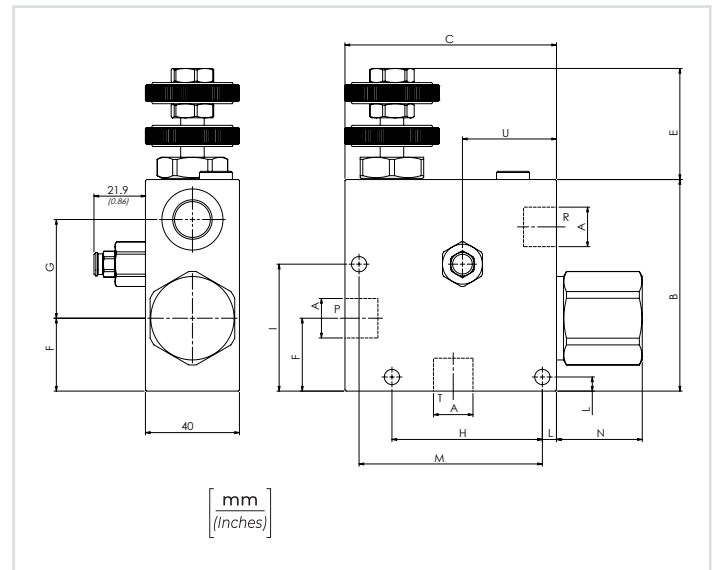
**CODICE ORDINAZIONE / ORDERING CODE**

	01	02	03	04
	<b>VPT</b>		<b>V</b>	<b>RV</b>

<b>01</b>	REGOLATORI DI FLUSSO 3 VIE - COMPENSATI, CON ECCEDEZZA IN SCARICO (3 WAYS FLOW CONTROL VALVES - PRESSURE COMPENSATED, EXCEEDING FLOW TO TANK AND RELIEF VALVE)	<b>VPT</b>
<b>02</b>	DIMENSIONE (SIZE)	BSPP 3/8 <b>380</b>
		BSPP 1/2 <b>120</b>
		BSPP 3/4 <b>340</b>
<b>03</b>	REGOLAZIONE (SETTING)	Volantino (Hand wheel) <b>V</b>
<b>04</b>	Valvola di massima - Relief valve (10/250 bar - 145/3625 PSI)	<b>RV</b>

**PORTATA MASSIMA L/MIN - MAX FLOW USGPM**

50 L/MIN CON 30 L/MIN IN R (13,3 USGPM WITH 8 USGPM IN R)	<b>380</b>
80 L/MIN CON 50 L/MIN IN R (21,3 USGPM WITH 13,3 USGPM IN R)	<b>120</b>
150 L/MIN CON 80 L/MIN IN R (40 USGPM WITH 21,3 USGPM IN R)	<b>340</b>



**DATI TECNICI / TECHNICAL DATA**

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F +176°F
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b> -4°F +122°F

È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)  
It is necessary a filter use to protect the valve (advised filtration 15 µm)

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

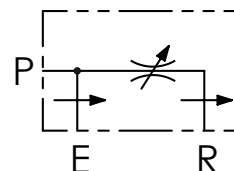
TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	B	C	D	E	F	G	H	I	L	M	N	S	U	PESO APPROX (kg) APPROX WEIGHT (lb)
VPT380-RV	BSPP 3/8	50 (13.2)	250 (3625)	90 (3.54)	90 (3.54)	40 (1.57)	47,5 (1.87)	31 (1.22)	42 (1.65)	64 (2.52)	54 (2.13)	6 (0.24)	78 (3.07)	36,5 (1.44)	6,5 (0.26)	40 (1.57)	1,15 (2.54)
VPT120-RV	BSPP 1/2	90 (23.8)		110 (4.33)	110 (4.33)	50 (1.97)	49,5 (1.95)	35 (1.38)	50 (1.97)	88 (3.46)	63,5 (2.50)	8 (0.31)	94 (3.70)	34,7 (1.37)	8,5 (0.33)	44 (1.73)	1,94 (4.28)
VPT340-RV	BSPP 3/4	150 (39.6)															



	01	02	03
<b>CODICE ORDINAZIONE</b> ORDERING CODE	<b>VPP</b>		<b>V</b>

<b>01</b>	REGOLATORI DI FLUSSO 3 VIE - COMPENSATI, CON ECCEDEZZA IN PRESSIONE (3 WAYS FLOW CONTROL VALVES - PRESSURE COMPENSATED, EXCEEDING FLOW TO PRESSURE)	<b>VPP</b>
<b>02</b>	DIMENSIONE (SIZE)	BSPP 3/8 <b>380</b>
		BSPP 1/2 <b>120</b>
		BSPP 3/4 <b>340</b>
<b>03</b>	REGOLAZIONE (SETTING)	Volantino (Hand wheel) <b>V</b>

### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



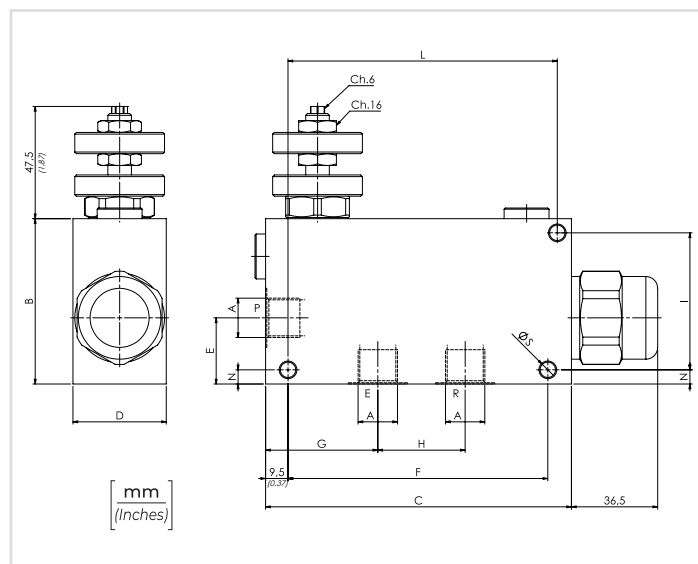
### DATI TECNICI / TECHNICAL DATA

Olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F

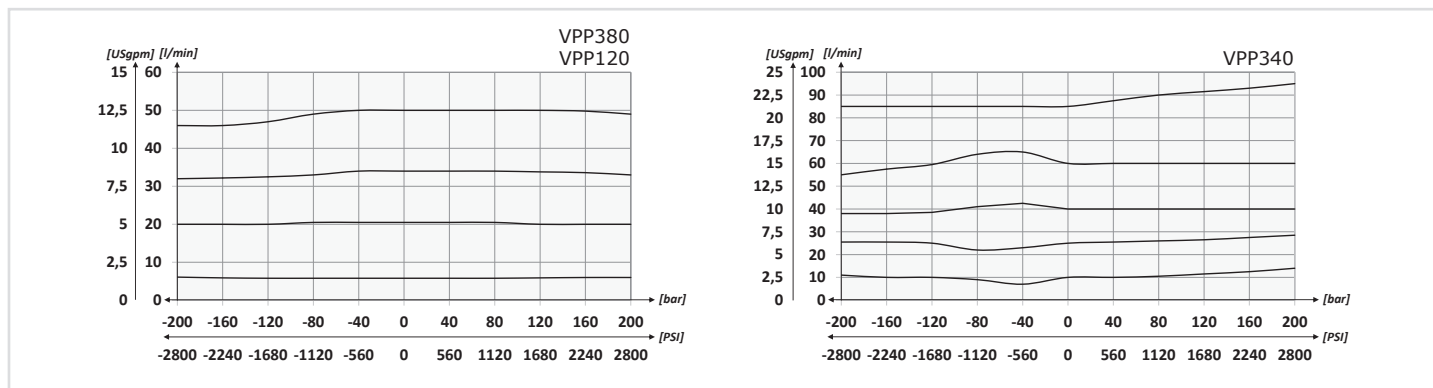
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)  
It is necessary a filter use to protect the valve (advised filtration 15 µm)

### PORTATA MASSIMA L/MIN - MAX FLOW USGPM

50 L/MIN CON 30 L/MIN IN R (13,3 USGPM WITH 8 USGPM IN R)	<b>380</b>
90 L/MIN CON 50 L/MIN IN R (24 USGPM WITH 13,3 USGPM IN R)	<b>120</b>
150 L/MIN CON 80 L/MIN IN R (40 USGPM WITH 21,3 USGPM IN R)	<b>340</b>

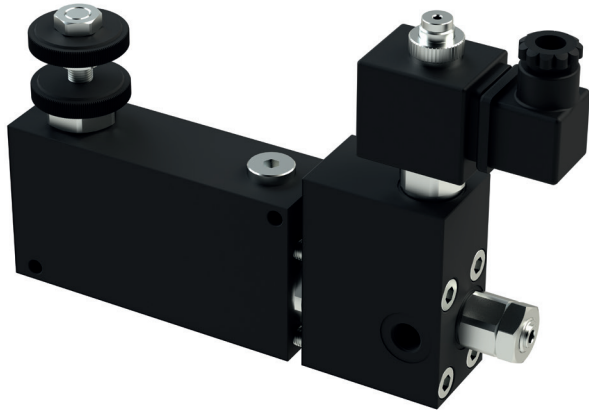


### PERFORMANCES



### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

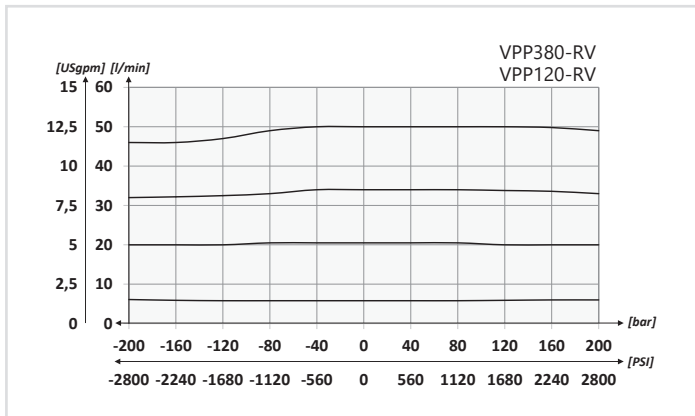
TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	B	C	D	E	F	G	H	I	L	N	S	PESO APPROX (kg) APPROX WEIGHT (lbt)
VPP380	BSPP 3/8	50 (13.2)	250 (3625)	70 (2.76)	129,5 (50.98)	39,5 (15.55)	28 (1.10)	110 (4.33)	47 (18.70)	37 (1.46)	58 (2.28)	114 (4.49)	6 (0.24)	6,5 (0.26)	1,54 (3.39)
VPP120	BSPP 1/2	90 (23.8)		90 (3.54)	155 (6.10)	50 (1.97)	35 (1.38)	/	57 (2.24)	44 (1.73)	74 (2.91)	135 (5.31)	8 (0.31)	8,5 (0.33)	1,52 (3.35)
VPP340	BSPP 3/4	150 (39.6)		90 (3.54)	155 (6.10)	50 (1.97)	35 (1.38)	/	57 (2.24)	44 (1.73)	74 (2.91)	135 (5.31)	8 (0.31)	8,5 (0.33)	2,48 (5.46)



## DATI TECNICI / TECHNICAL DATA

olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	

## PERFORMANCES



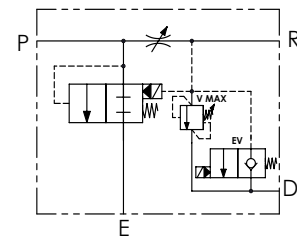
01 02 03 04 05 06 07

## CODICE ORDINAZIONE ORDERING CODE

VPP	V	RV				
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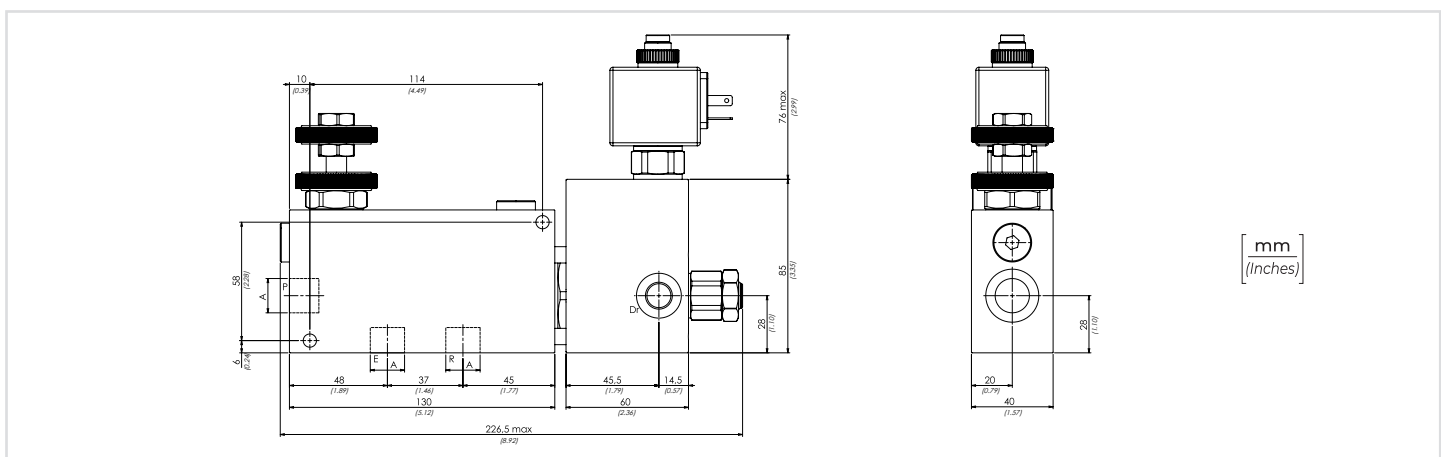
01	REGOLATORI DI FLUSSO 3 VIE - COMPENSATI, CON ECCEDEZZA IN PRESSIONE, VALVOLA DI MASSIMA E VALVOLA ELETTRICA DI MESSA A SCARICO 3 WAYS FLOW CONTROL VALVES - PRESSURE COMPENSATED, EXCEEDING FLOW TO PRESSURE, RELIEF VALVE AND ELECTRICAL UNLOADER VALVE		VPP	
02	DIMENSIONE (SIZE)	BSPP 3/8	380	
		BSPP 1/2	120	
03	REGOLAZIONE (SETTING)	Volantino (Hand wheel)	V	
04	Valvola di massima (Relief valve)		RV	
05	VALVOLA DI MASSIMA (RELIEF VALVE) V MAX	Tappo (Plug)		0
		VMD1NC1	Molla (Spring) 10/40 bar (145/580PSI)	1
		VMD1NC2	Molla (Spring) 20/110 bar (290/1595 PSI)	2
		VMD1NC3	Molla (Spring) 30/210 bar (435/3045 PSI)	3
		VMD1NC4	Molla (Spring) 40/350 bar (580/5075 PSI)	4
06	VALVOLA ELETTRICA (ELECTRICAL VALVE) EV	Tappo (Plug)		0
		EVC7 (Normally closed)		C
		EVA7 (Normally open)		A
		EVE7 (Normally closed + Emergency)		E
07	BOBINA (COIL) EV	Senza bobina (Without coil)		
		12 V (DC)	12	
		24 V (DC)	24	
		220 V (RAC)	220	

## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## PORTATA MASSIMA L/MIN - MAX FLOW USGPM

50 L/MIN CON 30 L/MIN IN R (13,3 USGPM WITH 8 USGPM IN R)	380
90 L/MIN CON 50 L/MIN IN R (24 USGPM WITH 13,3 USGPM IN R)	120



## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

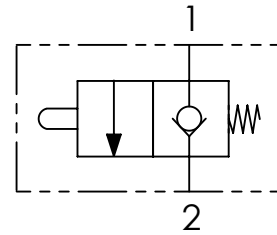
TIPO TYPE	A	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	PESO APPROX SENZA VALVOLE (kg) APPROX WEIGHT WITHOUT VALVES (lb)
VPP380-RV	BSPP 3/8	50 (13.2)	250 (3625)	2,25 (4.97)
VPP120-RV	BSPP 1/2	90 (23.8)		



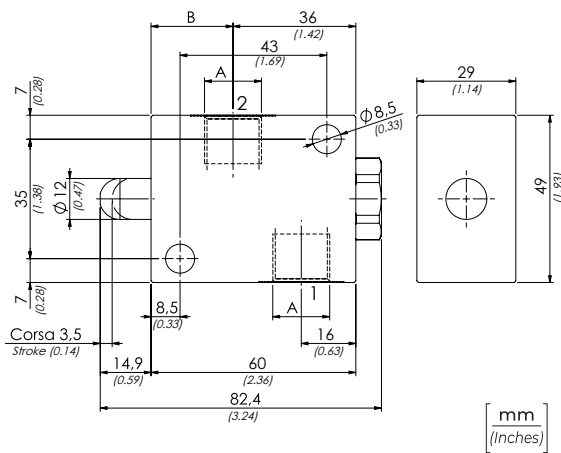
<b>CODICE ORDINAZIONE</b> ORDERING CODE	01	02
	<b>FCM</b>	

<b>01</b>	VALVOLE DI FINE CORSA NORMALMENTE CHIUSE (NORMALLY CLOSED END - STROKE VALVES)	<b>FCM</b>
<b>02</b>	DIMENSIONE (SIZE)	BSP 1/4 <b>140N</b>
		BSP 3/8 <b>380N</b>
		BSP 1/2 <b>120N</b>

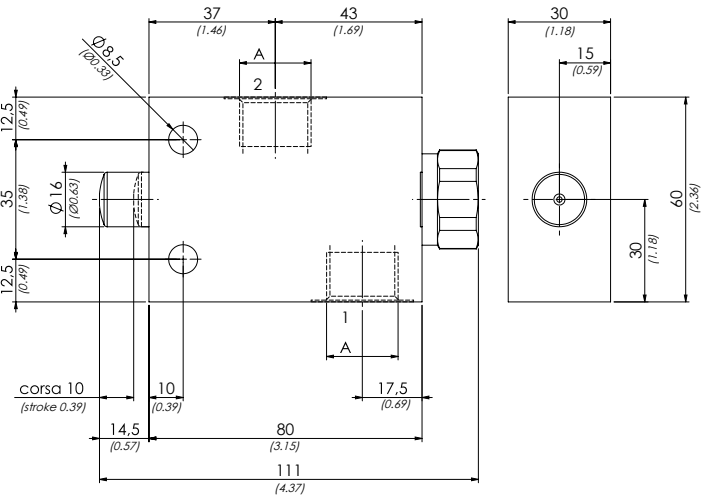
### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



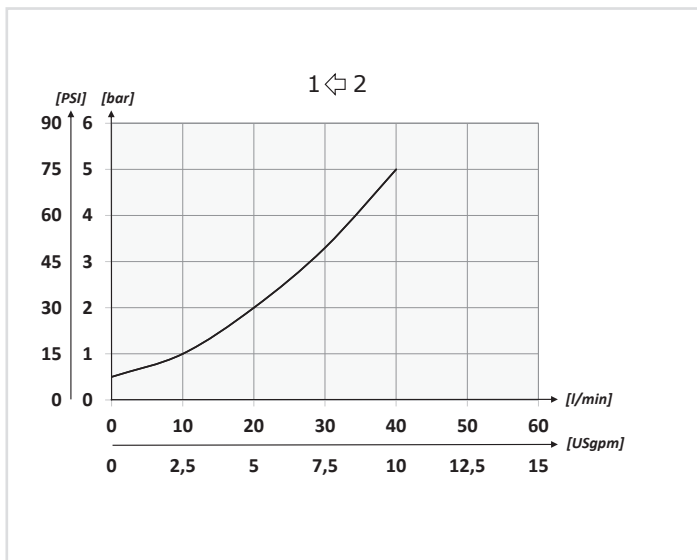
### FCM140N - FCM380N



### FCM120N



### PERFORMANCES



### DATI TECNICI / TECHNICAL DATA

Olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F

È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)  
 It is necessary a filter use to protect the valve (advised filtration 15 µm)

### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO TYPE	A	B	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	PESO APPROX APPROX WEIGHT kg-lbt
FCM140N	BSP 1/4	26,5 (1.04)	40 (10.6)	350 (5075)	0,53 (1.16)
FCM380N	BSP 3/8	24 (0.94)			0,50 (1.10)
FCM120N	BSP 1/2	/	60 (15.8)	300 (4350)	1,01 (2.22)

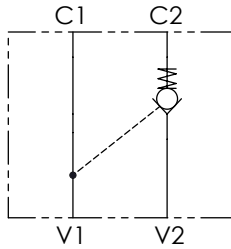


**CODICE ORDINAZIONE**  
ORDERING CODE

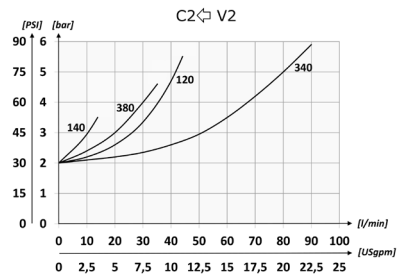
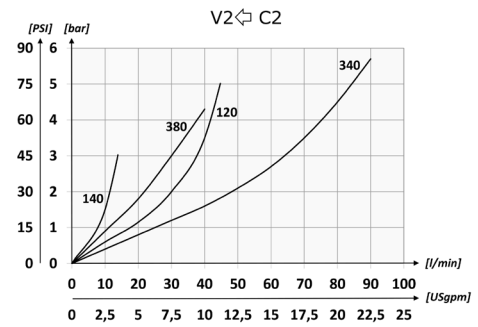
01	02
<b>VRSE</b>	

<b>01</b>	VALVOLE DI BLOCCO A SEMPLICE EFFETTO (SINGLE ACTING PILOT CHECK VALVES)	<b>VRSE</b>
<b>02</b>	DIMENSIONE (SIZE)	BSPP 1/4
		BSPP 3/8
		BSPP 1/2
		BSPP 3/4

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**

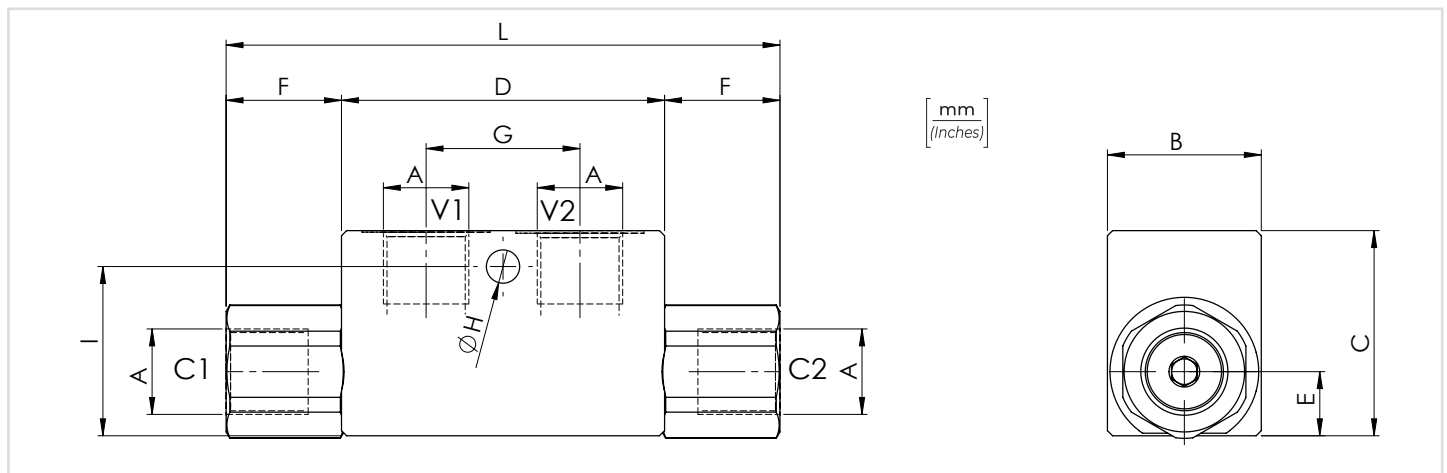


**PERFORMANCES**



**DATI TECNICI / TECHNICAL DATA**

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F +176°F
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b> -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	
<b>Trafilamento massimo</b> Max leakage	<b>0,25 cm<sup>3</sup>/min - 5 gocce/min</b> 0,015 in <sup>3</sup> /min - 5 drops/min



**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	B	C	D	E	F	G	H	I	L	PESO APPROX APPROX WEIGHT kg-lbt	RAPPORTO DI PILOTAGGIO PILOT RATIO
VRSE140	BSPP 1/4	15 (4)	350 (5075)	30 (1.18)	40 (1.57)	63 (2.48)	12,5 (0.49)	22,5 (0.89)	30 (1.18)	6,5 (0.26)	33 (1.30)	108 (4.25)	0,64 (1.41)	1:4
VRSE380	BSPP 3/8	35 (9.2)			50 (1.97)	82 (3.23)	16,5 (0.65)	31,5 (1.24)	36 (1.42)		35 (1.38)	145 (5.71)		
VRSE120	BSPP 1/2	45 (11.9)		35 (1.38)	50 (1.97)	82 (3.23)	16,5 (0.65)	31,5 (1.24)	36 (1.42)	6,5 (0.26)	35 (1.38)	145 (5.71)	1,08 (2.38)	
VRSE340	BSPP 3/4	70 (18.5)		40 (1.57)	60 (2.36)	100 (3.94)	22,5 (0.89)	46 (1.81)	50 (1.97)	8,5 (0.33)	50 (1.97)	192 (7.56)	2 (4.41)	

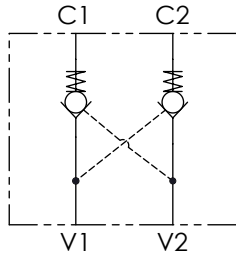


**CODICE ORDINAZIONE**  
ORDERING CODE

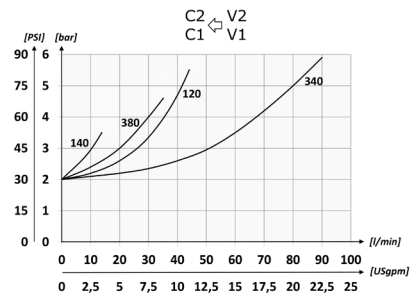
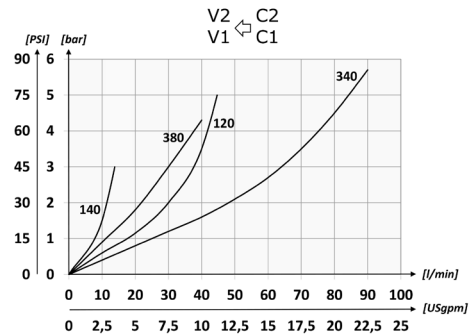
01	02
<b>VRDE</b>	

<b>01</b>	VALVOLE DI BLOCCO A DOPPIO EFFETTO (DOUBLE ACTING PILOT CHECK VALVES)	<b>VRDE</b>
<b>02</b>	DIMENSIONE (SIZE)	BSPP 1/4
		BSPP 3/8
		BSPP 1/2
		BSPP 3/4

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**

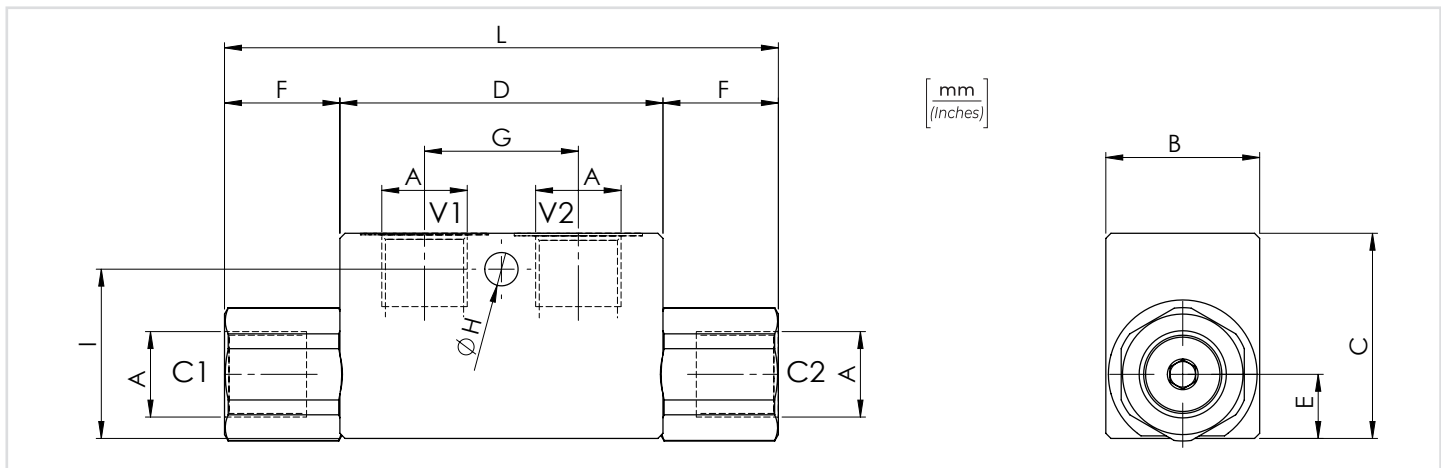


**PERFORMANCES**



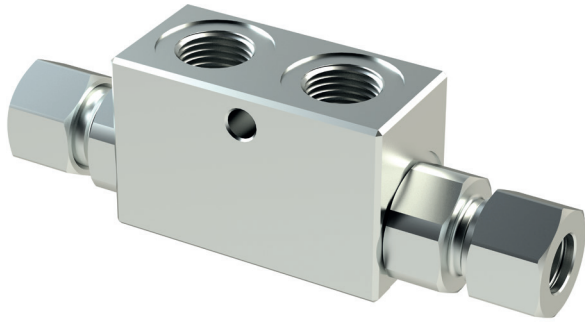
**DATI TECNICI / TECHNICAL DATA**

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F + 176°F
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b> -4°F + 122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	
<b>Trafilamento massimo</b> Max leakage	<b>0,25 cm<sup>3</sup>/min - 5 gocce/min</b> <b>0,015 in<sup>3</sup>/min - 5 drops/min</b>



**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	B	C	D	E	F	G	H	I	L	PESO APPROX APPROX WEIGHT kg-lbt	RAPPORTO DI PILOTAGGIO PILOT RATIO	
VRDE140	BSPP 1/4	15 (4)	350 (5075)	30 (1.18)	40 (1.57)	63 (2.48)	12,5 (0.49)	22,5 (0.89)	30 (1.18)	6,5 (0.26)	33 (1.30)	108 (4.25)	0,64 (1.41)	1:4	
VRDE380	BSPP 3/8	35 (9.2)		35 (1.38)	50 (1.97)	82 (3.23)	16,5 (0.65)	31,5 (1.24)	36 (1.42)		35 (1.38)	145 (5.71)			0,60 (1.32)
VRDE120	BSPP 1/2	45 (11.9)		40 (1.57)	60 (2.36)	100 (3.94)	22,5 (0.89)	46 (1.81)	50 (1.97)		8,5 (0.33)	50 (1.97)	192 (7.56)		1,10 (2.42)
VRDE340	BSPP 3/4	70 (18.5)		40 (1.57)	60 (2.36)	100 (3.94)	22,5 (0.89)	46 (1.81)	50 (1.97)		8,5 (0.33)	50 (1.97)	192 (7.56)		2 (4.40)

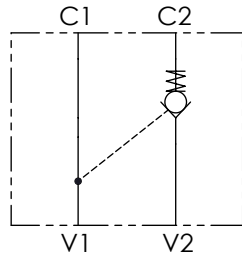


### CODICE ORDINAZIONE / ORDERING CODE

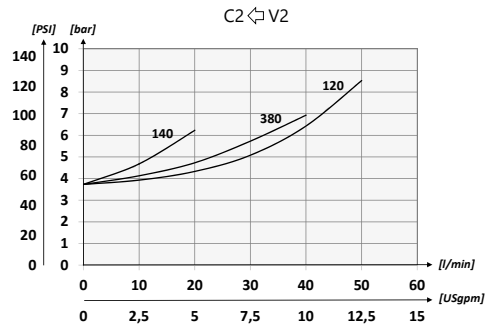
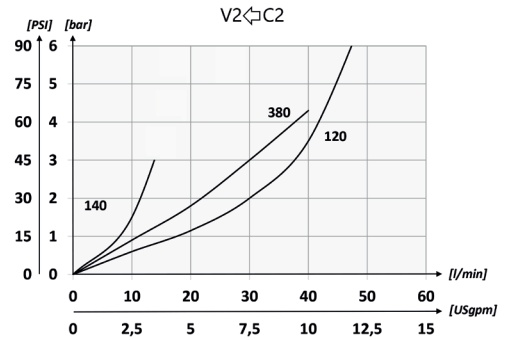
01	02	03
<b>VRSD</b>		

<b>01</b>	VALVOLE DI BLOCCO A SEMPLICE EFFETTO DIN2353 (DIN2353 SINGLE ACTING PILOT CHECK VALVES)	<b>VRSD</b>
<b>02</b>	DIMENSIONE / SIZE	BSPP 1/4
		BSPP 3/8
		BSPP 1/2
<b>03</b>	DIMENSIONE TUBO / SIZE PIPE	Per tubo Ø 8 - For Ø 8 pipe only for <b>BSPP 1/4</b>
		Per tubo Ø 12 - For Ø 12 pipe standard only for <b>BSPP 1/4 and 3/8</b>
		Per tubo Ø 15 - For Ø 15 pipe standard only for <b>BSPP 1/2</b>

### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT

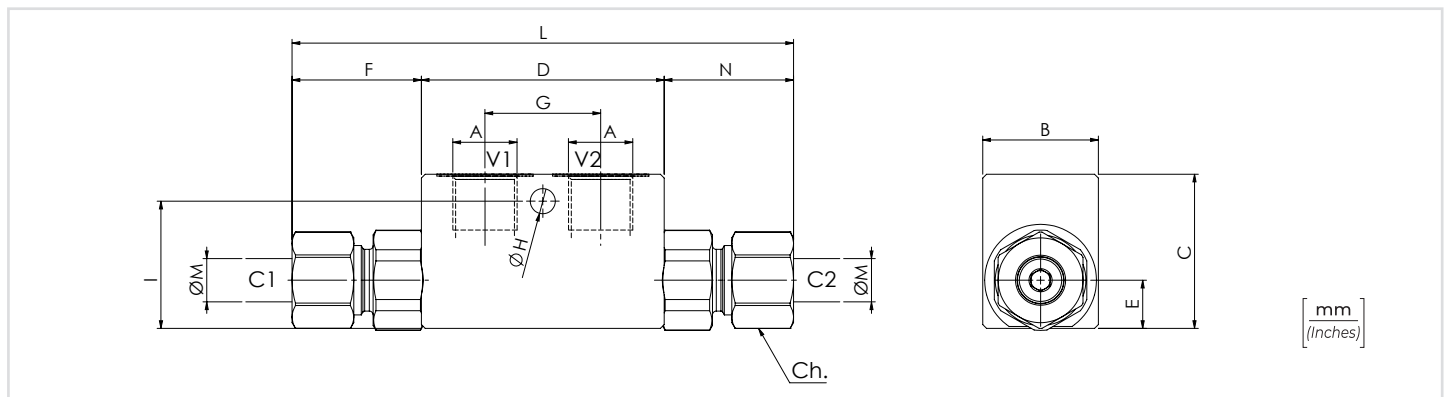


### PERFORMANCES



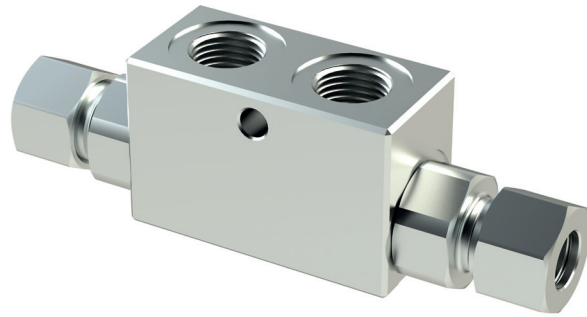
### DATI TECNICI / TECHNICAL DATA

Olivo idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max / Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile la presenza di un filtro nel circuito idraulico per proteggere la valvola (filtrazione consigliata 15 µm)	
A filter into the hydraulic circuit necessary to protect the valve (advised filtration 15 µm)	
Trafilamento massimo / Max leakage	0,25 cm <sup>3</sup> /min - 5 gocce/min / 0,015 in <sup>3</sup> /min - 5 drops/min

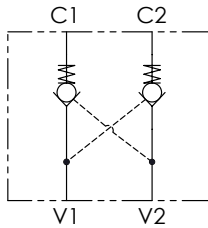


### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO / TYPE	A	PORTATA MAX / MAX FLOW / l/min-USgpm	PRESSIONE MAX / MAX PRESSURE / bar-PSI	mm - inch										Ch.	PESO APPROX / APPROX WEIGHT / kg-lbt	RAPPORTO DI PILOTAGGIO / PILOT RATIO
				B	C	D	E	F	G	H	I	L	M			
VRSD140T8	BSPP 1/4	10 (2.6)	350 (5075)	30 (1.18)	40 (1.57)	63 (2.48)	12,5 (0.49)	28 (1.10)	30 (1.18)	6,5 (0.26)	33 (1.30)	119 (4.69)	8 (0.31)	17	0,62 (1.36)	1:9
VRSD140		15 (4)						32 (1.26)				127 (5)	12 (0.47)	22	0,63 (1.37)	
VRSD380	BSPP 3/8	35 (9.2)		35 (1.38)	50 (1.97)	82 (3.23)	16,5 (0.65)	33,5 (1.32)	36 (1.42)		35 (1.38)	149 (5.87)	15 (0.59)	27	1,10 (2.42)	
VRSD120	BSPP 1/2	45 (11.9)		35 (1.38)	50 (1.97)	82 (3.23)	16,5 (0.65)	33,5 (1.32)	36 (1.42)		35 (1.38)	149 (5.87)	15 (0.59)	27	1,10 (2.42)	



### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### DATI TECNICI / TECHNICAL DATA

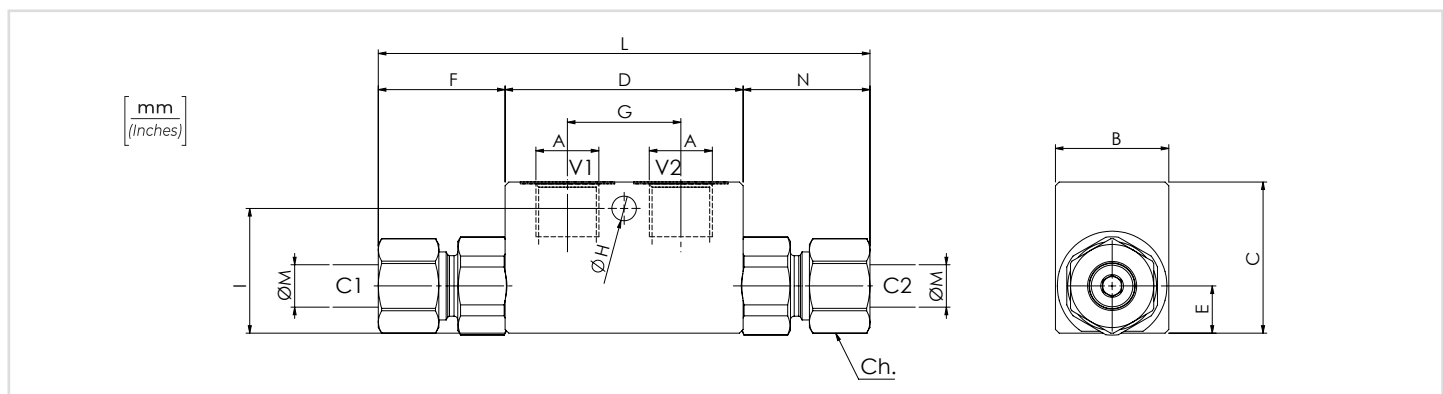
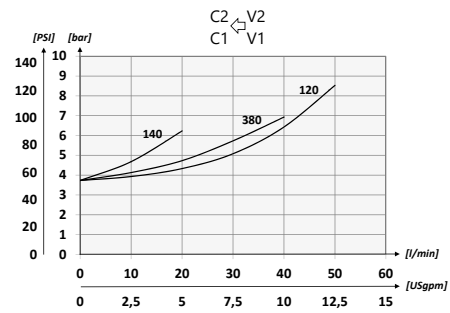
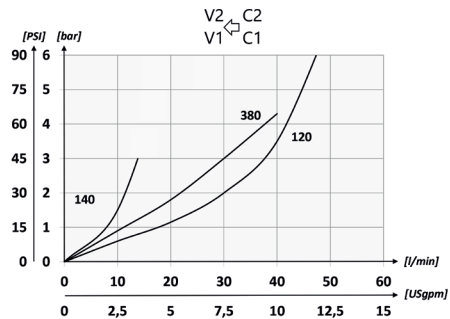
<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F +176°F
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b> -4°F +122°F
<b>È indispensabile la presenza di un filtro nel circuito idraulico per proteggere la valvola (filtrazione consigliata 15 µm)</b>	
A filter into the hydraulic circuit necessary to protect the valve (advised filtration 15 µm)	
<b>Trafilamento massimo</b> Max leakage	<b>0,25 cm<sup>3</sup>/min - 5 gocce/min</b> <b>0,015 in<sup>3</sup>/min - 5 drops/min</b>

### CODICE ORDINAZIONE / ORDERING CODE

01	02	03
<b>VRDD</b>		

<b>01</b>	VALVOLE DI BLOCCO A DOPPIO EFFETTO DIN2353 (DIN2353 DOUBLE ACTING PILOT CHECK VALVES)	<b>VRDD</b>
<b>02</b>	DIMENSIONE SIZE	BSPP 1/4
		BSPP 3/8
		BSPP 1/2
<b>03</b>	DIMENSIONE TUBO SIZE PIPE	Per tubo Ø 8 - For Ø 8 pipe only for <b>BSPP 1/4</b>
		Per tubo Ø 12 - For Ø 12 pipe standard only for <b>BSPP 1/4 and 3/8</b>
		Per tubo Ø 15 - For Ø 15 pipe standard only for <b>BSPP 1/2</b>

### PERFORMANCES



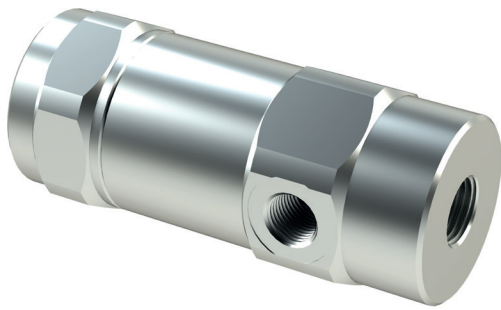
### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	mm - inch										Ch.	PESO APPROX APPROX WEIGHT kg-lbt	RAPPORTO DI PILOTAGGIO PILOT RATIO
				B	C	D	E	F	G	H	I	L	M			
VRDD140T8	BSPP 1/4	10 (2.6)	350 (5075)	30 (1.18)	40 (1.57)	63 (2.48)	12,5 (0.49)	28 (1.10)	30 (1.18)	6,5 (0.26)	35 (1.38)	113 (4.45)	8 (0.31)	17	0,60 (1.32)	1:9
VRDD140		15 (4)						32 (1.26)				127 (5)	12 (0.47)			
VRDD380	BSPP 3/8	35 (9.2)		35 (1.38)	50 (1.97)	82 (3.23)	16,5 (0.65)	33,5 (1.32)	36 (1.42)	149 (5.87)	15 (0.59)	27	1,17 (2.57)	1:4		
VRDD120	BSPP 1/2	45 (11.9)		35 (1.38)	50 (1.97)	82 (3.23)	16,5 (0.65)	33,5 (1.32)	36 (1.42)	149 (5.87)	15 (0.59)	27	1,17 (2.57)			

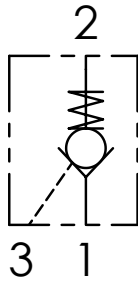


# VRPE VALVOLE DI BLOCCO PILOTATE A SEMPLICE EFFETTO

## SINGLE ACTING PILOT CHECK VALVES



SCHEMA IDRAULICO / HYDRAULIC CIRCUIT

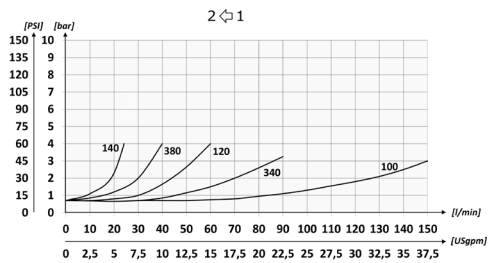
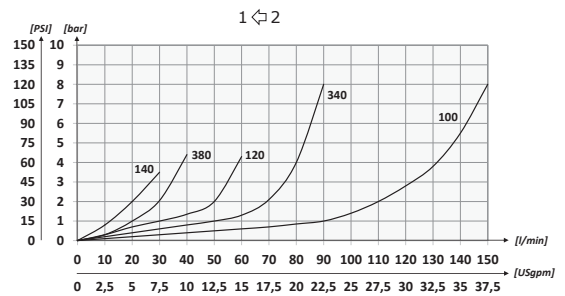


**CODICE ORDINAZIONE**  
ORDERING CODE

01	02
<b>VRPE</b>	

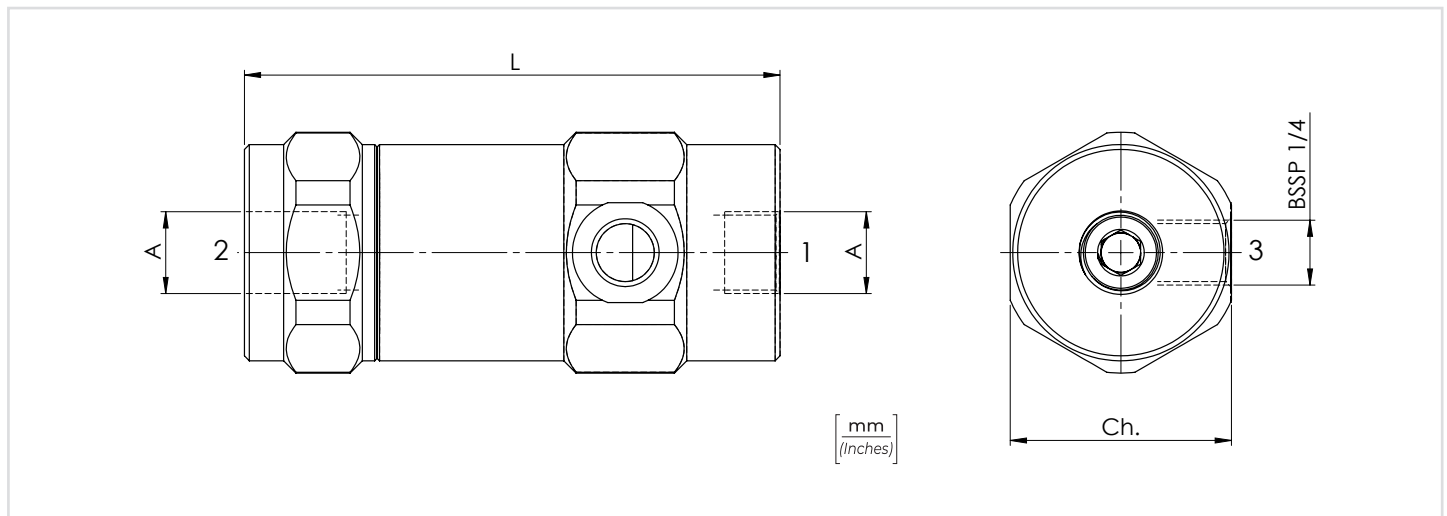
01	VALVOLE DI BLOCCO PILOTATE A SEMPLICE EFFETTO (SINGLE ACTING PILOT CHECK VALVES)	VRPE	
02	DIMENSIONE (SIZE)	BSPP 1/4	<b>140</b>
		BSPP 3/8	<b>380</b>
		BSPP 1/2	<b>120</b>
		BSPP 3/4	<b>340</b>
		BSPP 1	<b>100</b>

### PERFORMANCES



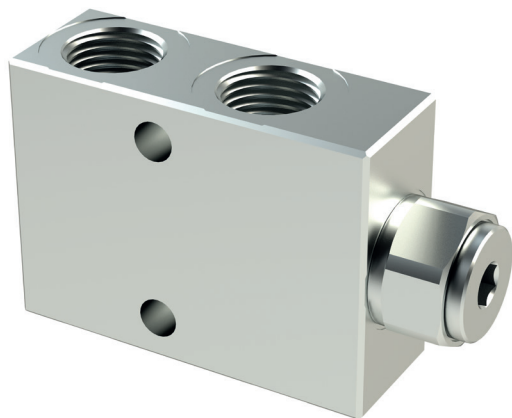
### DATI TECNICI / TECHNICAL DATA

Olío idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olío - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olío - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	
Trafilamento massimo Max leakage	0,25 cm <sup>3</sup> /min - 5 gocce/min 0,015 in <sup>3</sup> /min - 5 drops/min



### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

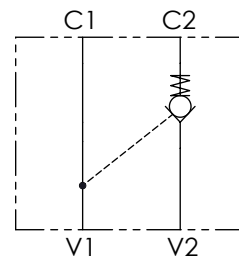
TIPO TYPE	A	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	L	C	PESO APPROX (kg) APPROX WEIGHT (lbt)	RAPPORTO DI PILOTAGGIO PILOT RATIO
VRPE140	BSPP 1/4	25 (6.6)	350 (5075)	96 (3.78)	40 (1.57)	0,84 (1.85)	1:5.3
VRPE380	BSPP 3/8	40 (10.6)		109 (4.29)	45 (1.77)	1,14 (2.51)	1:4.4
VRPE120	BSPP 1/2	60 (15.9)		122 (4.80)		1,24 (2.73)	1:4.2
VRPE340	BSPP 3/4	100 (26.4)	300 (4350)	132 (5.20)	55 (2.17)	1,87 (4.12)	1:4
VRPE100	BSPP 1	150 (39.6)		166 (6.54)	65 (2.56)	3,22 (7.10)	1:4.1



	01	02
<b>CODICE ORDINAZIONE</b> ORDERING CODE	<b>VRP</b>	

<b>01</b>	VALVOLE DI BLOCCO PILOTATE A SEMPLICE EFFETTO (SINGLE ACTING PILOT CHECK VALVES)	<b>VRP</b>
<b>02</b>	DIMENSIONE (SIZE)	<b>380</b>
		<b>120</b>

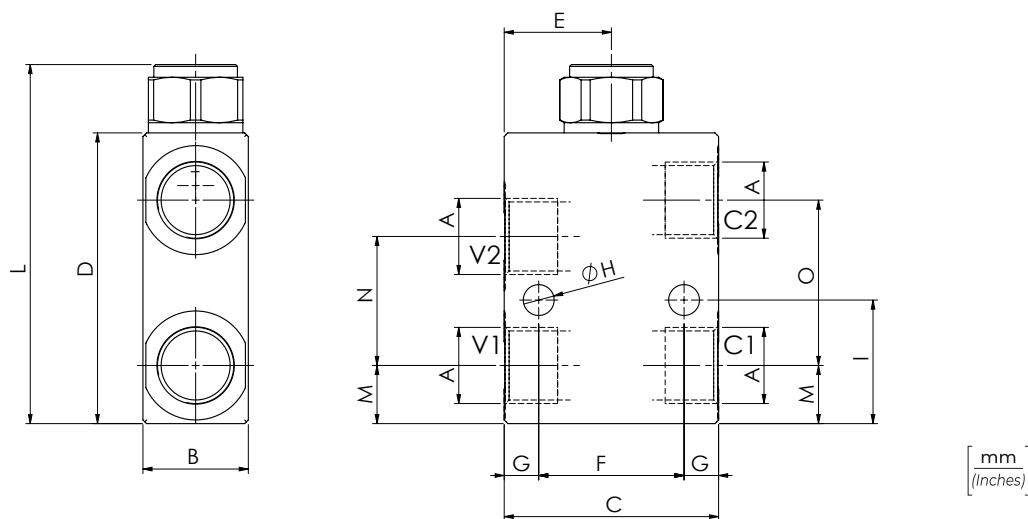
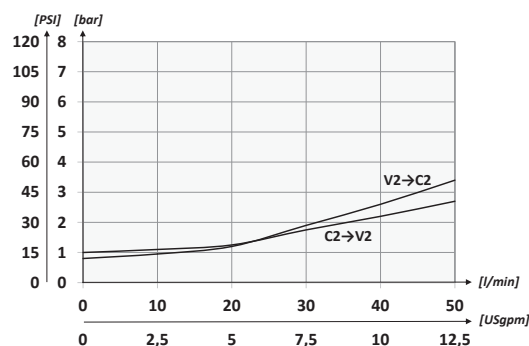
### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### DATI TECNICI / TECHNICAL DATA

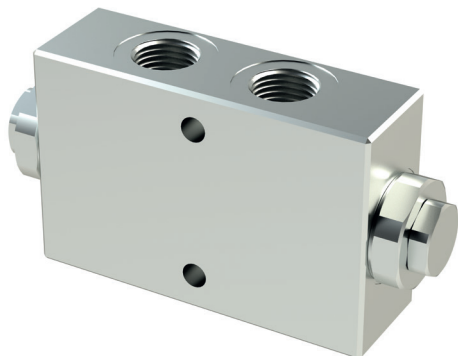
Olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	
Trafilamento massimo Max leakage	0,25 cm <sup>3</sup> /min - 5 gocce/min 0,015 in <sup>3</sup> /min - 5 drops/min

### PERFORMANCES



### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	B	C	D	E	F	G	H	I	L	M	N	O	PESO APPROX APPROX WEIGHT kg-lbt	RAPPORTO DI PILOTAGGIO PILOT RATIO
VRP380	BSPP 3/8	35 (9.2)	350 (5075)	29 (1.14)	59 (2.32)	80 (3.5)	29,5 (1.16)	40 (1.57)	9,5 (0.37)	8,5 (0.33)	31,75 (1.25)	99 (3.70)	15 (0.59)	33,50 (1.32)	50 (1.97)	0,9 (2)	1:4
VRP120	BSPP 1/2	50 (13.2)		34 (1.34)	16 (0.63)	35,50 (1.40)	45,5 (1.79)										

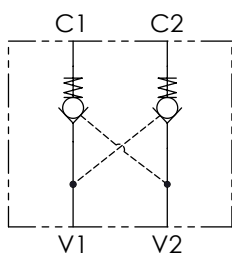


**CODICE ORDINAZIONE**  
ORDERING CODE

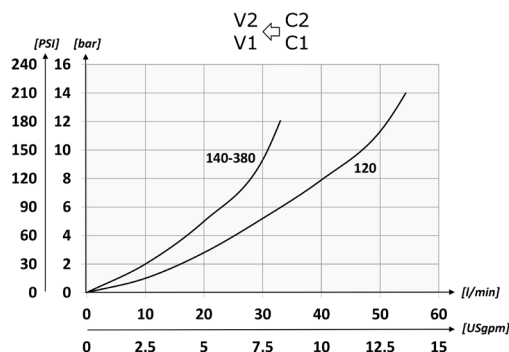
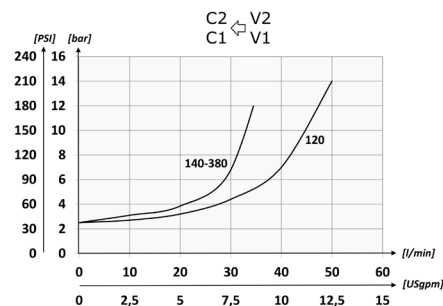
01	02
<b>VRDL</b>	

<b>01</b>	VALVOLE DI BLOCCO PILOTATE A DOPPIO EFFETTO (DOUBLE ACTING PILOT CHECK VALVES)	<b>VRDL</b>
<b>02</b>	DIMENSIONE (SIZE)	BSPP 1/4
		BSPP 3/8
		BSPP 1/2

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**

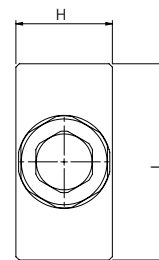
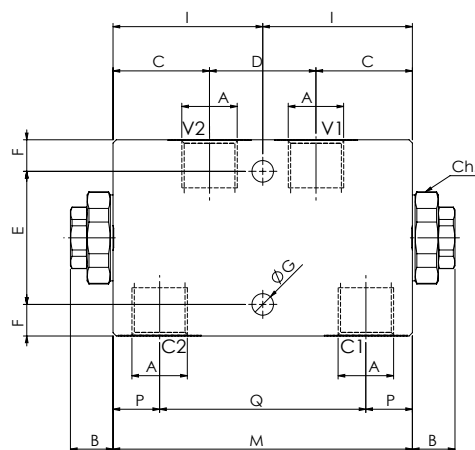


**PERFORMANCES**



**DATI TECNICI / TECHNICAL DATA**

Olío idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	
Trafilamento massimo Max leakage	0,25 cm <sup>3</sup> /min - 5 gocce/min 0,015 in <sup>3</sup> /min - 5 drops/min



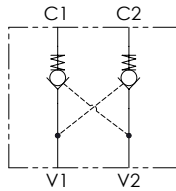
[ mm ]  
[ Inches ]

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	B	C	D	E	F	G	H	I	L	M	P	Q	PESO APPROX APPROX WEIGHT kg-lbt	RAPPORTO DI PILOTAGGIO PILOT RATIO
VRDL140N	BSPP 1/4	35 (9.2)	350 (5075)	13	29	32	40	9,5	6,5	29	45	59	90	14	62	1,18 (2.60)	1:7
VRDL380N	BSPP 3/8			(0.51)	(1.14)	(1.26)		(0.37)	(0.26)	(1.14)	(1.77)	(2.32)	(3.54)	(0.55)	(2.44)	1,10 (2.42)	
VRDL120N	BSPP 1/2	50 (13.2)		14,8	38	34	(0.57)	14,5	8,5	34	55	69	110	20,5	69	1,77 (3.90)	
				(0.58)	(1.50)	(1.34)		(0.57)	(0.33)	(1.34)	(2.17)	(2.72)	(4.33)	(0.81)	(2.72)		



### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### DATI TECNICI / TECHNICAL DATA

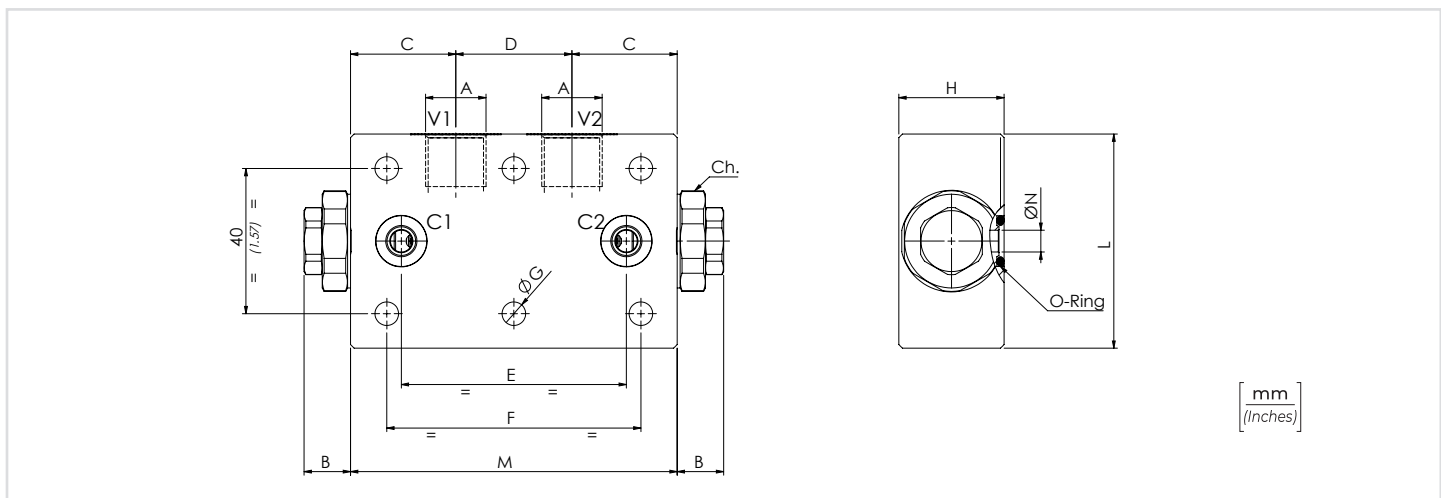
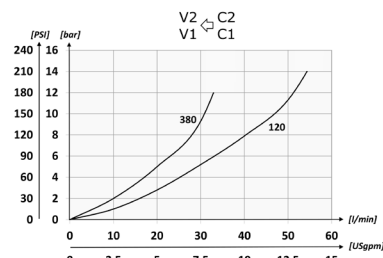
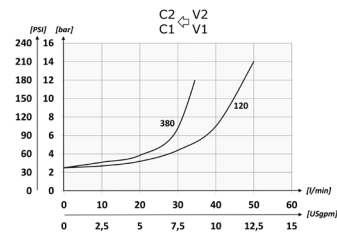
<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F +176°F
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b> -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	
<b>Trafilamento massimo</b> Max leakage	<b>0,25 cm<sup>3</sup>/min - 5 gocce/min</b> <b>0,015 in<sup>3</sup>/min - 5 drops/min</b>

### CODICE ORDINAZIONE / ORDERING CODE

01	02	03	04	05
<b>VRDF</b>				

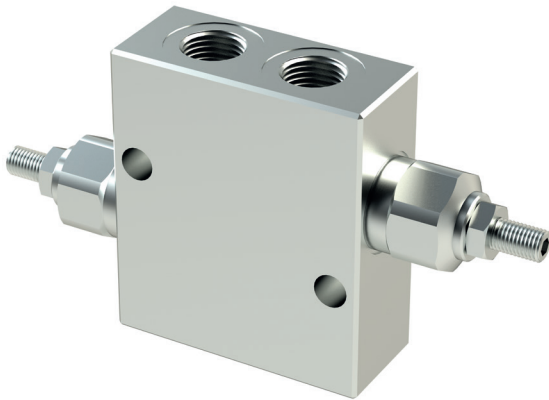
<b>01</b>	VALVOLE DI BLOCCO FLANGIATA A DOPPIO EFFETTO (DOUBLE ACTING PILOT CHECK VALVES - FLANGED VERSION)	<b>VRDF</b>
<b>02</b>	DIMENSIONE (SIZE)	<b>380</b>
		<b>120</b>
<b>03</b>	MOLLA (SPRING)	<b>1</b>
		<b>6</b>
<b>04</b>	O-RING SUL PISTONE DI PILOTAGGIO (O-RING ON PILOT PISTON)	<b>0</b>
		<b>1</b>
<b>05</b>	RAPPORTO DI PILOTAGGIO (PILOT RATIO)	<b>32</b>
		<b>70</b>

### PERFORMANCES

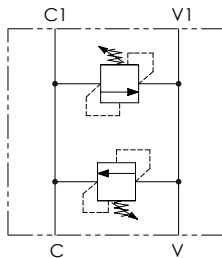


### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

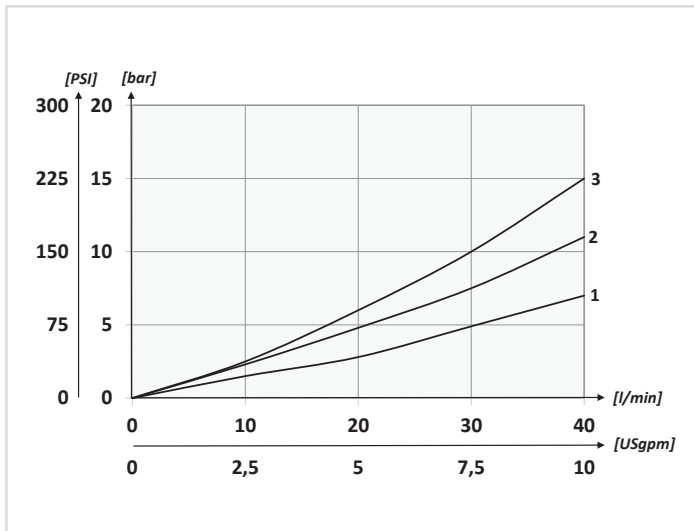
TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	B	C	D	E	F	G	H	L	M	N	O-RING	PESO APPROX APPROX WEIGHT kg-lbt	RAPPORTO DI PILOTAGGIO PILOT RATIO
VRDF380	BSPP 3/8	35 (9.2)	350 (5075)	12,8 (0.50)	29 (1.94)	32 (1.26)	62 (2.44)	70 (2.76)	6.5 (0.26)	34 (1.34)	59 (2.32)	90 (3.54)	Ø 6 (0,24)	9,19x2,62	1,11 (2.44)	1:7
VRDF120	BSPP 1/2	50 (13.2)		14,8 (0.58)	38 (1.50)	34 (1.34)	65 (2.56)	80 (3.15)	8.5 (0.33)		69 (2.72)	110 (4.33)	Ø 7 (0,28)	15,08x2,62	1,85 (4)	1:3,2
																1:7



### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### PERFORMANCES



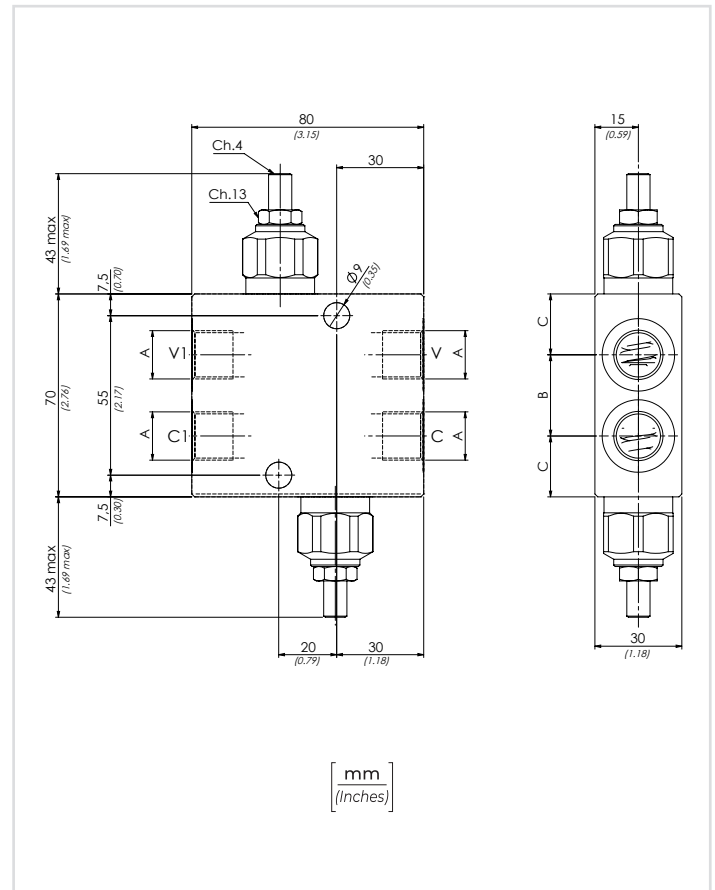
### DATI TECNICI / TECHNICAL DATA

olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	

### CODICE ORDINAZIONE ORDERING CODE

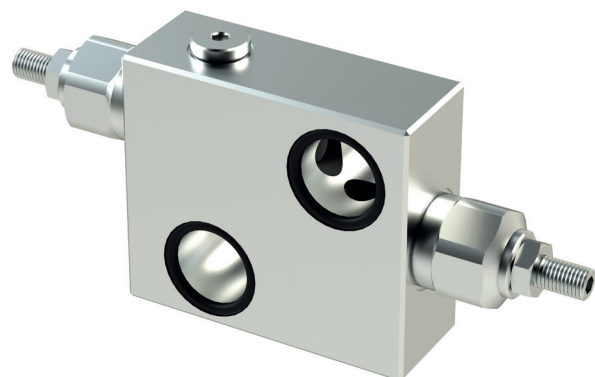
01	02	03
<b>VBDC</b>		

01	VALVOLE ANTIURTO DOPPIE INCROCIATE (DOUBLE CROSS LINE DIRECT ACTING RELIEF VALVES)	VBDC
02	DIMENSIONE (SIZE)	BSPP 3/8 <b>380</b>
		BSPP 1/2 <b>120</b>
03	MOLLA (SPRING) <b>10/90 bar</b> (145/1305 PSI)	<b>12 bar/al giro</b> (174 PSI/turn) <b>1</b>
	MOLLA (SPRING) <b>20/210 bar</b> (290/3045 PSI)	<b>33 bar/al giro</b> (479 PSI/turn) <b>2</b>
	MOLLA (SPRING) <b>70/350 bar</b> (1015/5075 PSI)	<b>70 bar/al giro</b> (1015 PSI/turn) <b>3</b>



### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

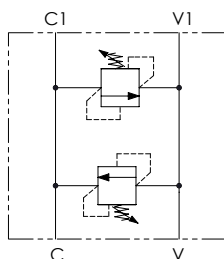
TIPO TYPE	A	PORTATA MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	B	C	PESO APPROX APPROX WEIGHT kg-lbt	VALVOLA TIPO TYPE OF VALVE
VBDC380	BSPP 3/8	40 (10.6)	350 (5075)	28 (1.10)	21 (0.83)	1,18 (2.60)	VMD40S
				33 (1.30)	18,5 (0.73)		
VBDC120	BSPP 1/2			33 (1.30)	18,5 (0.73)	1,12 (2.47)	



	01	02	03
<b>CODICE ORDINAZIONE</b> ORDERING CODE	<b>DCV</b>	<b>120</b>	

<b>01</b>	VALVOLE ANTIURTO DOPPIE INCROCIATE (DOUBLE CROSS LINE DIRECT ACTING RELIEF VALVES)	<b>DCV</b>	
<b>02</b>	DIMENSIONE (SIZE)  Ø 21 (BSPP 1/2)	<b>120</b>	
<b>03</b>	MOLLA (SPRING) <b>10/90 bar</b> (145/1305 PSI)	<b>12 bar/al giro</b> (174 PSI/turn)	<b>1</b>
	MOLLA (SPRING) <b>20/210 bar</b> (290/3045 PSI)	<b>33 bar/al giro</b> (479 PSI/turn)	<b>2</b>
	MOLLA (SPRING) <b>70/350 bar</b> (1015/5075 PSI)	<b>70 bar/al giro</b> (1015 PSI/turn)	<b>3</b>

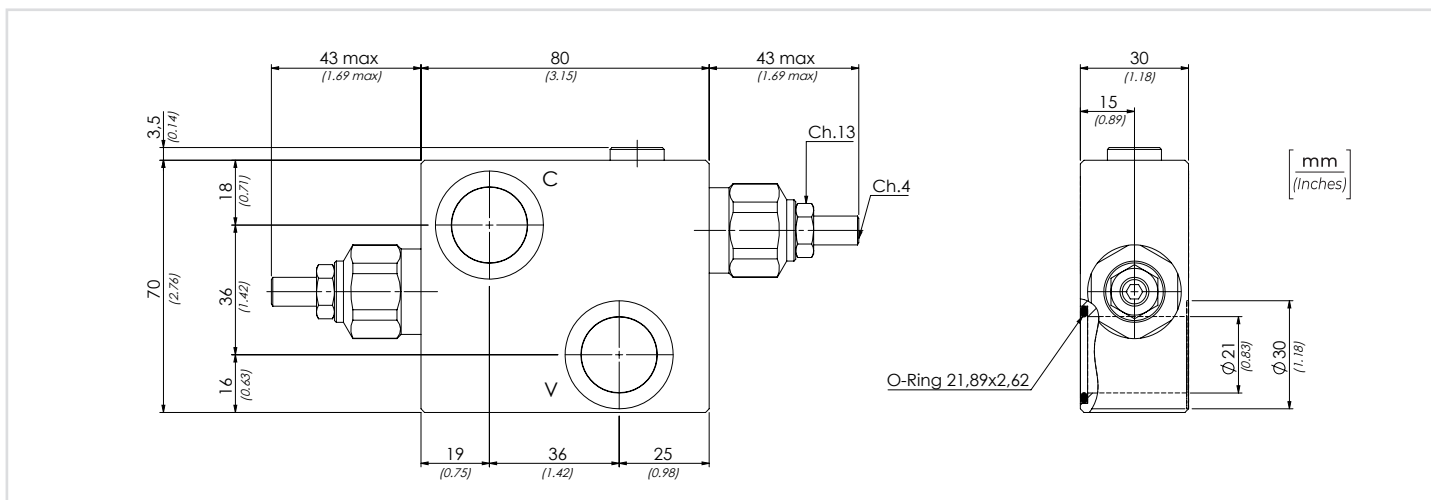
### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### DATI TECNICI / TECHNICAL DATA

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F + 176°F
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b> -4°F + 122°F

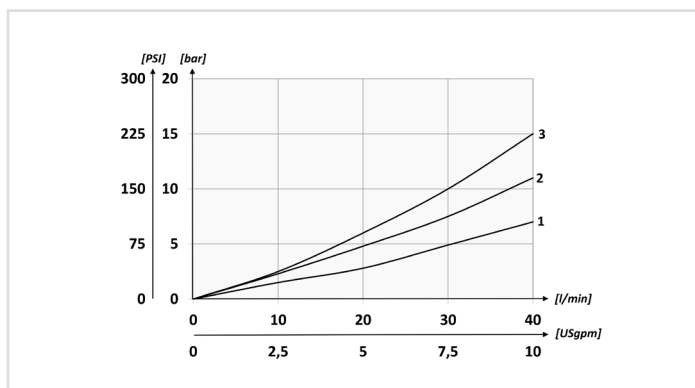
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)  
It is necessary a filter use to protect the valve (advised filtration 15 µm)

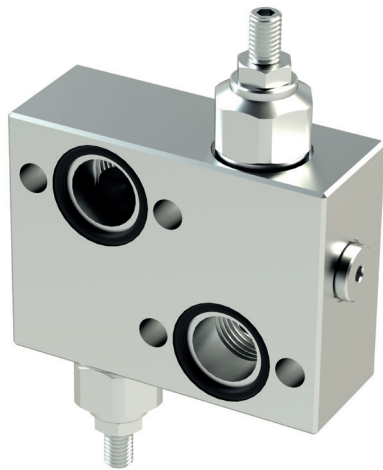


### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PORTATA MAX MAX FLOW l/min-USgpm	PESO APPROX APPROX WEIGHT kg-lbt	VALVOLA TIPO TYPE OF VALVE
DCV120	Ø 21 (BSPP 1/2)	40 (10.6)	350 (5075)	1,2 (2.7)	VMD40S

### PERFORMANCES



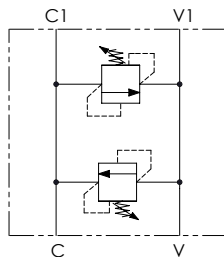


**CODICE ORDINAZIONE**  
ORDERING CODE

01	02	03
<b>DCF</b>		

<b>01</b>	VALVOLE ANTIURTO DOPPIE INCROCIATE (DOUBLE CROSS LINE DIRECT ACTING RELIEF VALVES)	<b>DCF</b>
<b>02</b>	DIMENSIONE (SIZE)	<b>120</b>
<b>03</b>	MOLLA (SPRING) <b>10/40 bar</b> (145/580 PSI)	<b>1</b>
	MOLLA (SPRING) <b>20/210 bar</b> (290/3045 PSI)	<b>2</b>
	MOLLA (SPRING) <b>70/350 bar</b> (1015/5075 PSI)	<b>3</b>

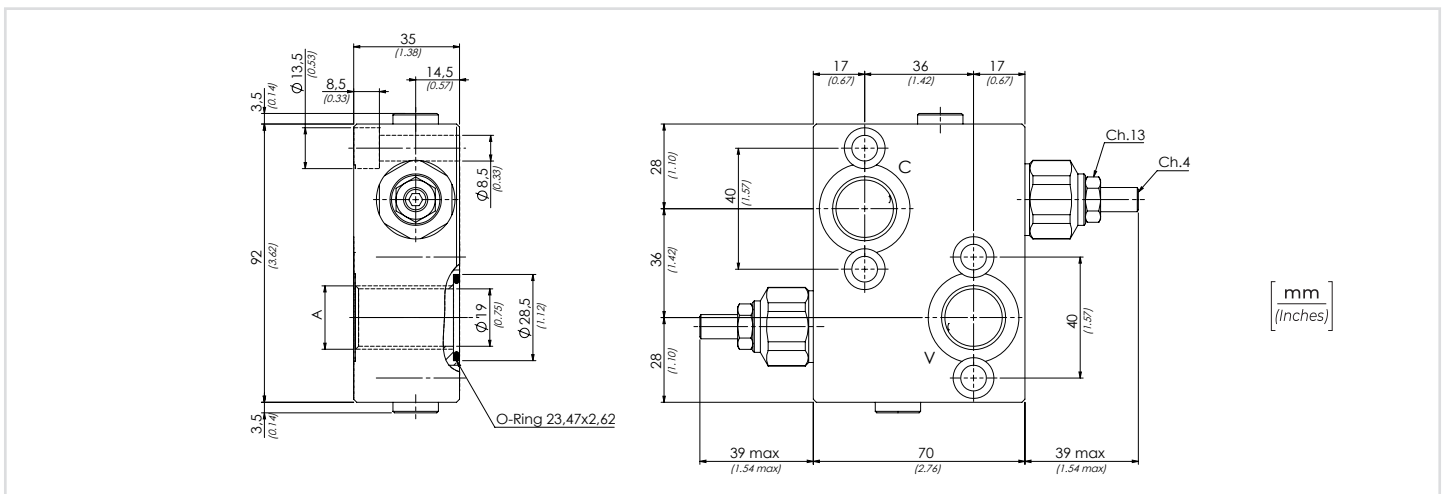
**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**DATI TECNICI / TECHNICAL DATA**

<b>Olio idraulico - Mineral oil</b>	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio - Oil viscosity</b>	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max Max contamination index</b>	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio - Oil temperature</b>	<b>-20°C +80°C</b> -4°F + 176°F
<b>Temperatura ambiente - Environment temperature</b>	<b>-20°C +50°C</b> -4°F + 122°F

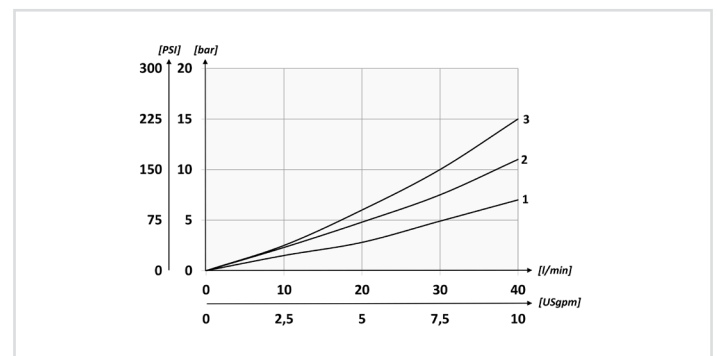
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)  
It is necessary a filter use to protect the valve (advised filtration 15 µm)



**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	PESO APPROX APPROX WEIGHT kg-lbt	VALVOLA TIPO TYPE OF VALVE
DCF120	BSPP 1/2	40 (10.6)	350 (5075)	1,5 (3.3)	VMD40S

**PERFORMANCES**



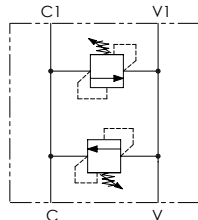


**CODICE ORDINAZIONE**  
ORDERING CODE

01	02	03
<b>DCM</b>		

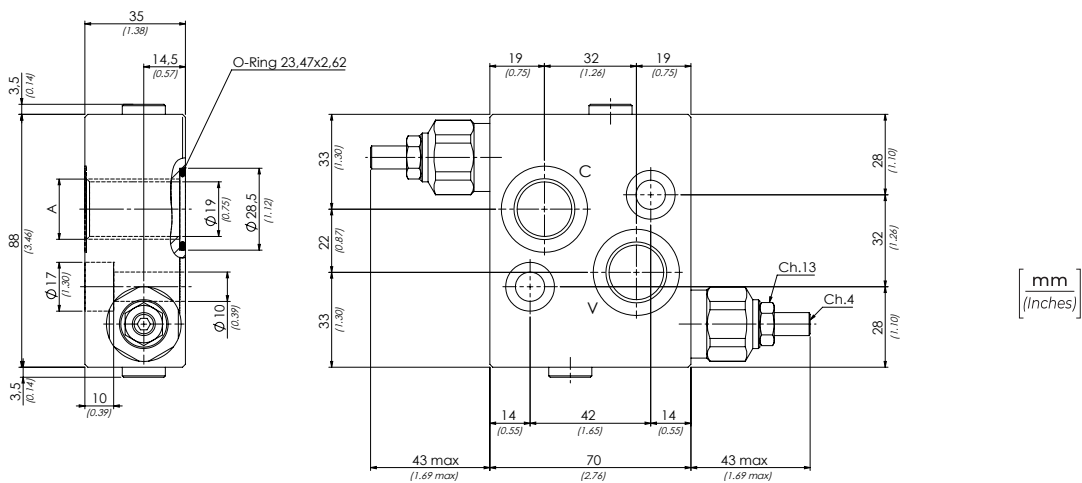
<b>01</b>	VALVOLE ANTIURTO DOPPIE INCROCIATE (DOUBLE CROSS LINE DIRECT ACTING RELIEF VALVES)	<b>DCM</b>
<b>02</b>	DIMENSIONE (SIZE)	<b>120</b>
<b>03</b>	MOLLA (SPRING) <b>10/40 bar</b> (145/580 PSI)	<b>1</b>
	MOLLA (SPRING) <b>20/210 bar</b> (290/3045 PSI)	<b>2</b>
	MOLLA (SPRING) <b>70/350 bar</b> (1015/5075 PSI)	<b>3</b>

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**DATI TECNICI / TECHNICAL DATA**

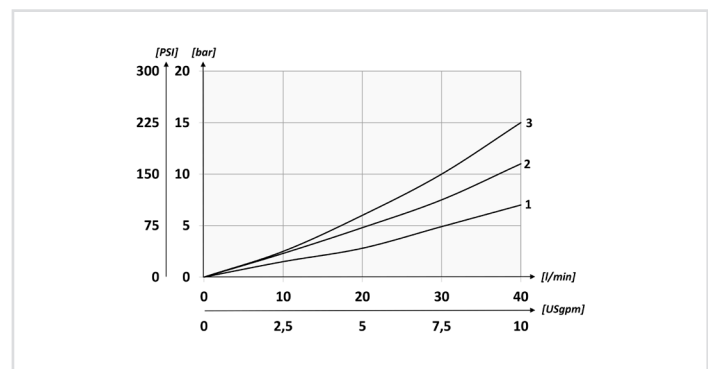
<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F + 176°F
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b> -4°F + 122°F
<b>È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)</b> It is necessary a filter use to protect the valve (advised filtration 15 µm)	



**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-U- Sgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	PESO APPROX APPROX WEIGHT kg-lbt	VALVOLA TIPO TYPE OF VALVE
DCM120	BSPP 1/2	40 (10.6)	350 (5075)	1,45 (3.20)	VMD40S

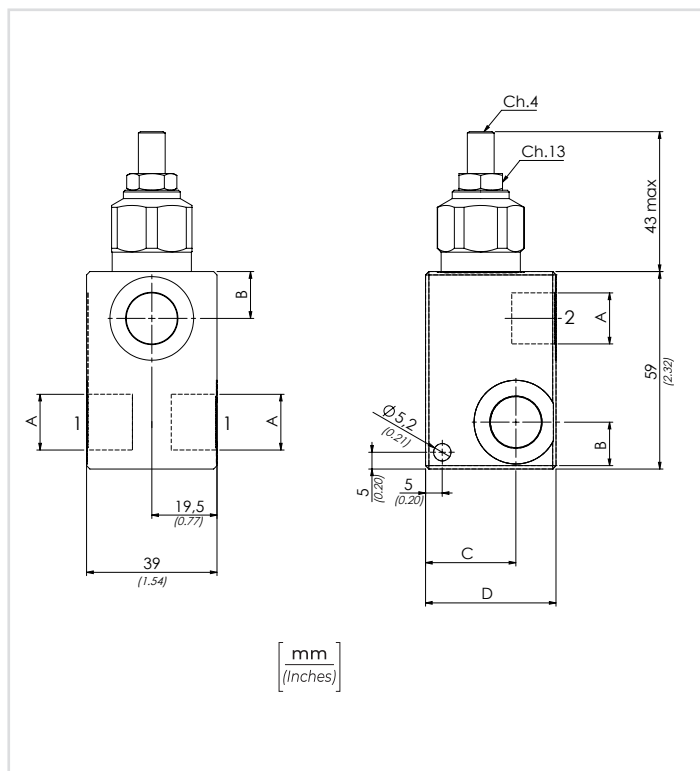
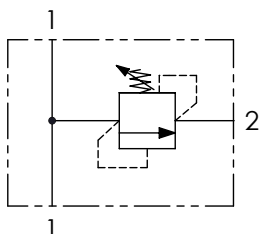
**PERFORMANCES**







### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT

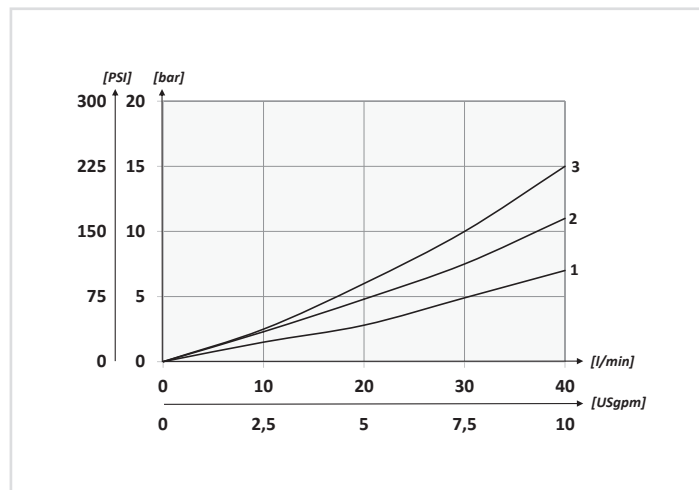


### CODICE ORDINAZIONE ORDERING CODE

	01	02	03	04
<b>VMDR40</b>				

01	VALVOLE DI MASSIMA PRESSIONE DIRETTA IN LINEA (DIRECT ACTING PRESSURE RELIEF VALVES)	VMDR40
02	DIMENSIONE (SIZE)	BSPP 3/8 <b>380</b>
		BSPP 1/2 <b>120</b>
03	REGOLAZIONE (SETTING)	Chiave (Screw) <b>C</b>
		Volantino (Handknob) Tipo (Type) <b>81300109</b> <b>V</b>
04	MOLLA (SPRING) <b>10/90 bar</b> (145/1305 PSI)	<b>12 bar/al giro</b> (174 PSI/turn) <b>1</b>
	MOLLA (SPRING) <b>20/210 bar</b> (290/3045 PSI)	<b>33 bar/al giro</b> (479 PSI/turn) <b>2</b>
	MOLLA (SPRING) <b>70/350 bar</b> (1015/5075 PSI)	<b>70 bar/al giro</b> (1015 PSI/turn) <b>3</b>

### PERFORMANCES



### DATI TECNICI / TECHNICAL DATA

olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F

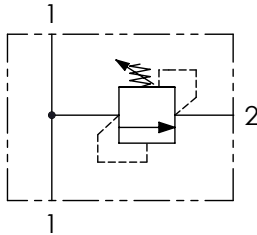
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)  
It is necessary a filter use to protect the valve (advised filtration 15 µm)

### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

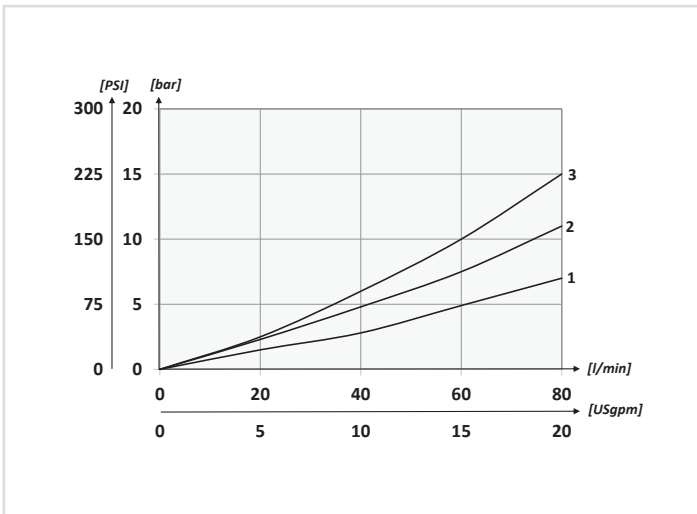
TIPO TYPE	A	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	B	C	D	PESO APPROX (kg) APPROX WEIGHT (lb)
VMDR40380	BSPP 3/8	40 (10.6)	350 (5075)	14 (0.55)	27 (1.06)	39 (1.54)	0,64 (1.39)
VMDR40120	BSPP 1/2			15 (0.59)	29,5 (1.16)	45 (1.77)	0,69 (1.50)



### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### PERFORMANCES



### DATI TECNICI / TECHNICAL DATA

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F + 176°F
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b> -4°F + 122°F

È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)  
It is necessary a filter use to protect the valve (advised filtration 15 µm)

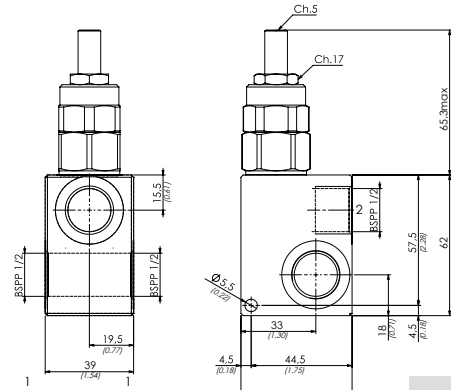
### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO TYPE	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	PESO APPROX (kg) APPROX WEIGHT (lbt)
VMDR90120	80 (21.1)	350 (5075)	0,65 (1.43)
VMDR90340			1 (2.2)

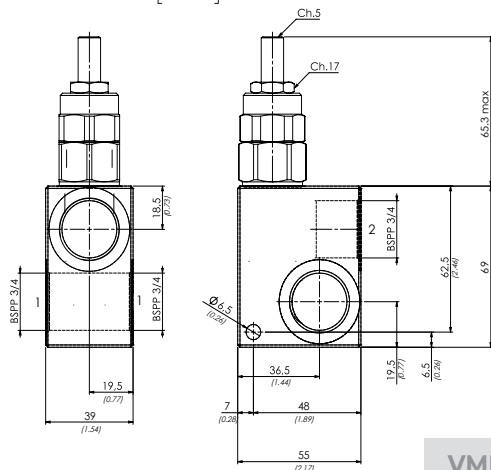
### CODICE ORDINAZIONE ORDERING CODE

01	02	03	04
<b>VMDR90</b>			

<b>01</b>	VALVOLE DI MASSIMA PRESSIONE DIRETTA IN LINEA (DIRECT ACTING PRESSURE RELIEF VALVES)	<b>VMDR90</b>
<b>02</b>	DIMENSIONE (SIZE)	BSPP 1/2 <b>120</b>
		BSPP 3/4 <b>340</b>
<b>03</b>	REGOLAZIONE (SETTING)	Chiave (Screw) <b>C</b>
		Volantino (Handknob) Tipo (Type) <b>81300023</b> <b>V</b>
<b>04</b>	MOLLA (SPRING) <b>10/100 bar</b> (145/1450 PSI)	<b>26 bar/al giro</b> (377 PSI/turn) <b>1</b>
	MOLLA (SPRING) <b>20/250 bar</b> (290/3625 PSI)	<b>41 bar/al giro</b> (595 PSI/turn) <b>2</b>
	MOLLA (SPRING) <b>50/350 bar</b> (725/5075 PSI)	<b>91 bar/al giro</b> (1320 PSI/turn) <b>3</b>



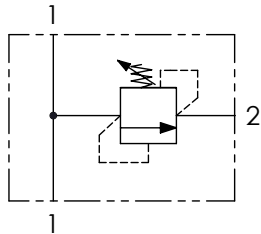
**VMDR90120**



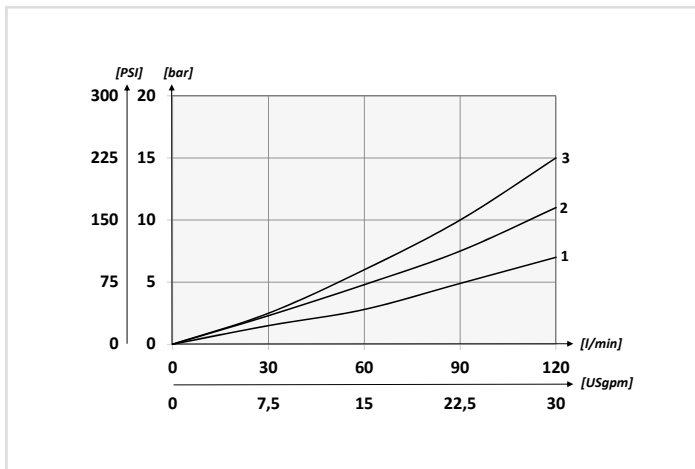
**VMDR90340**



### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### PERFORMANCES



### DATI TECNICI / TECHNICAL DATA

Oilio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	

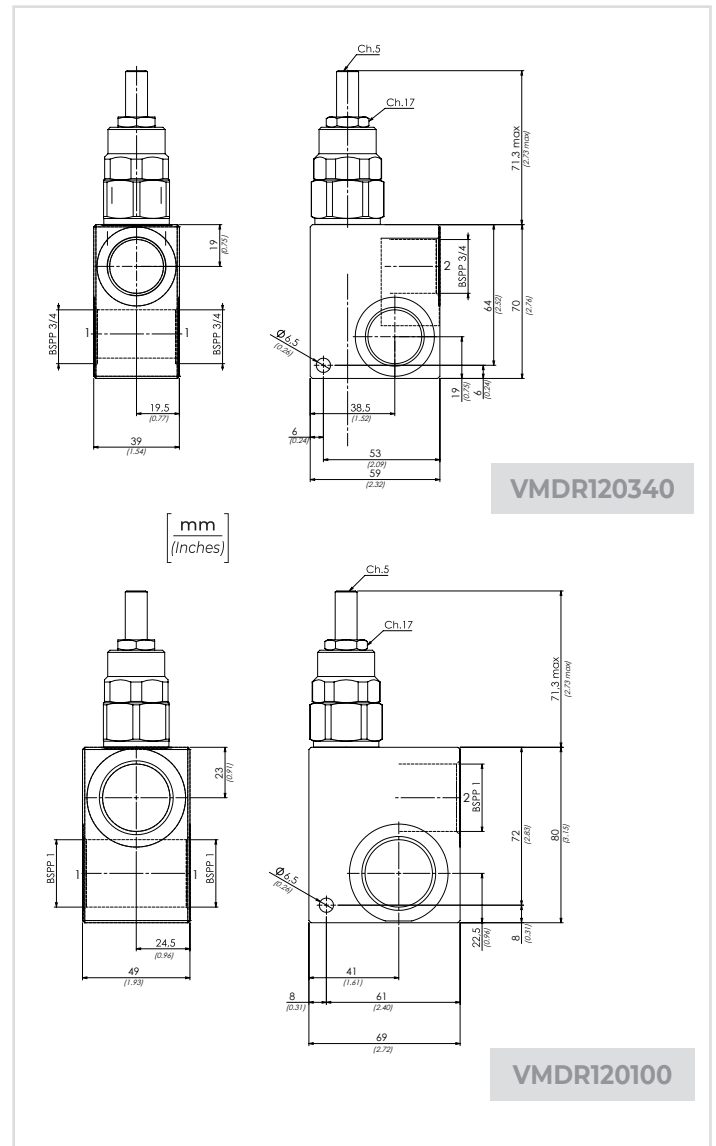
### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

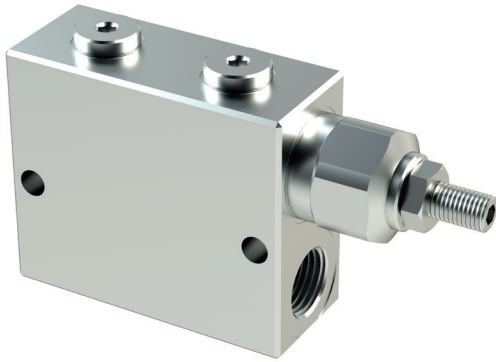
TIPO TYPE	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	PESO APPROX (kg) APPROX WEIGHT (lbt)
VMDR120340	120 (31.7)	350 (5075)	1,1 (2.42)
VMDR120100			1,7 (3.74)

### CODICE ORDINAZIONE ORDERING CODE

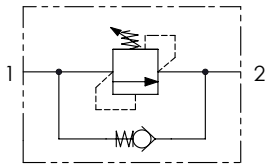
01	02	03	04
<b>VMDR120</b>			

01	VALVOLE DI MASSIMA PRESSIONE DIRETTA IN LINEA (DIRECT ACTING PRESSURE RELIEF VALVES)	VMDR120
02	DIMENSIONE (SIZE)	BSPP 3/4 <b>340</b>
		BSPP 1 <b>100</b>
03	REGOLAZIONE (SETTING)	Chiave (Screw) <b>C</b>
		Volantino (Handknob) Tipo (Type) <b>81300023</b> <b>V</b>
04	MOLLA (SPRING) <b>10/100 bar</b> (145/1450 PSI)	<b>21 bar/al giro</b> (305 PSI/turn) <b>1</b>
	MOLLA (SPRING) <b>20/250 bar</b> (290/3625 PSI)	<b>48 bar/al giro</b> (696 PSI/turn) <b>2</b>
	MOLLA (SPRING) <b>40/350 bar</b> (580/5075 PSI)	<b>55 bar/al giro</b> (798 PSI/turn) <b>3</b>

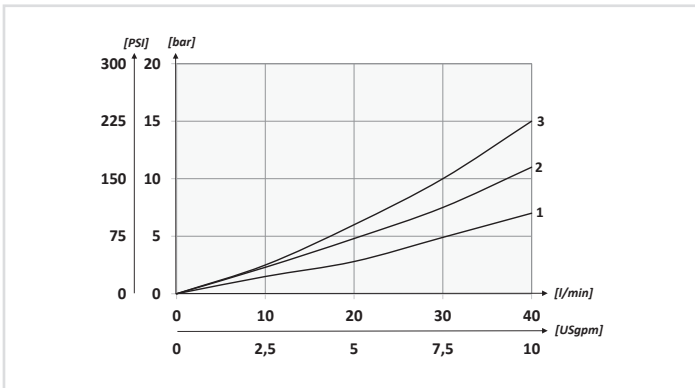




### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### PERFORMANCES



### CODICE ORDINAZIONE ORDERING CODE

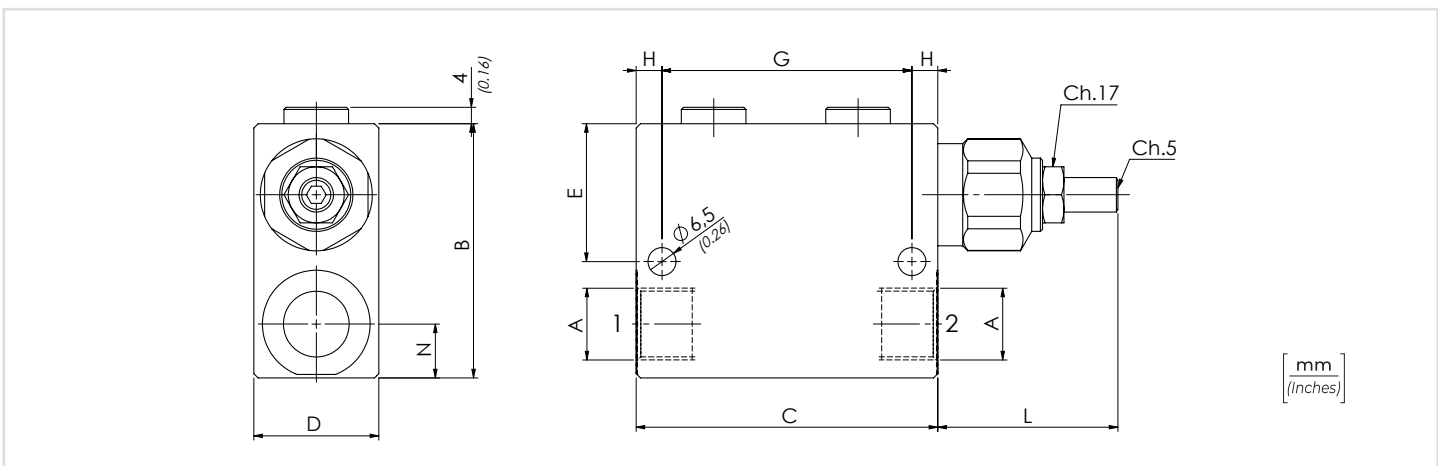
01	02	03
<b>VSL</b>		

01	VALVOLE DI SEQUENZA DIRETTE (IN-LINE DIRECT SEQUENCE VALVES)	VSL
02	DIMENSIONE (SIZE)	BSPP 1/4 <b>140</b>
		BSPP 3/8 <b>380</b>
		BSPP 1/2 <b>120</b>
03	MOLLA (SPRING) <b>10/90 bar</b> (145/1305 PSI) max	<b>1</b>
	MOLLA (SPRING) <b>20/210 bar</b> (290/3045 PSI) max	<b>2</b>
	MOLLA (SPRING) <b>70/350 bar</b> (1015/5075 PSI) max	<b>3</b>

### DATI TECNICI / TECHNICAL DATA

olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F

**È indispensabile la presenza di un filtro nel circuito idraulico per proteggere la valvola (filtrazione consigliata 15 µm)**  
A filter into the hydraulic circuit necessary to protect the valve (advised filtration 15 µm)



### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

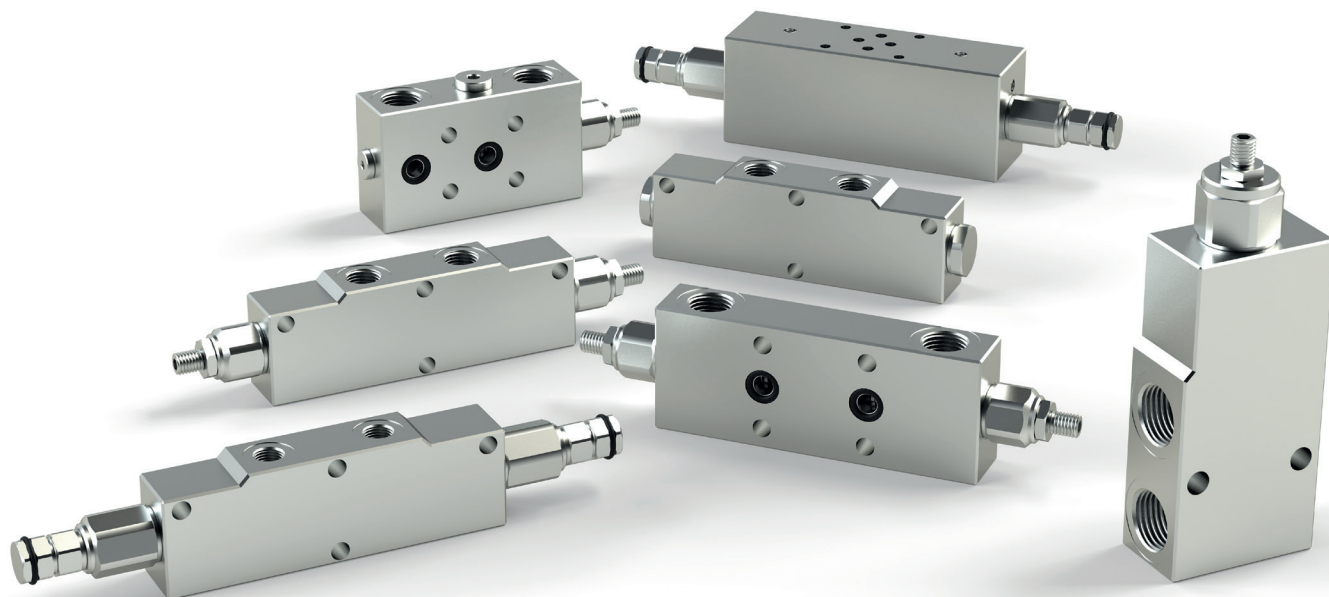
TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	mm - inch								PESO APPROX APPROX WEIGHT kg-lbt	
				B	C	D	E	G	L	N	H		P
VSL140	BSPP 1/4	20 (5.3)	350 (5075)	60 (2.36)	60 (0.98)	25 (0.98)	35.5 (1.40)	49 (1.93)	53 (2.09)	12 (0.47)	20 (0.79)	5.5 (0.22)	0,72 (1.58)
VSL380	BSPP 3/8	40 (10.6)			70 (2.76)	30 (1.18)	32.5 (1.28)	58 (2.28)	43 (1.69)	13 (0.51)	17 (0.67)	6.5 (0.26)	0,89 (1.96)
VSL120	BSPP 1/2				70 (2.76)	35 (1.38)	58 (2.28)	43 (1.69)	17 (0.67)	1 (2.21)			

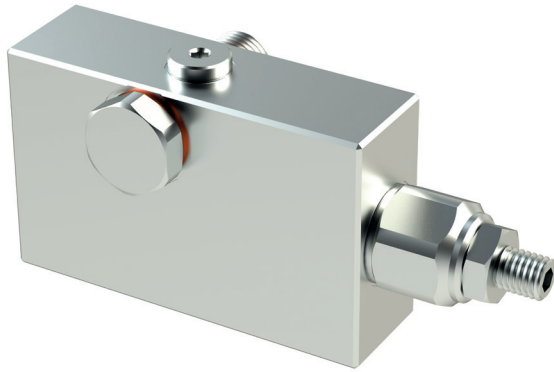
# VALVOLE DI BILANCIAMENTO

## COUNTERBALANCE VALVES

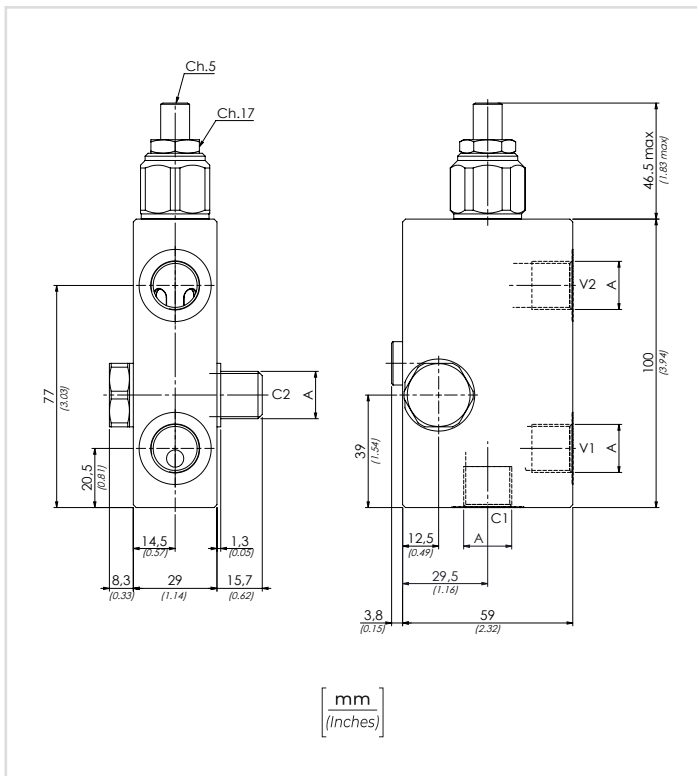
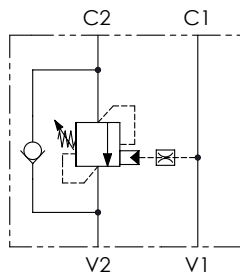
La gamma di valvole di bilanciamento OLEOWEB comprende soluzioni per installazioni in linea o flangiata o con bullone banjo su cilindro a motore, con bocche filettate BSPP-GAS o SAE UNF, e per installazioni su sistemi a centro aperto (non compensate) e a centro chiuso (semi-compensate).

The range of Oleoweb's Overcenter valves includes solutions for in-line installations, flanged or with banjo bolt, with BSPP-GAS or UNF-SAE threaded parts, and for installation on open center (not compensated) or closed center (semi-compensated) systems.





### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### DATI TECNICI / TECHNICAL DATA

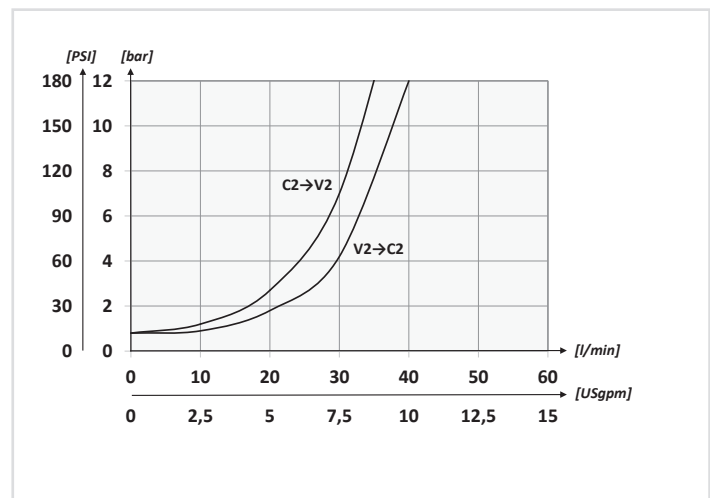
Oil idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C    -4°F + 176°F
Temperatura ambiente - Environment temperature	-20°C +50°C    -4°F + 122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	

CODICE ORDINAZIONE ORDERING CODE	01	02	03	04	05
<b>VBCB 380</b>					

01	VALVOLE DI BILANCIAMENTO SINGOLE A BULLONE PER CENTRO APERTO (BOLT-FITTING SINGLE COUNTERBALANCE VALVES FOR OPEN CENTER)				<b>VBCB</b>
02	DIMENSIONE (SIZE)	BSPP 3/8			<b>380</b>
03	MOLLA (SPRING) <b>30/210 bar</b> (435/3045 PSI)	Rp 1:4.25	<b>78 bar/al giro</b> (1131 PSI/turn)	Taratura standard (Std. setting) <b>Q=5 l/min 200 bar</b> (2900 PSI)	<b>1</b>
		Rp 1:8.75	<b>160 bar/al giro</b> (2320 PSI/turn)		
03	MOLLA (SPRING) <b>60/350 bar</b> (870/5075 PSI)	Rp 1:4.25	<b>135 bar/al giro</b> (1958 PSI/turn)	Taratura standard (Std. setting) <b>Q=5 l/min 350 bar</b> (5075 PSI)	<b>2</b>
		Rp 1:8.75	<b>160 bar/al giro</b> (2320 PSI/turn)		
04	MATERIALE (MATERIAL)	Acciaio + zincatura (Steel + zinc-plating)			<b>S</b>
		Acciaio + zinco-nichel (Steel + zinc-nickel)			<b>K</b>
05	RAPPORTO DI PILOTAGGIO (PILOT RATIO)	1:4.25 Standard			<b>/</b>
		1:8.75			<b>8</b>

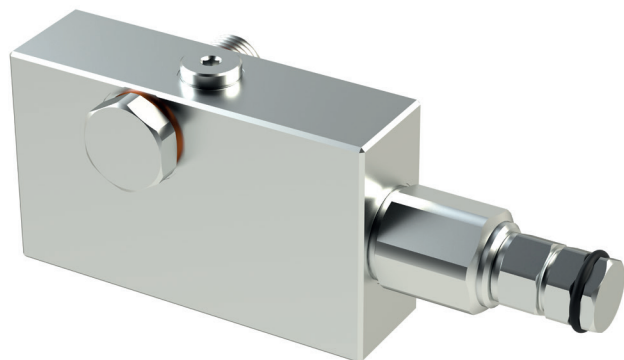
Opzione: Tappo piombatura - Optional: Tamper proof cap **81300095**

### PERFORMANCES

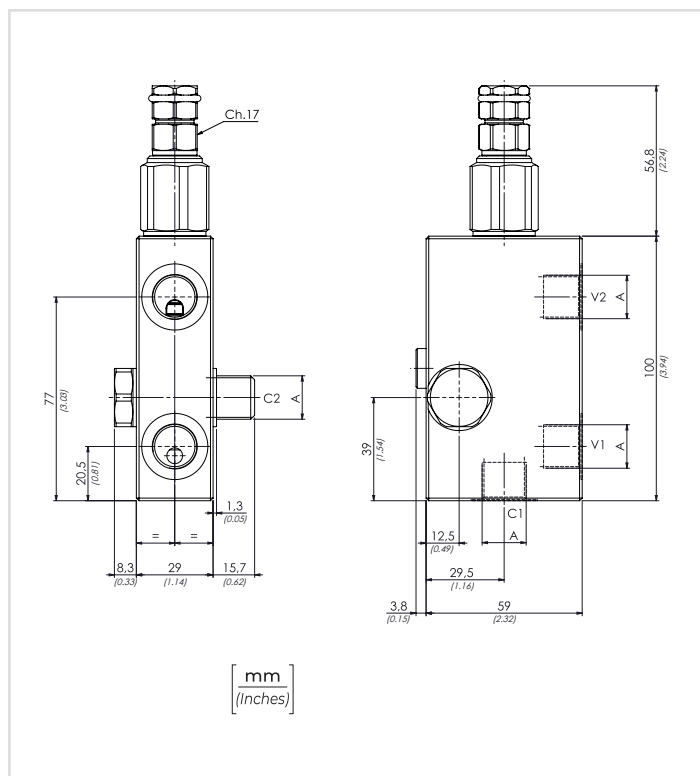
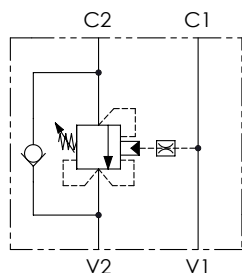


### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	PESO APPROX APPROX WEIGHT kg-lbt
<b>VBCB380</b>	<b>BSPP 3/8</b>	<b>40 (10.6)</b>	<b>350 (5075)</b>	<b>1,24 (2.73)</b>



### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### DATI TECNICI / TECHNICAL DATA

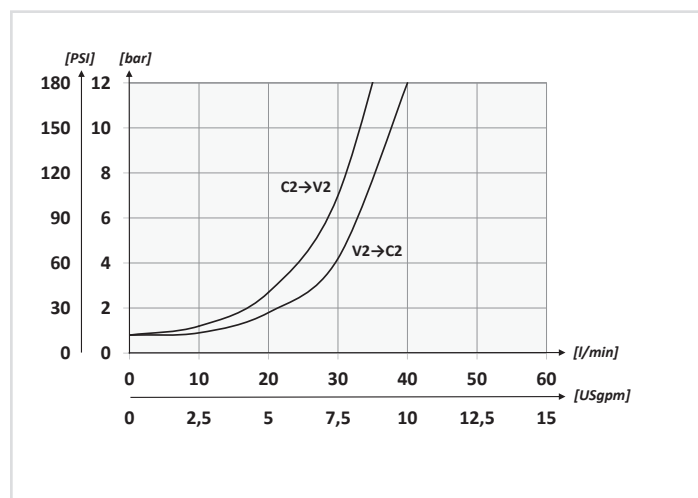
Olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F + 176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F + 122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	

### CODICE ORDINAZIONE / ORDERING CODE

01	02	03	04	05
<b>VCCB</b>	<b>380</b>		<b>S</b>	

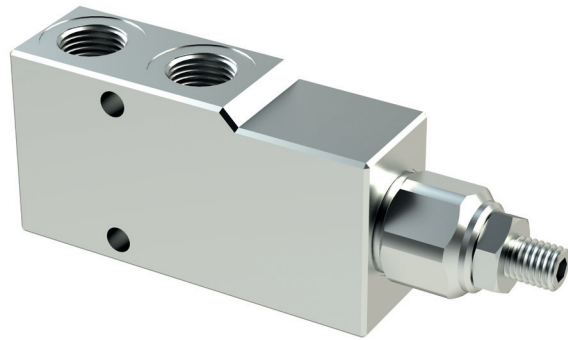
<b>01</b>	VALVOLE DI BILANCIAMENTO SINGOLE A BULLONE PER CENTRO CHIUSO (BOLT-FITTING SINGLE COUNTERBALANCE VALVES FOR CLOSED CENTER)	<b>VCCB</b>	
<b>02</b>	DIMENSIONE (SIZE)	<b>380</b>	
<b>03</b>	MOLLA (SPRING) 30/210 bar (435/3045 PSI) Rp 1:4.25	78 bar/al giro (1131 PSI/turn)	Taratura standard (Std. setting) Q=5 l/min 200 bar (2900 PSI)
	30/210 bar (435/3045 PSI) Rp 1:8.75	160 bar/al giro (2320 PSI/turn)	
<b>03</b>	MOLLA (SPRING) 60/350 bar (870/5075 PSI) Rp 1:4.25	135 bar/al giro (1958 PSI/turn)	Taratura standard (Std. setting) Q=5 l/min 350 bar (5075 PSI)
	60/350 bar (870/5075 PSI) Rp 1:8.75	160 bar/al giro (2320 PSI/turn)	
<b>04</b>	MATERIALE (MATERIAL)	Acciaio + zincatura (Steel + zinc-plating)	<b>S</b>
<b>05</b>	RAPPORTO DI PILOTAGGIO (PILOT RATIO)	1:4.25 Standard	/
		1:8.75	<b>8</b>

### PERFORMANCES

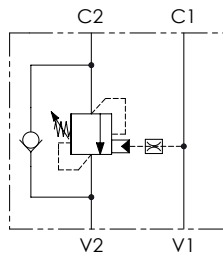


### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	PESO APPROX APPROX WEIGHT kg-lbt
<b>VCCB380</b>	<b>BSPP 3/8</b>	<b>40 (10.6)</b>	<b>350 (5075)</b>	<b>1,24 (2.73)</b>



### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



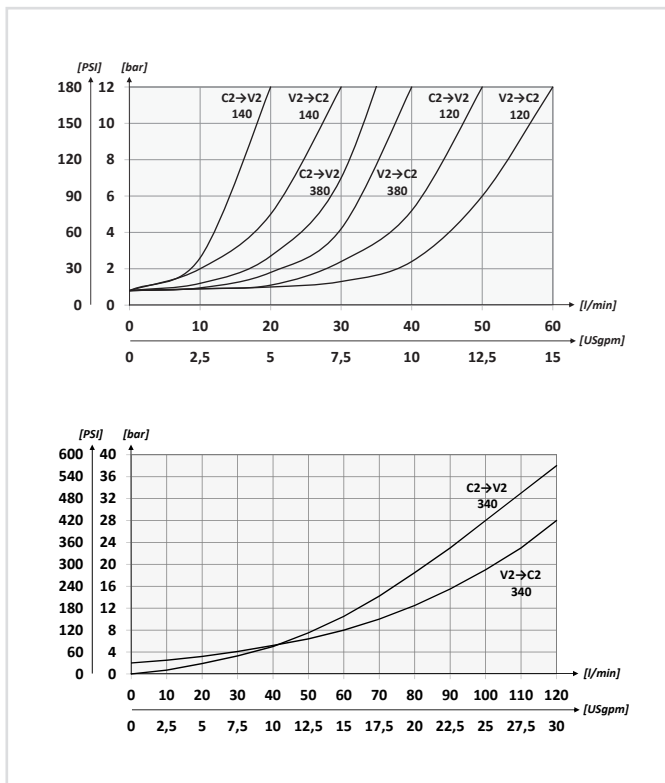
### CODICE ORDINAZIONE / ORDERING CODE

01	02	03	04	05
<b>VBCL</b>				

<b>01</b>	VALVOLE DI BILANCIAMENTO SINGOLE PER CENTRO APERTO (SINGLE COUNTERBALANCE VALVES FOR OPEN CENTER)				<b>VBCL</b>			
<b>02</b>	DIMENSIONE (SIZE)	BSPP 1/4			<b>140</b>			
		BSPP 3/8			<b>380</b>			
		BSPP 1/2			<b>120</b>			
		BSPP 3/4			<b>340</b>			
<b>03</b>	MOLLA (SPRING) <b>30/210 bar</b> (435/3045 PSI)	Rp 1:4.25	140	<b>78 bar/al giro</b> (1131 PSI/turn)	Taratura standard (Std. setting) <b>Q=5 l/min 200 bar</b> (2900 PSI)	<b>1</b>		
		Rp 1:8.75	120	<b>160 bar/al giro</b> (2320 PSI/turn)				
	MOLLA (SPRING) <b>60/350 bar</b> (870/5075 PSI)	Rp 1:4.25	140	<b>135 bar/al giro</b> (1958 PSI/turn)	Taratura standard (Std. setting) <b>Q=5 l/min 350 bar</b> (5075 PSI)		<b>2</b>	
		Rp 1:8.75	120	<b>160 bar/al giro</b> (2320 PSI/turn)				
	MOLLA (SPRING) <b>60/350 bar</b> (870/5075 PSI)	Rp 1:6.2	340	<b>143 bar/al giro</b> (2074 PSI/turn)	Taratura standard (Std. setting) <b>Q=5 l/min 350 bar</b> (5075 PSI)			<b>11</b>
		Rp 1:10.6		<b>242 bar/al giro</b> (3509 PSI/turn)				
<b>04</b>	MATERIALE (MATERIAL)	Acciaio + zincatura (Steel body + zinc-plating)			<b>S</b>			
		Acciaio + zinco-nichel (Steel body + zinc-nickel)			<b>K</b>			
<b>05</b>	RAPPORTO DI PILOTAGGIO (PILOT RATIO)	140	1:4.25 Standard		<b>/</b>			
		380	1:8.75		<b>8</b>			
		120	1:6.2		<b>/</b>			
		340	1:10.6		<b>11</b>			

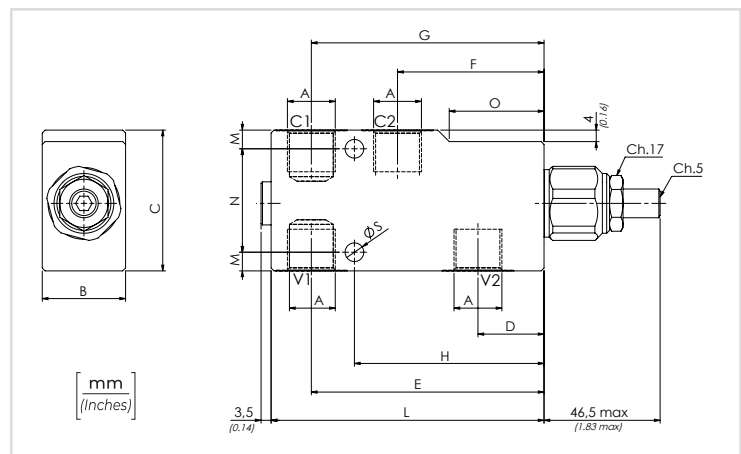
Opzione: Tappo piombatura - Optional: Tamper proof cap **81300095**

### PERFORMANCES



### DATI TECNICI / TECHNICAL DATA

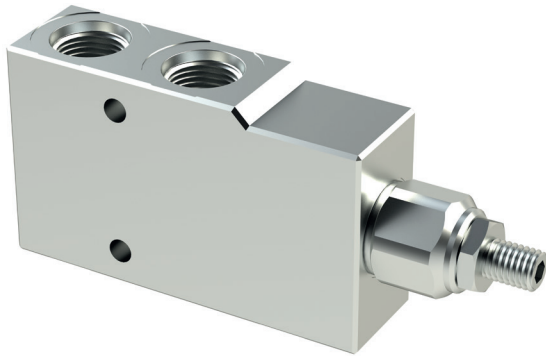
<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm²/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F +176°F
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b> -4°F +122°F
<b>È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)</b> It is necessary a filter use to protect the valve (advised filtration 15 µm)	



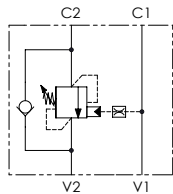
### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	B	C	D	E	F	G	H	L	M	N	O	S	PESO APPROX (kg) APPROX WEIGHT (lb)				
VBCL140	BSPP 1/4	30 (7.9)	350 (5075)	29 (1.14)	49 (1.93)	23 (0.91)	81 (3.19)	51 (2.01)	81 (3.19)	66 (2.60)	95 (3.74)	6,5 (0.26)	36 (1.42)	33 (1.30)	6,5 (0.26)	0,98 (2.16)				
VBCL380	BSPP 3/8	40 (10.6)			59 (2.32)	21 (0.83)	84 (3.30)		84 (3.31)	67,5 (2.66)	100 (3.94)	9,5 (0.37)	40 (1.57)			0,92 (2.02)				
VBCL120	BSPP 1/2	60 (15.9)			39 (1.54)	69 (2.72)	20 (0.79)		120 (4.72)	72 (2.83)	120 (4.72)	96 (3.78)	140 (5.51)			9,5 (0.37)	50 (1.97)	45 (1.77)	10,5 (0.41)	1,09 (2.40)
VBCL340	BSPP 3/4	120 (31.7)			39 (1.54)	69 (2.72)	20 (0.79)		120 (4.72)	72 (2.83)	120 (4.72)	96 (3.78)	140 (5.51)			9,5 (0.37)	50 (1.97)	45 (1.77)	10,5 (0.41)	2,54 (5.59)

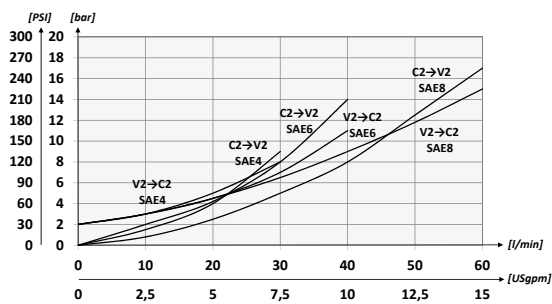




### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### PERFORMANCES



### CODICE ORDINAZIONE / ORDERING CODE

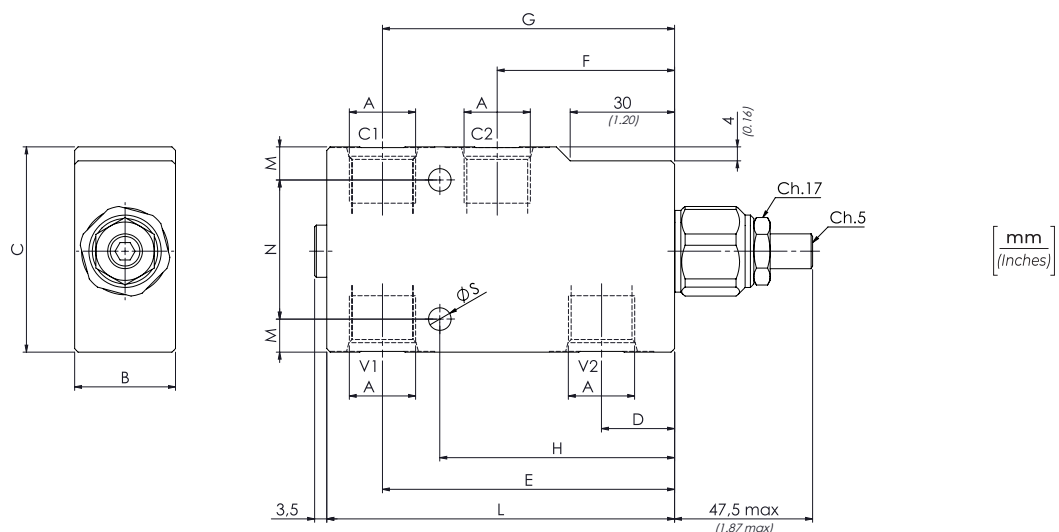
01	02	03	04	05
<b>VBCL</b>				

01	VALVOLE DI BILANCIAMENTO SINGOLE PER CENTRO APERTO / SINGLE COUNTERBALANCE VALVES FOR OPEN CENTER			VBCL	
02	DIMENSIONE (SIZE)	7/16-20UNF	4		
		9/16-18UNF	6		
		3/4-16UNF	8		
03	MOLLA (SPRING)	Rp 1:4.25	78 bar/al giro (1131 PSI/turn)	Taratura standard (Std. setting)	1
		30/210 bar (435/3045 PSI)	Rp 1:8.75	160 bar/al giro (2320 PSI/turn)	
	MOLLA (SPRING)	Rp 1:4.25	135 bar/al giro (1958 PSI/turn)	Taratura standard (Std. setting)	2
		60/350 bar (870/5075 PSI)	Rp 1:8.75	160 bar/al giro (2320 PSI/turn)	
04	MATERIALE (MATERIAL)	Acciaio + zincatura (Steel + zinc-plating)			S
		Acciaio + zinco-nichel (Steel + zinc-nickel)			K
05	RAPPORTO DI PILOTAGGIO (PILOT RATIO)	1:4.25 Standard			/
		1:8.75			8

Opzione: Tappo piombatura - Optional: Tamper proof cap **81300095**

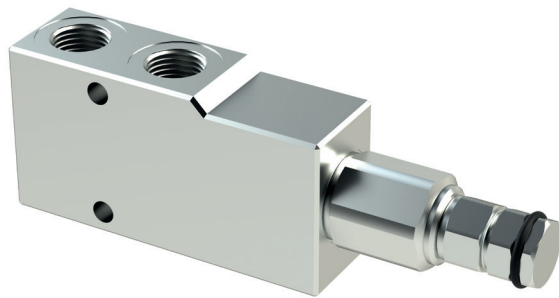
### DATI TECNICI / TECHNICAL DATA

Olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max / Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) / It is necessary a filter use to protect the valve (advised filtration 15 µm)	

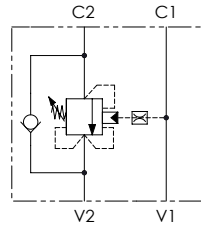


### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

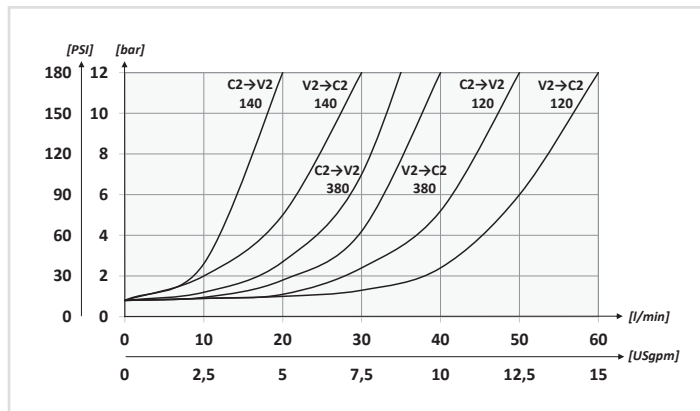
TIPO / TYPE	A	PORTATA MAX / MAX FLOW / min-USgpm	PRESSIONE MAX / MAX PRESSURE / bar-PSI	B	C	D	E	F	G	H	L	M	N	O	S	PESO APPROX / APPROXWEIGHT / kg-lbt
VBCL4	7/16-20UNF	30 (7.9)	350 (5075)	29 (1.14)	49 (1.93)	23 (0.91)	81 (3.19)	51 (2.01)	81 (3.19)	66 (2.60)	95 (3.74)	6,5 (0.26)	36 (1.42)	33 (1.30)	6,5 (0.26)	1 (2.20)
VBCL6	9/16-18UNF	40 (10.6)			59 (2.32)	21 (0.83)	84 (3.31)		84 (3.31)	67,5 (2.66)	100 (3.94)	9,5 (0.37)	40 (1.57)			0,97 (2.14)
VBCL8	3/4-16UNF	60 (15.9)			59 (2.32)	21 (0.83)	84 (3.31)		84 (3.31)	67,5 (2.66)	100 (3.94)	9,5 (0.37)	40 (1.57)			1,16 (2.56)



### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### PERFORMANCES



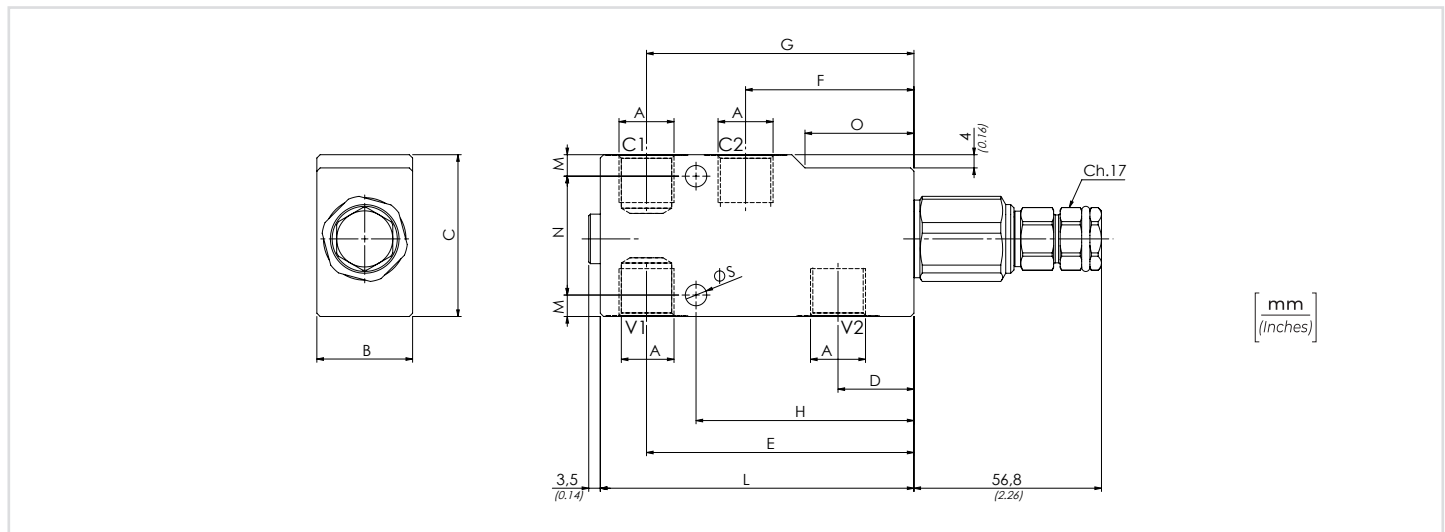
### CODICE ORDINAZIONE / ORDERING CODE

01	02	03	04	05
<b>VCCL</b>			<b>S</b>	

<b>01</b>	VALVOLE DI BILANCIAMENTO SINGOLE PER CENTRO CHIUSO (SINGLE COUNTERBALANCE VALVES FOR CLOSED CENTER)			<b>VCCL</b>	
<b>02</b>	DIMENSIONE (SIZE)	BSPP 1/4		<b>140</b>	
		BSPP 3/8		<b>380</b>	
		BSPP 1/2		<b>120</b>	
<b>03</b>	MOLLA (SPRING)	Rp 1:4.25	<b>78 bar/al giro</b> (1131 PSI/turn)	Taratura standard (Std. setting)	<b>1</b>
		Rp 1:8.75	<b>160 bar/al giro</b> (2320 PSI/turn)		
<b>03</b>	MOLLA (SPRING)	Rp 1:4.25	<b>135 bar/al giro</b> (1958 PSI/turn)	Taratura standard (Std. setting)	<b>2</b>
		Rp 1:8.75	<b>160 bar/al giro</b> (2320 PSI/turn)		
<b>04</b>	MATERIALE (MATERIAL)	Acciaio + zincatura (Steel + zinc-plating)			<b>S</b>
<b>05</b>	RAPPORTO DI PILOTAGGIO (PILOT RATIO)	1:4.25 Standard			<b>/</b>
		1:8.75			<b>8</b>

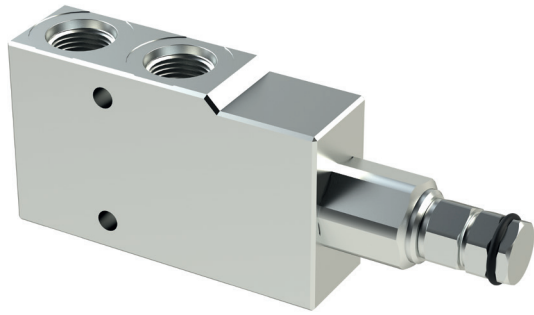
### DATI TECNICI / TECHNICAL DATA

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F +176°F
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b> -4°F +122°F
<b>È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)</b> It is necessary a filter use to protect the valve (advised filtration 15 µm)	

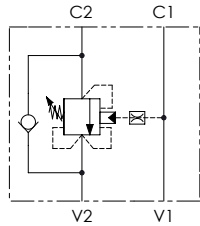


### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

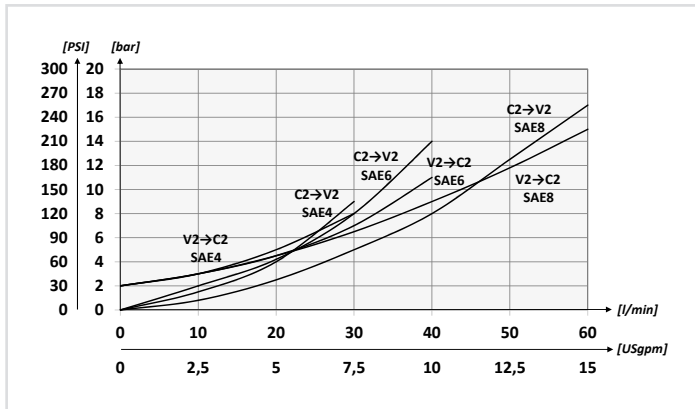
TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	B	C	D	E	F	G	H	L	M	N	O	S	PESO APPROX APPROX WEIGHT kg-lbt
<b>VCCL140</b>	<b>BSPP 1/4</b>	<b>30</b> (7.9)	<b>350</b> (5075)	<b>29</b> (1.14)	<b>49</b> (1.93)	<b>23</b> (0.91)	<b>81</b> (3.19)	<b>51</b> (2.01)	<b>81</b> (3.19)	<b>66</b> (2.60)	<b>95</b> (3.74)	<b>6,5</b> (0.26)	<b>36</b> (1.42)	<b>33</b> (1.30)	<b>6,5</b> (0.26)	<b>1,02</b> (2.24)
<b>VCCL380</b>	<b>BSPP 3/8</b>	<b>40</b> (10.6)			<b>59</b> (2.32)	<b>21</b> (0.83)	<b>84</b> (3.30)		<b>84</b> (3.31)	<b>67,5</b> (2.66)	<b>100</b> (3.94)	<b>9,5</b> (0.37)	<b>40</b> (1.57)			<b>0,98</b> (2.16)
<b>VCCL120</b>	<b>BSPP 1/2</b>	<b>60</b> (15.9)			<b>1,15</b> (2.53)											



**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**PERFORMANCES**



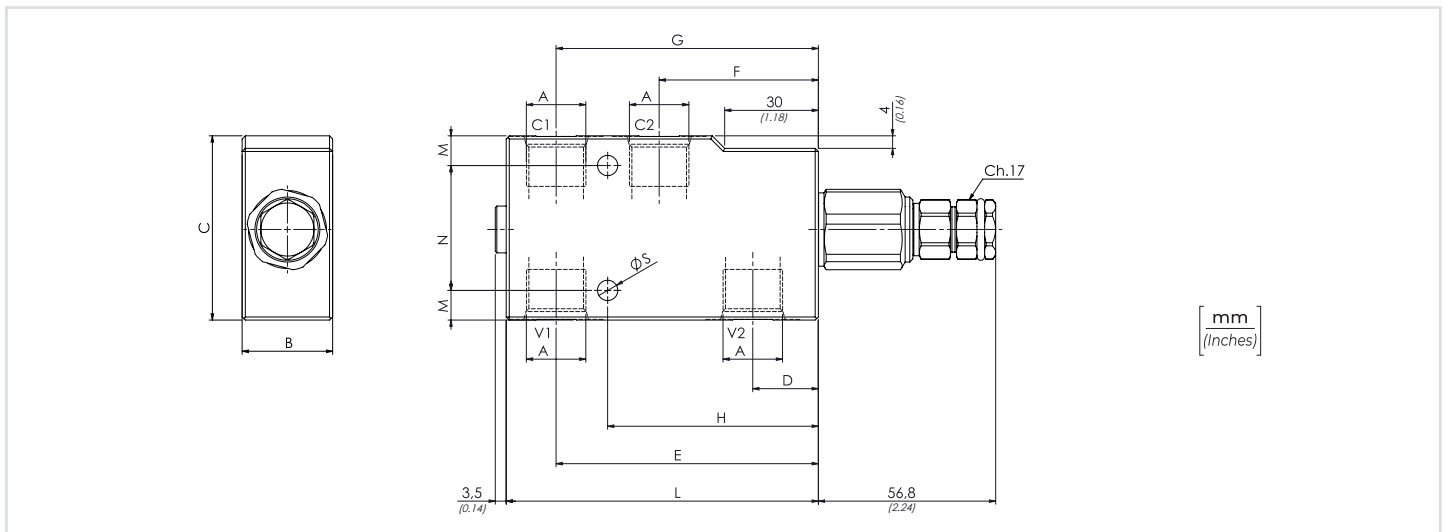
**CODICE ORDINAZIONE / ORDERING CODE**

01	02	03	04	05
<b>VCCL</b>			<b>S</b>	

<b>01</b>	VALVOLE DI BILANCIAMENTO SINGOLE PER CENTRO CHIUSO (SINGLE COUNTERBALANCE VALVES FOR CLOSED CENTER)			<b>VCCL</b>	
<b>02</b>	DIMENSIONE (SIZE)	7/16-20UNF		<b>4</b>	
		9/16-18UNF		<b>6</b>	
		3/4-16UNF		<b>8</b>	
<b>03</b>	MOLLA (SPRING)	30/210 bar (435/3045 PSI)	Rp 1:4.25 78 bar/al giro (1131 PSI/turn)	Taratura standard (Std. setting) Q=5 l/min 200 bar (2900 PSI)	<b>1</b>
		60/350 bar (870/5075 PSI)	Rp 1:8.75 160 bar/al giro (2320 PSI/turn)		
<b>03</b>	MOLLA (SPRING)	60/350 bar (870/5075 PSI)	Rp 1:4.25 135 bar/al giro (1958 PSI/turn)	Taratura standard (Std. setting) Q=5 l/min 350 bar (5075 PSI)	<b>2</b>
		60/350 bar (870/5075 PSI)	Rp 1:8.75 160 bar/al giro (2320 PSI/turn)		
<b>04</b>	MATERIALE (MATERIAL)	Acciaio + zincatura (Steel + zinc-plating)			<b>S</b>
<b>05</b>	RAPPORTO DI PILOTAGGIO (PILOT RATIO)	1:4.25 Standard			<b>/</b>
		1:8.75			<b>8</b>

**DATI TECNICI / TECHNICAL DATA**

olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	

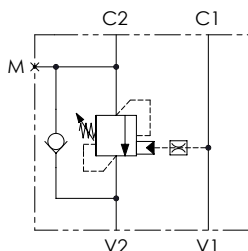


**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

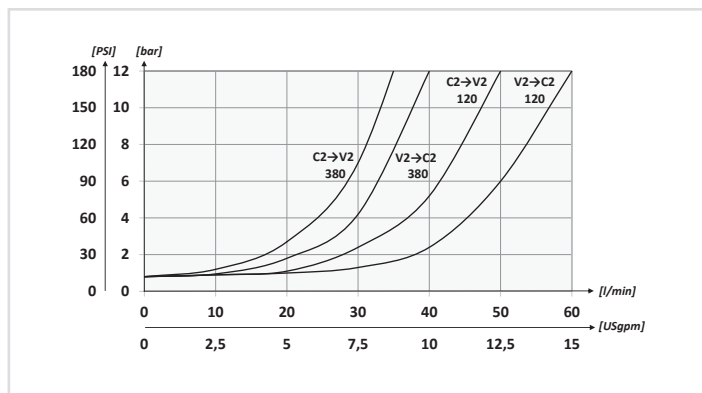
TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	B	C	D	E	F	G	H	L	M	N	O	S	PESO APPROX APPROX WEIGHT kg-lbt
VCCL4	7/16-20UNF	30 (7.9)	350 (5075)	29 (1.14)	49 (1.93)	23 (0.91)	81 (3.19)	51 (2.01)	81 (3.19)	66 (2.60)	95 (3.74)	6,5 (0.26)	36 (1.42)	33 (1.30)	6,5 (0.26)	1,02 (2.24)
VCCL6	9/16-18UNF	40 (10.6)			59 (2.32)	21 (0.83)	84 (3.30)		84 (3.31)	67,5 (2.66)	100 (3.94)	9,5 (0.37)	40 (1.57)			0,98 (2.16)
VCCL8	3/4-16UNF	60 (15.9)			59 (2.32)	21 (0.83)	84 (3.30)		84 (3.31)	67,5 (2.66)	100 (3.94)	9,5 (0.37)	40 (1.57)			1,15 (2.53)



### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### PERFORMANCES



<b>CODICE ORDINAZIONE</b> ORDERING CODE	01	02	03	04	05
<b>VBLP</b>					

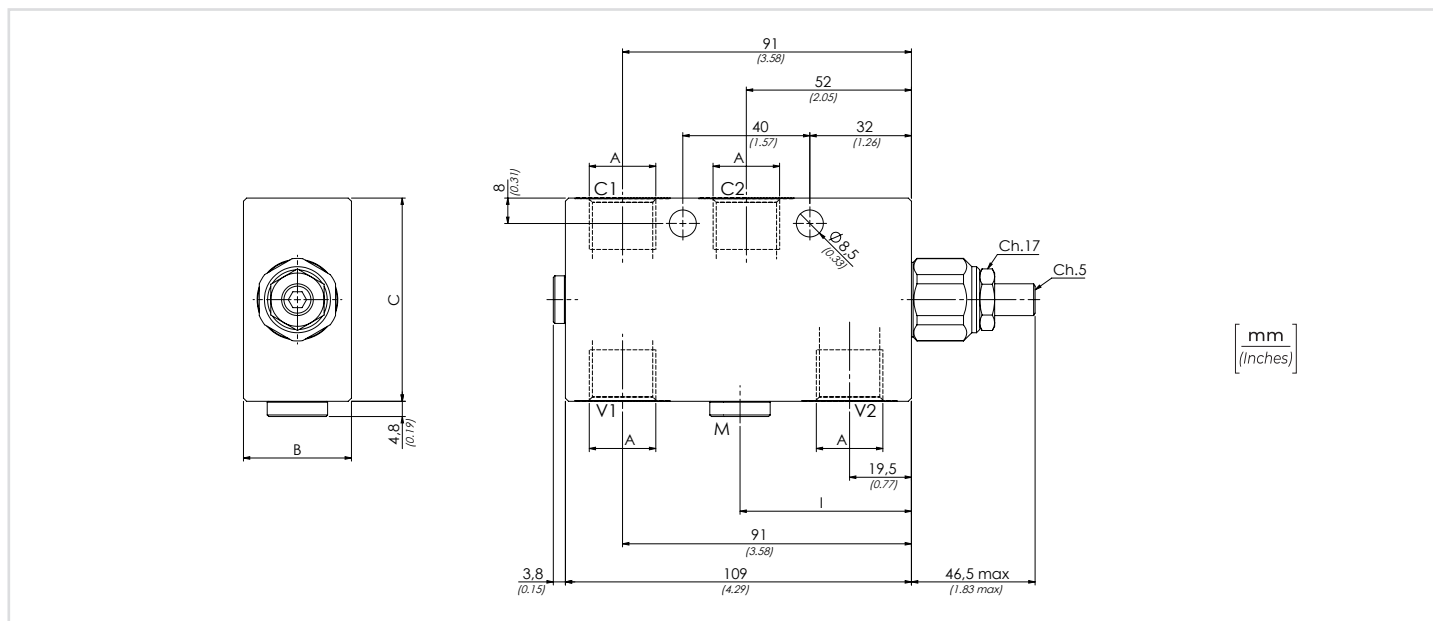
<b>01</b>	VALVOLE DI BILANCIAMENTO SINGOLE PER CENTRO APERTO (SINGLE COUNTERBALANCE VALVES FOR OPEN CENTER)				<b>VBLP</b>
<b>02</b>	DIMENSIONE (SIZE)	BSPP 3/8		<b>380</b>	
		BSPP 1/2		<b>120</b>	
<b>03</b>	MOLLA <b>30/210 BAR</b> (SPRING 435/3045 PSI)	Rp 1:4.25	<b>78 bar/al giro</b> (1131 PSI/turn)	Taratura standard (Std. setting)	<b>1</b>
		Rp 1:8.75	<b>160 bar/al giro</b> (2320 PSI/turn)	<b>Q=5 l/min 200 bar</b> (2900 PSI)	
	MOLLA <b>60/350 BAR</b> (SPRING 870/5075 PSI)	Rp 1:4.25	<b>135 bar/al giro</b> (1958 PSI/turn)	Taratura standard (Std. setting)	<b>2</b>
		Rp 1:8.75	<b>160 bar/al giro</b> (2320 PSI/turn)	<b>Q=5 l/min 350 bar</b> (5075 PSI)	
<b>04</b>	MATERIALE (MATERIAL)	Acciaio + zincatura (Steel + zinc-plating)			<b>S</b>
		Acciaio + zinco-nichel (Steel + zinc-nickel)			<b>K</b>
<b>05</b>	RAPPORTO DI PILOTAGGIO (PILOT RATIO)	1:4.25 Standard			<b>/</b>
		1:8.75			<b>8</b>

Opzione: Tappo piombatura - Optional: Tamper proof cap **81300095**

### DATI TECNICI / TECHNICAL DATA

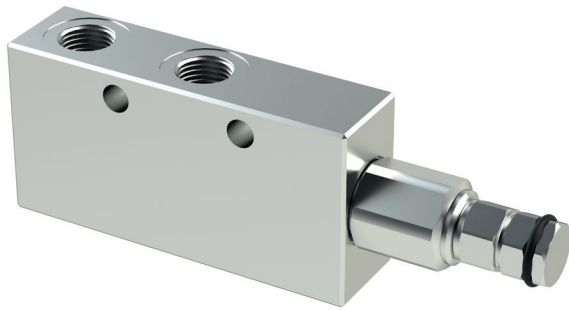
<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F + 176°F
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b> -4°F + 122°F

È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)  
It is necessary a filter use to protect the valve (advised filtration 15 µm)

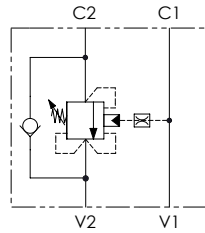


### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

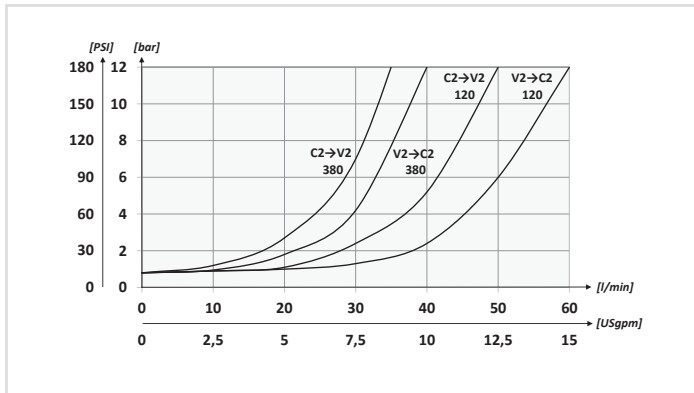
TIPO TYPE	A	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	B	C	I	M	PESO APPROX (kg) APPROX WEIGHT (lbt)
<b>VBLP380</b>	<b>BSPP 3/8</b>	<b>40</b> (10.6)	<b>350</b> (5075)	<b>29</b> (1.14)	<b>54</b> (2.13)	<b>/</b>	<b>/</b>	<b>1,21</b> (2.63)
<b>VBLP120</b>	<b>BSPP 1/2</b>	<b>60</b> (15.9)		<b>34</b> (1.34)	<b>64</b> (2.52)	<b>54</b> (2.13)	<b>BSPP 1/4</b>	<b>1,59</b> (3.46)



### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### PERFORMANCES



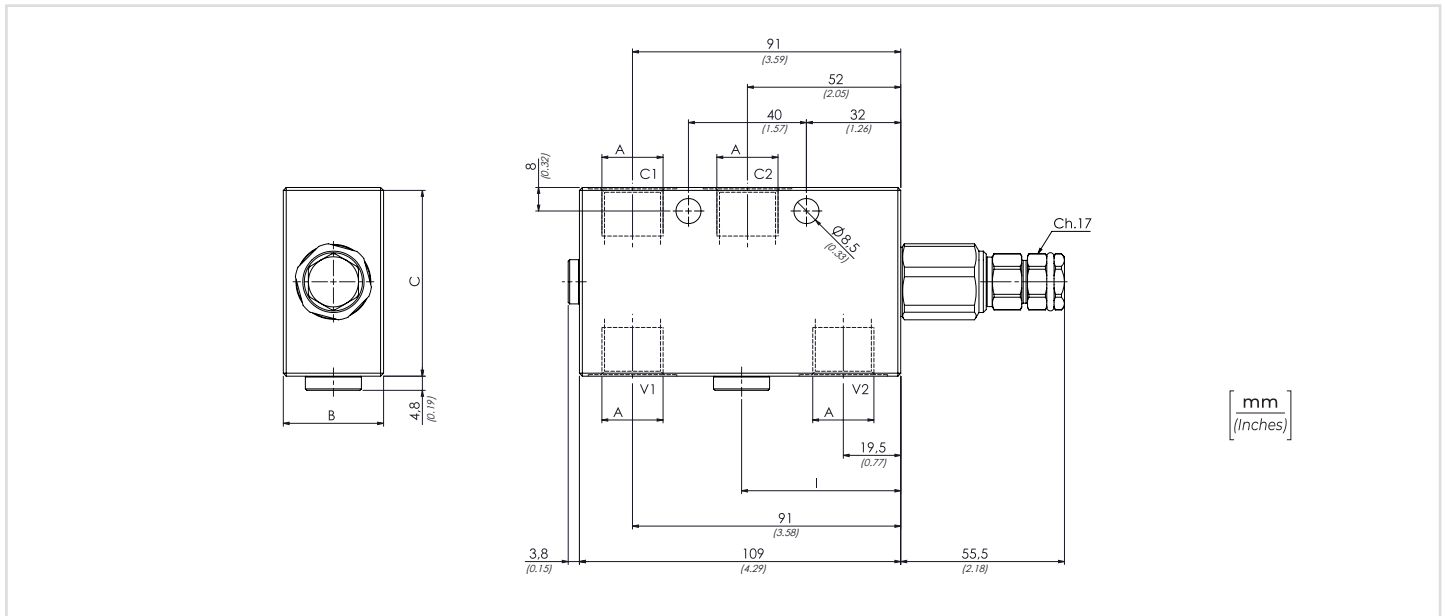
### CODICE ORDINAZIONE / ORDERING CODE

01	02	03	04	05
<b>VCLP</b>			<b>S</b>	

<b>01</b>	VALVOLE DI BILANCIAMENTO SINGOLE PER CENTRO CHIUSO (SINGLE COUNTERBALANCE VALVES FOR CLSOED CENTER)			<b>VCLP</b>	
<b>02</b>	DIMENSIONE (SIZE)	BSPP 3/8		<b>380</b>	
		BSPP 1/2		<b>120</b>	
<b>03</b>	MOLLA 30/210 BAR (SPRING 435/3045 PSI)	Rp 1:4.25	<b>78 bar/al giro</b> (1131 PSI/turn)	Taratura standard (Std. setting) <b>Q=5 l/min 200 bar</b> (2900 PSI)	<b>1</b>
		Rp 1:8.75	<b>160 bar/al giro</b> (2320 PSI/turn)		
	MOLLA 60/350 BAR (SPRING 870/5075 PSI)	Rp 1:4.25	<b>135 bar/al giro</b> (1958 PSI/turn)	Taratura standard (Std. setting) <b>Q=5 l/min 350 bar</b> (5075 PSI)	<b>2</b>
		Rp 1:8.75	<b>160 bar/al giro</b> (2320 PSI/turn)		
<b>04</b>	MATERIALE (MATERIAL)	Acciaio + zincatura (Steel + zinc-plating)		<b>S</b>	
<b>05</b>	RAPPORTO DI PILOTAGGIO (PILOT RATIO)	1:4.25 Standard		<b>/</b>	
		1:8.75		<b>8</b>	

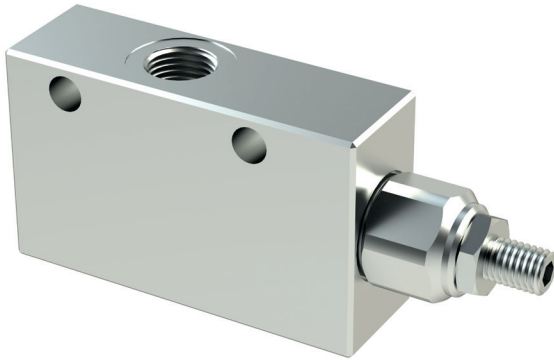
### DATI TECNICI / TECHNICAL DATA

<b>Olio idraulico - Mineral oil</b>	<b>ISO 6743/4 (DIN 51524)</b>
<b>Viscosità olio - Oil viscosity</b>	<b>15-250 mm<sup>2</sup>/s (15 to 250 cSt)</b>
<b>Classe di contaminazione max / Max contamination index</b>	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio - Oil temperature</b>	<b>-20°C +80°C -4°F +176°F</b>
<b>Temperatura ambiente - Environment temperature</b>	<b>-20°C +50°C -4°F +122°F</b>
<b>È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) / It is necessary a filter use to protect the valve (advised filtration 15 µm)</b>	

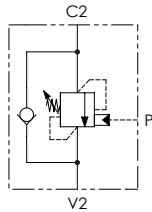


### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

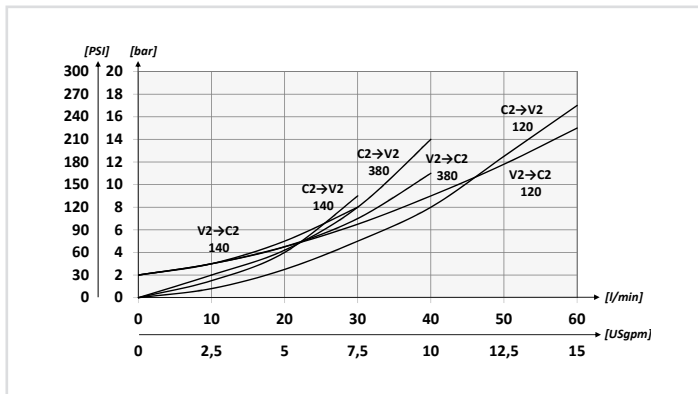
TIPO / TYPE	A	PORTATA MAX (l/min) / MAX FLOW (USgpm)	PRESSIONE MAX (bar) / MAX PRESSURE (PSI)	B	C	I	M	PESO APPROX (kg) / APPROX WEIGHT (lbt)
VCLP380	BSPP 3/8	40 (10.6)	350 (5075)	29 (1.14)	54 (2.13)	/	/	1,21 (2.63)
VCLP120	BSPP 1/2	60 (15.9)		34 (1.34)	64 (2.52)	54 (2.13)	BSPP 1/4	1,59 (3.46)



**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**PERFORMANCES**



**CODICE ORDINAZIONE / ORDERING CODE**

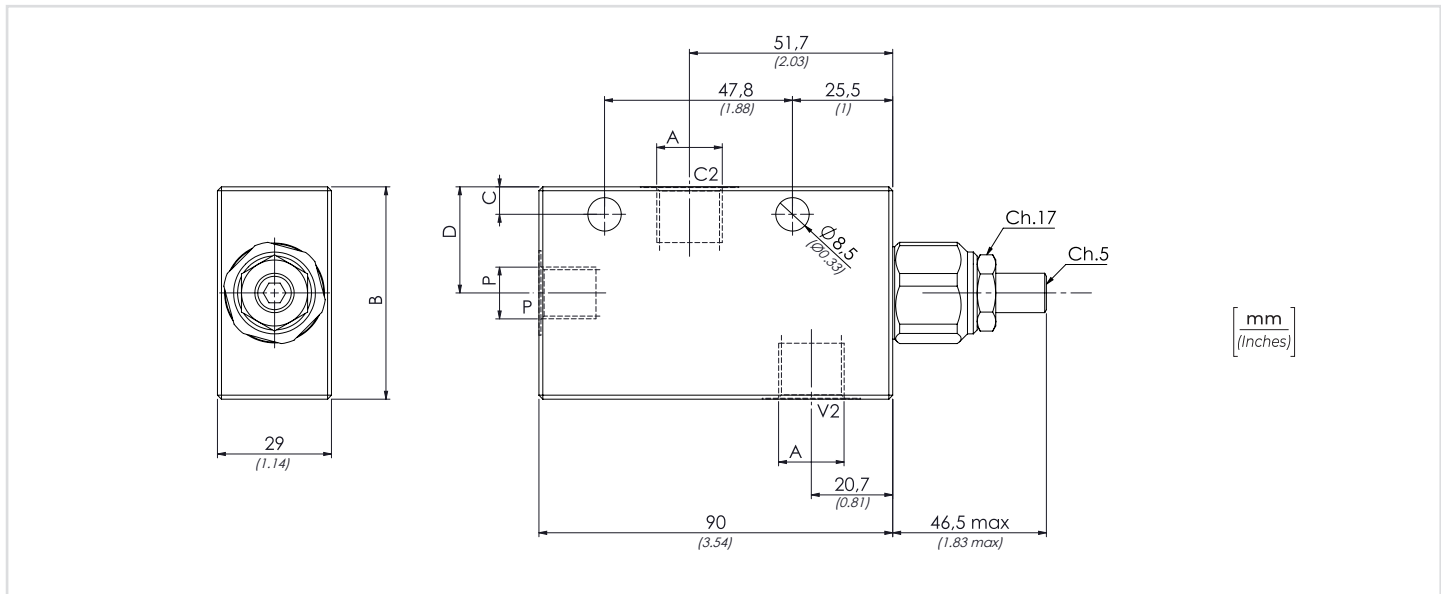
01	02	03	04	05
<b>VBCR</b>				

<b>01</b>	VALVOLE DI BILANCIAMENTO SINGOLE PER CENTRO APERTO - PILOTAGGIO ESTERNO SINGLE COUNTERBALANCE VALVES FOR OPEN CENTER - EXTERNAL PILOT			<b>VBCR</b>		
<b>02</b>	DIMENSIONE (SIZE)	BSPP 1/4		<b>140</b>		
		BSPP 3/8		<b>380</b>		
		BSPP 1/2		<b>120</b>		
<b>03</b>	MOLLA 30/210 BAR (SPRING 435/3045 PSI)	Rp 1:4.25	<b>78 bar/al giro</b> (1131 PSI/turn)	Taratura standard (Std. setting) <b>Q=5 l/min 200 bar</b> (2900 PSI)	<b>1</b>	
		Rp 1:8.75	<b>160 bar/al giro</b> (2320 PSI/turn)			
	MOLLA 60/350 BAR (SPRING 870/5075 PSI)	Rp 1:4.25	<b>135 bar/al giro</b> (1958 PSI/turn)	Taratura standard (Std. setting) <b>Q=5 l/min 350 bar</b> (5075 PSI)		<b>2</b>
		Rp 1:8.75	<b>160 bar/al giro</b> (2320 PSI/turn)			
<b>04</b>	MATERIALE (MATERIAL)	Acciaio + zincatura (Steel body + zinc-plating)		<b>S</b>		
		Acciaio + zinco-nichel (Steel body + zinc-nickel)		<b>K</b>		
<b>05</b>	RAPPORTO DI PILOTAGGIO (PILOT RATIO)	1:4.25 Standard		<b>/</b>		
		1:8.75		<b>8</b>		

Opzione: Tappo piombatura - Optional: Tamper proof cap **81300095**

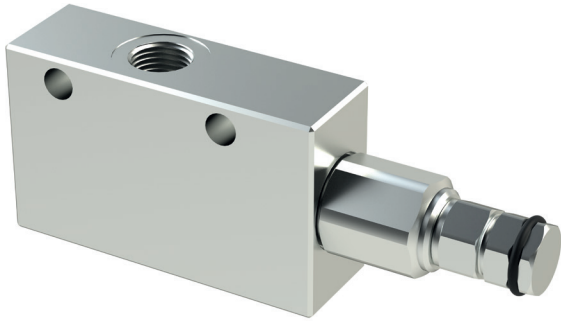
**DATI TECNICI / TECHNICAL DATA**

Oilio idraulico - Mineral oil	<b>ISO 6743/4 (DIN 51524)</b>
Viscosità olio - Oil viscosity	<b>15-250 mm<sup>2</sup>/s (15 to 250 cSt)</b>
Classe di contaminazione max Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
Temperatura dell'olio - Oil temperature	<b>-20°C +80°C -4°F +176°F</b>
Temperatura ambiente - Environment temperature	<b>-20°C +50°C -4°F +122°F</b>
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	

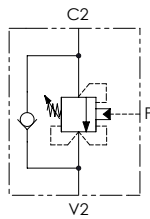


**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

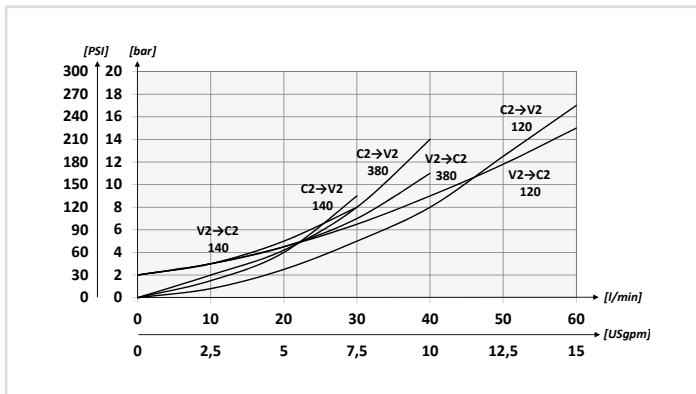
TIPO TYPE	A	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	B	C	D	A	P	PESO APPROX (kg) APPROX WEIGHT (lbt)
VBCR140	BSPP 1/4	30 (7.9)	350 (5075)	54 (2.13)	7 (0.28)	27 (1.06)	BSPP 1/4	BSPP 1/4	1,06 (2.33)
VBCR380	BSPP 3/8	40 (10.6)		64 (2.52)	11 (0.43)	32 (1.26)	BSPP 3/8		1,21 (2.63)
VBCR120	BSPP 1/2	60 (15.9)		64 (2.52)	11 (0.43)	32 (1.26)	BSPP 1/2		1,59 (3.46)



**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**PERFORMANCES**



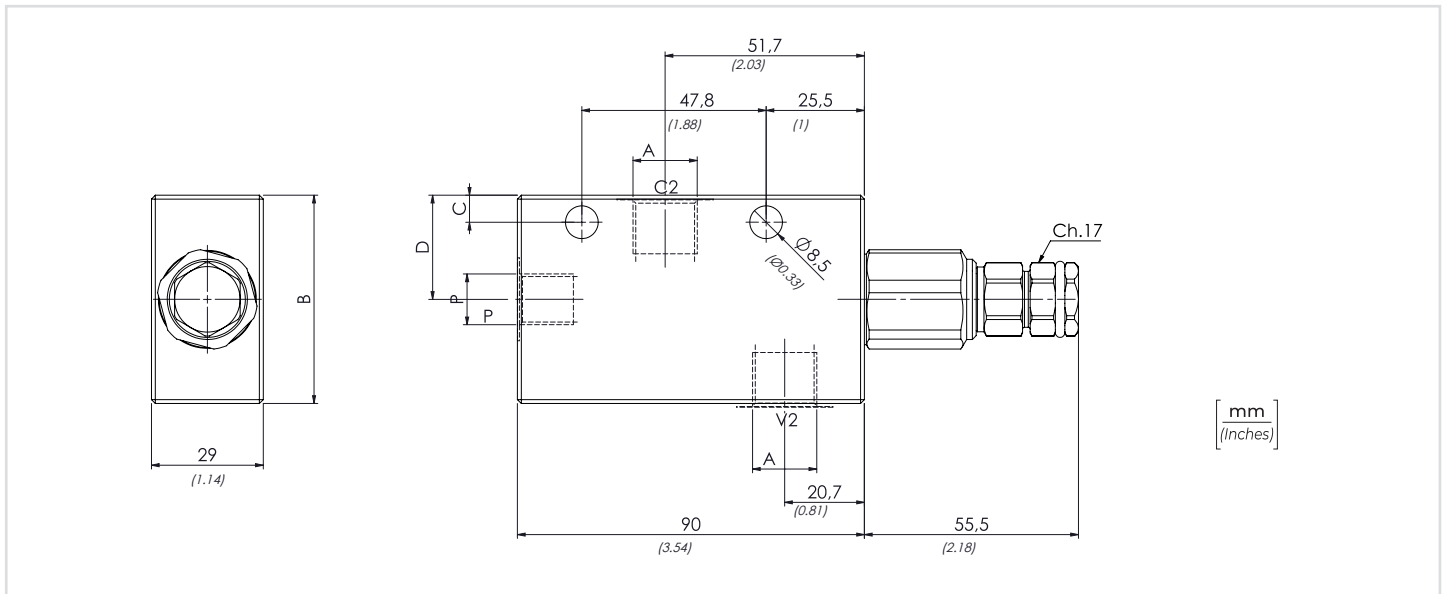
**CODICE ORDINAZIONE / ORDERING CODE**

01	02	03	04	05
<b>VCCR</b>			<b>S</b>	

<b>01</b>	VALVOLE DI BILANCIAMENTO SINGOLE PER CENTRO CHIUSO - PILOTAGGIO ESTERNO SINGLE COUNTERBALANCE VALVES FOR CLOSED CENTER - EXTERNAL PILOT		<b>VCCR</b>
<b>02</b>	DIMENSIONE (SIZE)	BSPP 1/4	<b>140</b>
		BSPP 3/8	<b>380</b>
		BSPP 1/2	<b>120</b>
<b>03</b>	MOLLA 30/210 BAR (SPRING 435/3045 PSI)	Rp 1:4.25	78 bar/al giro (1131 PSI/turn)
		Rp 1:8.75	160 bar/al giro (2320 PSI/turn)
<b>03</b>	MOLLA 60/350 BAR (SPRING 870/5075 PSI)	Rp 1:4.25	135 bar/al giro (1958 PSI/turn)
		Rp 1:8.75	160 bar/al giro (2320 PSI/turn)
<b>04</b>	MATERIALE (MATERIAL)	Acciaio + zincatura (Steel body + zinc-plating)	<b>S</b>
<b>05</b>	RAPPORTO DI PILOTAGGIO (PILOT RATIO)	1:4.25 Standard	<b>/</b>
		1:8.75	<b>8</b>

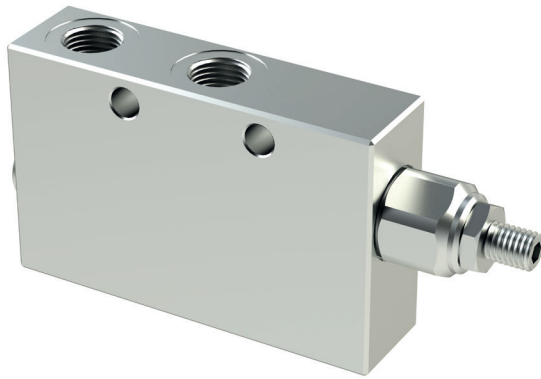
**DATI TECNICI / TECHNICAL DATA**

Olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	

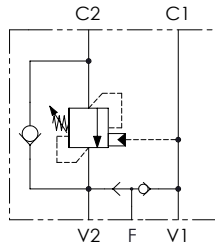


**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	A	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	B	C	D	A	P	PESO APPROX (kg) APPROX WEIGHT (lbt)
VCCR140	BSPP 1/4	30 (7.9)	350 (5075)	54 (2.13)	7 (0.28)	27 (1.06)	BSPP 1/4	BSPP 1/4	1,06 (2.33)
VCCR380	BSPP 3/8	40 (10.6)		64 (2.52)	11 (0.43)	32 (1.26)	BSPP 3/8		1,21 (2.63)
VCCR120	BSPP 1/2	60 (15.9)		64 (2.52)	11 (0.43)	32 (1.26)	BSPP 1/2		1,59 (3.46)



SCHEMA IDRAULICO / HYDRAULIC CIRCUIT

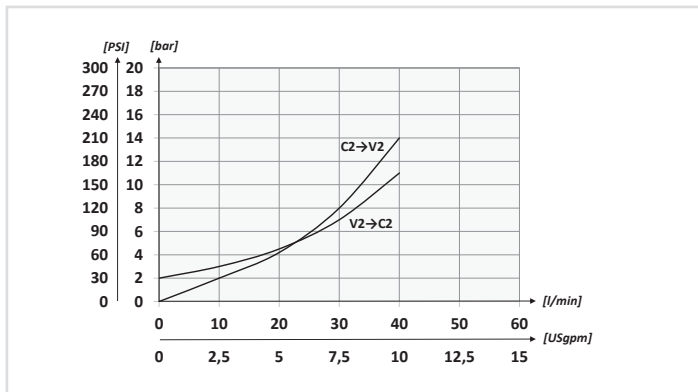


**CODICE ORDINAZIONE**  
ORDERING CODE

01	02	03	04	05
<b>VBFP</b>	<b>380</b>			

<b>01</b>	VALVOLE DI BILANCIAMENTO SINGOLE PER CENTRO APERTO CON SBLOCCA FRENO (SINGLE COUNTERBALANCE VALVES FOR OPEN CENTER WITH BRAKE UN-LOCKING)			<b>VBFP</b>
<b>02</b>	DIMENSIONE (SIZE)		BSPP 3/8	<b>380</b>
<b>03</b>	MOLLA 30/210 BAR (SPRING 435/3045 PSI)	Rp 1:4.25	78 bar/al giro (1131 PSI/turn)	1
		Rp 1:8.75	160 bar/al giro (2320 PSI/turn)	
<b>03</b>	MOLLA 60/350 BAR (SPRING 870/5075 PSI)	Rp 1:4.25	135 bar/al giro (1958 PSI/turn)	2
		Rp 1:8.75	160 bar/al giro (2320 PSI/turn)	
<b>04</b>	MATERIALE (MATERIAL)	Acciaio + zincatura (Steel + zinc-plating)		<b>S</b>
		Acciaio + zinco-nichel (Steel + zinc-nickel)		<b>K</b>
<b>05</b>	RAPPORTO DI PILOTAGGIO (PILOT RATIO)		1:4.25 Standard	<b>/</b>

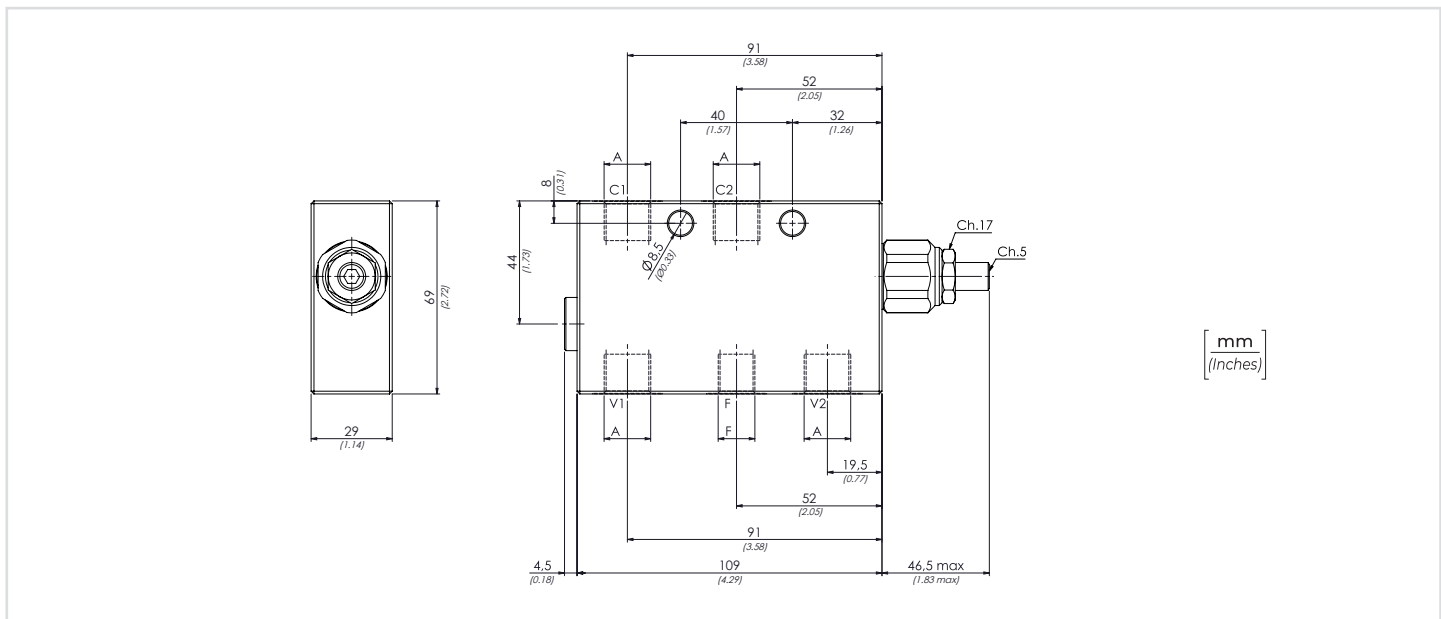
**PERFORMANCES**



Opzione: Tappo piombatura - Optional: Tamper proof cap **81300095**

**DATI TECNICI / TECHNICAL DATA**

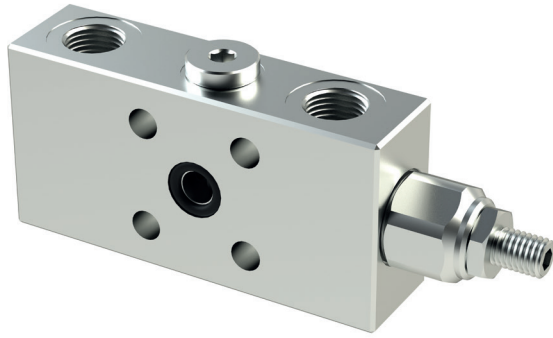
<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F + 176°F
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b> -4°F + 122°F
<b>È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)</b> It is necessary a filter use to protect the valve (advised filtration 15 µm)	



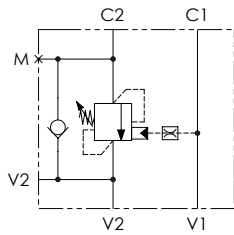
**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	A	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	A	F	PESO APPROX (kg) APPROX WEIGHT (lbt)
<b>VBFP380</b>	<b>BSPP 3/8</b>	<b>40</b> (10.6)	<b>350</b> (5075)	<b>BSPP 3/8</b>	<b>BSPP 1/4</b>	<b>1,51</b> (3.33)

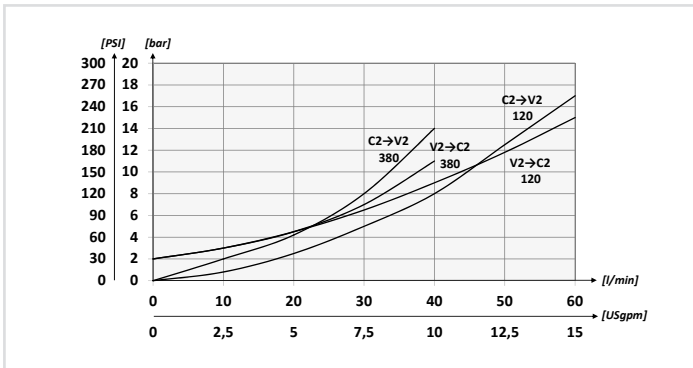




**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**PERFORMANCES**



**CODICE ORDINAZIONE**  
ORDERING CODE

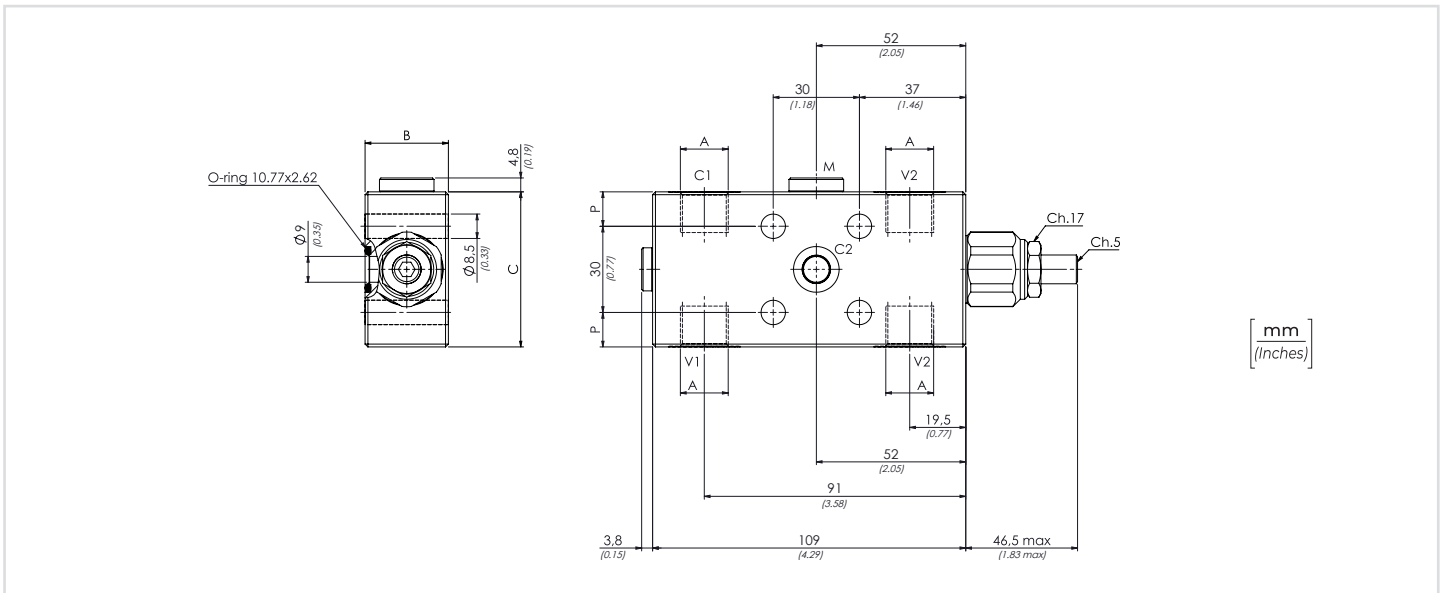
01	02	03	04	05
<b>VBLH</b>				

<b>01</b>	VALVOLE DI BILANCIAMENTO SINGOLE PER CENTRO APERTO - FLANGIATE SINGOLE (SINGLE COUNTERBALANCE VALVES FOR OPEN CENTER - SINGLE FLANGED VERSION)			<b>VBLH</b>
<b>02</b>	DIMENSIONE (SIZE)	BSPP 3/8		<b>380</b>
		BSPP 1/2		<b>120</b>
<b>03</b>	MOLLA (SPRING)	Rp 1:4.25	<b>78 bar/al giro</b> (1131 PSI/turn)	Taratura standard (Std. setting)
	<b>30/210 bar</b> (435/3045 PSI)	Rp 1:8.75	<b>160 bar/al giro</b> (2320 PSI/turn)	<b>Q=5 l/min 200 bar</b> (2900 PSI)
<b>03</b>	MOLLA (SPRING)	Rp 1:4.25	<b>135 bar/al giro</b> (1958 PSI/turn)	Taratura standard (Std. setting)
	<b>60/350 bar</b> (870/5075 PSI)	Rp 1:8.75	<b>160 bar/al giro</b> (2320 PSI/turn)	<b>Q=5 l/min 350 bar</b> (5075 PSI)
<b>04</b>	MATERIALE (MATERIAL)	Acciaio + zincatura (Steel + zinc-plating)		<b>S</b>
		Acciaio + zinco-nichel (Steel + zinc-nickel)		<b>K</b>
<b>05</b>	RAPPORTO DI PILOTAGGIO (PILOT RATIO)	1:4.25 Standard		<b>/</b>
		1:8.75		<b>8</b>

Opzione: Tappo piombatura - Optional: Tamper proof cap **81300095**

**DATI TECNICI / TECHNICAL DATA**

Olío idraulico - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
Viscosità olio - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
Classe di contaminazione max Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
Temperatura dell'olio - Oil temperature	<b>-20°C +80°C</b> -4°F +176°F
Temperatura ambiente - Environment temperature	<b>-20°C +50°C</b> -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	



**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

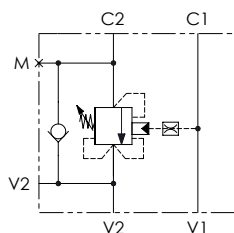
TIPO TYPE	A	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	B	C	M	P	PESO APPROX (kg) APPROX WEIGHT (lb)
VBLH380	BSPP 3/8	40 (10.6)	350 (5075)	29 (1.14)	54 (2.13)	BSPP 1/4	12 (0.47)	1,18 (2.60)
VBLH120	BSPP 1/2	60 (15.9)		34 (1.34)	64 (2.52)		17 (0.67)	1,57 (3.49)



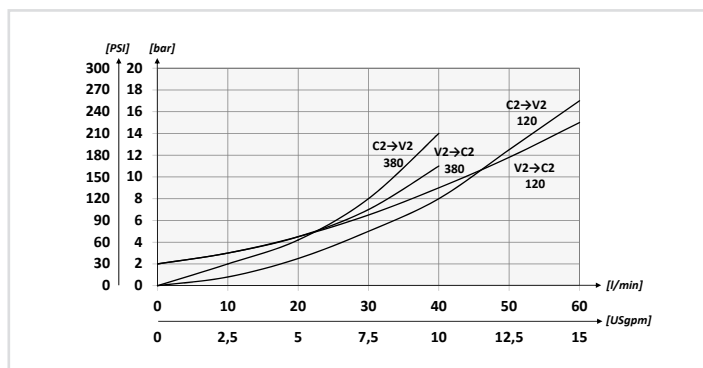
**CODICE ORDINAZIONE**  
ORDERING CODE

01	02	03	04	05
<b>VCLH</b>			<b>S</b>	

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



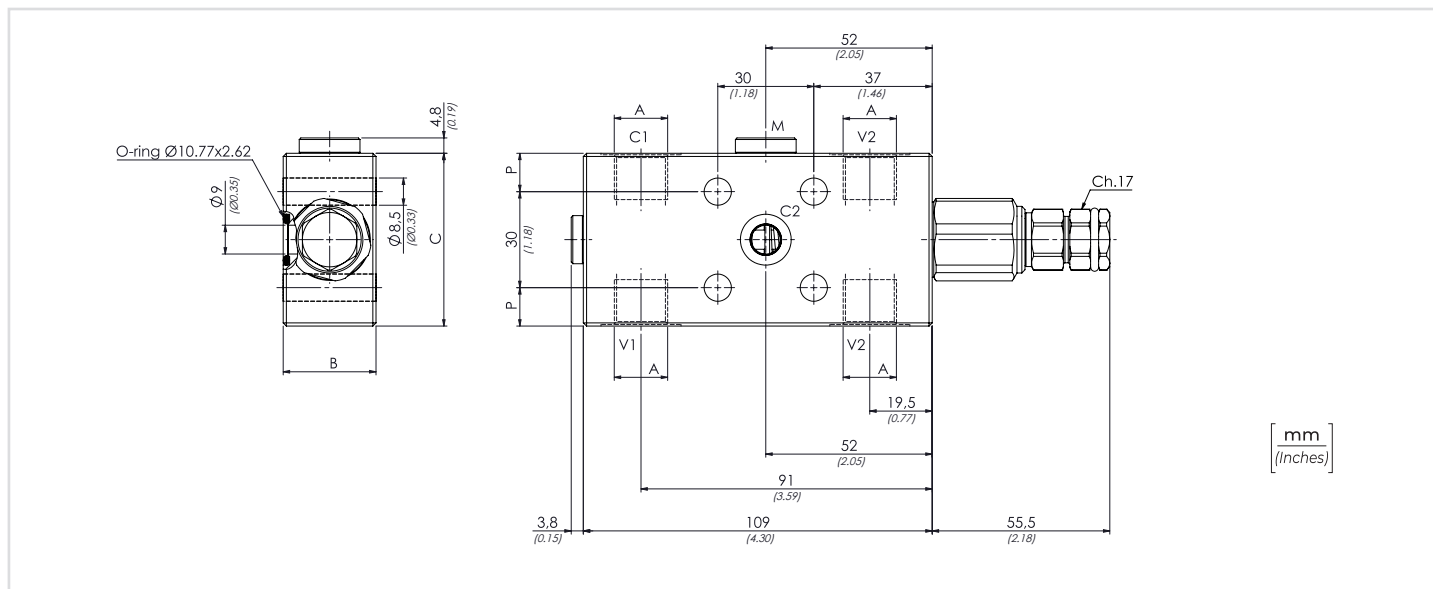
**PERFORMANCES**



<b>01</b>	VALVOLE DI BILANCIAMENTO SINGOLE PER CENTRO CHIUSO - FLANGIATE SINGOLE (SINGLE COUNTERBALANCE VALVES FOR CLOSED CENTER - SINGLE FLANGED VERSION)			<b>VCLH</b>		
<b>02</b>	DIMENSIONE (SIZE)	BSPP 3/8		<b>380</b>		
		BSPP 1/2		<b>120</b>		
<b>03</b>	MOLLA (SPRING)	Rp 1:4.25	<b>78 bar/al giro</b> (1131 PSI/turn)	Taratura standard (Std. setting) <b>Q=5 l/min 200 bar</b> (2900 PSI)	<b>1</b>	
		Rp 1:8.75	<b>160 bar/al giro</b> (2320 PSI/turn)			
	MOLLA (SPRING)	Rp 1:4.25	<b>135 bar/al giro</b> (1958 PSI/turn)	Taratura standard (Std. setting) <b>Q=5 l/min 350 bar</b> (5075 PSI)		<b>2</b>
		Rp 1:8.75	<b>160 bar/al giro</b> (2320 PSI/turn)			
<b>04</b>	MATERIALE (MATERIAL)	Acciaio + zincatura (Steel + zinc-plating)		<b>S</b>		
<b>05</b>	RAPPORTO DI PILOTAGGIO (PILOT RATIO)	1:4.25 Standard		<b>/</b>		
		1:8.75		<b>8</b>		

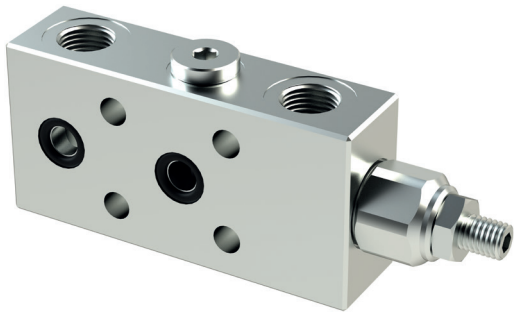
**DATI TECNICI / TECHNICAL DATA**

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F +176°F
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b> -4°F +122°F
<b>È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)</b> It is necessary a filter use to protect the valve (advised filtration 15 µm)	

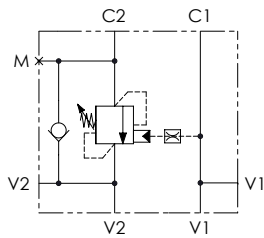


**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

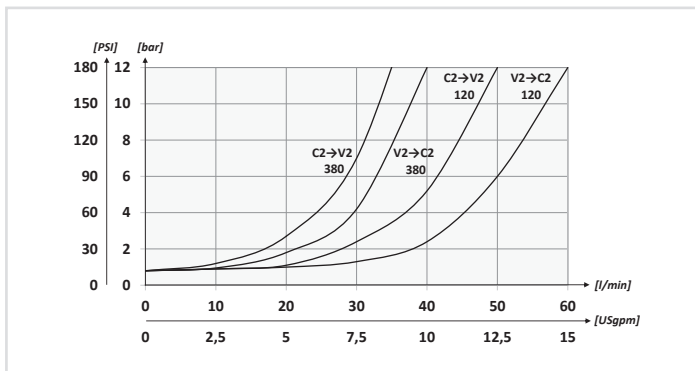
TIPO TYPE	A	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	B	C	M	P	PESO APPROX (kg) APPROX WEIGHT (lbt)
<b>VCLH380</b>	<b>BSPP 3/8</b>	<b>40</b> (10.6)	<b>350</b> (5075)	<b>29</b> (1.14)	<b>54</b> (2.13)	<b>BSPP 1/4</b>	<b>12</b> (0.47)	<b>1,23</b> (2.85)
<b>VCLH120</b>	<b>BSPP 1/2</b>	<b>60</b> (15.9)		<b>34</b> (1.34)	<b>64</b> (2.52)		<b>17</b> (0.67)	<b>1,62</b> (3.61)



### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### PERFORMANCES



### CODICE ORDINAZIONE / ORDERING CODE

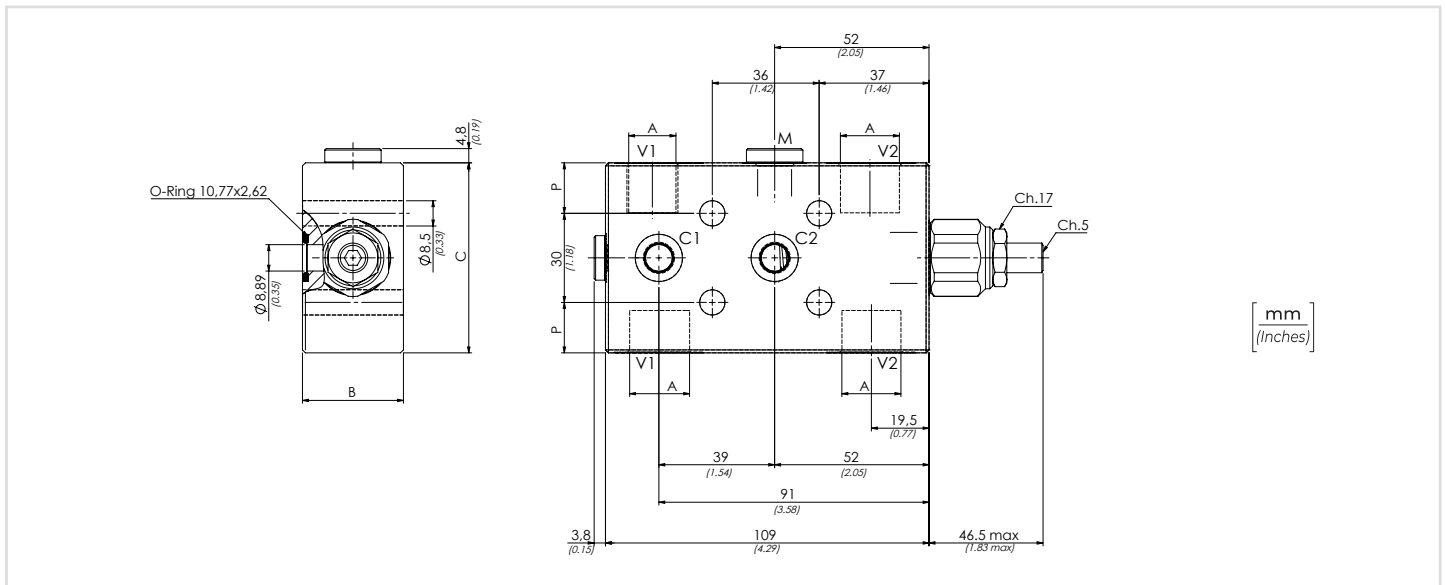
01	02	03	04	05
<b>VBLF</b>				

<b>01</b>	VALVOLE DI BILANCIAMENTO SINGOLE PER CENTRO APERTO - FLANGIATA DOPPIA (SINGLE COUNTERBALANCE VALVES FOR OPEN CENTER - DOUBLE FLANGED VERSION)			<b>VBLF</b>		
<b>02</b>	DIMENSIONE (SIZE)	BSPP 3/8		<b>380</b>		
		BSPP 1/2		<b>120</b>		
<b>03</b>	MOLLA (SPRING) <b>30/210 bar</b> (435/3045 PSI)	Rp 1:4.25	<b>78 bar/al giro</b> (1131 PSI/turn)	Taratura standard (Std. setting) <b>Q=5 l/min 200 bar</b> (2900 PSI)	<b>1</b>	
		Rp 1:8.75	<b>160 bar/al giro</b> (2320 PSI/turn)			
	MOLLA (SPRING) <b>60/350 bar</b> (870/5075 PSI)	Rp 1:4.25	<b>135 bar/al giro</b> (1958 PSI/turn)	Taratura standard (Std. setting) <b>Q=5 l/min 350 bar</b> (5075 PSI)		<b>2</b>
		Rp 1:8.75	<b>160 bar/al giro</b> (2320 PSI/turn)			
<b>04</b>	MATERIALE (MATERIAL)	Acciaio + zincatura (Steel + zinc-plating)		<b>S</b>		
		Acciaio + zinco-nichel (Steel + zinc-nickel)		<b>K</b>		
<b>05</b>	RAPPORTO DI PILOTAGGIO (PILOT RATIO)	1:4.25 Standard		<b>/</b>		
		1:8.75		<b>8</b>		

Opzione: Tappo piombatura - Optional: Tamper proof cap **81300095**

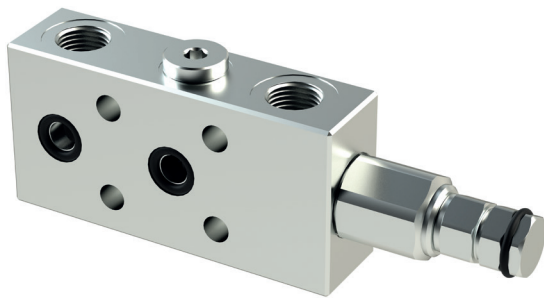
### DATI TECNICI / TECHNICAL DATA

<b>Olio idraulico - Mineral oil</b>	<b>ISO 6743/4 (DIN 51524)</b>
<b>Viscosità olio - Oil viscosity</b>	<b>15-250 mm<sup>2</sup>/s (15 to 250 cSt)</b>
<b>Classe di contaminazione max - Max contamination index</b>	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio - Oil temperature</b>	<b>-20°C +80°C -4°F +176°F</b>
<b>Temperatura ambiente - Environment temperature</b>	<b>-20°C +50°C -4°F +122°F</b>
<b>È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)</b> It is necessary a filter use to protect the valve (advised filtration 15 µm)	

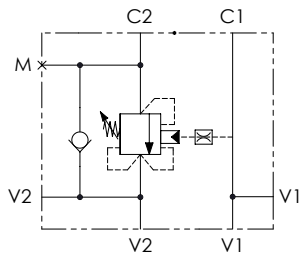


### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

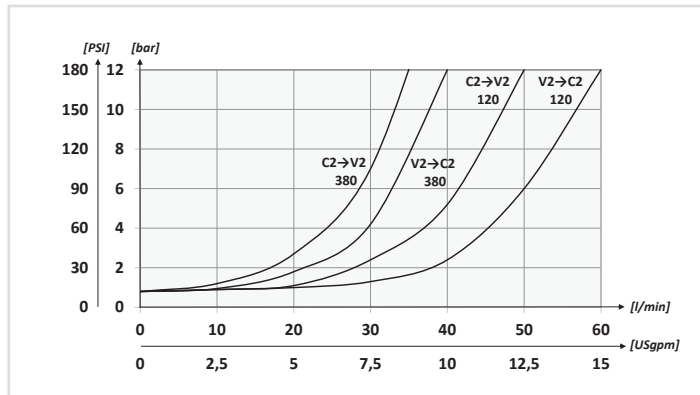
TIPO / TYPE	A	PORTATA MAX (l/min) / MAX FLOW (USgpm)	PRESSIONE MAX (bar) / MAX PRESSURE (PSI)	B	C	M	P	PESO APPROX (kg) / APPROX WEIGHT (lb)
<b>VBLF380</b>	<b>BSPP 3/8</b>	<b>40 (10.6)</b>	<b>350 (5075)</b>	<b>29 (1.14)</b>	<b>54 (2.13)</b>	<b>BSPP 1/4</b>	<b>12 (0.47)</b>	<b>1,17 (2.55)</b>
<b>VBLF120</b>	<b>BSPP 1/2</b>	<b>60 (15.9)</b>		<b>34 (1.34)</b>	<b>64 (2.52)</b>		<b>17 (0.67)</b>	<b>1,55 (3.37)</b>



### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### PERFORMANCES



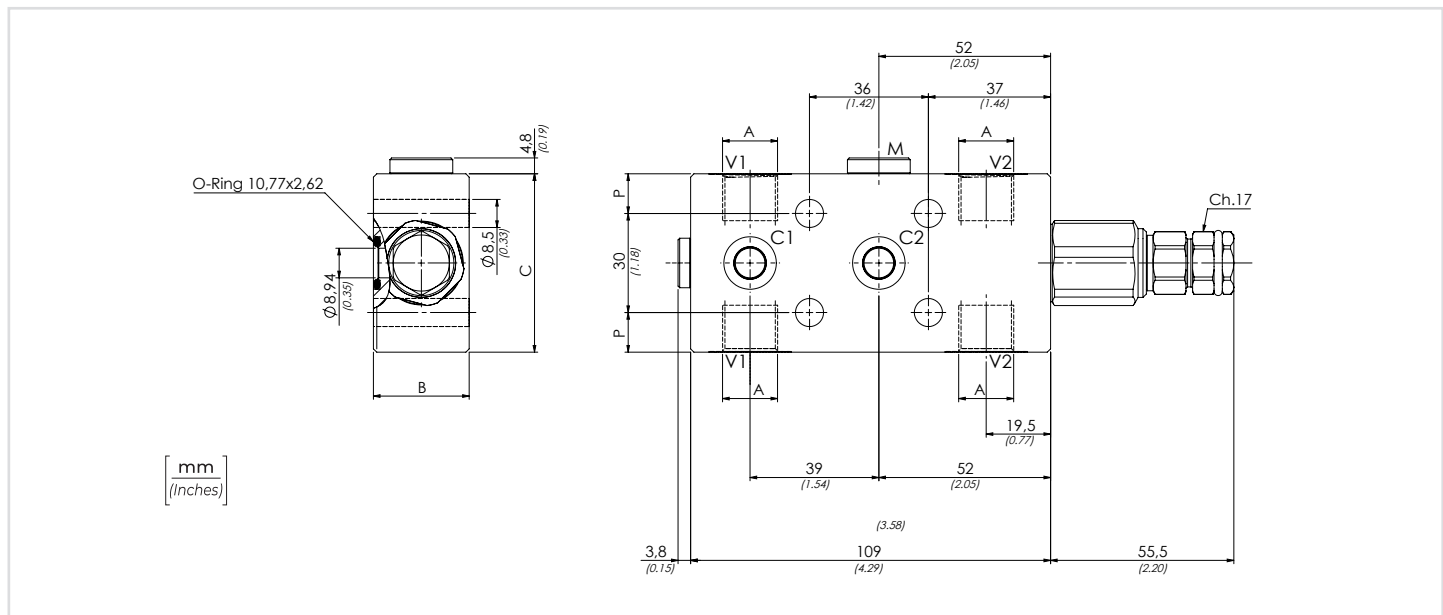
### CODICE ORDINAZIONE / ORDERING CODE

01	02	03	04	05
<b>VCLF</b>			<b>S</b>	

<b>01</b>	VALVOLE DI BILANCIAMENTO SINGOLE PER CENTRO CHIUSO - FLANGIATE (SINGLE COUNTERBALANCE VALVES FOR CLOSED CENTER - FLANGED VERSION)			<b>VCLF</b>	
<b>02</b>	DIMENSIONE (SIZE)	BSPP 3/8		<b>380</b>	
		BSPP 1/2		<b>120</b>	
<b>03</b>	MOLLA (SPRING)	Rp 1:4.25	<b>78 bar/al giro</b> (1131 PSI/turn)	Taratura standard (Std. setting) <b>Q=5 l/min 200 bar</b> (2900 PSI)	<b>1</b>
		Rp 1:8.75	<b>160 bar/al giro</b> (2320 PSI/turn)		
	MOLLA (SPRING)	Rp 1:4.25	<b>135 bar/al giro</b> (1958 PSI/turn)	Taratura standard (Std. setting) <b>Q=5 l/min 350 bar</b> (5075 PSI)	
		Rp 1:8.75	<b>160 bar/al giro</b> (2320 PSI/turn)		
<b>04</b>	MATERIALE (MATERIAL)	Acciaio + zincatura (Steel + zinc-plating)		<b>S</b>	
<b>05</b>	RAPPORTO DI PILOTAGGIO (PILOT RATIO)	1:4.25 Standard		<b>/</b>	
		1:8.75		<b>8</b>	

### DATI TECNICI / TECHNICAL DATA

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F +176°F
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b> -4°F +122°F
<b>È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)</b> It is necessary a filter use to protect the valve (advised filtration 15 µm)	

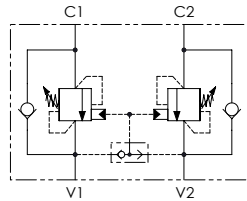


### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

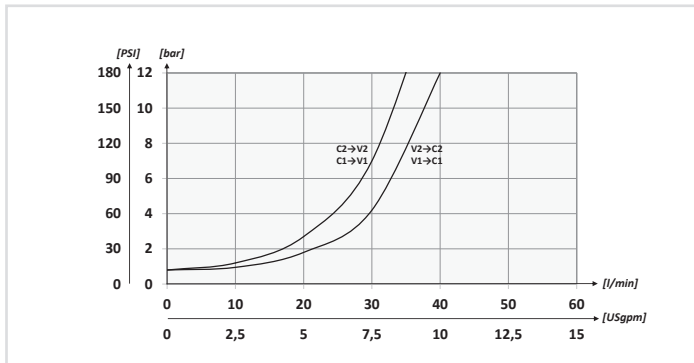
TIPO / TYPE	A	PORTATA MAX (l/min) / MAX FLOW (USgpm)	PRESSIONE MAX (bar) / MAX PRESSURE (PSI)	B	C	M	P	PESO APPROX (kg) / APPROX WEIGHT (lbt)
<b>VCLF380</b>	<b>BSPP 3/8</b>	<b>40</b> (10.6)	<b>350</b> (5075)	<b>29</b> (1.14)	<b>54</b> (2.13)	<b>BSPP 1/4</b>	<b>12</b> (0.47)	<b>1,22</b> (2.69)
<b>VCLF120</b>	<b>BSPP 1/2</b>	<b>60</b> (15.9)		<b>34</b> (1.34)	<b>64</b> (2.52)		<b>17</b> (0.67)	<b>1,60</b> (3.52)



### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



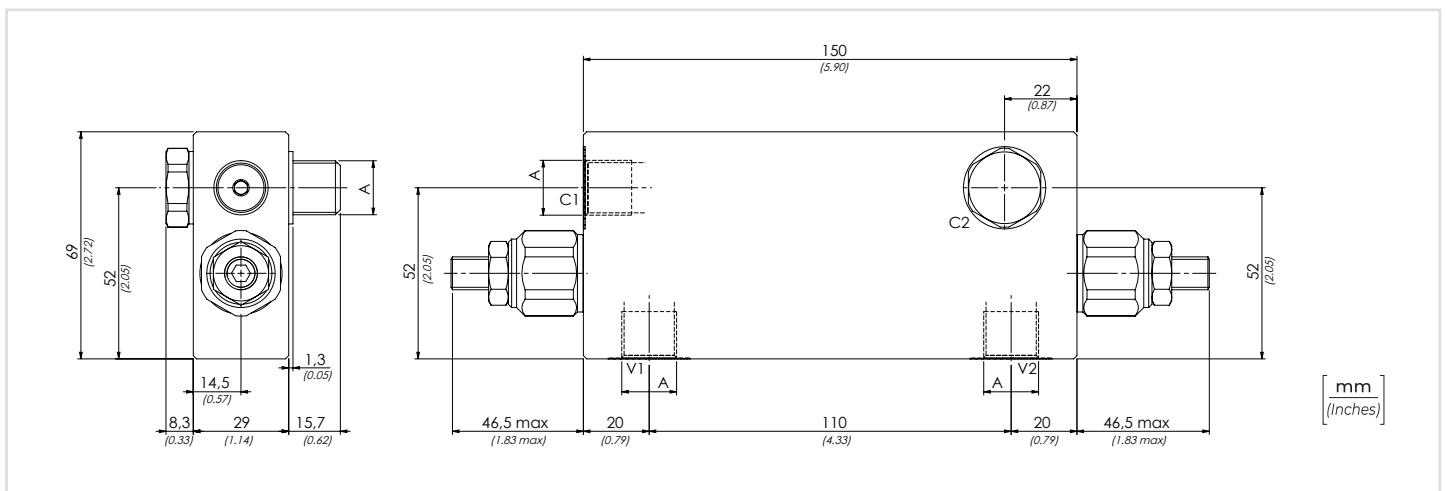
### PERFORMANCES



	01	02	03	04	05
<b>CODICE ORDINAZIONE</b> ORDERING CODE	<b>VBCA 380</b>				

<b>01</b>	VALVOLE DI BILANCIAMENTO SINGOLA A BULLONE PER CENTRO APERTO (BOLT-FITTING SINGLE COUNTERBALANCE VALVES FOR OPEN CENTER)			<b>VBCA</b>	
<b>02</b>	DIMENSIONE (SIZE)	BSPP 3/8		<b>380</b>	
<b>03</b>	MOLLA (SPRING)	Rp 1:4.25	<b>78 bar/al giro</b> (1131 PSI/turn)	Taratura standard (Std. setting) <b>Q=5 l/min 200 bar</b> (2900 PSI)	<b>1</b>
		Rp 1:8.75	<b>160 bar/al giro</b> (2320 PSI/turn)		
<b>03</b>	MOLLA (SPRING)	Rp 1:4.25	<b>135 bar/al giro</b> (1958 PSI/turn)	Taratura standard (Std. setting) <b>Q=5 l/min 350 bar</b> (5075 PSI)	<b>2</b>
		Rp 1:8.75	<b>160 bar/al giro</b> (2320 PSI/turn)		
<b>04</b>	MATERIALE (MATERIAL)	Acciaio + zincatura (Steel + zinc-plating)		<b>S</b>	
		Acciaio + zinco-nichel (Steel + zinc-nickel)		<b>K</b>	
<b>05</b>	RAPPORTO DI PILOTAGGIO (PILOT RATIO)	1:4.25 Standard		<b>/</b>	
		1:8.75		<b>8</b>	

Opzione: Tappo piombatura - Optional: Tamper proof cap **81300095**

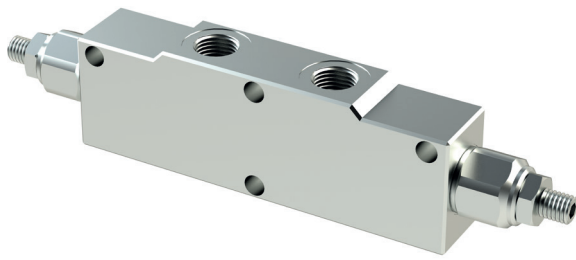


### DATI TECNICI / TECHNICAL DATA

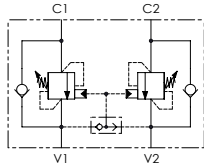
olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	

### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

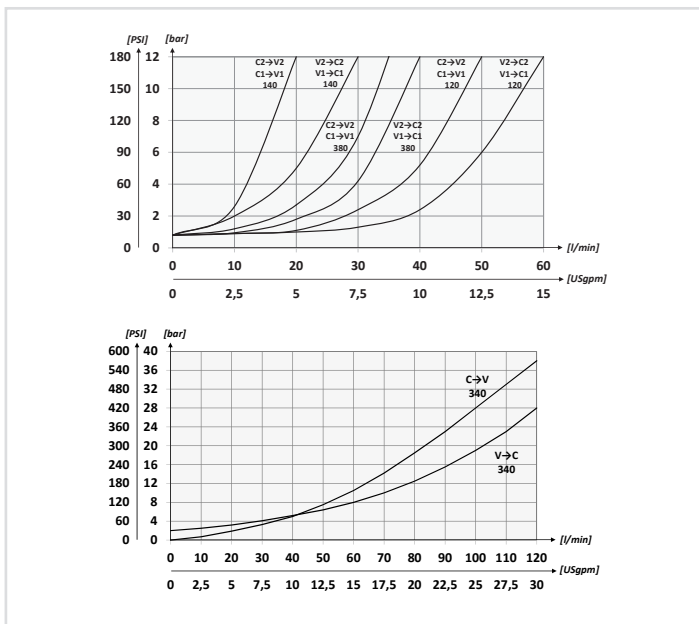
CODICE CODE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	PESO APPROX (kg) APPROX WEIGHT (lb)
<b>VBCA380</b>	<b>BSPP 3/8</b>	<b>40 (10.6)</b>	<b>350 (5075)</b>	<b>2,32 (5.11)</b>



### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### PERFORMANCES



### CODICE ORDINAZIONE / ORDERING CODE

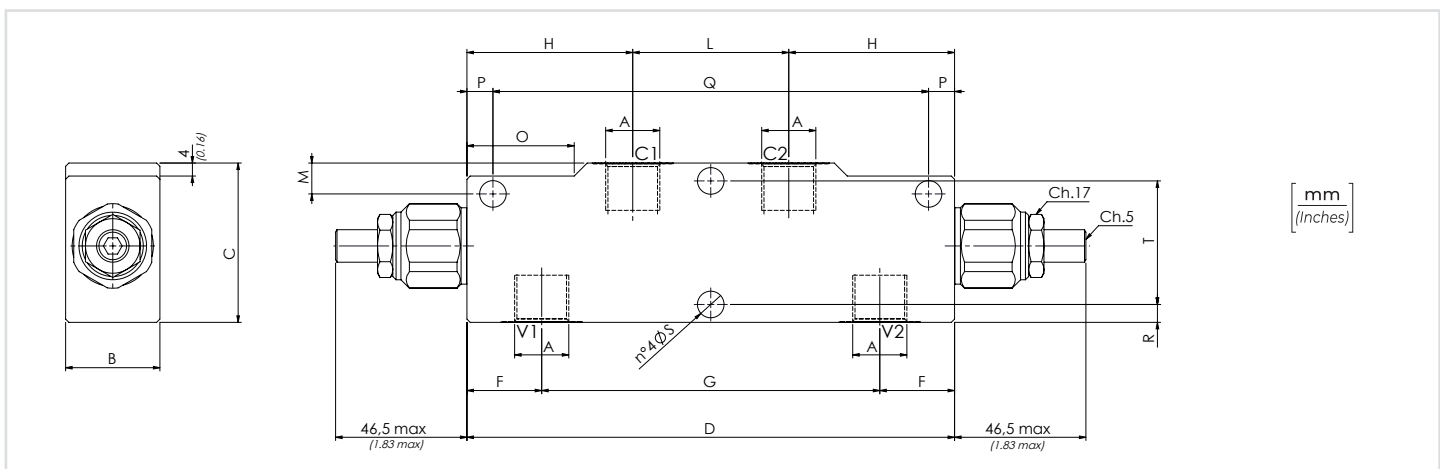
01	02	03	04	05
<b>VBCD</b>				

<b>01</b>	VALVOLE DI BILANCIAMENTO DOPPIE PER CENTRO APERTO (DOUBLE COUNTERBALANCE VALVES FOR OPEN CENTER)				<b>VBCD</b>	
<b>02</b>	DIMENSIONE (SIZE)	BSPP 1/4		<b>140</b>	<b>1</b>	
		BSPP 3/8		<b>380</b>		
		BSPP 1/2		<b>120</b>		
		BSPP 3/4		<b>340</b>		
<b>03</b>	MOLLA (SPRING) <b>30/210 bar</b> (435/3045 PSI)	Rp 1:4.25	140	<b>78 bar/al giro</b> (1131 PSI/turn)	Taratura standard (Std. setting) <b>Q=5 l/min 200 bar</b> (2900 PSI)	<b>2</b>
		Rp 1:8.75	380	<b>160 bar/al giro</b> (2320 PSI/turn)		
	MOLLA (SPRING) <b>60/350 bar</b> (870/5075 PSI)	Rp 1:4.25	140	<b>135 bar/al giro</b> (1958 PSI/turn)	Taratura standard (Std. setting) <b>Q=5 l/min 350 bar</b> (5075 PSI)	
		Rp 1:8.75	380	<b>160 bar/al giro</b> (2320 PSI/turn)		
	MOLLA (SPRING) <b>60/350 bar</b> (870/5075 PSI)	Rp 1:6.2	340	<b>143 bar/al giro</b> (2074 PSI/turn)	Taratura standard (Std. setting) <b>Q=5 l/min 350 bar</b> (5075 PSI)	
		Rp 1:10.6		<b>242bar/al giro</b> (3509 PSI/turn)		
<b>04</b>	MATERIALE (MATERIAL)	Acciaio + zincatura (Steel + zinc-plating)		<b>S</b>		
		Acciaio + zinco-nichel (Steel + zinc-nickel)		<b>K</b>		
<b>05</b>	RAPPORTO DI PILOTAGGIO (PILOT RATIO)	140	1:4.25 Standard		<b>/</b>	
		380	1:8.75		<b>8</b>	
		120	1:6.2		<b>/</b>	
		340	1:10,6		<b>11</b>	

Opzione: Tappo piombatura - Optional: Tamper proof cap **81300095**

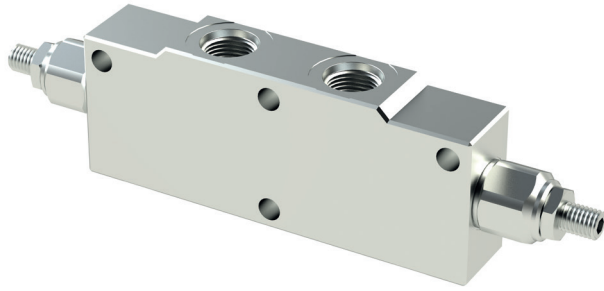
### DATI TECNICI / TECHNICAL DATA

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F +176°F
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b> -4°F +122°F
<b>È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)</b> It is necessary a filter use to protect the valve (advised filtration 15 µm)	

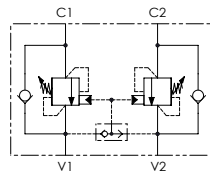


### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

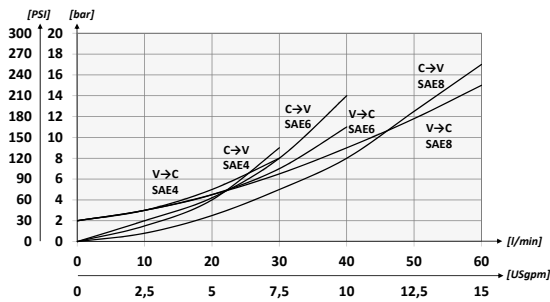
TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	B	C	D	F	G	H	L	M	O	P	Q	R	S	T	Peso Approx Approx weight kg-lbt								
VBCD140	BSPP 1/4	30 (7.9)	350 (5075)	29 (1.14)	49 (1.93)	150 (5.91)	23 (0.91)	104 (4.09)	51 (2.01)	48 (1.89)	10 (0.39)	33 (1.30)	8 (0.31)	134 (5.28)	5,5 (0.22)	8,2 (0.32)	38 (1.50)	1,57 (3,46)								
VBCD380	BSPP 3/8	40 (10.6)			59 (2.32)		21 (0.83)	108 (4.25)			12 (0.47)				43 (1.69)		1,55 (3,41)									
VBCD120	BSPP 1/2	60 (15.9)			39 (1.54)		69 (2.72)	210 (8.27)			26 (1.02)				158 (6.22)		72 (2.83)	66 (2.6)	13 (0.51)	45 (1.77)	10 (0.39)	190 (7.48)	8,5 (0.33)	10,5 (0.41)	52 (2.05)	1,78 (3.92)
VBCD340	BSPP 3/4	120 (31.7)			69 (2.72)		210 (8.27)	26 (1.02)			158 (6.22)				72 (2.83)		66 (2.6)	13 (0.51)	45 (1.77)	10 (0.39)	190 (7.48)	8,5 (0.33)	10,5 (0.41)	52 (2.05)	4,5 (8,81)	



### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### PERFORMANCES



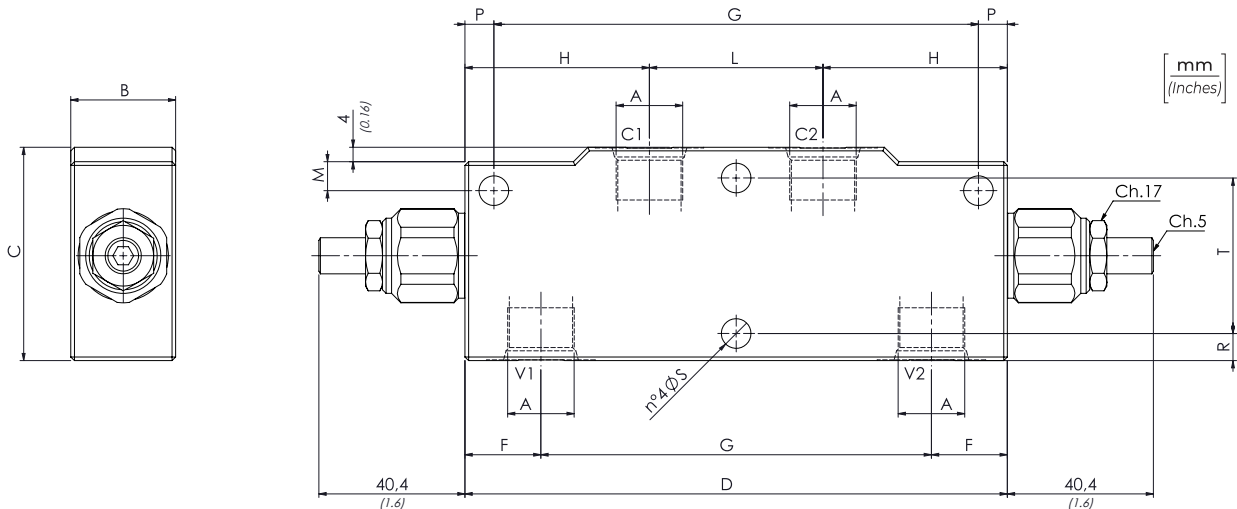
<b>CODICE ORDINAZIONE</b>	01	02	03	04	05
<b>ORDERING CODE</b>	<b>VBCD</b>				

<b>01</b>	VALVOLE DI BILANCIAMENTO DOPPIE PER CENTRO APERTO DOUBLE COUNTERBALANCE VALVES FOR OPEN CENTER	<b>VBCD</b>
<b>02</b>	DIMENSIONE (SIZE)	7/16-20UNF <b>4</b>
		9/16-18UNF <b>6</b>
		3/4-16UNF <b>8</b>
<b>03</b>	MOLLA (SPRING) Rp 1:4.25 <b>30/210 bar</b> (435/3045 PSI)	<b>78 bar/al giro</b> (1131 PSI/turn) <b>160 bar/al giro</b> (2320 PSI/turn)
	MOLLA (SPRING) Rp 1:4.25 <b>60/350 bar</b> (870/5075 PSI)	<b>135 bar/al giro</b> (1958 PSI/turn) <b>160 bar/al giro</b> (2320 PSI/turn)
<b>04</b>	MATERIALE (MATERIAL)	Acciaio + zincatura (Steel + zinc-plating) <b>S</b>
		Acciaio + zinco-nichel (Steel + zinc-nickel) <b>K</b>
<b>05</b>	RAPPORTO DI PILOTAGGIO (PILOT RATIO)	1:4.25 Standard <b>/</b>
		1:8.75 <b>8</b>

Opzione: Tappo piombatura - Optional: Tamper proof cap **81300095**

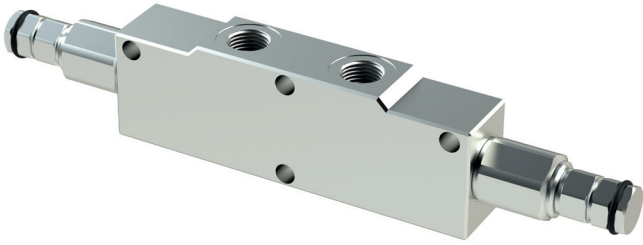
### DATI TECNICI / TECHNICAL DATA

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F +176°F
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b> -4°F +122°F
<b>È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)</b> It is necessary a filter use to protect the valve (advised filtration 15 µm)	



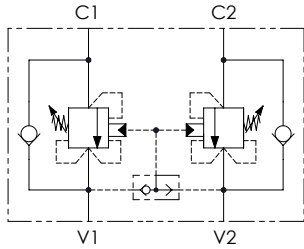
### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	B	C	D	F	G	H	L	M	O	P	R	S	T	PESO APPROX APPROXWEIGHT kg-lbt
VBCD4	7/16-20UNF	30 (7.9)	350 (5075)	29 (1.14)	49 (1.93)	150 (5.91)	23 (0.91)	104 (4.09)	51 (2.01)	48 (1.89)	5,5 (0.22)	33 (1.30)	8 (0.31)	5,5 (0.22)	8,2 (0.32)	38 (1.50)	1,59 (3,50) (1.30)
VBCD6	9/16-18UNF	40 (10.6)			59 (2.32)		21 (0.83)	134 (5.27)			8 (0.31)			7,5 (0.29)		43 (1.69)	
VBCD8	3/4-16UNF	60 (15.9)															

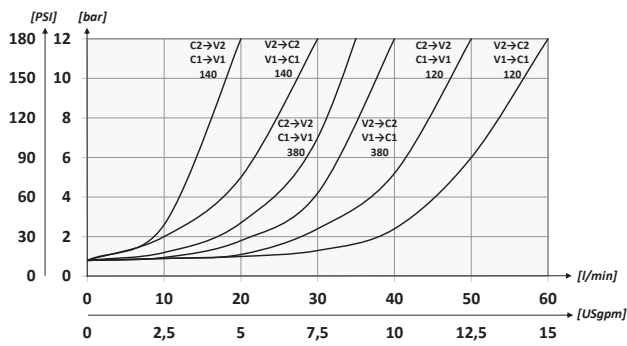


<b>CODICE ORDINAZIONE</b> ORDERING CODE	01	02	03	04	05
<b>VBCC</b>				<b>S</b>	

### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



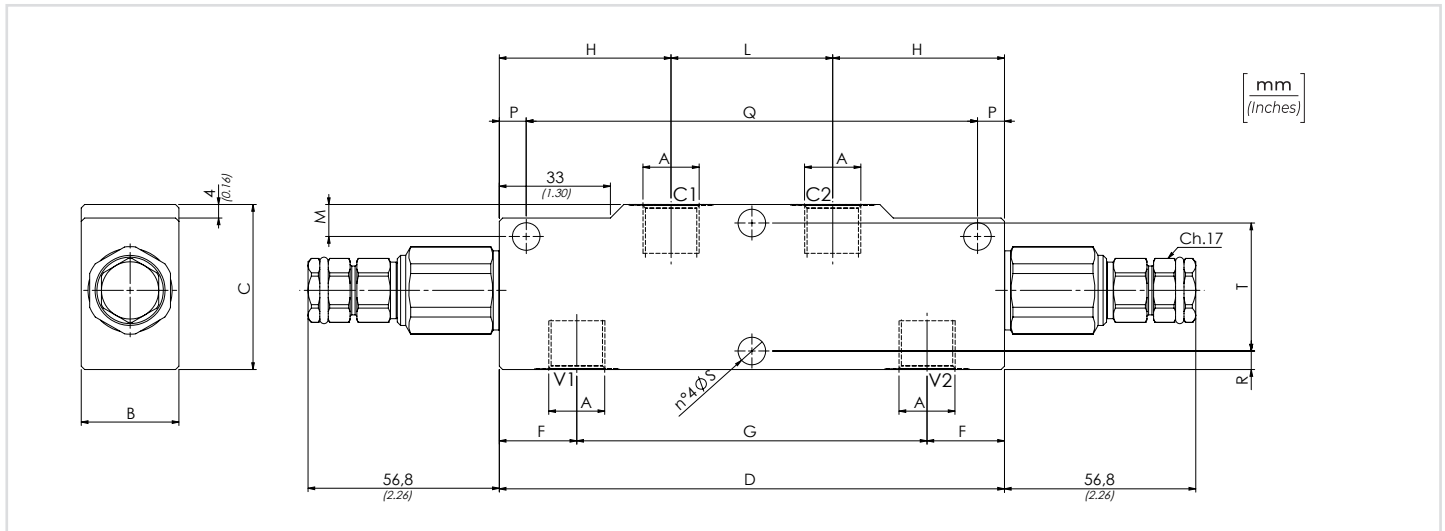
### PERFORMANCES



<b>01</b>	VALVOLE DI BILANCIAMENTO DOPPIE PER CENTRO CHIUSO (DOUBLE COUNTERBALANCE VALVES FOR CLOSED CENTER)				<b>VBCC</b>
<b>02</b>	DIMENSIONE (SIZE)	BSPP 1/4		<b>140</b>	
		BSPP 3/8		<b>380</b>	
		BSPP 1/2		<b>120</b>	
<b>03</b>	MOLLA (SPRING)	Rp 1:4.25	<b>78 bar/al giro</b> (1131 PSI/turn)	Taratura standard (Std. setting)	<b>1</b>
		Rp 1:8.75	<b>160 bar/al giro</b> (2320 PSI/turn)		
	MOLLA (SPRING)	Rp 1:4.25	<b>135 bar/al giro</b> (1958 PSI/turn)	Taratura standard (Std. setting)	
		Rp 1:8.75	<b>160 bar/al giro</b> (2320 PSI/turn)		
<b>04</b>	MATERIALE (MATERIAL)	Acciaio + zincatura (Steel + zinc-plating)			<b>S</b>
<b>05</b>	RAPPORTO DI PILOTAGGIO (PILOT RATIO)	1:4.25 Standard			/
		1:8.75			<b>8</b>

### DATI TECNICI / TECHNICAL DATA

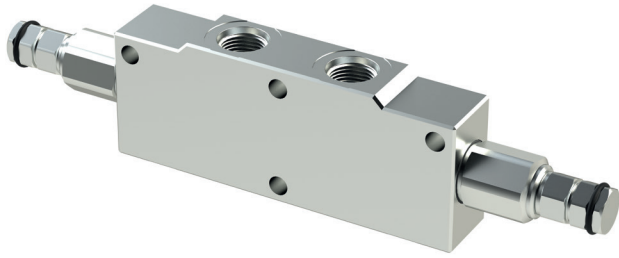
<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F +176°F
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b> -4°F +122°F
<b>È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)</b> It is necessary a filter use to protect the valve (advised filtration 15 µm)	



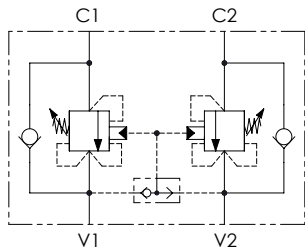
### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	B	C	D	F	G	H	L	M	O	P	Q	R	S	T	PESO APPROX APPROX WEIGHT kg-lbt		
VBCC140	BSPP 1/4	30 (8)	350 (5075)	29 (1.14)	49 (1.93)	150 (5.91)	23 (0.91)	104 (4.09)	51 (2.01)	48 (1.89)	10 (0.39)	33 (1.30)	8 (0.31)	134 (5.28)	5,5 (0.22)	8,2 (0.32)	38 (1.50)	1,68 (3.70)		
VBCC380	BSPP 3/8	40 (10.5)			59 (2.32)		21 (0.83)	108 (4.25)							12 (0.47)		7,5 (0.29)		43 (1.69)	1,66 (3.66)
VBCC120	BSPP 1/2	60 (16)																		

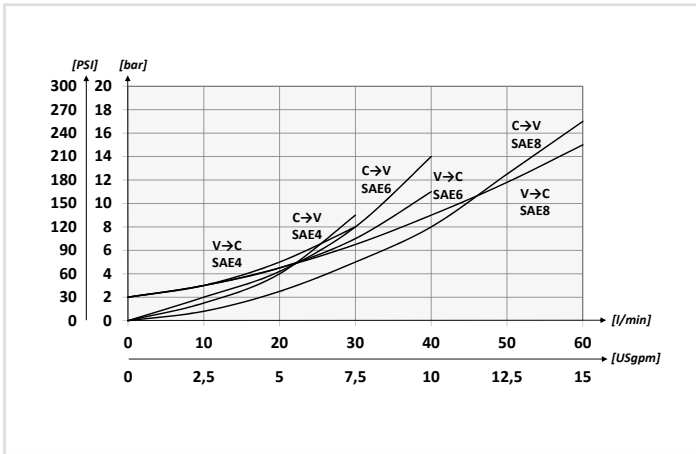




**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**PERFORMANCES**



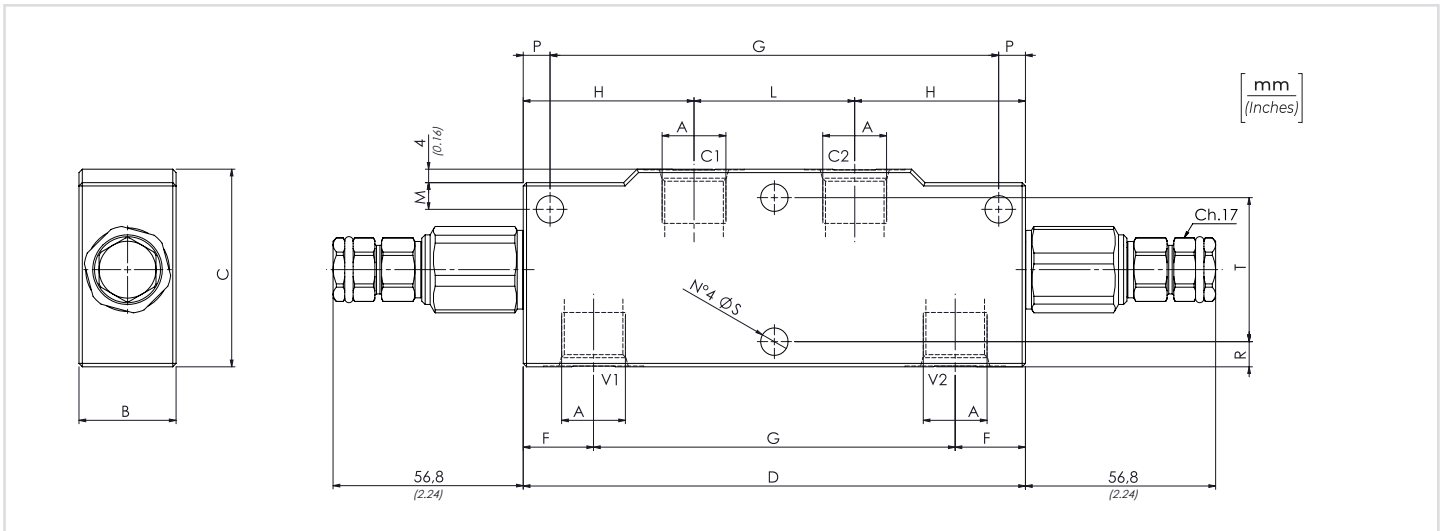
**CODICE ORDINAZIONE**  
ORDERING CODE

01	02	03	04	05
<b>VBCC</b>			<b>S</b>	

01	VALVOLE DI BILANCIAMENTO DOPPIE PER CENTRO CHIUSO (DOUBLE COUNTERBALANCE VALVES FOR CLOSED CENTER)			<b>VBCC</b>	
02	DIMENSIONE (SIZE)	7/16-20UNF		<b>4</b>	
		9/16-18UNF		<b>6</b>	
		3/4-16UNF		<b>8</b>	
03	MOLLA (SPRING)	Rp 1:4.25	<b>78 bar/al giro</b> (1131 PSI/turn)	Taratura standard (Std. setting)	<b>1</b>
		Rp 1:8.75	<b>160 bar/al giro</b> (2320 PSI/turn)		
	MOLLA (SPRING)	Rp 1:4.25	<b>135 bar/al giro</b> (1958 PSI/turn)	Taratura standard (Std. setting)	<b>2</b>
		Rp 1:8.75	<b>160 bar/al giro</b> (2320 PSI/turn)		
04	MATERIALE (MATERIAL)	Acciaio + zincatura (Steel + zinc-plating)		<b>S</b>	
05	RAPPORTO DI PILOTAGGIO (PILOT RATIO)	1:4.25 Standard		<b>/</b>	
		1:8.75		<b>8</b>	

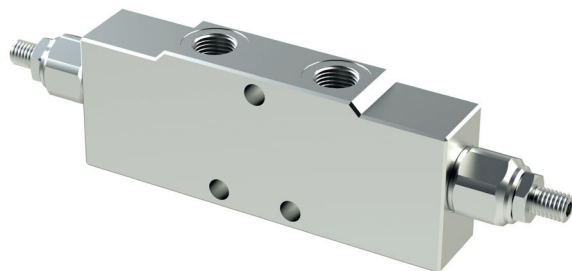
**DATI TECNICI / TECHNICAL DATA**

Olio idraulico - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
Viscosità olio - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
Classe di contaminazione max Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
Temperatura dell'olio - Oil temperature	<b>-20°C +80°C</b> -4°F +176°F
Temperatura ambiente - Environment temperature	<b>-20°C +50°C</b> -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	

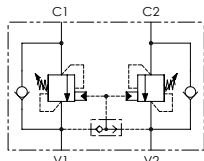


**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

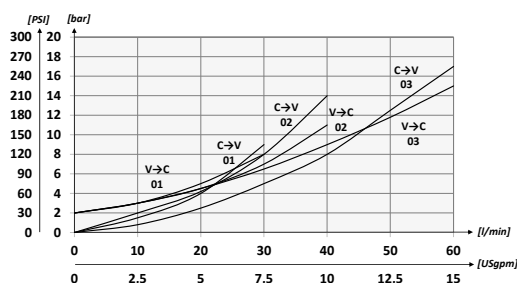
TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	B	C	D	F	G	H	L	M	O	P	Q	R	S	T	PESO APPROX APPROX WEIGHT kg-lbt
<b>VBCC4</b>	<b>7/16-20UNF</b>	<b>30</b> (8)	<b>350</b> (5075)	<b>29</b> (1.14)	<b>49</b> (1.93)	<b>150</b> (5.91)	<b>23</b> (0.91)	<b>104</b> (4.09)	<b>51</b> (2.01)	<b>48</b> (1.89)	<b>10</b> (0.39)	<b>33</b> (1.30)	<b>8</b> (0.31)	<b>134</b> (5.28)	<b>5,5</b> (0.22)	<b>8,2</b> (0.32)	<b>38</b> (1.50)	<b>1,68</b> (3.70)
<b>VBCC6</b>	<b>9/16-18UNF</b>	<b>40</b> (10.5)																<b>1,66</b> (3.66)
<b>VBCC8</b>	<b>3/4-16UNF</b>	<b>60</b> (16)																<b>1,89</b> (4.16)



**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**PERFORMANCES**



**CODICE ORDINAZIONE**  
ORDERING CODE

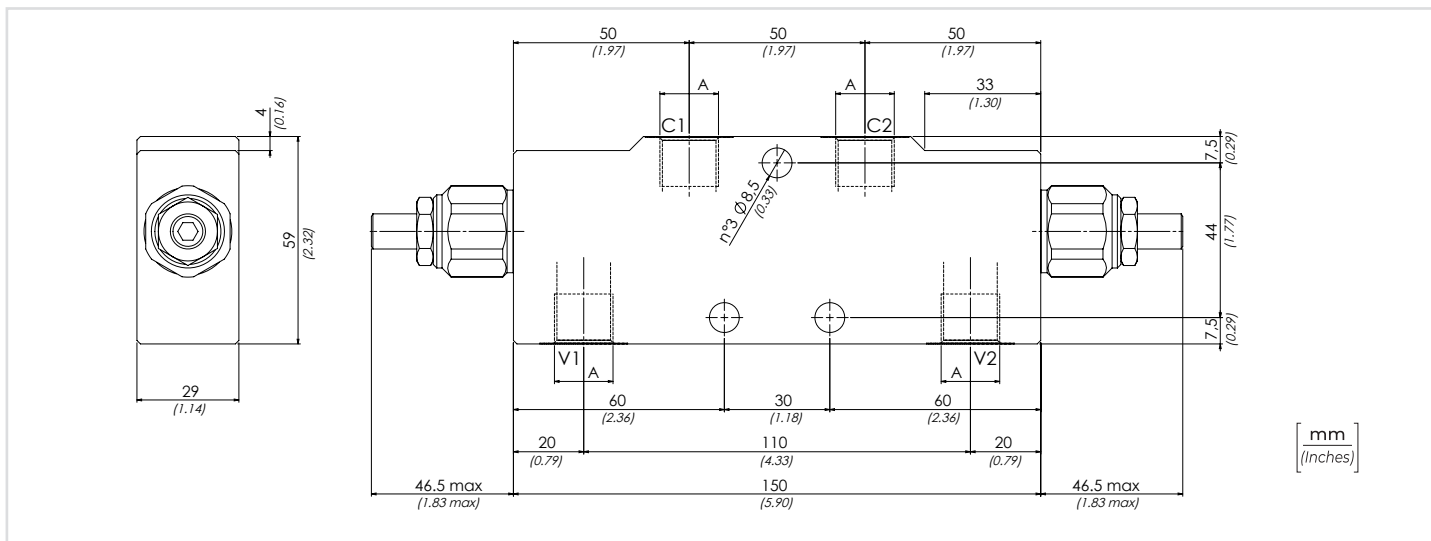
	01	02	03	04	05
<b>SOVBCD</b>					

<b>01</b>	VALVOLE DI BILANCIAMENTO DOPPIE PER CENTRO APERTO (DOUBLE COUNTERBALANCE VALVES FOR OPEN CENTER)			<b>SOVBCD</b>		
<b>02</b>	DIMENSIONE SIZE	BSPP 1/4		<b>01</b>		
		BSPP 3/8		<b>02</b>		
		BSPP 1/2		<b>03</b>		
<b>03</b>	MOLLA SPRING	Rp 1:4.25	<b>78 bar/al giro</b> (1131 PSI/turn)	Taratura standard Std. setting <b>Q=5 l/min 200 bar</b> (2900 PSI)	<b>1</b>	
		<b>30/210 bar</b> (435/3045 PSI)	Rp 1:8.75			<b>160 bar/al giro</b> (2320 PSI/turn)
	MOLLA SPRING	Rp 1:4.25	<b>135 bar/al giro</b> (1958 PSI/turn)	Taratura standard Std. setting <b>Q=5 l/min 350 bar</b> (5075 PSI)		<b>2</b>
		<b>60/350 bar</b> (870/5075 PSI)	Rp 1:8.75			
<b>04</b>	MATERIALE MATERIAL	Acciaio + zincatura / Steel + zinc-plating		<b>S</b>		
		Acciaio + zinco-nichel / Steel + zinc-nickel		<b>K</b>		
<b>05</b>	RAPPORTO DI PILOTAGGIO PILOT RATIO	140	1:4.25 Standard	<b>/</b>		
			1:8.75	<b>8</b>		

Opzione: Tappo piombatura - Optional: Tamper proof cap **81300095**

**DATI TECNICI / TECHNICAL DATA**

**Oilio idraulico** - Mineral oil **ISO 6743/4** (DIN 51524)  
**Viscosità olio** - Oil viscosity **15-250 mm<sup>2</sup>/s** (15 to 250 cSt)  
**Classe di contaminazione max con filtro**  
 Max contamination index with filter **ISO 4406:1999 Classe 19/17/14**  
**Temperatura dell'olio** - Oil temperature **-20°C +80°C** -4°F +176°F  
**Temperatura ambiente** - Environment temperature **-20°C +50°C** -4°F +122°F  
**È indispensabile la presenza di un filtro nel circuito idraulico per proteggere la valvola (filtrazione consigliata 15 µm)**  
 A filter into the hydraulic circuit necessary to protect the valve (advised filtration 15 µm)

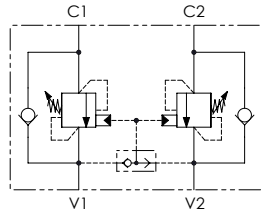


**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

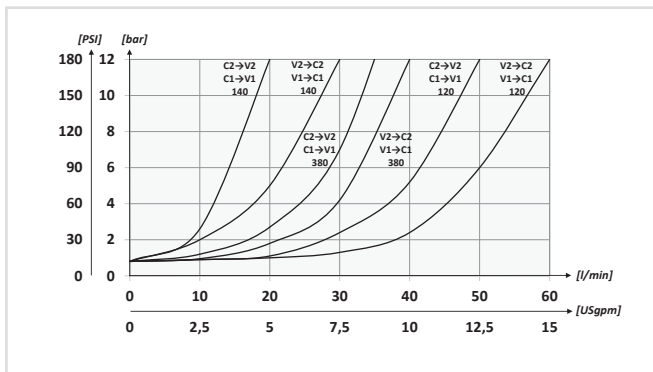
TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	Peso Approx Approx weight kg-lbt
<b>SOVBCD01</b>	<b>BSPP 1/4</b>	<b>30</b> (7.9)	<b>350</b> (5075)	<b>1,91</b> (4.21)
<b>SOVBCD02</b>	<b>BSPP 3/8</b>	<b>40</b> (10.6)		<b>1,86</b> (4.10)
<b>SOVBCD03</b>	<b>BSPP 1/2</b>	<b>60</b> (15.9)		<b>1,80</b> (3.77)



### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### PERFORMANCES



### CODICE ORDINAZIONE / ORDERING CODE

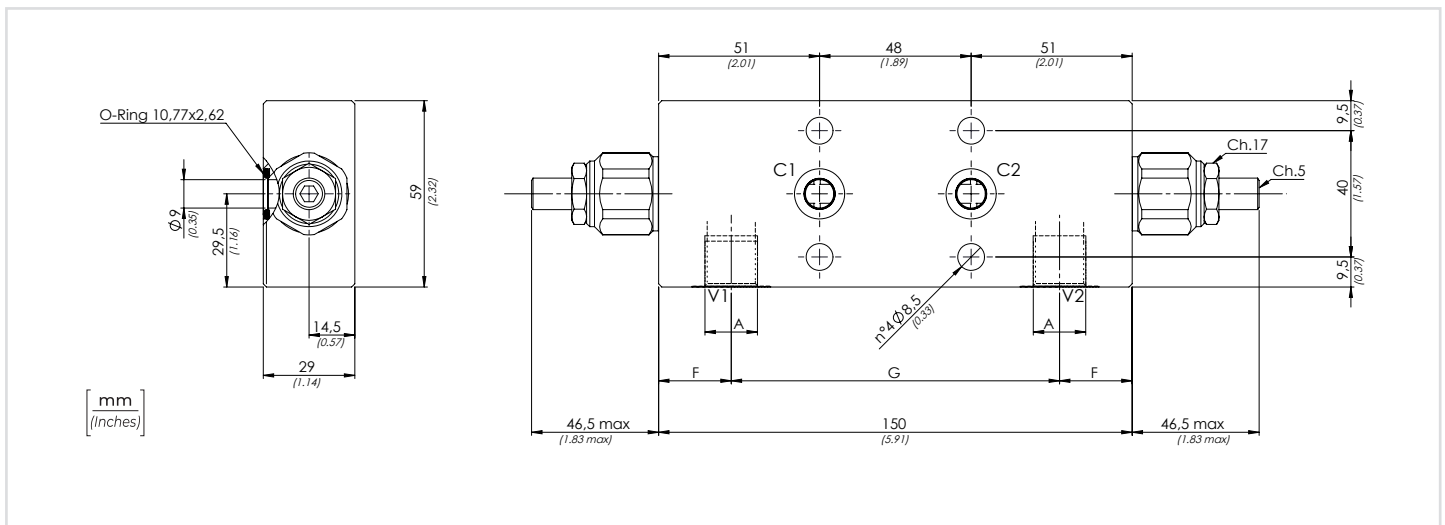
01	02	03	04	05
<b>VBCF</b>				

01	VALVOLE DI BILANCIAMENTO DOPPIE PER CENTRO APERTO - FLANGIATE (DOUBLE COUNTERBALANCE VALVES FOR OPEN CENTER - FLANGED VERSION)			VBCF		
02	DIMENSIONE (SIZE)	BSPP 1/4		140		
		BSPP 3/8		380		
		BSPP 1/2		120		
03	MOLLA (SPRING)	Rp 1:4.25	78 bar/al giro (1131 PSI/turn)	Taratura standard (Std. setting)	1	
		30/210 bar (435/3045 PSI)	Rp 1:8.75			160 bar/al giro (2320 PSI/turn)
	MOLLA (SPRING)	Rp 1:4.25	135 bar/al giro (1958 PSI/turn)	Taratura standard (Std. setting)		2
		60/350 bar (870/5075 PSI)	Rp 1:8.75			
04	MATERIALE (MATERIAL)	Acciaio + zincatura (Steel + zinc-plating)		S		
		Acciaio + zinco-nichel (Steel + zinc-nickel)		K		
05	RAPPORTO DI PILOTAGGIO (PILOT RATIO)	1:4.25 Standard		/		
		1:8.75		8		

Opzione: Tappo piombatura - Optional: Tamper proof cap **81300095**

### DATI TECNICI / TECHNICAL DATA

olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	

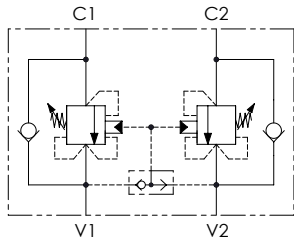


### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

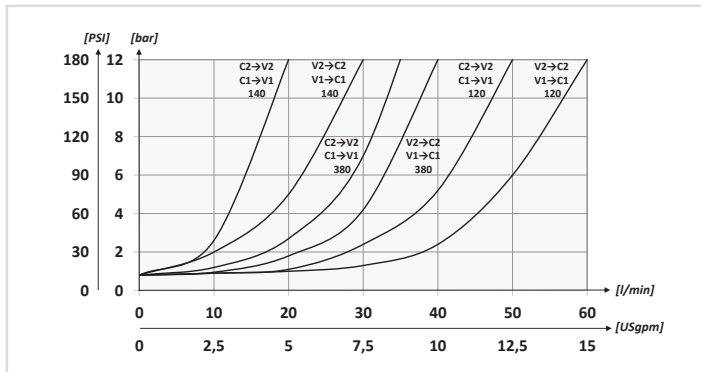
TIPO TYPE	A	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	G	F	PESO APPROX (kg) APPROX WEIGHT (lbt)
VBCF140	BSPP 1/4	40 (10.6)	350 (5075)	104 (4.09)	23 (0.91)	2,02 (4.45)
VBCF380	BSPP 3/8					1,95 (4.30)
VBCF120	BSPP 1/2	60 (15.9)		108 (4.25)	21 (0.83)	1,92 (4.23)



**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



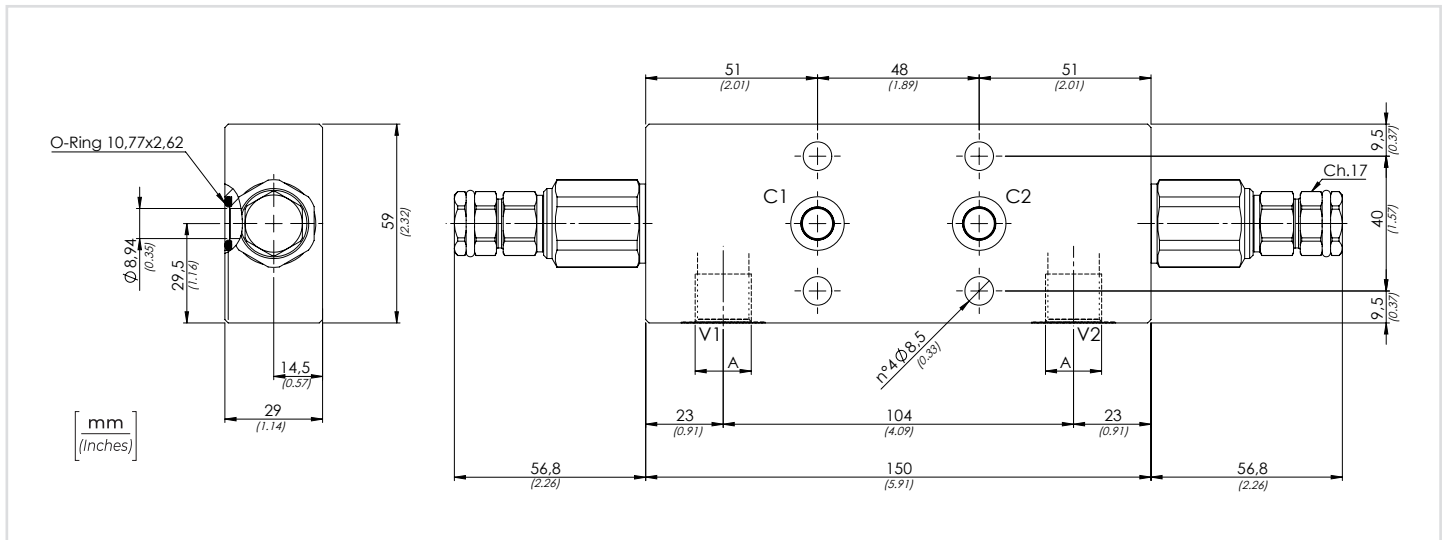
**PERFORMANCES**



**CODICE ORDINAZIONE**  
ORDERING CODE

01	02	03	04	05
<b>VBCM</b>			<b>S</b>	

<b>01</b>	VALVOLE DI BILANCIAMENTO DOPPIE PER CENTRO CHIUSO - FLANGIATE (DOUBLE COUNTERBALANCE VALVES FOR CLOSED CENTER - FLANGED VERSION)			<b>VBCM</b>		
<b>02</b>	DIMENSIONE (SIZE)	BSPP 1/4		<b>140</b>		
		BSPP 3/8		<b>380</b>		
		BSPP 1/2		<b>120</b>		
<b>03</b>	MOLLA (SPRING)	Rp 1:4.25	<b>78 bar/al giro</b> (1131 PSI/turn)	Taratura standard (Std. setting) <b>Q=5 l/min 200 bar</b> (2900 PSI)	<b>1</b>	
		Rp 1:8.75	<b>160 bar/al giro</b> (2320 PSI/turn)			
	MOLLA (SPRING)	Rp 1:4.25	<b>135 bar/al giro</b> (1958 PSI/turn)	Taratura standard (Std. setting) <b>Q=5 l/min 350 bar</b> (5075 PSI)		<b>2</b>
		Rp 1:8.75	<b>160 bar/al giro</b> (2320 PSI/turn)			
<b>04</b>	MATERIALE (MATERIAL)	Acciaio + zincatura (Steel + zinc-plating)		<b>S</b>		
<b>05</b>	RAPPORTO DI PILOTAGGIO (PILOT RATIO)	1:4.25 Standard		<b>/</b>		
		1:8.75		<b>8</b>		

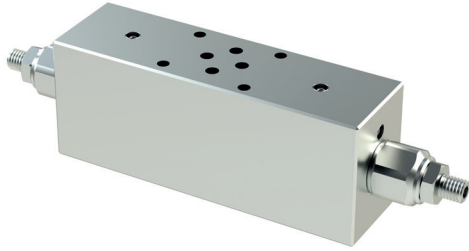


**DATI TECNICI / TECHNICAL DATA**

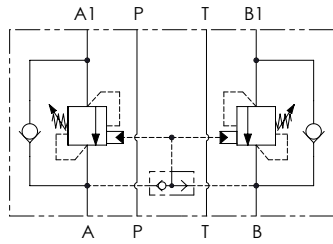
<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)		
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm²/s</b> (15 to 250 cSt)		
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>		
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C</b>	<b>+80°C</b>	<b>-4°F + 176°F</b>
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C</b>	<b>+50°C</b>	<b>-4°F + 122°F</b>
<b>È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)</b> It is necessary a filter use to protect the valve (advised filtration 15 µm)			

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	PESO APPROX APPROX WEIGHT kg-lbt
<b>VBCM140</b>	<b>BSPP 1/4</b>	<b>40</b> (10,6)	<b>350</b> (5075)	<b>2,13</b> (4,69)
<b>VBCM380</b>	<b>BSPP 3/8</b>			<b>2,09</b> (4,60)
<b>VBCM120</b>	<b>BSPP 1/2</b>	<b>60</b> (15,9)		<b>2,06</b> (4,54)



**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**DATI TECNICI / TECHNICAL DATA**

olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	PESO APPROX APPROX WEIGHT kg-lbt
VBCS06	40 (10.6)	350 (5075)	3,10 (6.80)

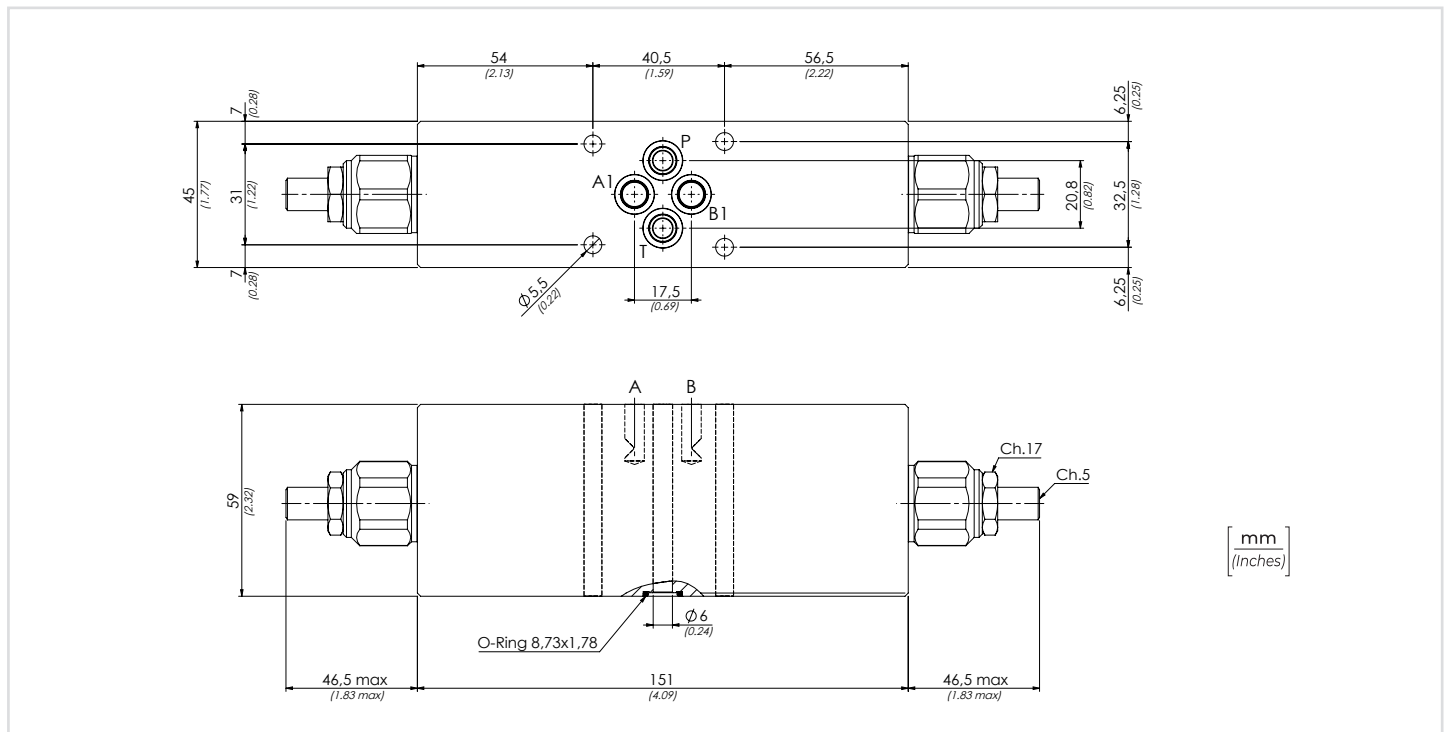
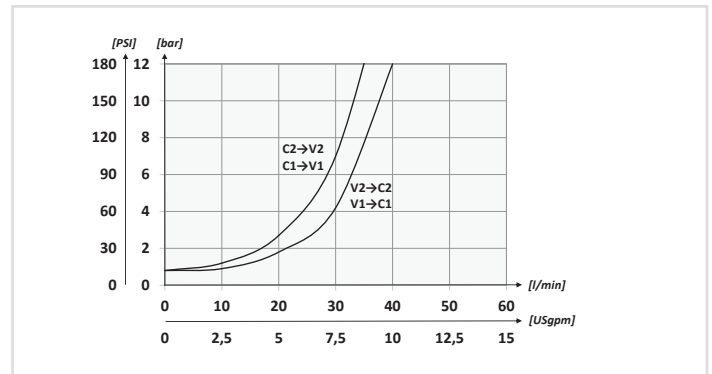
**CODICE ORDINAZIONE  
ORDERING CODE**

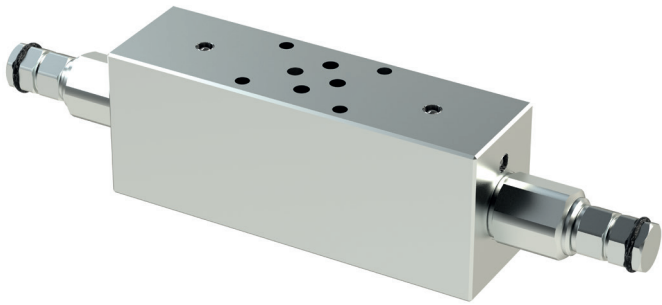
01	02	03	04	05
<b>VBCS06</b>		<b>S</b>		

<b>01</b>	VALVOLE DI BILANCIAMENTO MODULARI CETOP3 DOPPIE PER CENTRO APERTO (DOUBLE CETOP3 MODULAR COUNTERBALANCE VALVES FOR OPEN CENTER)			<b>VBCS06</b>	
<b>02</b>	MOLLA (SPRING) 30/210 bar (435/3045 PSI)	Rp 1:4.25	78 bar/al giro (1131 PSI/turn)	Taratura standard (Std. setting)	<b>1</b>
		Rp 1:8.75	160 bar/al giro (2320 PSI/turn)	Q=5 l/min 200 bar (2900 PSI)	
<b>02</b>	MOLLA (SPRING) 60/350 bar (870/5075 PSI)	Rp 1:4.25	135 bar/al giro (1958 PSI/turn)	Taratura standard (Std. setting)	<b>2</b>
		Rp 1:8.75	160 bar/al giro (2320 PSI/turn)	Q=5 l/min 350 bar (5075 PSI)	
<b>03</b>	MATERIALE (MATERIAL)	Acciaio + zincatura (Steel + zinc-plating)			<b>S</b>
<b>04</b>	RAPPORTO DI PILOTAGGIO (PILOT RATIO)	1:4.25 Standard			<b>/</b>
		1:8.75			<b>8</b>

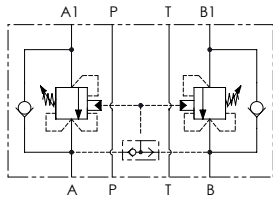
Opzione: Tappo piombatura - Optional: Tamper proof cap **81300095**

**PERFORMANCES**





### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### DATI TECNICI / TECHNICAL DATA

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F + 176°F
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b> -4°F + 122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	

### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

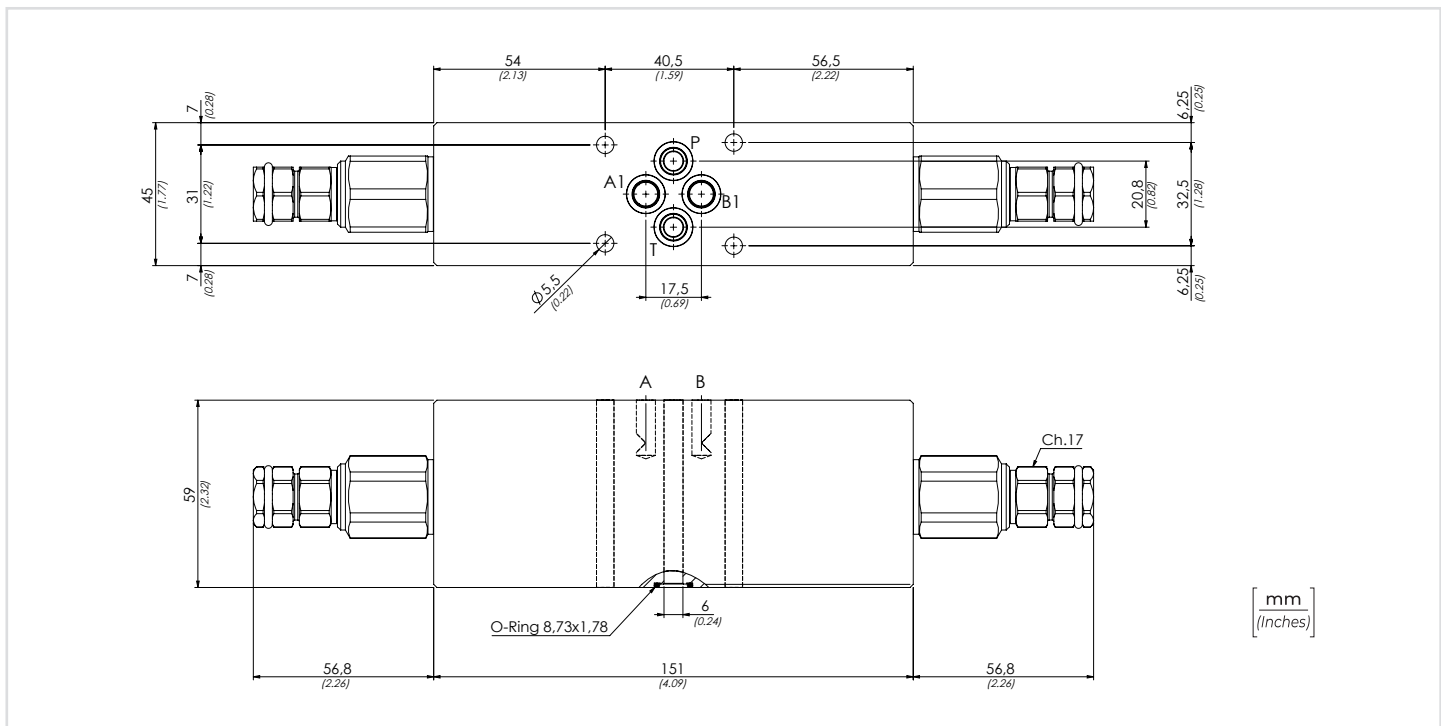
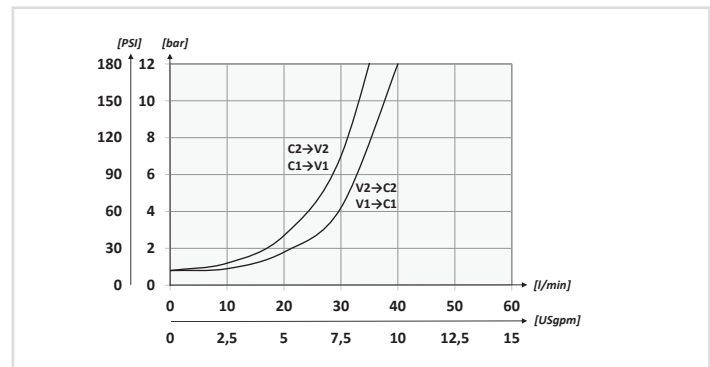
TIPO TYPE	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	PESO APPROX APPROX WEIGHT kg-lbt
<b>VBCT06</b>	<b>40</b> (10.6)	<b>350</b> (5075)	<b>3,10</b> (6.9)

### CODICE ORDINAZIONE ORDERING CODE

01	02	03	04	05
<b>VBCT06</b>		<b>S</b>		

01	VALVOLE DI BILANCIAMENTO MODULARI CETOP3 DOPPIE PER CENTRO CHIUSO (DOUBLE CETOP3 MODULAR COUNTERBALANCE VALVES FOR CLOSED CENTER)			VBCT06
02	MOLLA (SPRING) <b>30/210 bar</b> (435/3045 PSI)	Rp 1:4.25 <b>78 bar/al giro</b> (1131 PSI/turn)	Taratura standard (Std. setting)	<b>1</b>
		Rp 1:8.75 <b>160 bar/al giro</b> (2320 PSI/turn)	<b>Q=5 l/min 200 bar</b> (2900 PSI)	
02	MOLLA (SPRING) <b>60/350 bar</b> (870/5075 PSI)	Rp 1:4.25 <b>135 bar/al giro</b> (1958 PSI/turn)	Taratura standard (Std. setting)	<b>2</b>
		Rp 1:8.75 <b>160 bar/al giro</b> (2320 PSI/turn)	<b>Q=5 l/min 350 bar</b> (5075 PSI)	
03	MATERIALE (MATERIAL)	Acciaio + zincatura (Steel + zinc-plating)		<b>S</b>
04	RAPPORTO DI PILOTAGGIO (PILOT RATIO)	1:4.25 Standard		<b>/</b>
		1:8.75		<b>8</b>

### PERFORMANCES

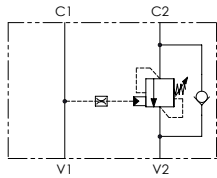




<b>CODICE ORDINAZIONE</b> ORDERING CODE	01	02	03	04
<b>SCVB</b>				<b>S</b>

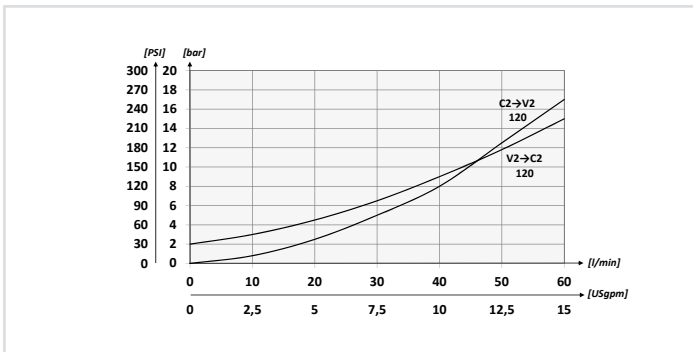
<b>01</b>	VALVOLE DI BILANCIAMENTO SINGOLE PER CENTRO APERTO (SINGLE COUNTERBALANCE VALVES FOR OPEN CENTER)			<b>SCVB</b>
<b>02</b>	DIMENSIONE (SIZE)	BSPP 1/2		<b>120</b>
<b>03</b>	MOLLA (SPRING)	Rp 1:4.25	<b>78 bar/al giro</b> (1131 PSI/turn)	Taratura standard (Std. setting)
	<b>30/210 bar</b> (435/3045 PSI)	Rp 1:8.75	<b>160 bar/al giro</b> (2320 PSI/turn)	<b>Q=5 l/min 200 bar</b> (2900 PSI)
<b>03</b>	MOLLA (SPRING)	Rp 1:4.25	<b>135 bar/al giro</b> (1958 PSI/turn)	Taratura standard (Std. setting)
	<b>60/350 bar</b> (870/5075 PSI)	Rp 1:8.75	<b>160 bar/al giro</b> (2320 PSI/turn)	<b>Q=5 l/min 350 bar</b> (5075 PSI)
<b>04</b>	MATERIALE (MATERIAL)	Acciaio + zincatura (Steel + zinc-plating)		<b>S</b>

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



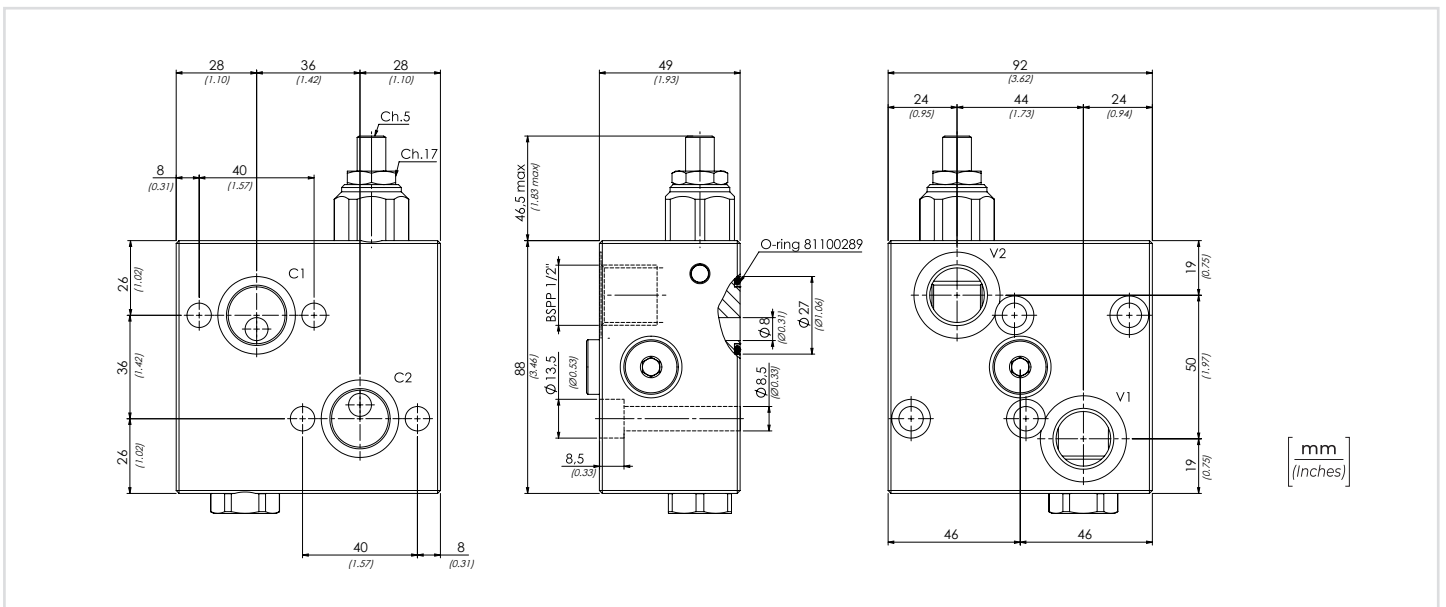
Opzione: Tappo piombatura - Optional: proof cap **81300095**

**PERFORMANCES**



**DATI TECNICI / TECHNICAL DATA**

<b>Olio idraulico - Mineral oil</b>	<b>ISO 6743/4 (DIN 51524)</b>
<b>Viscosità olio - Oil viscosity</b>	<b>15-250 mm<sup>2</sup>/s (15 to 250 cSt)</b>
<b>Classe di contaminazione max Max contamination index</b>	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio - Oil temperature</b>	<b>-20°C +80°C -4°F +176°F</b>
<b>Temperatura ambiente - Environment temperature</b>	<b>-20°C +50°C -4°F +122°F</b>
<b>È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)</b>	



**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

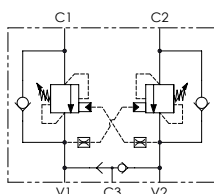
TIPO TYPE	A	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX MAX PRESSURE bar-PSI	PESO APPROX (kg) APPROX WEIGHT (lbt)
<b>SCVB120</b>	<b>BSPP 1/2</b>	<b>60 (15.9)</b>	<b>350 (5075)</b>	<b>2,81 (6.19)</b>



### CODICE ORDINAZIONE / ORDERING CODE

01	02	03	04
<b>DCVB</b>			<b>S</b>

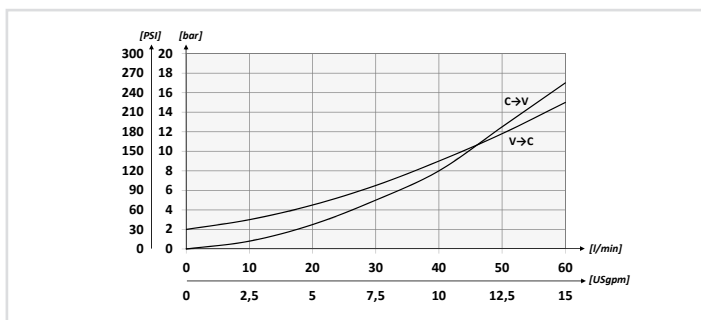
### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



01	VALVOLE DI BILANCIAMENTO DOPPIE PER CENTRO APERTO OMP-OMR (DOUBLE COUNTERBALANCE VALVES FOR OPEN CENTER OMP-OMR)			<b>DCVB</b>
02	MOLLA (SPRING)	BSPP 1/2		<b>120</b>
03	MOLLA (SPRING)	Rp 1:4.25	<b>78 bar/al giro</b> (1131 PSI/turn)	Taratura standard (Std. setting) <b>Q=5 l/min 200 bar</b> (2900 PSI)
	<b>30/210 bar</b> (435/3045 PSI)	Rp 1:8.75	<b>160 bar/al giro</b> (2320 PSI/turn)	
03	MOLLA (SPRING)	Rp 1:4.25	<b>135 bar/al giro</b> (1958 PSI/turn)	Taratura standard (Std. setting) <b>Q=5 l/min 350 bar</b> (5075 PSI)
	<b>60/350 bar</b> (870/5075 PSI)	Rp 1:8.75	<b>160 bar/al giro</b> (2320 PSI/turn)	
04	MATERIALE (MATERIAL)	Acciaio + zincatura (Steel + zinc-plating)		<b>S</b>

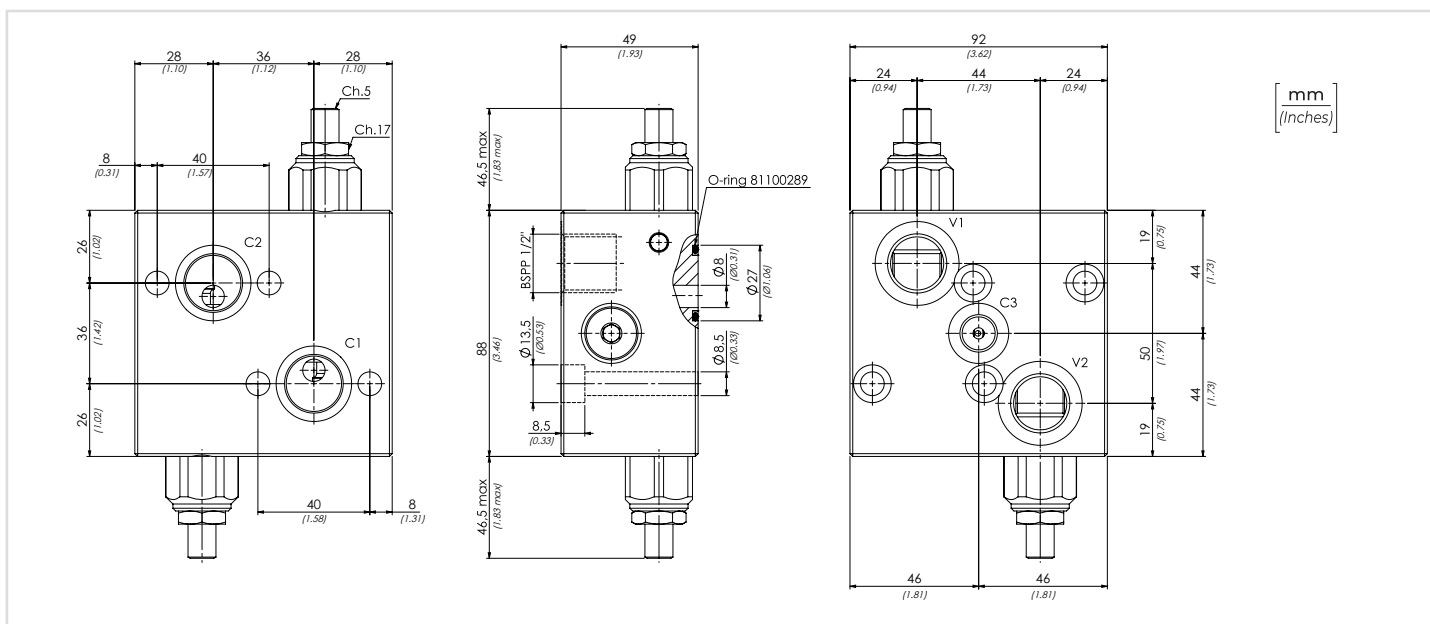
Opzione: Tappo piombatura - Optional: Tamper proof cap **81300095**

### PERFORMANCES



### DATI TECNICI / TECHNICAL DATA

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F +176°F
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b> -4°F +122°F
<b>È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)</b> It is necessary a filter use to protect the valve (advised filtration 15 µm)	



### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO / TYPE	A	PORTATA MAX / MAX FLOW / l/min-USgpm	PRESSIONE MAX / MAX PRESSURE / bar-PSI	Peso Approx / Approx weight / kg-lbt
<b>DCVB120</b>	<b>BSPP 1/2</b>	<b>60 (15.9)</b>	<b>350 (5075)</b>	<b>2,8 (6.17)</b>



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# notes

A series of horizontal dotted lines for taking notes, spanning the width of the page.



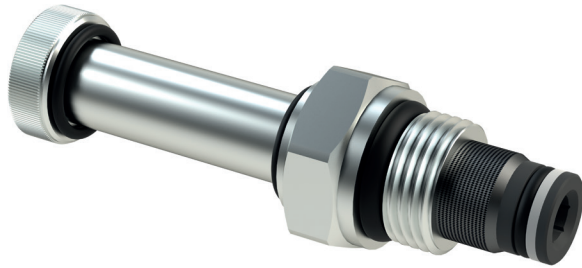
# VALVOLE ELETTRICHE

## ELECTRICAL VALVES

Valvole elettriche in cavità SAE a tenuta singola e doppia e a cursore. Bobine e connettori.

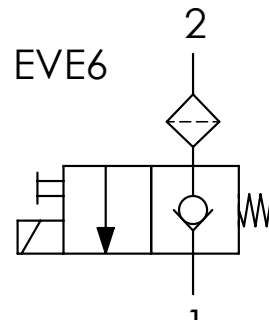
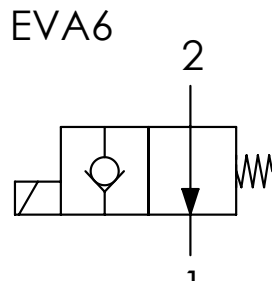
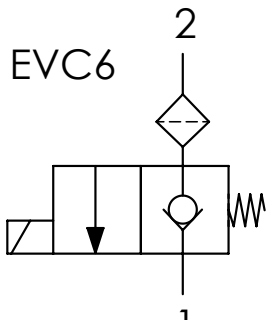
Solenoid valves in SAE cavities single or double sealing or spool type. Coils and connectors.





		01	02
<b>CODICE ORDINAZIONE</b> ORDERING CODE		<b>EC082A-</b>	
01	VALVOLE A COMANDO ELETTRICO SAE8 2 VIE/2 POSIZIONI DIRETTE (2 WAYS/2 POSITIONS SAE8 ELECTRIC VALVES - DIRECT ACTING)	<b>EC082A-</b>	
02	SCHEMA (CIRCUIT)	Normalmente chiusa (Normally closed)	<b>CNN</b>
		Normalmente aperta (Normally open)	<b>ONN</b>
		Normalmente chiusa + emergenza (Normally closed + emergency)	<b>CNV</b>

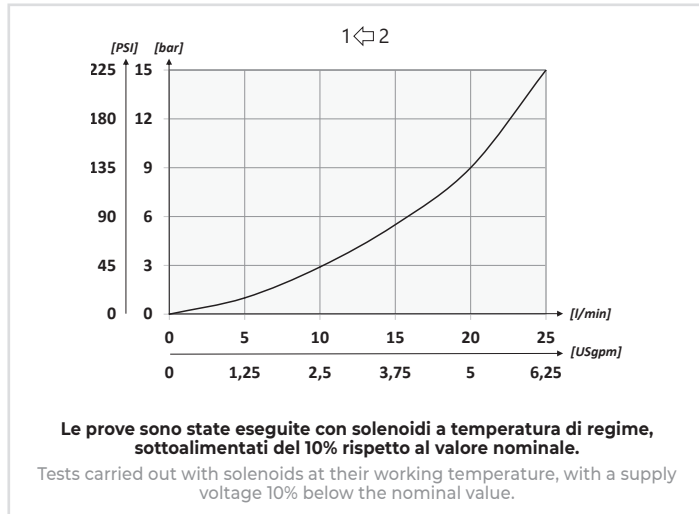
**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**DATI TECNICI / TECHNICAL DATA**

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 18/16/13</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F + 176°F
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b> -4°F + 122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	
<b>Trafilamento massimo</b> Max leakage	<b>0,25 cm<sup>3</sup>/min - 5 gocce/min</b> 0,015 in <sup>3</sup> /min - 5 drops/min

**PERFORMANCES**



**EMERGENZA A SVITARE**  
(UnscREW emergency)

Ch.24

59 (2.32)

26,2 (1.03)

Ø 12,7 (0.50)

3/4-16UNF-2A

<b>CNN-CNV</b>	<b>BOBINA 18 W</b> (18 W Coil)
<b>ONN</b>	<b>BOBINA 22 W</b> (22 W Coil)

**BOBINA E CONNETTORE VEDI PG. 102-103**  
COIL AND CONNECTOR SEE PG. 102-103

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	A	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	PESO APPROX (kg) APPROX WEIGHT (lb)	COPPIA DI SERRAGGIO TIGHTENING TORQUE Nm-lbft	CAVITÀ CAVITY
EC082A	3/4-16UNF-2A	22 (5.8)	210 (3045)	0,12 (0.26)	30 (22)	SAE 8/2

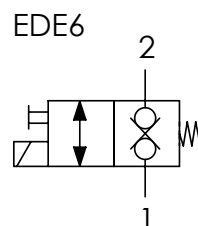


**CODICE ORDINAZIONE**  
ORDERING CODE

01	<b>ED082A-</b>	02	<b>CNP</b>
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<b>01</b>	VALVOLE A COMANDO ELETTRICO SAE8 DOPPIA TENUTA 2 VIE/2 POSIZIONI DIRETTE (2 WAYS/2 POSITIONS SAE8 DOUBLE SEALING ELECTRIC VALVES - DIRECT ACTING)		<b>ED082A-</b>
<b>02</b>	SCHEMA (CIRCUIT)	<b>Normalmente chiusa + emergenza</b> (Normally closed + emergency)	<b>CNP</b>

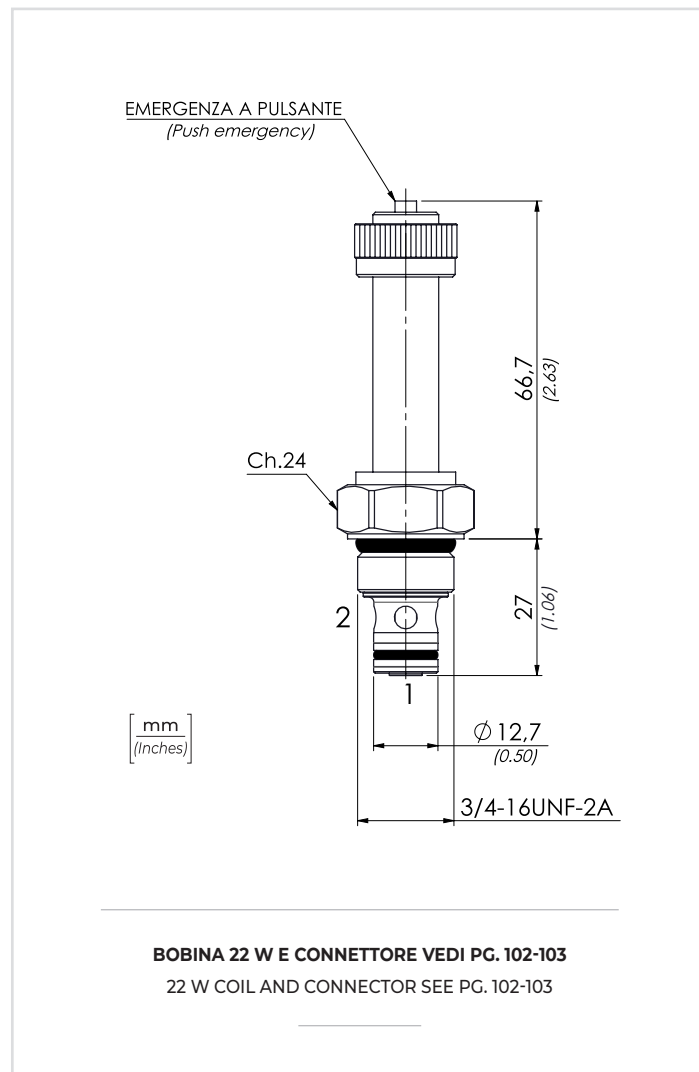
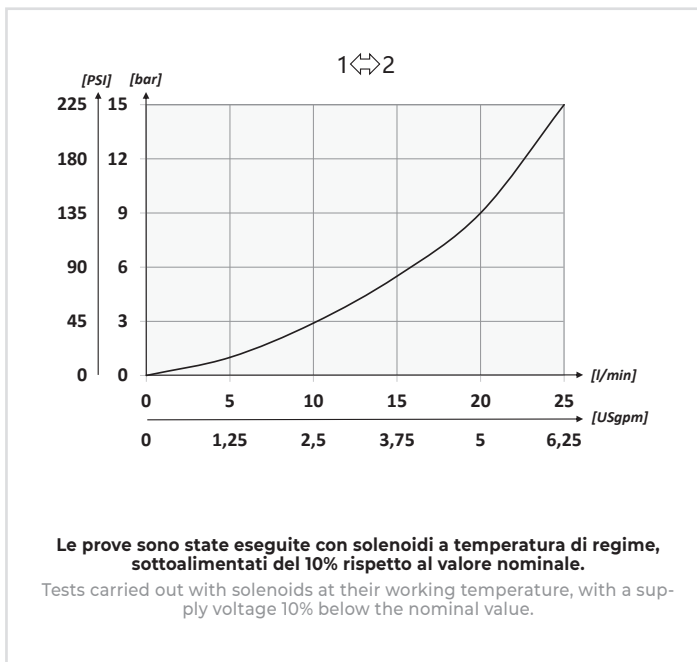
**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**DATI TECNICI / TECHNICAL DATA**

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 18/16/13</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F + 176°F
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b> -4°F + 122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	
<b>Trafilamento massimo</b> Max leakage	<b>0,25 cm<sup>3</sup>/min - 5 gocce/min</b> 0,015 in <sup>3</sup> /min - 5 drops/min

**PERFORMANCES**



**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

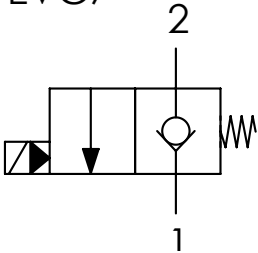
TIPO TYPE	A	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	PESO APPROX (kg) APPROX WEIGHT (lb)	COPPIA DI SERRAGGIO TIGHTENING TORQUE Nm-lbt ft	CAVITÀ CAVITY
<b>ED082A-CNP</b>	<b>3/4-16UNF-2A</b>	<b>22 (5.8)</b>	<b>210 (3045)</b>	<b>0,13 (0.28)</b>	<b>30 (22)</b>	<b>SAE 8/2</b>



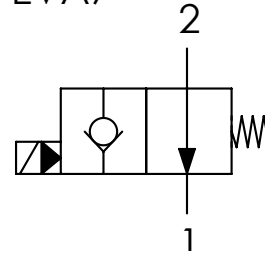
		01	02
<b>CODICE ORDINAZIONE</b> ORDERING CODE		<b>EC082B-</b>	
<b>01</b>	VALVOLE A COMANDO ELETTRICO SAE8 2 VIE/2 POSIZIONI PILOTATE (2 WAYS/2 POSITIONS SAE8 ELECTRIC VALVES - PILOT OPERATED)	<b>EC082B-</b>	
<b>02</b>	SCHEMA (CIRCUIT)	Normalmente chiusa (Normally closed)	<b>CNN</b>
		Normalmente aperta (Normally open)	<b>ONN</b>
		Normalmente chiusa + emergenza (Normally closed + emergency)	<b>CNV</b>

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**

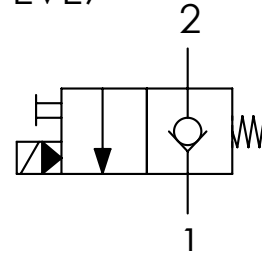
EVC7



EVA7



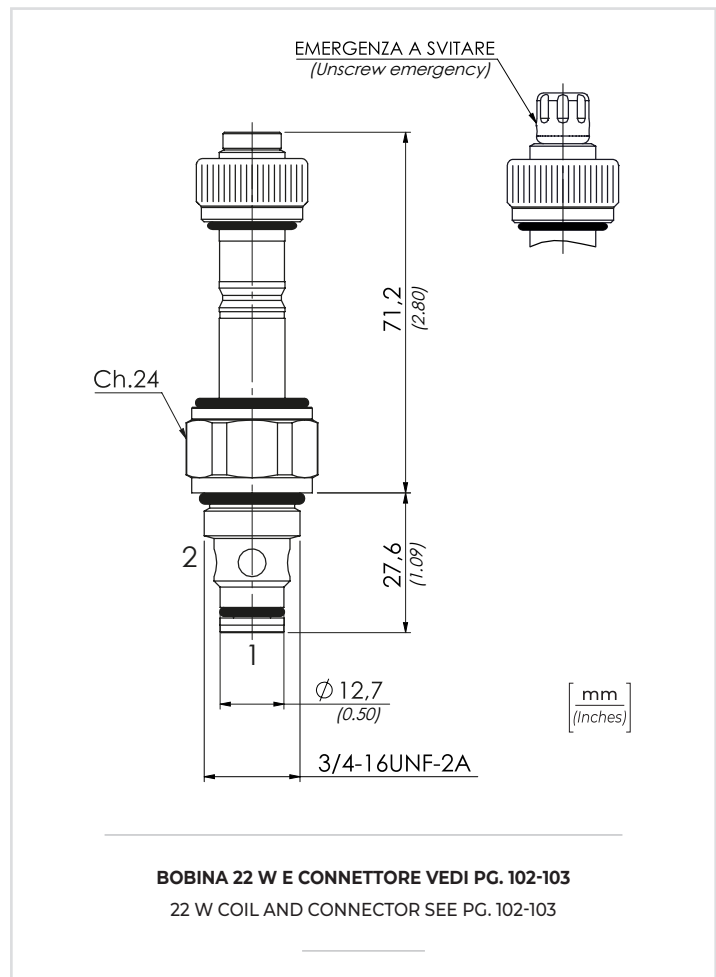
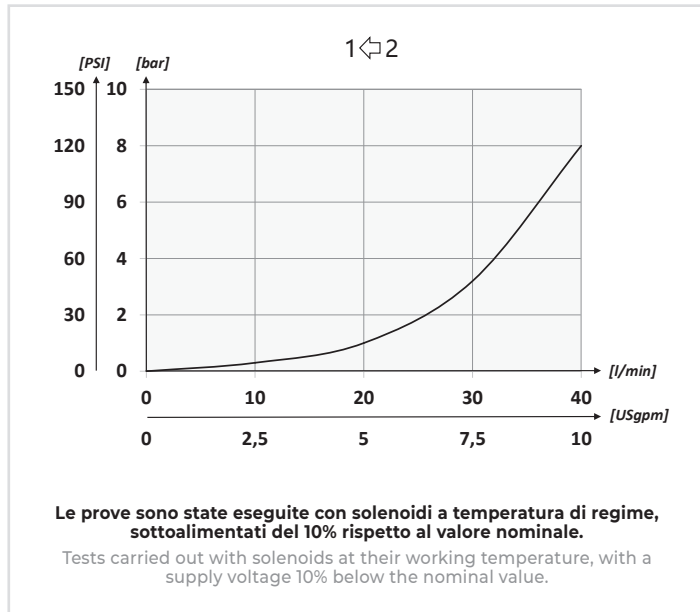
EVE7



**DATI TECNICI / TECHNICAL DATA**

Olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 18/16/13
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	
Trafilamento massimo Max leakage	0,25 cm <sup>3</sup> /min - 5 gocce/min 0,015 in <sup>3</sup> /min - 5 drops/min

**PERFORMANCES**



**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	A	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	PESO APPROX (kg) APPROX WEIGHT (lbt)	COPPIA DI SERRAGGIO TIGHTENING TORQUE Nm-lbt ft	CAVITÀ CAVITY
EC082B	3/4-16UNF-2A	40 (10.8)	350 (5075)	0,16 (0.35)	30 (22)	SAE 8/2



01

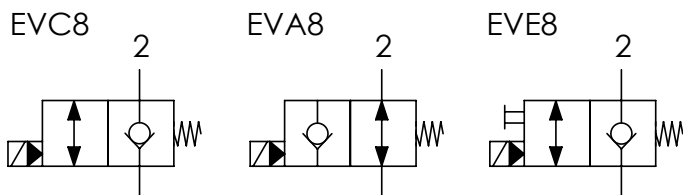
02

**CODICE ORDINAZIONE**  
ORDERING CODE

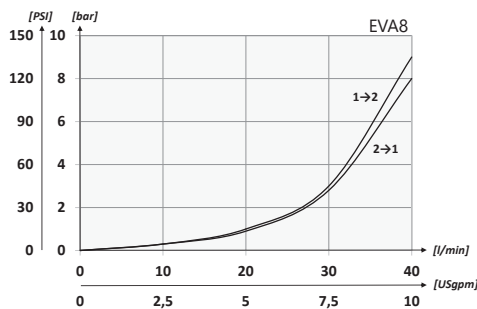
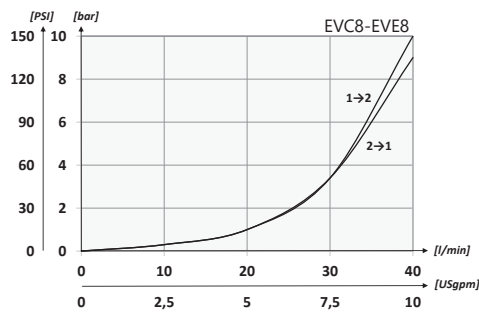
**EC082C-**

<b>01</b>	VALVOLE A COMANDO ELETTRICO SAE8 2 VIE/2 POSIZIONI PILOTATE (2 WAYS/2 POSITIONS SAE8 ELECTRIC VALVES - PILOT OPERATED)	<b>EC082C-</b>	
<b>02</b>	SCHEMA (CIRCUIT)	<b>Normalmente chiusa</b> (Normally closed)	<b>CNN</b>
		<b>Normalmente aperta</b> (Normally open)	<b>ONN</b>
		<b>Normalmente chiusa + emergenza</b> (Normally closed + emergency)	<b>CNV</b>

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**

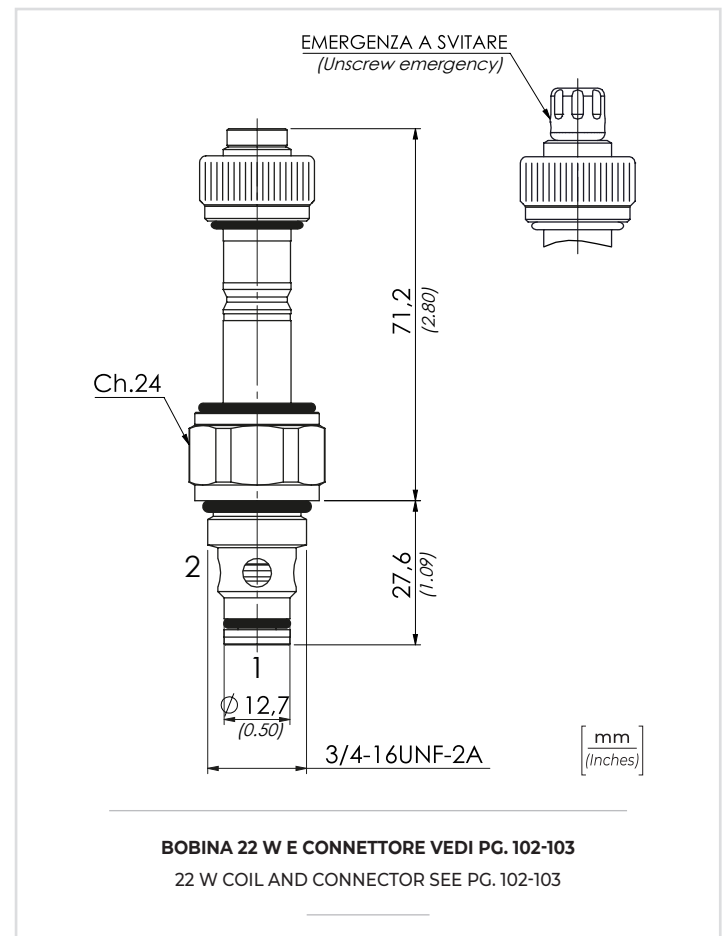


**PERFORMANCES**



Le prove sono state eseguite con solenoidi a temperatura di regime, sottoalimentati del 10% rispetto al valore nominale.

Tests carried out with solenoids at their working temperature, with a supply voltage 10% below the nominal value.



**DATI TECNICI / TECHNICAL DATA**

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 18/16/13</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F +176°F
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b> -4°F +122°F
<b>È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)</b> It is necessary a filter use to protect the valve (advised filtration 15 µm)	
<b>Trafilamento massimo</b> Max leakage	<b>0,25 cm<sup>3</sup>/min - 5 gocce/min</b> 0,015 in <sup>3</sup> /min - 5 drops/min

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

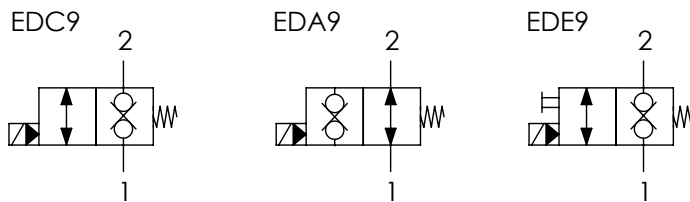
TIPO TYPE	A	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	PESO APPROX (kg) APPROX WEIGHT (lb)	COPPIA DI SERRAGGIO TIGHTENING TORQUE Nm-lbt ft	CAVITÀ CAVITY
<b>EC082C</b>	<b>3/4-16UNF-2A</b>	<b>40 (10.8)</b>	<b>350 (5075)</b>	<b>0,16 (0.35)</b>	<b>30 (22)</b>	<b>SAE 8/2</b>

# ED082B

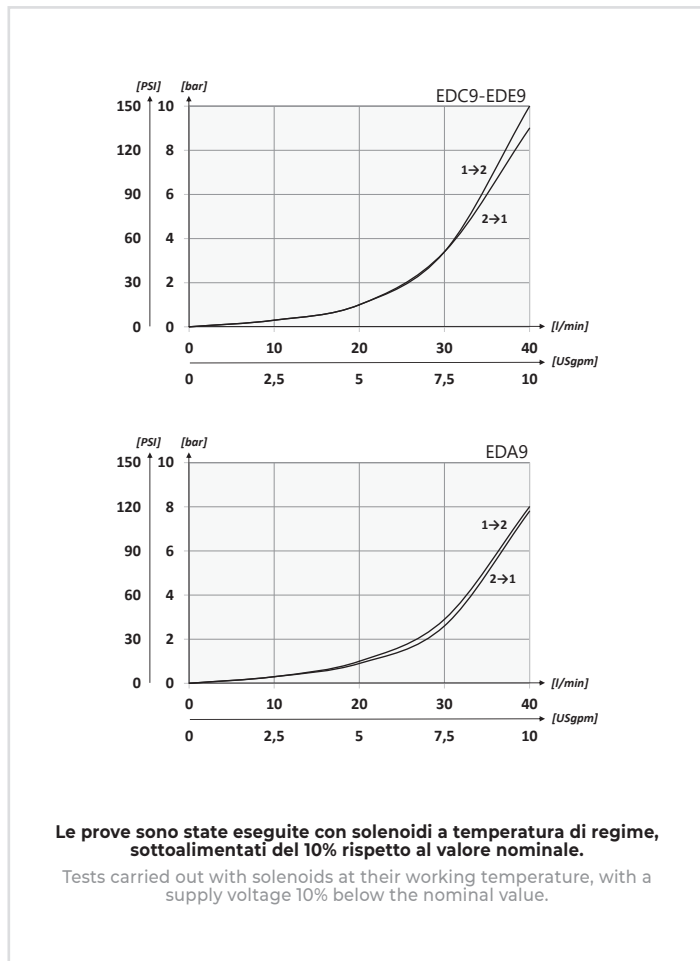
VALVOLE A COMANDO ELETTRICO SAE8 DOPPIA TENUTA 2 VIE/2 POSIZIONI PILOTATE  
2 WAYS/2 POSITIONS SAE8 DOUBLE SEALING ELECTRIC VALVES - PILOT OPERATED



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## PERFORMANCES



## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

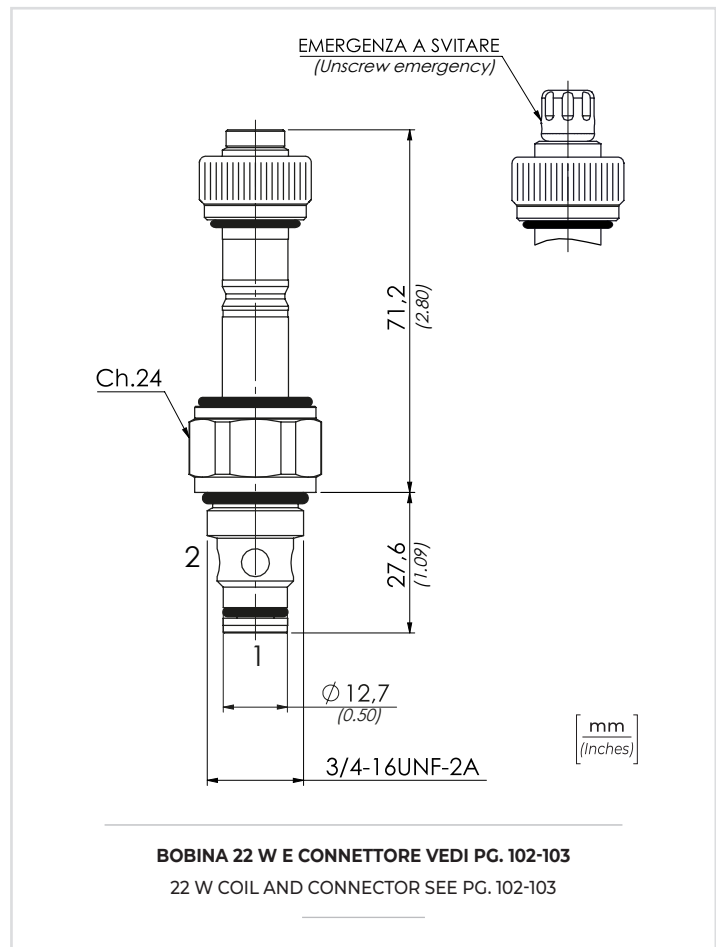
TIPO TYPE	A	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	PESO APPROX (kg) APPROX WEIGHT (lb)	COPPIA DI SERRAGGIO (Nm) TIGHTENING TORQUE (lbf ft)	CAVITÀ CAVITY
ED082B	3/4-16UNF-2A	40 (10.8)	350 (5075)	0,16 (0.35)	30 (22)	SAE 8/2

## CODICE ORDINAZIONE ORDERING CODE

01  
**ED082B-**

02

01	VALVOLE A COMANDO ELETTRICO SAE8 DOPPIA TENUTA 2 VIE/2 POSIZIONI PILOTATE (2 WAYS/2 POSITIONS SAE8 DOUBLE SEALING ELECTRIC VALVES - PILOT OPERATED)	ED082B-	
02	SCHEMA (CIRCUIT)	Normalmente chiusa (Normally closed)	CNN
		Normalmente aperta (Normally open)	ONN
		Normalmente chiusa + emergenza (Normally closed + emergency)	CNV



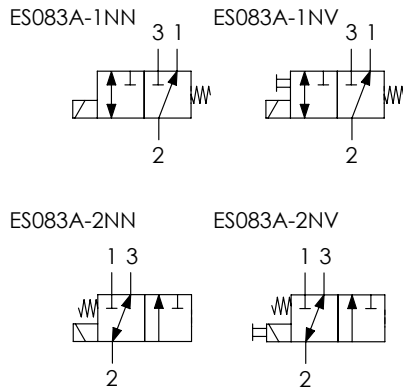
## DATI TECNICI / TECHNICAL DATA

Olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 18/16/13
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	
Trafilamento massimo Max leakage	0,50 cm <sup>3</sup> /min - 10 gocce/min 0,30 in <sup>3</sup> /min - 10 drops/min





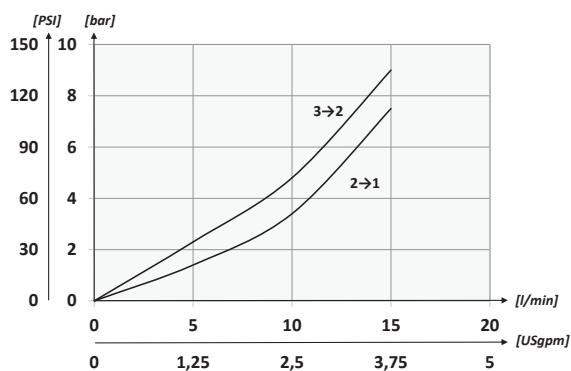
**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**DATI TECNICI / TECHNICAL DATA**

Olivo idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 18/16/13
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	
Trafilamento massimo Max leakage	60 cm <sup>3</sup> /min 36 in <sup>3</sup> /min

**PERFORMANCES**



Le prove sono state eseguite con solenoidi a temperatura di regime, sottoalimentati del 10% rispetto al valore nominale.

Tests carried out with solenoids at their working temperature, with a supply voltage 10% below the nominal value.

<b>CODICE ORDINAZIONE</b> ORDERING CODE	01 <b>ES083A-</b>	02
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01	VALVOLE A COMANDO ELETTRICO A CURSORE SAE8 3 VIE/2 POSIZIONI DIRETTE (3 WAYS/2 POSITIONS SAE8 ELECTRIC SPOOL VALVES - DIRECT ACTING)	<b>ES083A-</b>
02	SCHEMA (CIRCUIT)	Vedi schema (See diagram) <b>1NN</b>
		Vedi schema (See diagram) <b>1NV</b>
		Vedi schema (See diagram) <b>2NN</b>
		Vedi schema (See diagram) <b>2NV</b>

**EMERGENZA SPINGI E GIRA**  
(Push and Twist emergency)

Ch.24

61,8 (2.43)

39,7 (1.56)

3

2

1

Ø 14,2 (0.56)

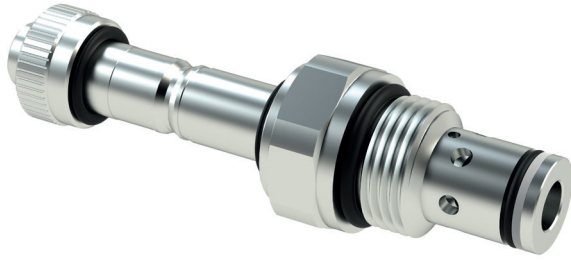
Ø 15,8 (0.62)

3/4-16UNF-2A

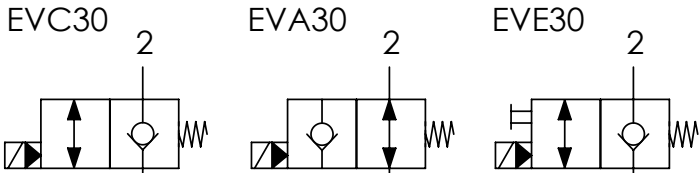
**BOBINA 22 W E CONNETTORE VEDI PG. 102-103**  
22 W COIL AND CONNECTOR SEE PG. 102-103

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	A	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	PESO APPROX (kg) APPROX WEIGHT (lb)	COPPIA DI SERRAGGIO (Nm) TIGHTENING TORQUE (lbt ft)	CAVITÀ CAVITY
ES083A	3/4-16UNF-2A	12 (3.2)	210 (3045)	0,15 (0.33)	30 (22)	SAE 8/3



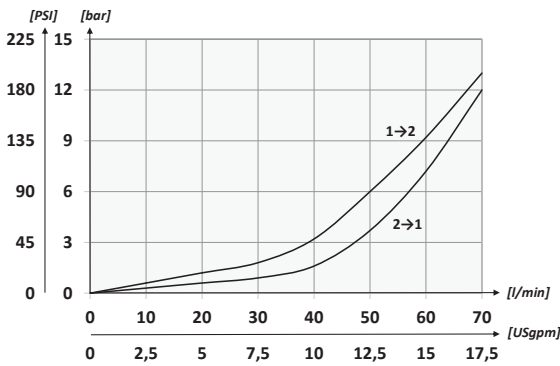
**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**DATI TECNICI / TECHNICAL DATA**

Olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 18/16/13
Temperatura dell'olio - Oil temperature	-20°C +80°C    -4°F + 176°F
Temperatura ambiente - Environment temperature	-20°C +50°C    -4°F + 122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	
Trafilamento massimo Max leakage	0,25 cm <sup>3</sup> /min - 5 gocce/min 0,015 in <sup>3</sup> /min - 5 drops/min

**PERFORMANCES**



Le prove sono state eseguite con solenoidi a temperatura di regime, sottoalimentati del 10% rispetto al valore nominale.

Tests carried out with solenoids at their working temperature, with a supply voltage 10% below the nominal value.

		01	02
<b>CODICE ORDINAZIONE</b> <b>ORDERING CODE</b>		<b>EC102A-</b>	
01	VALVOLE A COMANDO ELETTRICO SAE10 2 VIE/2 POSIZIONI PILOTATE (2 WAYS/2 POSITIONS SAE10 ELECTRIC VALVES - PILOT OPERATED)	<b>EC102A-</b>	
02	SCHEMA (CIRCUIT)	Normalmente chiusa (Normally closed)	<b>CNN</b>
		Normalmente aperta (Normally open)	<b>ONN</b>
		Normalmente chiusa + emergenza (Normally closed + emergency)	<b>CNV</b>

**BOBINA 22 W E CONNETTORE VEDI PG. 102-103**  
22 W COIL AND CONNECTOR SEE PG. 102-103

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

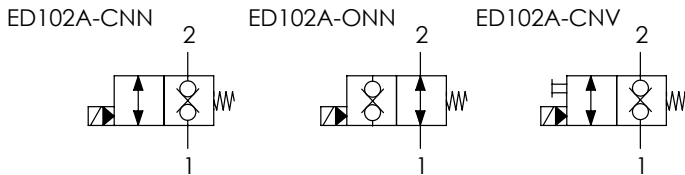
TIPO TYPE	A	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	PESO APPROX (kg) APPROX WEIGHT (lbt)	COPPIA DI SERRAGGIO TIGHTENING TORQUE Nm-lbt ft	CAVITÀ CAVITY
EC102A	7/8-14UNF-2A	70 (18.5)	350 (5075)	0,19 (0,40)	40 (30)	SAE 10/2

# ED102A

VALVOLE A COMANDO ELETTRICO SAE10 DOPPIA TENUTA 2 VIE/2 POSIZIONI PILOTATE  
2 WAYS/2 POSITIONS SAE10 DOUBLE SEALING ELECTRIC VALVES - PILOT OPERATED



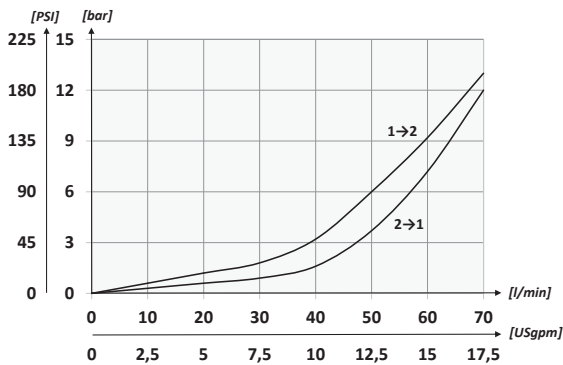
## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## DATI TECNICI / TECHNICAL DATA

Olío idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 18/16/13
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	
Trafilamento massimo Max leakage	0,25 cm <sup>3</sup> /min - 5 gocce/min 0,015 in <sup>3</sup> /min - 5 drops/min

## PERFORMANCES



Le prove sono state eseguite con solenoidi a temperatura di regime, sottoalimentati del 10% rispetto al valore nominale.

Tests carried out with solenoids at their working temperature, with a supply voltage 10% below the nominal value.

## CODICE ORDINAZIONE ORDERING CODE

01	ED102A-	02
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01	VALVOLE A COMANDO ELETTRICO SAE10 DOPPIA TENUTA 2 VIE/2 POSIZIONI PILOTATE (2 WAYS/2 POSITIONS SAE10 DOUBLE SEALING ELECTRIC VALVES - PILOT OPERATED)		ED102A-
02	SCHEMA (CIRCUIT)	Normalmente chiusa (Normally closed)	CNN
		Normalmente aperta (Normally open)	ONN
		Normalmente chiusa + emergenza (Normally closed + emergency)	CNV

**EMERGENZA A SVITARE**  
(Unscrew emergency)

Ch.27

68,8 (2,71)

32 (1,26)

2

1

Ø 15,8 (0,62)

7/8-14UNF-2A

[ mm ]  
[ Inches ]

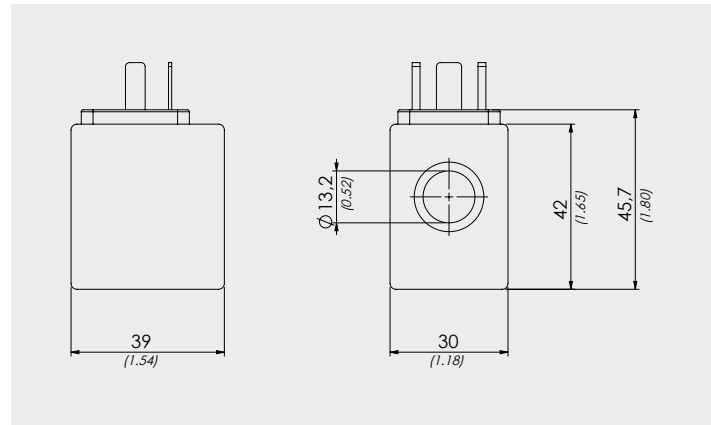
**BOBINA 22 W E CONNETTORE VEDI PG. 102-103**  
22 W COIL AND CONNECTOR SEE PG. 102-103

## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

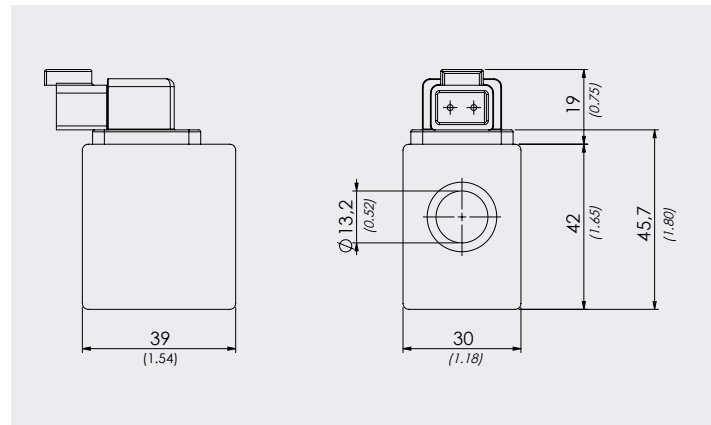
CODICE CODE	A	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	PESO APPROX (kg) APPROX WEIGHT (lbt)	COPPIA DI SERRAGGIO TIGHTENING TORQUE Nm-lbt ft	CAVITÀ CAVITY
ED102A	7/8-14UNF-2A	70 (18.5)	350 (5075)	0,19 (0.40)	40 (30)	SAE 10/2

## EC - 18W

DATI TECNICI - TECHNICAL DATA	
POTENZA A 20°C COIL POWER AT 20°C	18 W
CLASSE ISOLAMENTO DEL FILO WIRE INSULATION CLASS	H+ (202°C)
ED	100%
POTENZA ASSORBITA IN CA ABSORBED POWER IN AC	28 VA
CAMPO DI TEMPERATURA AMBIENTE RANGE AMBIENT TEMPERATURE	-30°C / +50°C
PESO WEIGHT	0,19 Kg / 0,30 lb

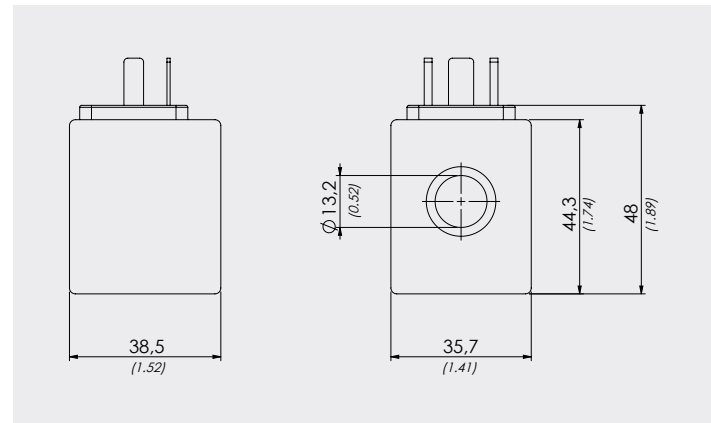


TIPO TYPE	CONNETTORE CONNECTOR	CLASSE DI PROTEZIONE PROTECTION CLASS	TENSIONE VOLTAGE
EC012DC	DIN 43650 (+88100002)	IP65	12 V dc
EC024DC	DIN 43650 (+88100002)	IP65	24 V dc
EC22050	DIN 43650 (+88100003)	IP65	220 V 50 Hz
EC220RAC	DIN 43650 (+88100003)	IP65	220 V 50-60 Hz
EC012DEU	Deutsch	IP69K	12 V dc
EC024DEU	Deutsch	IP69K	24 V dc

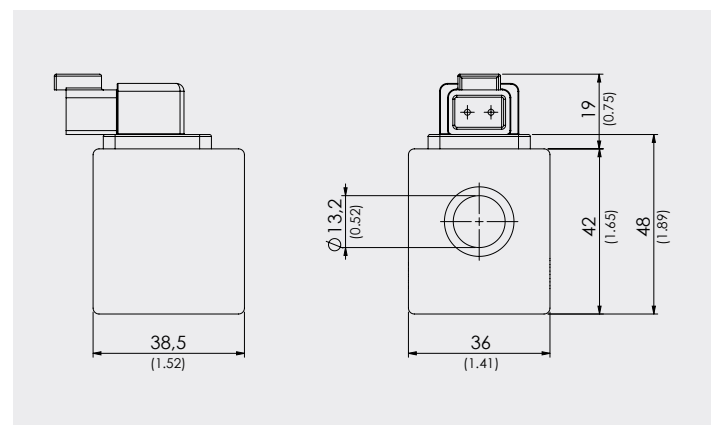


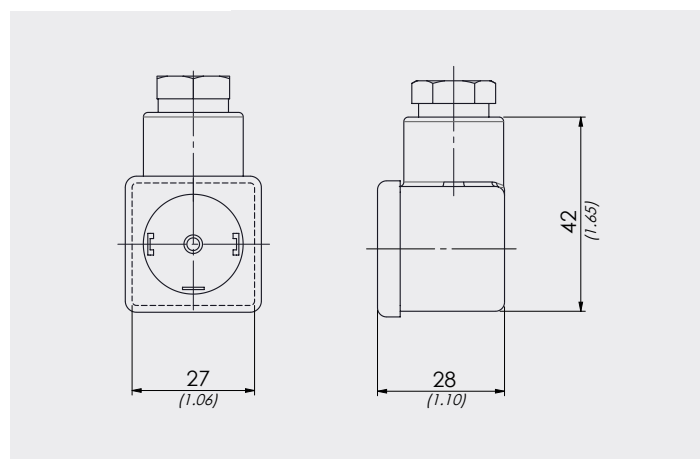
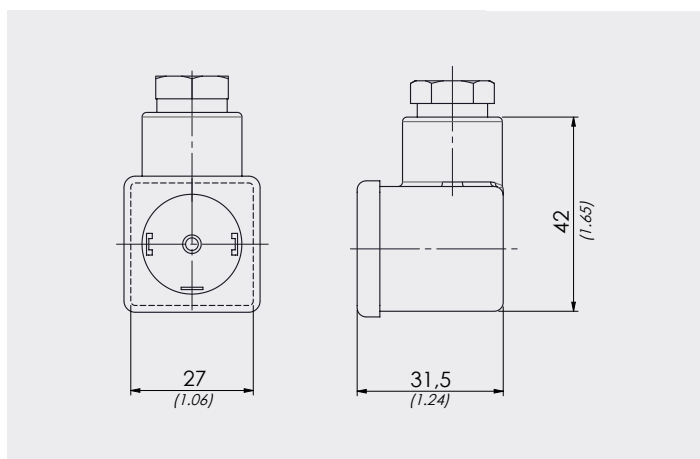
## EC36 - 22W

DATI TECNICI - TECHNICAL DATA	
POTENZA A 20°C COIL POWER AT 20°C	22 W
CLASSE ISOLAMENTO DEL FILO WIRE INSULATION CLASS	H+ (202°C)
ED	100%
POTENZA ASSORBITA IN CA ABSORBED POWER IN AC	28 VA
CAMPO DI TEMPERATURA AMBIENTE RANGE AMBIENT TEMPERATURE	-30°C / +50°C
PESO WEIGHT	0,21 Kg / 0,46 lb



TIPO TYPE	CONNETTORE CONNECTOR	CLASSE DI PROTEZIONE PROTECTION CLASS	TENSIONE VOLTAGE
EC36012DC	DIN 43650 (+88100002)	IP65	12 V dc
EC36024DC	DIN 43650 (+88100002)	IP65	24 V dc
EC36220RAC	DIN 43650 (+88100003)	IP65	220 V 50-60 Hz
EC36012DEU	Deutsch	IP69K	12 V dc
EC36024DEU	Deutsch	IP69K	24 V dc





<b>CONNETTORE CON RADDRIZZATORE</b> (CONNECTOR WITH RECTIFIER)	
<b>TIPO - TYPE: 88100003</b>	<b>EN 175301-803</b>
<b>CORRENTE NOMINALE CONTATTI</b> NOMINAL CURRENT	<b>10 A</b>
<b>CORRENTE MAX CONTATTI</b> MAX OPERATING CURRENT	<b>16 A</b>
<b>RESISTENZA CONTATTI</b> CONTACT RESISTANCE	<b>≤ 4m Ohm</b>
<b>SEZIONE MAX CONDUTTORI</b> MAX CONDUCTORS CROSS-SECTION	<b>1,5 mm<sup>2</sup></b>
<b>PORTACONTATTI, DADO</b> CONTACT HOLDER	<b>PA</b>
<b>TIPO DI SERRACAVO</b> GLAND SIZE OPTIONS	<b>Pg09</b>
<b>DIAMETRO CAVO</b> CABLE DIAMETER	<b>6-8 mm</b>
<b>GRADO DI PROTEZIONE</b> PROTECTION CLASS	<b>IP 65 EN 60529</b>
<b>CLASSE DI ISOLAMENTO</b> INSULATION CLASS	<b>VDE 0110-1/89</b>
<b>GUARNIZIONE</b> SEALING MATERIAL	<b>NBR</b>
<b>TEMPERATURA DI ESERCIZIO</b> OPERATING TEMPERATURE	<b>-40C +90C</b>
<b>PESO APPROX</b> APPROX WEIGHT	<b>0,025 kg</b> <b>0.055 lb</b>

<b>CONNETTORE STANDARD</b> (STANDARD CONNECTOR)	
<b>TIPO - TYPE: 88100002</b>	<b>EN 175301-803</b>
<b>TENSIONE NOMINALE</b> NOMINAL VOLTAGE	<b>AC - Max 250 V</b> <b>DC - Max 300 V</b>
<b>CORRENTE NOMINALE CONTATTI</b> NOMINAL CURRENT	<b>10 A</b>
<b>CORRENTE MAX CONTATTI</b> MAX OPERATING CURRENT	<b>16 A</b>
<b>RESISTENZA CONTATTI</b> CONTACT RESISTANCE	<b>≤ 4m Ohm</b>
<b>SEZIONE MAX CONDUTTORI</b> MAX CONDUCTORS CROSS-SECTION	<b>1,5 mm<sup>2</sup></b>
<b>PROTEZIONE</b> HOUSING	<b>PA (+G)</b>
<b>TIPO DI SERRACAVO</b> GLAND SIZE OPTIONS	<b>Pg11</b>
<b>DIAMETRO CAVO</b> CABLE DIAMETER	<b>6-8 mm</b>
<b>GRADO DI PROTEZIONE</b> PROTECTION CLASS	<b>IP 65 EN 60529</b>
<b>CLASSE DI ISOLAMENTO</b> INSULATION CLASS	<b>VDE 0110-1/89</b>
<b>GUARNIZIONE</b> SEALING MATERIAL	<b>NBR</b>
<b>TEMPERATURA DI ESERCIZIO</b> OPERATING TEMPERATURE	<b>-40C +90C</b>
<b>PESO APPROX</b> APPROX WEIGHT	<b>0,020 kg</b> <b>0.044 lb</b>

# notes

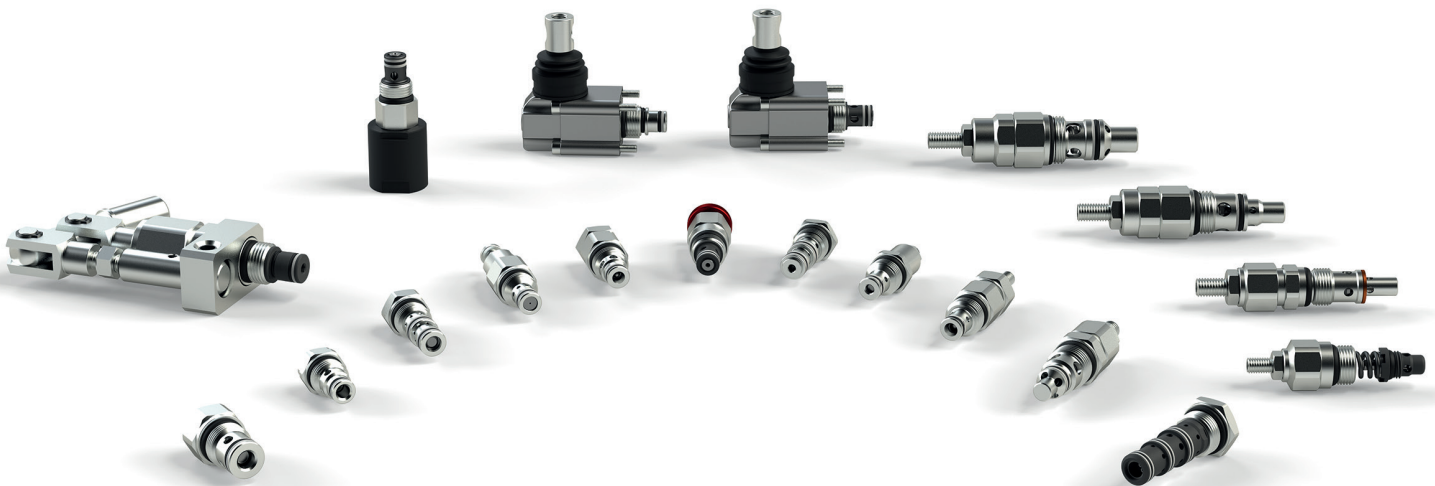
A series of horizontal dotted lines for taking notes.

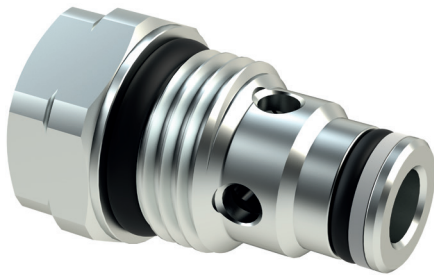
# VALVOLE A CARTUCCIA

## CARTRIDGE VALVES

La famiglia delle valvole a cartuccia comprende: valvole unidirezionali a ritegno, valvole controllo di flusso compensate, valvole controllo di flusso unidirezionali e bidirezionali, pompe a mano, valvole di emergenza manuali e con pilotaggio pneumatico, divisori/riunificatori di flusso, valvole di ritegno pilotate, valvole selettive e valvole di massima.

Cartridge valves family includes: check valves, control pressure compensated valves, unidirectional and bidirectional flow control valves, hand pumps emergency valves, flow dividers combiners, single acting check valves, load shuttle valves and relief valves.



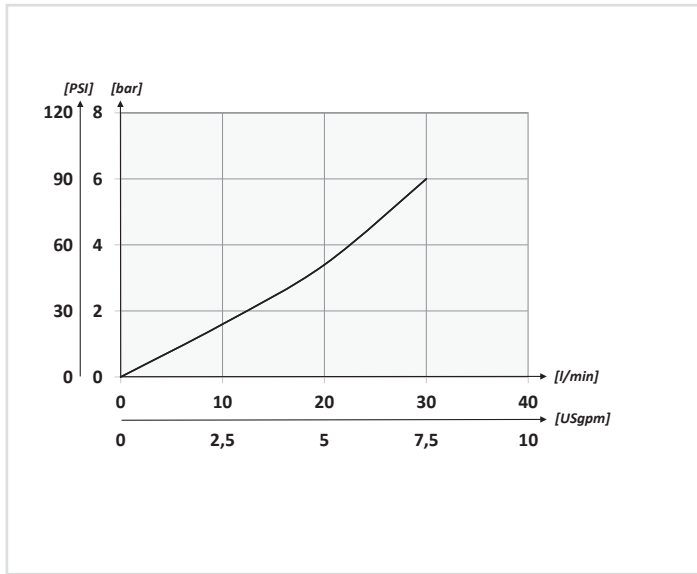


**CODICE ORDINAZIONE**  
ORDERING CODE

01	02	03
<b>CUR6</b>		

<b>01</b>	VALVOLE UNIDIREZIONALI SAE8 (SAE8 CHECK VALVES)	<b>CUR6</b>
<b>02</b>	TENUTA (SEALING)	Tenuta a sfera - solo molla <b>1 bar</b> (Ball sealing - only spring 14,5 PSI) <b>SF</b>
		Tenuta ad otturatore (Poppet sealing) <b>SP</b>
<b>03</b>	MOLLA (SPRING)	<b>1 bar</b> (14,5 PSI) <b>1</b>
		<b>3 bar</b> (43,5 PSI) <b>3</b>
		<b>4,5 bar</b> (65,3 PSI) <b>4,5</b>

**PERFORMANCES**

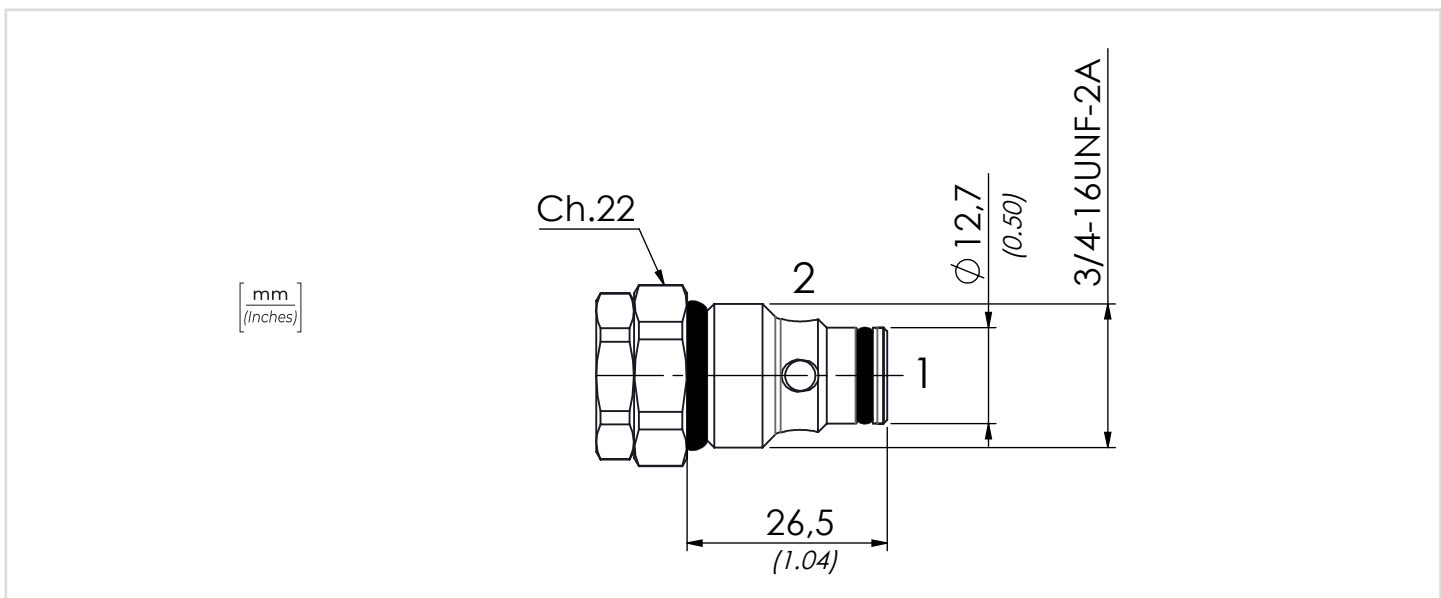


**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**DATI TECNICI / TECHNICAL DATA**

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F +176°F
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b> -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	
<b>Trafilamento massimo</b> Max leakage	<b>0,25 cm<sup>3</sup>/min - 5 gocce/min</b> 0,015 in <sup>3</sup> /min - 5 drops/min



**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	PESO APPROX (kg) APPROX WEIGHT (lbt)	COPPIA DI SERRAGGIO TIGHTENING TORQUE Nm-lbt ft	CAVITÀ CAVITY
<b>CUR6</b>	<b>25</b> (6.6)	<b>350</b> (5075)	<b>0,06</b> (0.13)	<b>25-30</b> (19-22)	<b>SAE8/2</b>



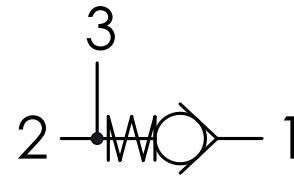


**CODICE ORDINAZIONE**  
ORDERING CODE

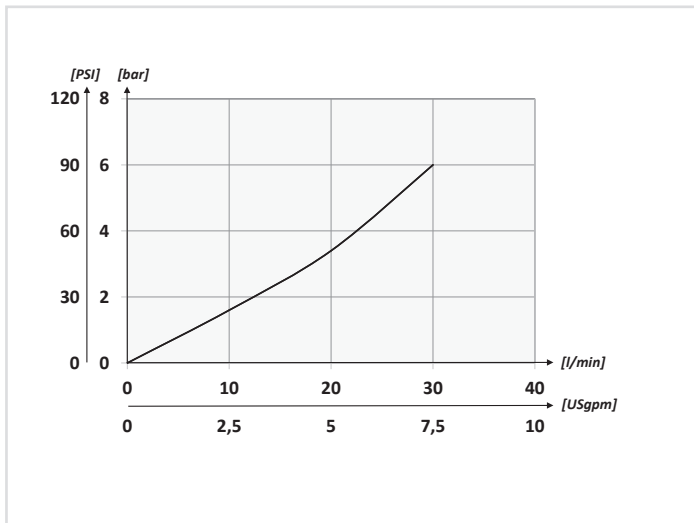
01	02	03	04
<b>CUR6</b>		<b>1</b>	<b>M</b>

<b>01</b>	VALVOLE UNIDIREZIONALI SAE8 CON ATTACCO MANOMETRO (SAE8 CHECK VALVES WITH PRESSURE CONNECTION)	<b>CUR6</b>
<b>02</b>	TENUTA (SEALING)	Tenuta a sfera (Ball sealing) <b>SF</b>
		Tenuta a otturatore (Poppet sealing) <b>SP</b>
<b>03</b>	MOLLA (SPRING)	<b>1 bar (14.5 PSI)</b> <b>1</b>
<b>04</b>	Con attacco manometro (With pressure connection)	<b>M</b>

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**

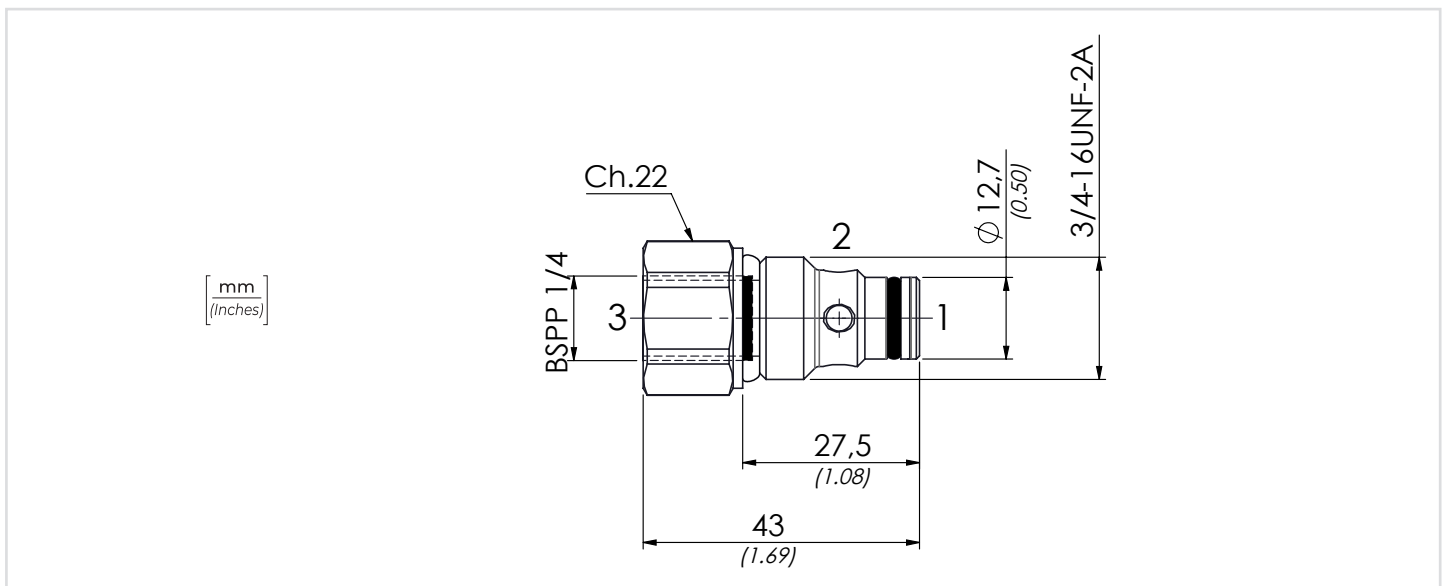


**PERFORMANCES**



**DATI TECNICI / TECHNICAL DATA**

<b>Olio idraulico - Mineral oil</b>	<b>ISO 6743/4 (DIN 51524)</b>
<b>Viscosità olio - Oil viscosity</b>	<b>15-250 mm<sup>2</sup>/s (15 to 250 cSt)</b>
<b>Classe di contaminazione max - Max contamination index</b>	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio - Oil temperature</b>	<b>-20°C +80°C -4°F +176°F</b>
<b>Temperatura ambiente - Environment temperature</b>	<b>-20°C +50°C -4°F +122°F</b>
<b>È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)</b> It is necessary a filter use to protect the valve (advised filtration 15 µm)	
<b>Trafilamento massimo - Max leakage</b>	<b>0,25 cm<sup>3</sup>/min - 5 gocce/min</b> <b>0,015 in<sup>3</sup>/min - 5 drops/min</b>



**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

CODICE CODE	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	PESO APPROX (kg) APPROX WEIGHT (lbt)	COPPIA DI SERRAGGIO TIGHTENING TORQUE Nm-lbt ft	CAVITÀ CAVITY
<b>CUR6M</b>	<b>25 (6.6)</b>	<b>350 (5075)</b>	<b>0,07 (0.15)</b>	<b>25-30 (19-22)</b>	<b>SAE8/2</b>



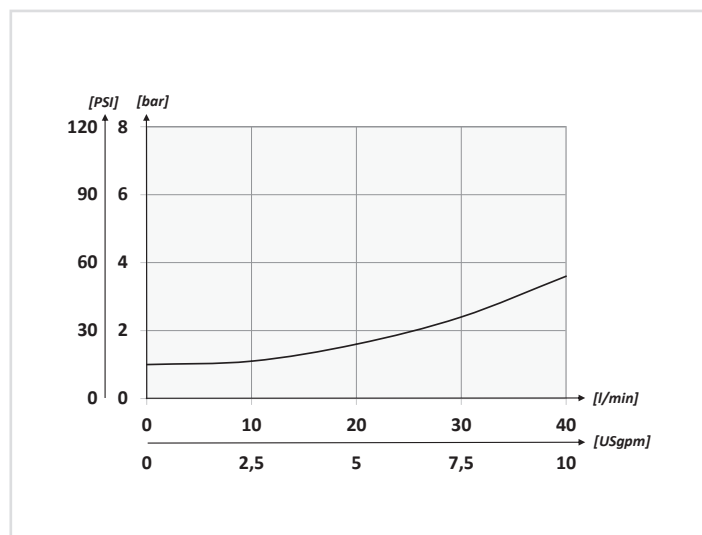
	01	02	03
<b>CODICE ORDINAZIONE</b> ORDERING CODE	<b>CUR10N</b>	<b>SP</b>	

<b>01</b>	VALVOLE UNIDIREZIONALI SAE10/2 (SAE10/2 CHECK VALVES)	<b>CUR10N</b>
<b>02</b>	TENUTA (SEALING) Tenuta ad otturatore (Poppet sealing)	<b>SP</b>
<b>03</b>	MOLLA (SPRING) 1 bar (14.5 PSI)	<b>1</b>

### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT

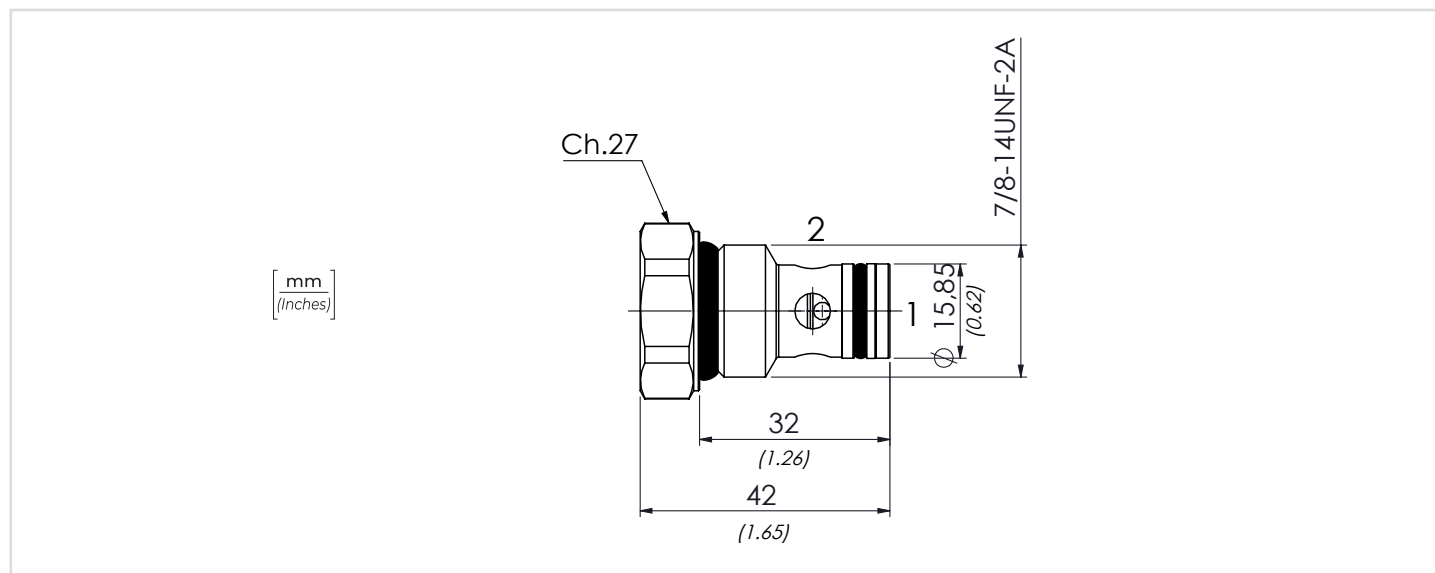


### PERFORMANCES



### DATI TECNICI / TECHNICAL DATA

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F +176°F
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b> -4°F +122°F
<b>È indispensabile la presenza di un filtro nel circuito idraulico per proteggere la valvola (filtrazione consigliata 15 µm)</b> A filter into the hydraulic circuit necessary to protect the valve (advised filtration 15 µm)	
<b>Trafilamento massimo</b> Max leakage	<b>0,25 cm<sup>3</sup>/min - 5 gocce/min</b> 0,015 in <sup>3</sup> /min - 5 drops/min



### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO TYPE	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	PESO APPROX (kg) APPROX WEIGHT (lbt)	CAVITÀ CAVITY	COPPIA DI SERRAGGIO TIGHTENING TORQUE Nm-lbt ft
<b>CUR10N</b>	<b>40</b> (10.6)	<b>350</b> (5075)	<b>0,09</b> (0.22)	<b>SAE10/2</b>	<b>45-50</b> (33-37)



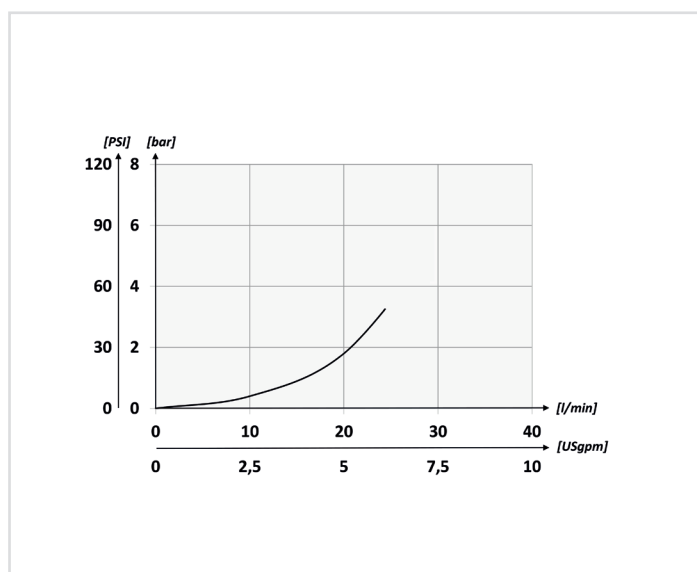
<b>CODICE ORDINAZIONE</b> ORDERING CODE	01	02	03
	<b>CUR2015</b>		<b>1</b>

<b>01</b>	VALVOLE UNIDIREZIONALI M20X1,5 (M20X1,5 CHECK VALVES)		<b>CUR2015</b>
<b>02</b>	TENUTA (SEALING)	Tenuta a sfera (Ball sealing)	<b>SF</b>
		Tenuta ad otturatore (Poppet sealing)	<b>SP</b>
<b>03</b>	MOLLA (SPRING)	<b>1 bar (14,5 PSI)</b>	<b>1</b>

### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT

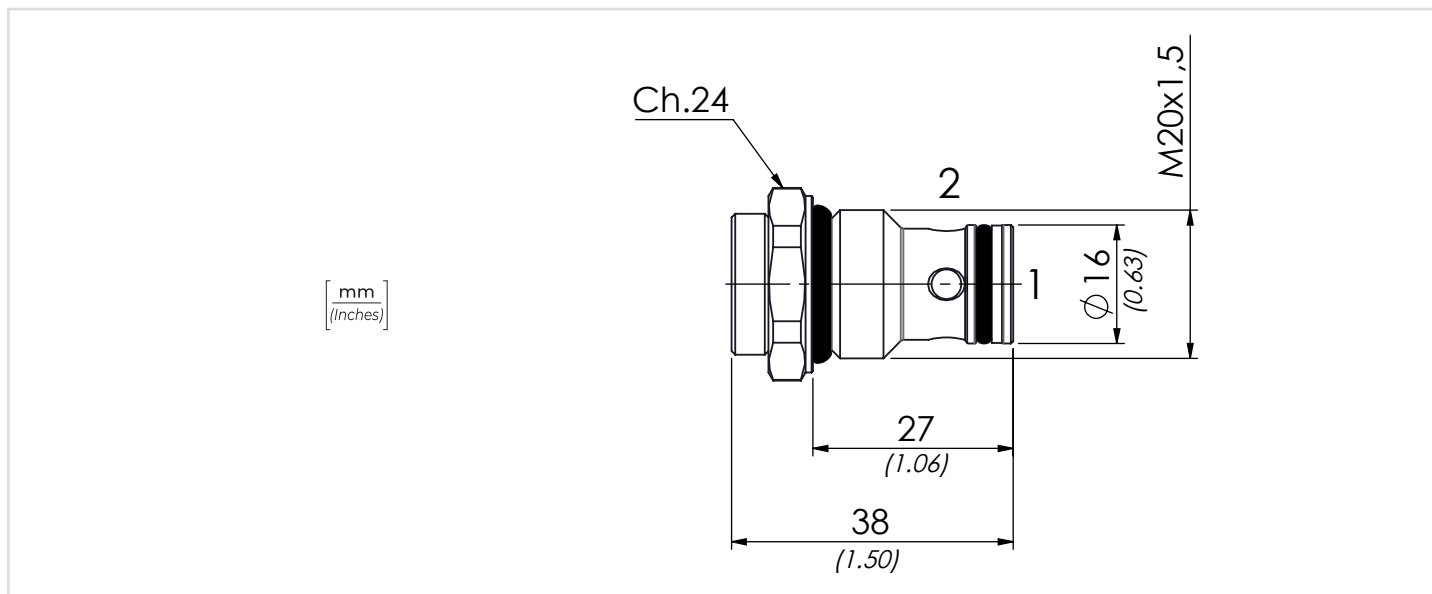


### PERFORMANCES



### DATI TECNICI / TECHNICAL DATA

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F + 176°F
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b> -4°F + 122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	
<b>Trafilamento massimo</b> Max leakage	<b>0,25 cm<sup>3</sup>/min - 5 gocce/min</b> <b>0,015 in<sup>3</sup>/min - 5 drops/min</b>



### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

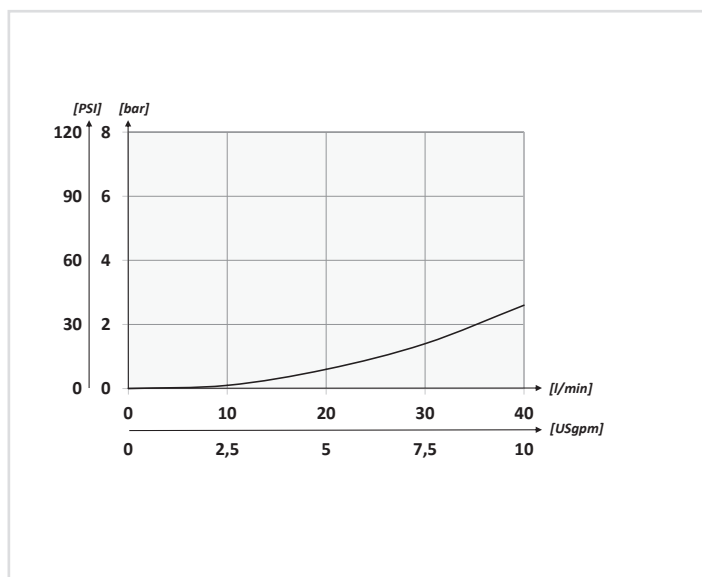
TIPO TYPE	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	PESO APPROX (kg) APPROX WEIGHT (lbt)	COPPIA DI SERRAGGIO TIGHTENING TORQUE Nm-lbt ft	CAVITÀ CAVITY
<b>CUR2015</b>	<b>25 (6.6)</b>	<b>350 (5075)</b>	<b>0,07 (0.15)</b>	<b>25-30 (19-22)</b>	<b>C2015/2</b>



<b>CODICE ORDINAZIONE</b> ORDERING CODE	01	02	03
	<b>CUR2215</b>		

<b>01</b>	VALVOLE UNIDIREZIONALI M22X1,5 (M22X1,5 CHECK VALVES)	<b>CUR2215</b>	
<b>02</b>	TENUTA (SEALING)	Tenuta a sfera (Ball sealing)	<b>SF</b>
		Tenuta ad otturatore (Poppet sealing)	<b>SP</b>
<b>03</b>	MOLLA (SPRING)	1 bar (14.5 PSI)	<b>1</b>
		4,5 bar - solo otturatore (65.3 PSI - only poppet)	<b>4,5</b>

## PERFORMANCES

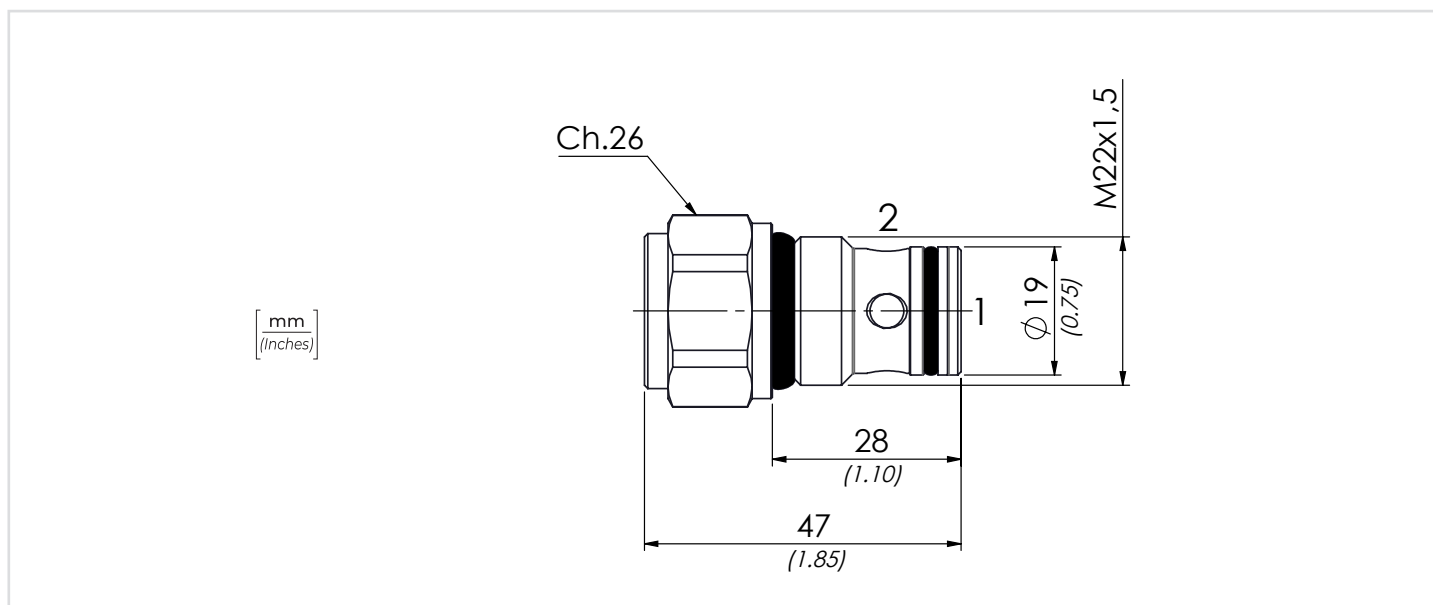


## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## DATI TECNICI / TECHNICAL DATA

Olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	
Trafilamento massimo Max leakage	0,25 cm <sup>3</sup> /min - 5 gocce/min 0,015 in <sup>3</sup> /min - 5 drops/min



## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO TYPE	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	PESO APPROX (kg) APPROX WEIGHT (lbt)	COPPIA DI SERRAGGIO TIGHTENING TORQUE Nm-lbt ft	CAVITÀ CAVITY
<b>CUR2215</b>	<b>40</b> (10.6)	<b>350</b> (5075)	<b>0,11</b> (0.25)	<b>45-50</b> (33-37)	<b>C2215/2</b>

# CUR2615 VALVOLE UNIDIREZIONALI M26X1,5 M26X1,5 CHECK VALVES

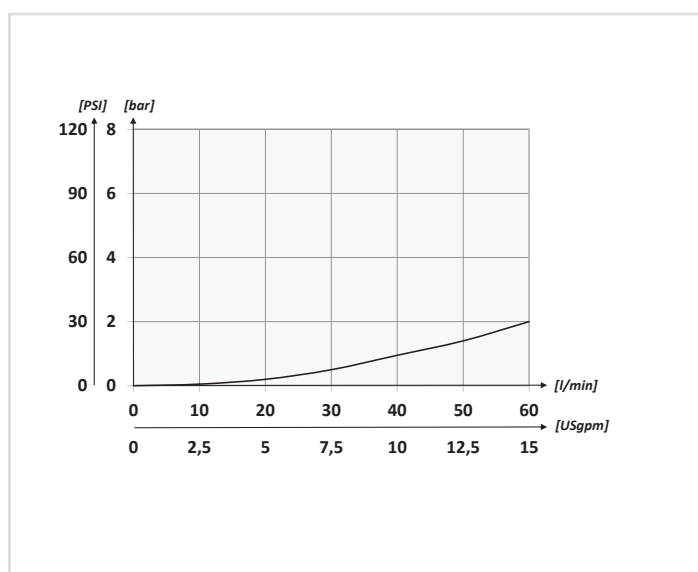


**CODICE ORDINAZIONE**  
ORDERING CODE

01	02	03
<b>CUR2615</b>	<b>SP</b>	

<b>01</b>	VALVOLE UNIDIREZIONALI M26X1,5 (M26X1,5 CHECK VALVES)		<b>CUR2615</b>
<b>02</b>	TENUTA (SEALING)	Tenuta ad otturatore (Poppet sealing)	<b>SP</b>
<b>03</b>	MOLLA (SPRING)	<b>1 bar</b> (14.5 PSI)	<b>1</b>
		<b>4,5 bar</b> (65.3 PSI)	<b>4,5</b>

**PERFORMANCES**

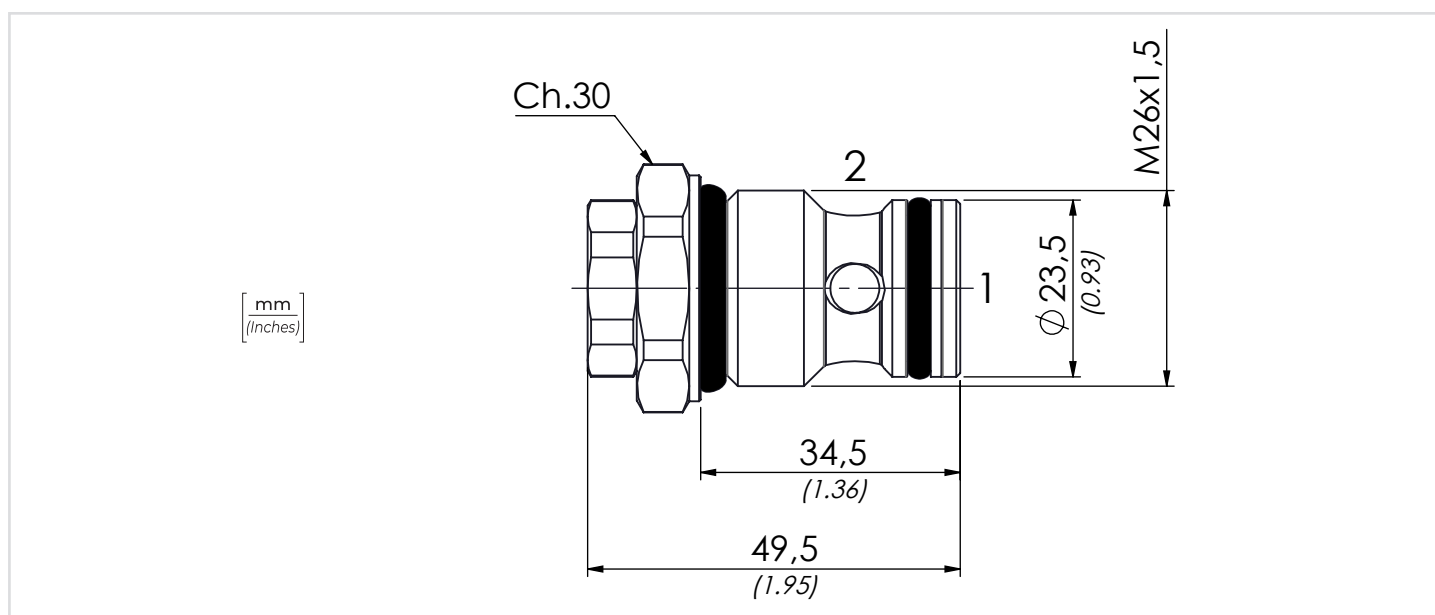


**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**DATI TECNICI / TECHNICAL DATA**

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F +176°F
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b> -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	
<b>Trafilamento massimo</b> Max leakage	<b>0,25 cm<sup>3</sup>/min - 5 gocce/min</b> <b>0,015 in<sup>3</sup>/min - 5 drops/min</b>

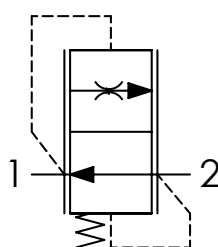


**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	PESO APPROX (kg) APPROX WEIGHT (lbt)	COPPIA DI SERRAGGIO TIGHTENING TORQUE Nm-lbt ft	CAVITÀ CAVITY
<b>CUR2615</b>	<b>60</b> (15.8)	<b>350</b> (5075)	<b>0,15</b> (0.33)	<b>55-60</b> (41-45)	<b>C2615/2</b>



SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



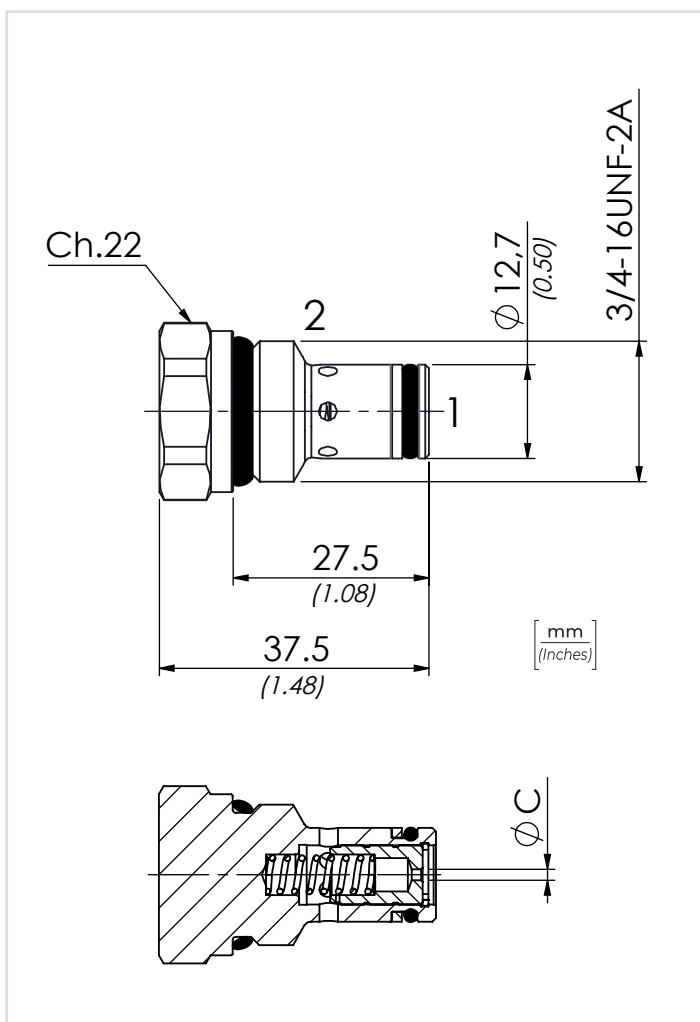
**CODICE ORDINAZIONE**  
ORDERING CODE

01	02
<b>VSC6</b>	

01	VALVOLE CONTROLLO FLUSSO FISSE COMPENSATE SAE 8 (SAE 8 FIXED FLOW CONTROL VALVES - PRESSURE COMPENSATED)	VSC6
02	PORTATA CONTROLLATA A 100 BAR ± 10% (CONTROLLED FLOW AT 100 BAR ± 10 %)	1 l/min (0.26 USgpm) <b>1</b>
		2 l/min (0.53 USgpm) <b>2</b>
		3 l/min (0.79 USgpm) <b>3</b>
		4 l/min (1.06 USgpm) <b>4</b>
		5 l/min (1.32 USgpm) <b>5</b>
		6 l/min (1.58 USgpm) <b>6</b>
		7 l/min (1.85 USgpm) <b>7</b>
		8 l/min (2.11 USgpm) <b>8</b>
		9 l/min (2.38 USgpm) <b>9</b>
		10 l/min (1.64 USgpm) <b>10</b>
		11 l/min (2.90 USgpm) <b>11</b>
		12 l/min (3.17 USgpm) <b>12</b>

**DATI TECNICI / TECHNICAL DATA**

Oilio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	



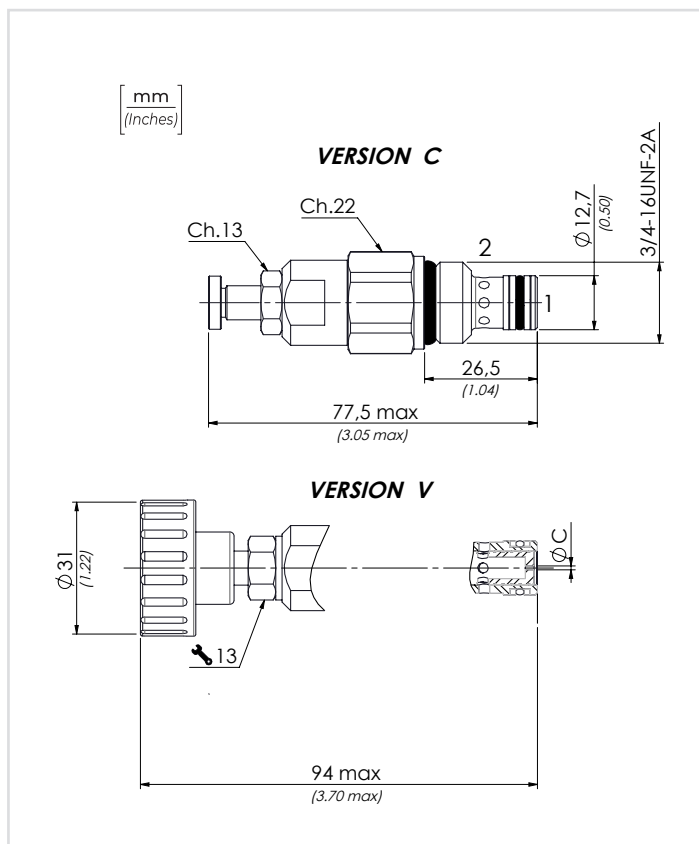
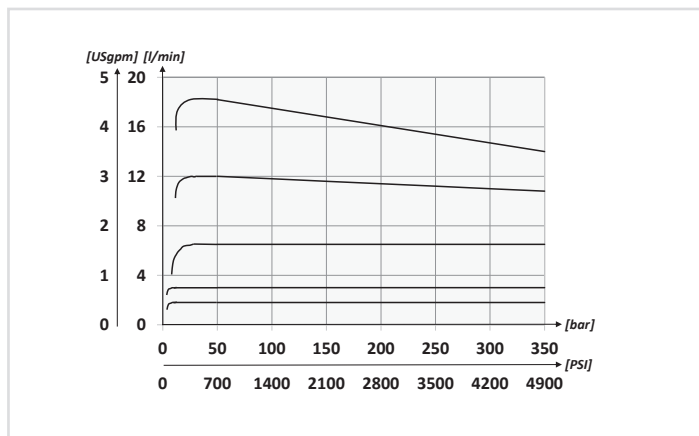
TIPO (TYPE)	Ø C
VSC61	1 ( 0.04)
VSC62	1,2 ( 0.05)
VSC63	1,5 ( 0.06)
VSC64	1,7 ( 0.07)
VSC65	1,9 ( 0.07)
VSC66	2,1 ( 0.08)
VSC67	2,3 ( 0.09)
VSC68	2,4 ( 0.09)
VSC69	2,7 ( 0.11)
VSC610	2,8 ( 0.11)
VSC611	3,1 ( 0.12)
VSC612	3,3 ( 0.13)

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	PESO APPROX (kg) APPROX WEIGHT (lbt)	COPPIA DI SERRAGGIO TIGHTENING TORQUE Nm-lbt ft	CAVITÀ CAVITY
VSC6	12 (3.11)	250 (3625)	0,06 (0.15)	25-30 (19-22)	SAE8/2



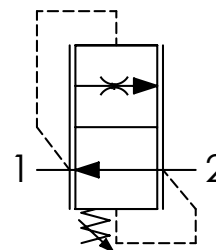
## PERFORMANCES



	01	02	03
<b>CODICE ORDINAZIONE</b> ORDERING CODE	<b>VCF6</b>		

<b>01</b>	VALVOLE CONTROLLO FLUSSO REGOLABILE COMPENSATE SAE 8 (SAE 8 ADJUSTABLE FLOW CONTROL VALVES - PRESSURE COMPENSATED)	<b>VCF6</b>	
<b>02</b>	PORTATA CONTROLLATA A 100 BAR ± 10% (CONTROLLED FLOW AT 100 BAR ± 10%)	0,6-2,2 l/min (0.16-0.58 USgpm)	<b>1</b>
		0,8-3 l/min (0.21-0.79 USgpm)	<b>2</b>
		1,3-5,1 l/min (0.34-1.35 USgpm)	<b>3</b>
		1,9-6,8 l/min (0.50-1.80 USgpm)	<b>4</b>
		2,6-9,1 l/min (0.69-2.40 USgpm)	<b>5</b>
		4-14,4 l/min (1.06-3.08 USgpm)	<b>6</b>
		7,2-18 l/min (1.90-4.75 USgpm)	<b>7</b>
<b>03</b>	REGOLAZIONE (SETTING)	Chiave (Screw)	<b>C</b>
		Volantino (Handknob)	<b>V</b>
		Tipo (Type) <b>12000354</b>	

## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## DATI TECNICI / TECHNICAL DATA

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F +176°F
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b> -4°F +122°F
<b>È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)</b> It is necessary a filter use to protect the valve (advised filtration 15 µm)	

TIPO (TYPE)	Ø C
<b>VCF61</b>	<b>0,9</b> ( 0.04)
<b>VCF62</b>	<b>1</b> ( 0.04)
<b>VCF63</b>	<b>1,3</b> ( 0.05)
<b>VCF64</b>	<b>1,5</b> ( 0.06)
<b>VCF65</b>	<b>1,7</b> ( 0.07)
<b>VCF66</b>	<b>2,2</b> ( 0.09)
<b>VCF67</b>	<b>2,8</b> ( 0.11)

## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

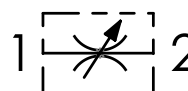
TIPO TYPE	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	PESO APPROX (kg) APPROX WEIGHT (lbt)	COPPIA DI SERRAGGIO TIGHTENING TORQUE Nm-lbt ft	CAVITÀ CAVITY
<b>VCF6</b>	<b>18</b> (4.8)	<b>350</b> (5075)	<b>0,12</b> (0.26)	<b>25-30</b> (19-22)	<b>SAE8/2</b>



<b>CODICE ORDINAZIONE</b> ORDERING CODE	01 <b>VBF6</b>	02
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<b>01</b>	VALVOLE CONTROLLO FLUSSO BIDIREZIONALI SAE 8 (SAE 8 BIDIRECTIONAL FLOW CONTROL VALVES)	<b>VBF6</b>
<b>02</b>	Chiave (Screw)	<b>C</b>
	Volantino (Handknob)	<b>V</b>

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**

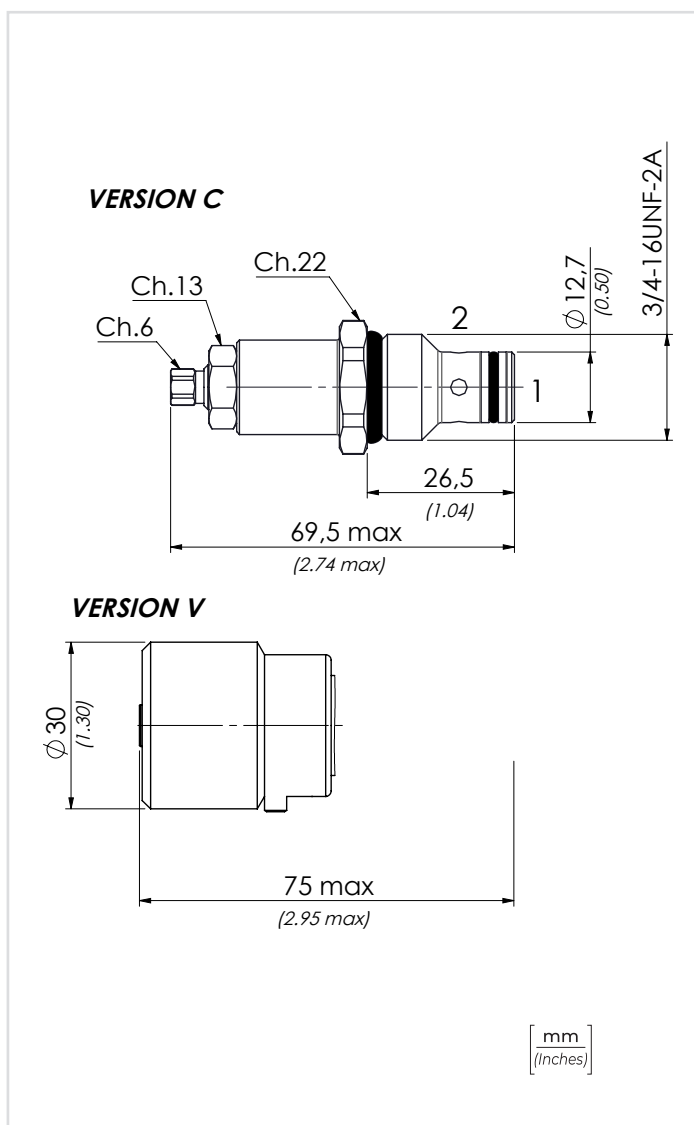
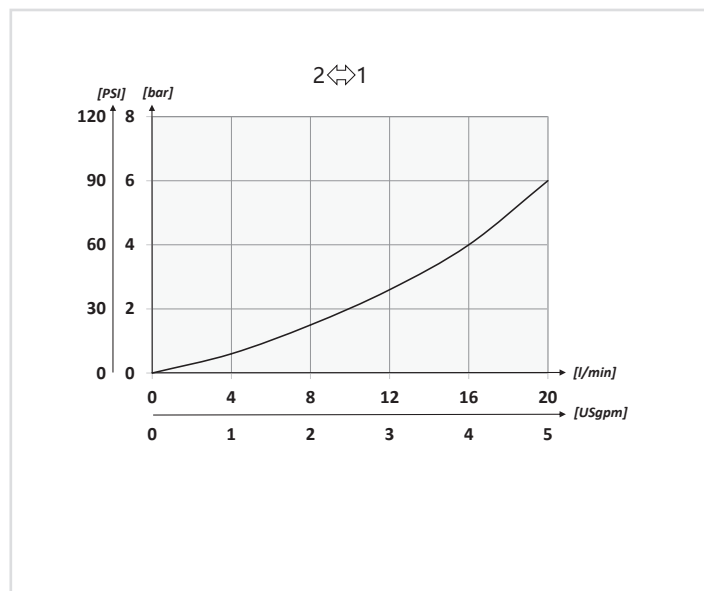


**DATI TECNICI / TECHNICAL DATA**

Olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C    -4°F + 176°F
Temperatura ambiente - Environment temperature	-20°C +50°C    -4°F + 122°F

È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)  
It is necessary a filter use to protect the valve (advised filtration 15 µm)

**PERFORMANCES**



**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	PESO APPROX (kg) APPROX WEIGHT (lbt)	COPPIA DI SERRAGGIO TIGHTENING TORQUE Nm-lbt ft	CAVITÀ CAVITY
VBF6	30 (7.9)	350 (5075)	0,09 (0.20)	25-30 (19-22)	SAE8/2

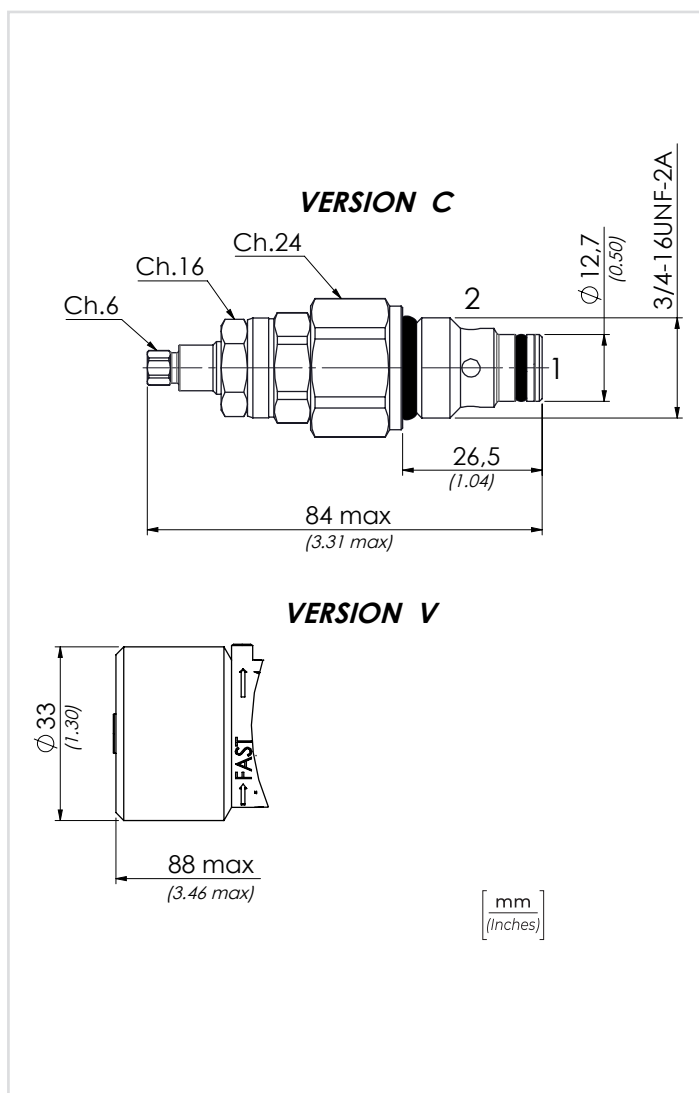
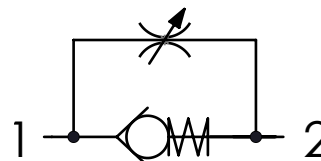




	01	02
<b>CODICE ORDINAZIONE</b> ORDERING CODE	<b>VRF6</b>	

<b>01</b>	VALVOLE CONTROLLO FLUSSO UNIDIREZIONALI SAE 8 (SAE 8 UNIDIRECTIONAL FLOW CONTROL VALVES)	<b>VRF6</b>
<b>02</b>	CHIAVE (SCREW)	<b>C</b>
	Volantino (Handknob) Tipo (Type) 12000275	<b>V</b>

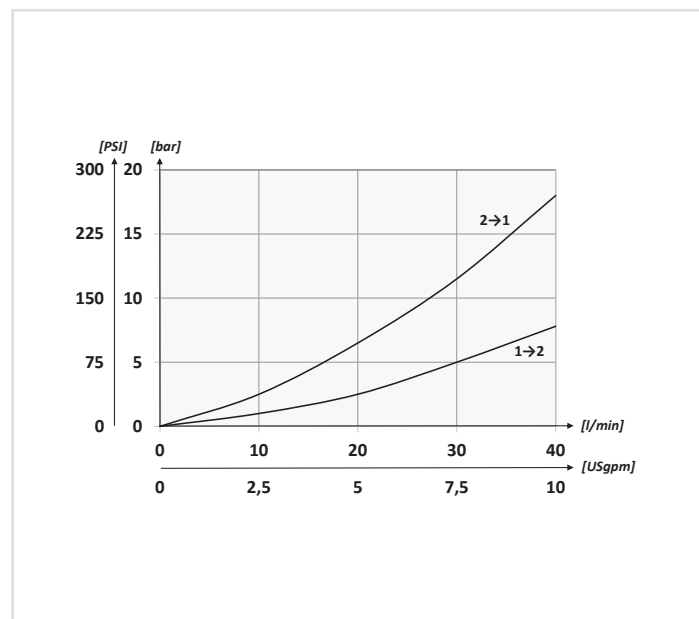
**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**DATI TECNICI / TECHNICAL DATA**

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F + 176°F
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b> -4°F + 122°F
<b>È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)</b> It is necessary a filter use to protect the valve (advised filtration 15 µm)	

**PERFORMANCES**

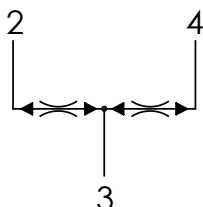


**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	PESO APPROX (kg) APPROX WEIGHT (lbt)	COPPIA DI SERRAGGIO TIGHTENING TORQUE Nm-lbt ft	CAVITÀ CAVITY
<b>VRF6</b>	<b>40</b> (10.6)	<b>350</b> (5075)	<b>0,13</b> (0.30)	<b>25-30</b> (19-22)	<b>SAE8/2</b>



### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### CODICE ORDINAZIONE / ORDERING CODE

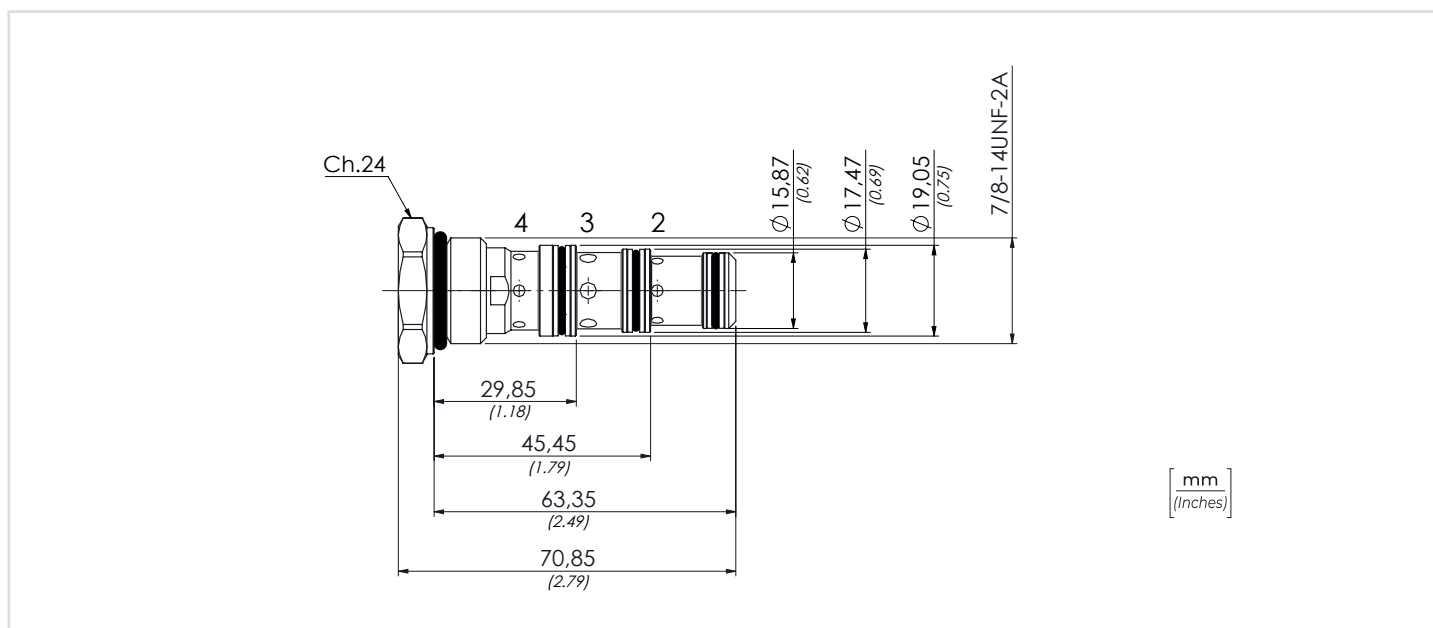
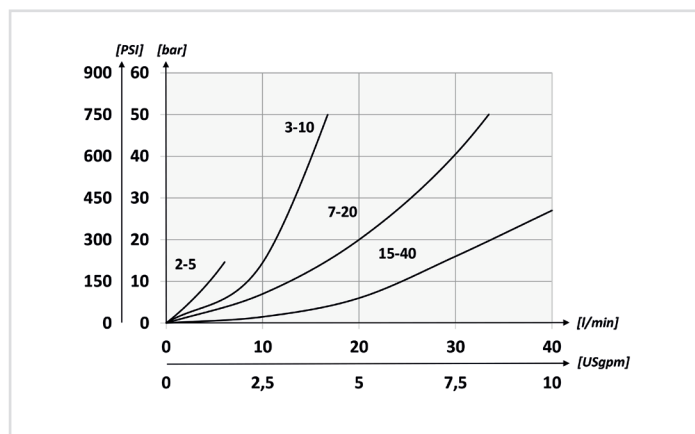
01	02	03
<b>VDRF</b>	<b>10</b>	

<b>01</b>	DIVISORE/RIUNIFICATORE DI FLUSSO A CARTUCCIA SAE 10 (SAE 10 CARTRIDGE FLOW DIVIDERS/COMBINERS)		<b>VDRF</b>
<b>02</b>	DIMENSIONE (SIZE)	<b>7/8-14UNF/SAE 10</b>	<b>10</b>
<b>03</b>	Campo di portata in ingresso (l/min) Inlet flow range (USgpm)	<b>2-5</b> (0.5-1.3)	<b>1</b>
		<b>3-10</b> (0.8-2.6)	<b>2</b>
		<b>7-20</b> (1.8-5.3)	<b>3</b>
		<b>15-40</b> (4.0-10.6)	<b>4</b>

### DATI TECNICI / TECHNICAL DATA

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F +176°F
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b> -4°F +122°F
<b>È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)</b> It is necessary a filter use to protect the valve (advised filtration 15 µm)	

### PERFORMANCES



### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO TYPE	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	PESO APPROX (kg) APPROX WEIGHT (lbt)	COPPIA DI SERRAGGIO TIGHTENING TORQUE Nm-lbt ft	CAVITÀ CAVITY
<b>VDRF10</b>	<b>40</b> (10.6)	<b>350</b> (5075)	<b>0,12</b> (0.26)	<b>30-35</b> (22-26)	<b>SAE10/4</b>



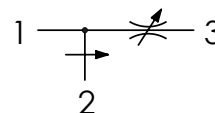
**CODICE ORDINAZIONE**  
ORDERING CODE

01

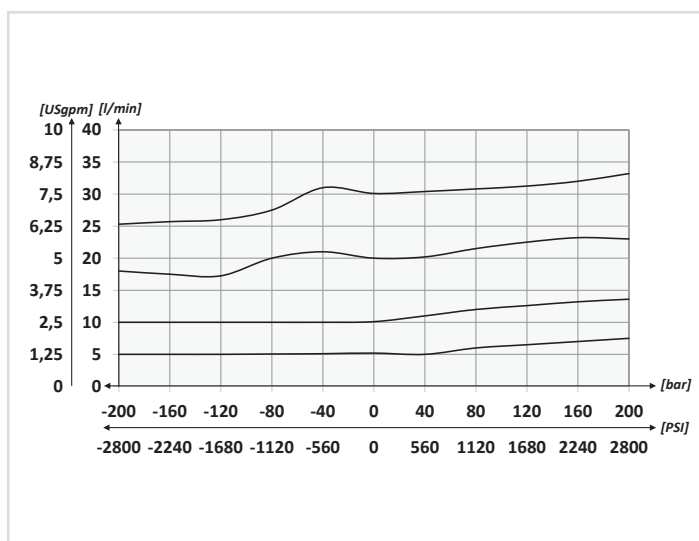
**CP10**

<b>01</b>	VALVOLE REGOLATRICI DI FLUSSO 3 VIE SAE 10 - COMPENSATE SAE 10 FLOW REGULATOR 3 WAYS - PRESSURE COMPENSATED	<b>CP10</b>
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**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**PERFORMANCES**

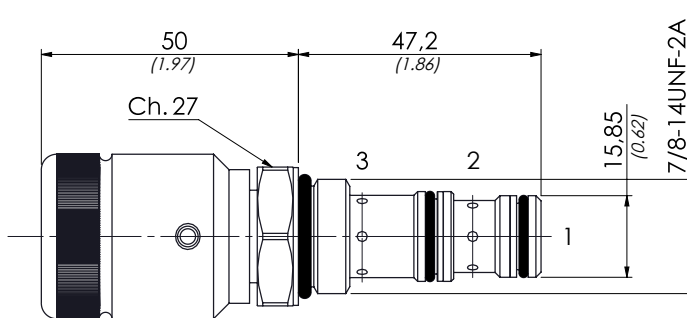


**PORTATA MASSIMA (L/MIN) - MAX FLOW (USGPM)**

50 l/min con 30 l/min in 3 (13,3 USgpm with 8 USgpm in 3)

**DATI TECNICI / TECHNICAL DATA**

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F +176°F
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b> -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	
<b>Trafilamento massimo</b> Max leakage	<b>0,25 cm<sup>3</sup>/min - 5 gocce/min</b> 0,015 in <sup>3</sup> /min - 5 drops/min



[ mm ]  
[ Inches ]

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	PESO APPROX (kg) APPROX WEIGHT (lbt)	COPPIA DI SERRAGGIO TIGHTENING TORQUE Nm-lbt ft	CAVITÀ CAVITY
<b>CP10</b>	<b>50</b> (13.26)	<b>350</b> (5075)	<b>0,20</b> (0.44)	<b>60-70</b> (45-52)	<b>SAE10/3</b>



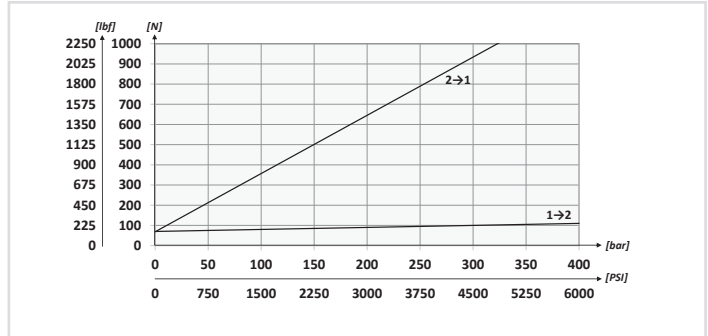
LA VALVOLA A COMANDO MANUALE VIENE FORNITA  
CON LEVA DI AZIONAMENTO L=190 mm

THE MANUAL OPERATED RELEASE VALVE  
IS SUPPLIED WITH ACTING LEVER 7,4 inch LENGHT

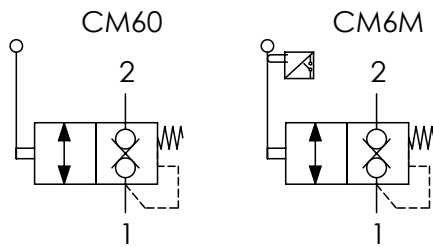
	01	02
<b>CODICE ORDINAZIONE</b> ORDERING CODE	<b>CM6</b>	

<b>01</b>	<b>VALVOLE A COMANDO MANUALE</b> (MANUAL OPERATED RELEASE VALVES)	<b>CM6</b>
<b>02</b>	Senza microinterruttore (Without micro-switch)	<b>0</b>
	Con micro microinterruttore (With micro-switch)	<b>M</b>

### PERFORMANCES

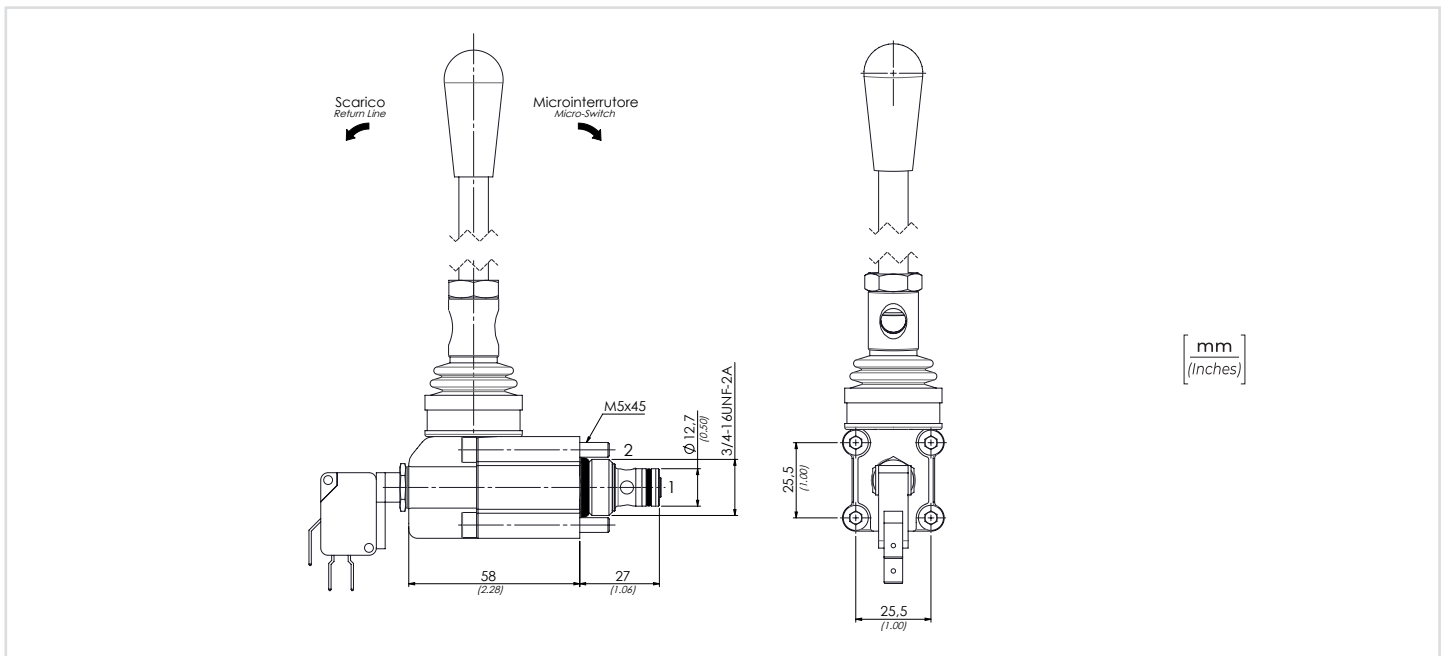


### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### DATI TECNICI / TECHNICAL DATA

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F + 176°F
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b> -4°F + 122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	
<b>Trafilamento massimo</b> Max leakage	<b>0,25 cm<sup>3</sup>/min - 5 gocce/min</b> <b>0,015 in<sup>3</sup>/min - 5 drops/min</b>



### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

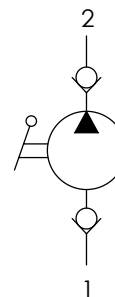
TIPO TYPE	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	PESO APPROX (kg) APPROX WEIGHT (lbt)	COPPIA DI SERRAGGIO TIGHTENING TORQUE Nm-lbt ft	CAVITÀ CAVITY
<b>CM6</b>	<b>25 (6.6)</b>	<b>320 (4640)</b>	<b>0,41 (0,90)</b>	<b>25-30 (19-22)</b>	<b>SAE8/2</b>



LA POMPA VIENE FORNITA CON LEVA DI AZIONAMENTO L=270 mm  
THE PUMP IS SUPPLIED WITH ACTING LEVER 10,5 inch LENGHT

<b>CODICE ORDINAZIONE</b> ORDERING CODE	01 <b>PME</b>	02	03 <b>L</b>
<b>01</b>	POMPE A MANO (CARTRIDGE HAND PUMPS)		<b>PME</b>
<b>02</b>	Modello (Type)		<b>05</b> <b>06</b> <b>07</b>
<b>03</b>	Leva (Hand lever)		<b>L</b>

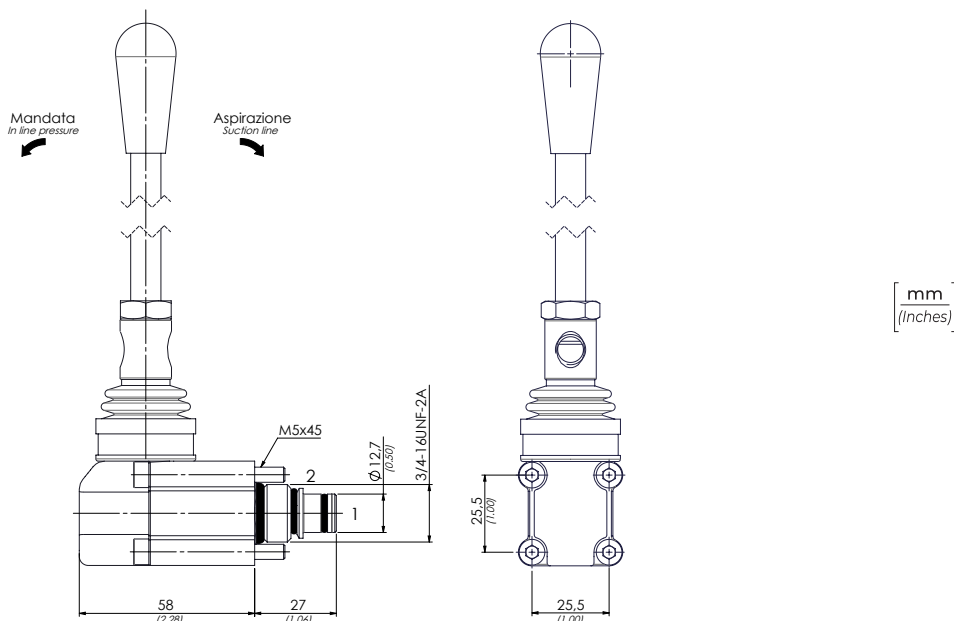
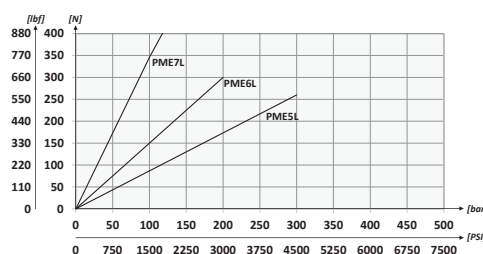
### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### DATI TECNICI / TECHNICAL DATA

Olío idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	
Trafilamento massimo Max leakage	0,25 cm <sup>3</sup> /min - 5 gocce/min 0,015 in <sup>3</sup> /min - 5 drops/min

### PERFORMANCES



### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO TYPE	CILINDRATA (cm <sup>3</sup> ) DISPLACEMENT (in <sup>3</sup> )	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	PESO APPROX (kg) APPROX WEIGHT (lbt)	COPPIA DI SERRAGGIO TIGHTENING TORQUE Nm-lbt ft	CAVITÀ CAVITY
PME5L	1 (0.06)	300 (4350)	0,46 (1.01)	25-30 (19-22)	SAE8/2
PME6L	2 (0.12)	200 (2900)			
PME7L	3 (0.18)	120 (1740)			

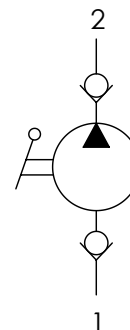


**CODICE ORDINAZIONE**  
ORDERING CODE

01  
**PME10**

01	POMPE A MANO (CARTRIDGE HAND PUMPS)	PME10
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**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



LA POMPA VIENE FORNITA CON LEVA DI AZIONAMENTO L=500 mm  
THE PUMP IS SUPPLIED WITH ACTING LEVER 19,6 inch LENGHT

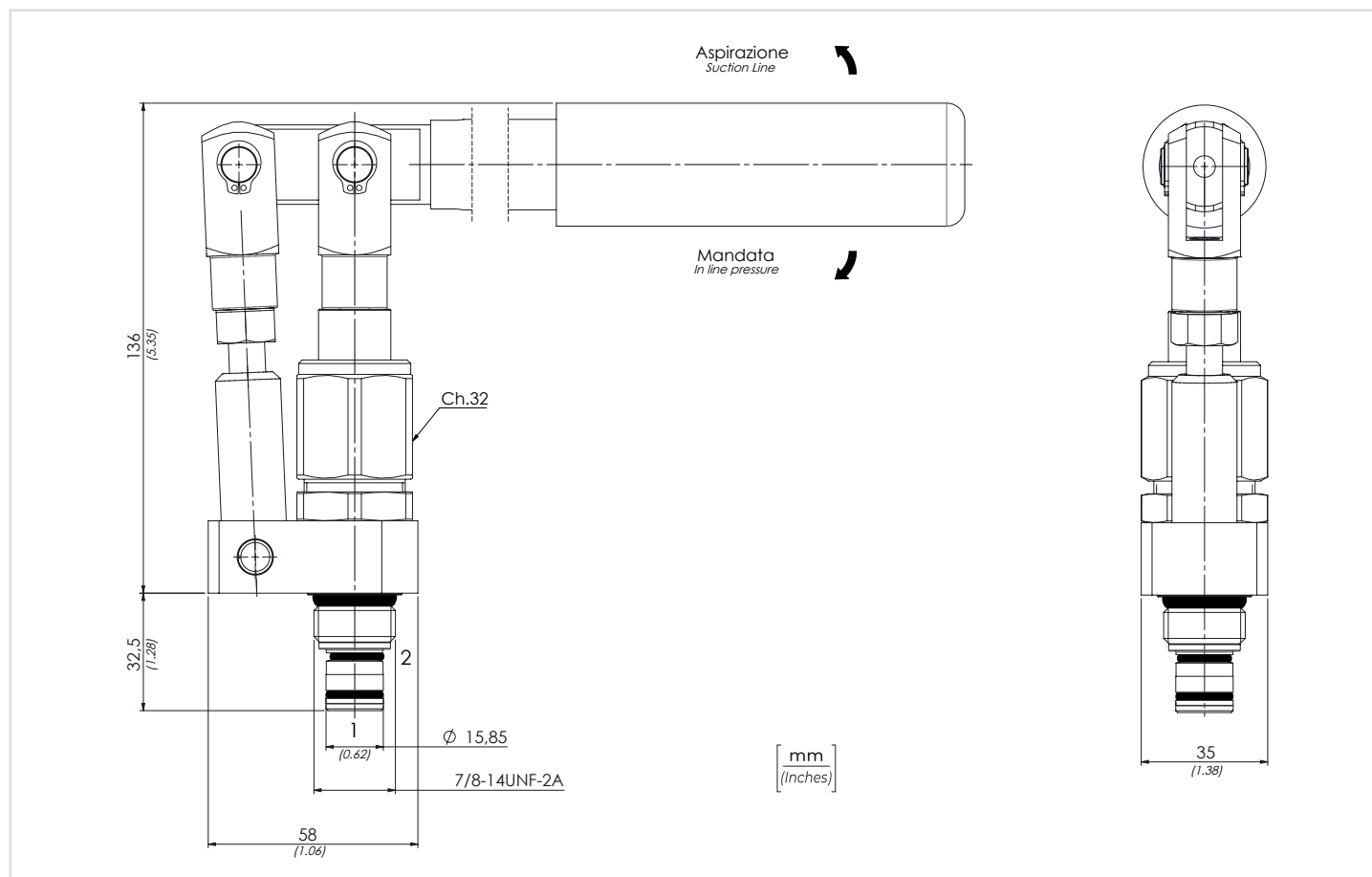
**DATI TECNICI / TECHNICAL DATA**

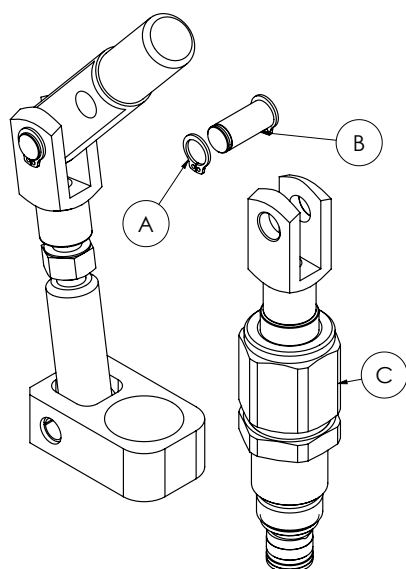
Olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F

È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)  
It is necessary a filter use to protect the valve (advised filtration 15 µm)

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	CILINDRATA (cm <sup>3</sup> ) DISPLACEMENT (in <sup>3</sup> )	PRESSIONE MAX MAX PRESSURE bar-PSI	PESO APPROX APPROX WEIGHT kg-lbt	COPPIA DI SERRAGGIO TIGHTENING TORQUE Nm-lbt ft	CAVITÀ CAVITY
PME10	10 (0.6)	200 (2900)	1,9 (4.20)	41-47 (30-35)	SAE10/2

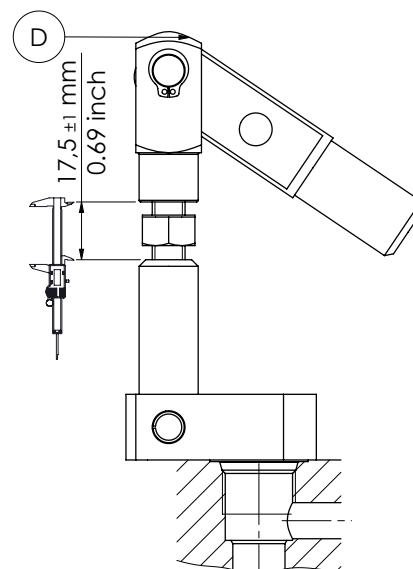




**1**

Smontare l'anello di arresto (A), sfilare la spina (B), togliere la valvola (C).

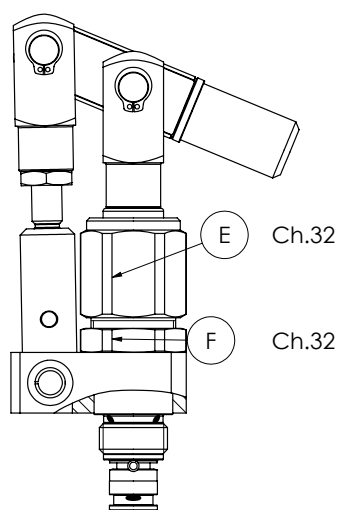
Disassemble the snap ring (A), get out the pin (B), remove the valve (C).



**2**

Posizionare la forcina (D) alla misura indicata; avvicinare il leverismo alla cavità della valvola.

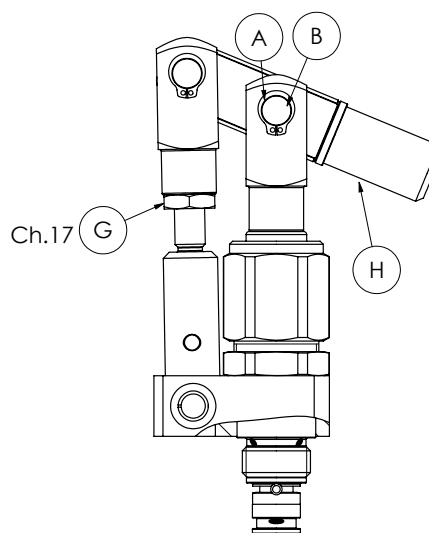
Position the fork (D) at shown dimension; put the levering kit close to the valve cavity.



**3**

Avvitare la cartuccia (E) nella cavità (41-47 Nm); stringere la ghiera (F)(41-47 Nm).

Screw the cartridge (E) in the cavity (30-35 lbf<sub>t</sub>); tighten the lock nut (F)(30-35 lbf<sub>t</sub>).



**4**

Posizionare la leva (H) verso il basso; montare la spina (B) e l'anello di arresto (A); serrare il dado (G) (33-53 Nm).

Place the lever (H) downward; assemble the pin (B) and the snap ring (A); tighten the nut (G) (45-72 lbf<sub>t</sub>).



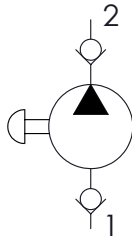
01

**CODICE ORDINAZIONE**  
ORDERING CODE

**PME5P**

<b>01</b>	POMPE A MANO (CARTRIDGE HAND PUMPS)	<b>PME5P</b>
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**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**

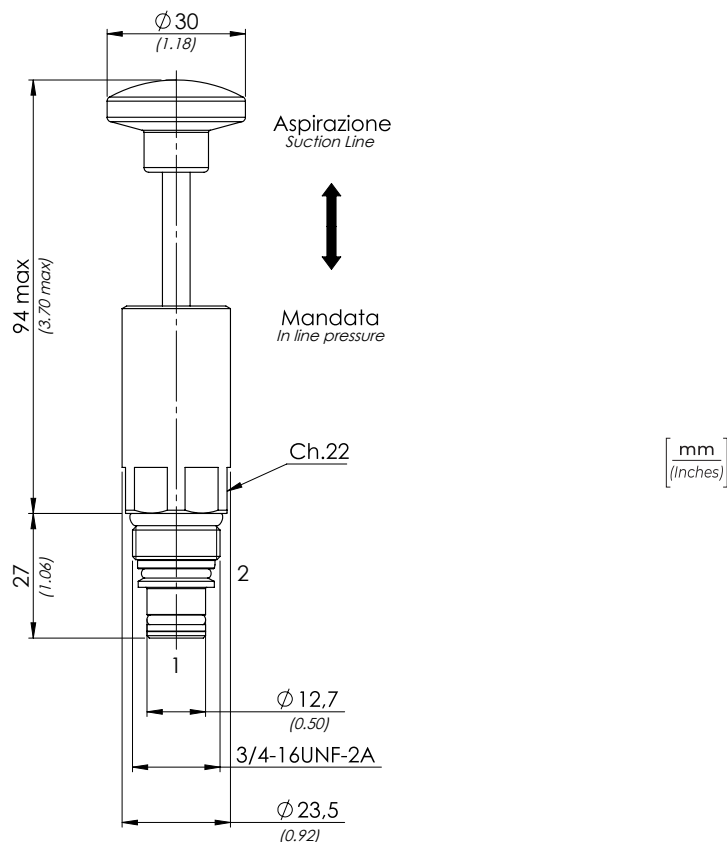


**DATI TECNICI / TECHNICAL DATA**

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> <b>-4°F + 176°F</b>
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b> <b>-4°F + 122°F</b>
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	CILINDRATA (cm <sup>3</sup> ) DISPLACEMENT (in <sup>3</sup> )	PRESSIONE MAX MAX PRESSURE bar-PSI	PESO APPROX APPROX WEIGHT kg-lbt	COPPIA DI SERRAGGIO TIGHTENING TORQUE Nm-lbt ft	CAVITÀ CAVITY
<b>PME5P</b>	<b>1 (0.06)</b>	<b>50 (725)</b>	<b>0,2 (0.44)</b>	<b>34-41 (25-30)</b>	<b>SAE8/2</b>



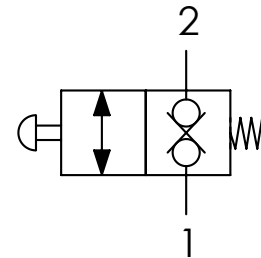




	01	02
<b>CODICE ORDINAZIONE</b> ORDERING CODE	<b>VEM</b>	

<b>01</b>	VALVOLE DI EMERGENZA MANUALE (MANUAL EMERGENCY VALVES)	<b>VEM</b>
<b>02</b>	DIMENSIONE (SIZE)	3/4-16UNF <b>6</b>
		7/8-14UNF <b>10</b>

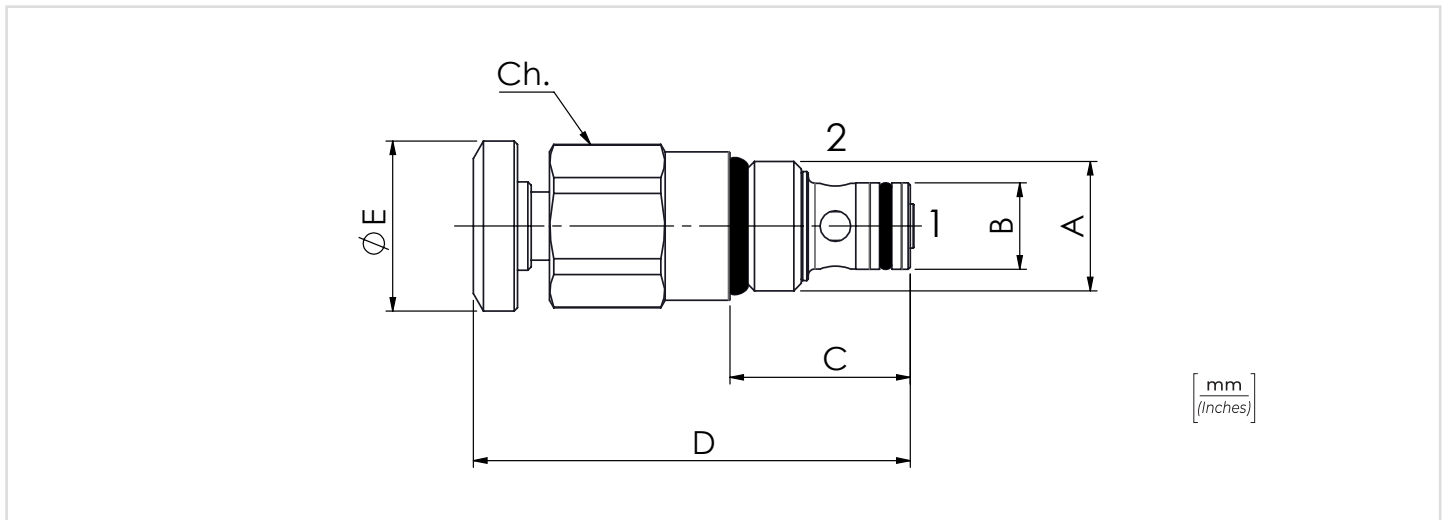
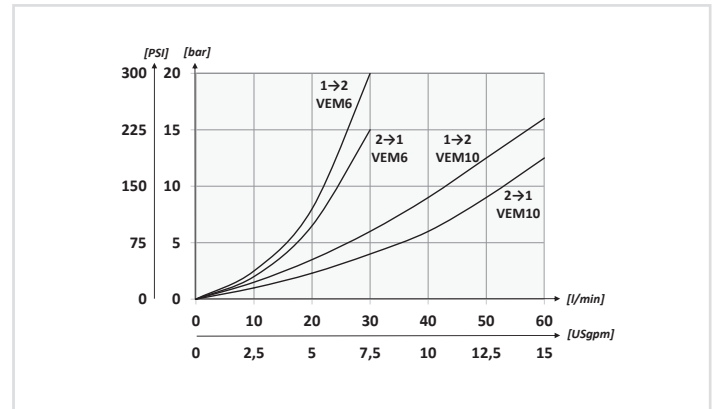
### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### DATI TECNICI / TECHNICAL DATA

Olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	
Trafilamento massimo Max leakage	0,25 cm <sup>3</sup> /min - 5 gocce/min 0,015 in <sup>3</sup> /min - 5 drops/min

### PERFORMANCES



### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

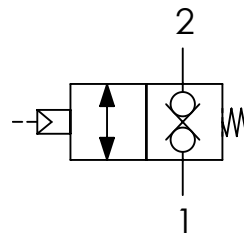
TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	B	C	D	E	Ch.	PESO APPROX (kg) APPROX WEIGHT (lb)	COPPIA DI SERRAGGIO TIGHTENING TORQUE Nm-lbt ft	Cavità Cavity
VEM6	3/4-16UNF-2A	30 (7.9)	320 (4640)	12,7 (0.5)	26,5 (1.04)	35 (1.38)	25 (0.98)	22	0,12 (0.27)	25-30 (19-22)	SAE8/2
VEM10	7/8-14UNF-2A	50 (13.2)		15,80 (0.62)	32,5 (1.28)	43,5 (1.71)	29 (1.14)	27	0,20 (0.44)	41-47 (30-35)	SAE10/2



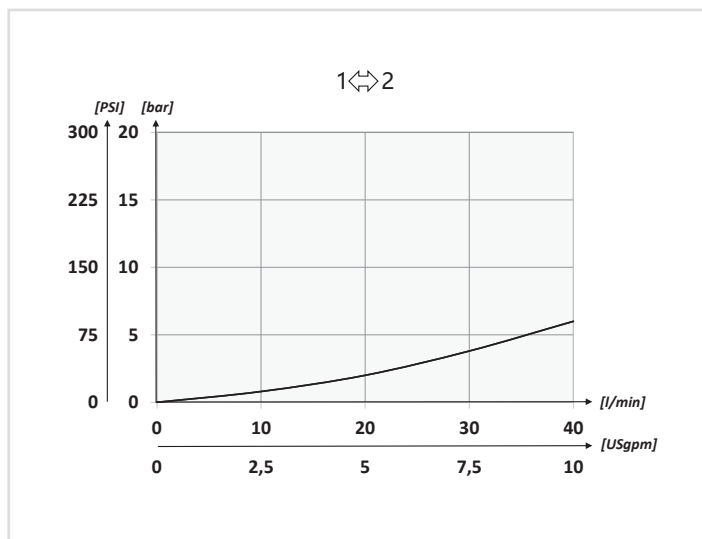
01  
**CODICE ORDINAZIONE**  
ORDERING CODE  
**VPN6**

01	VALVOLE PNEUMATICHE SAE 8 (SAE 8 PNEUMATIC VALVES)	VPN6
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**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**

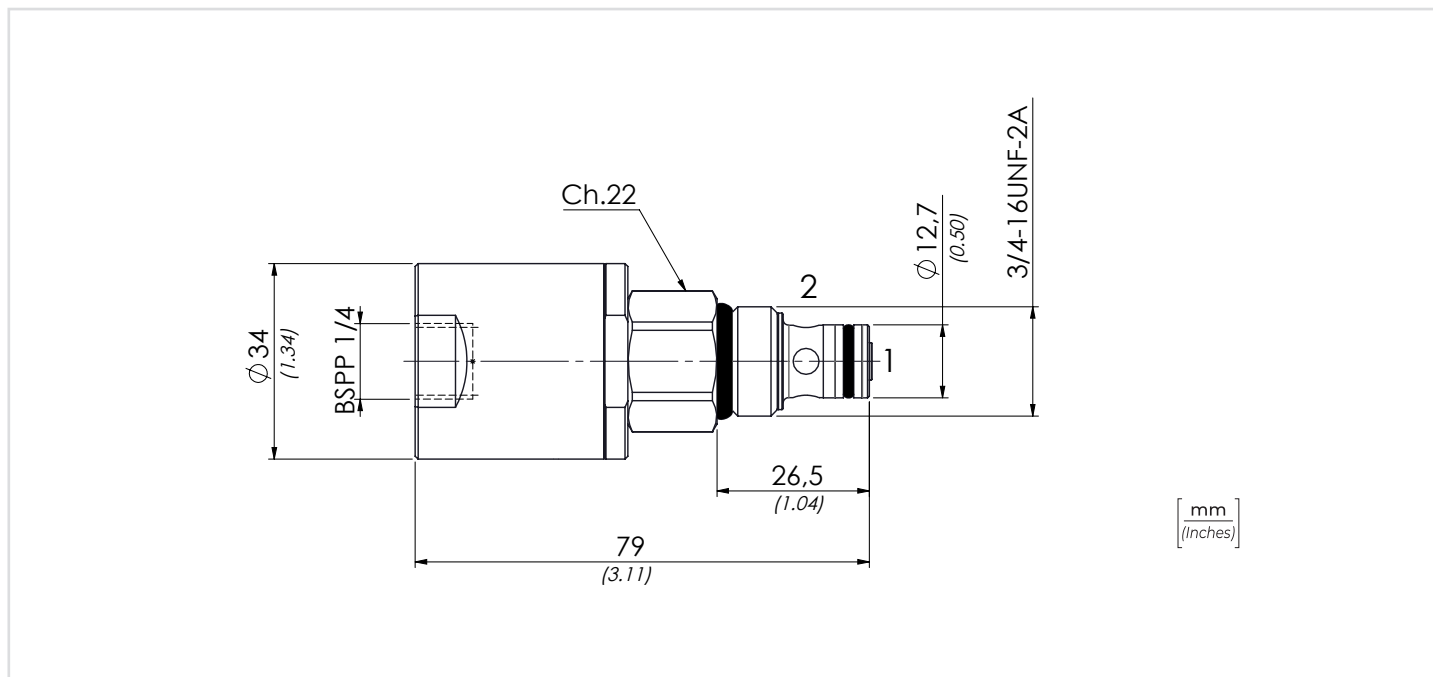


**PERFORMANCES**



**DATI TECNICI / TECHNICAL DATA**

Olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	
Trafilamento massimo Max leakage	0,25 cm <sup>3</sup> /min - 5 gocce/min 0,015 in <sup>3</sup> /min - 5 drops/min

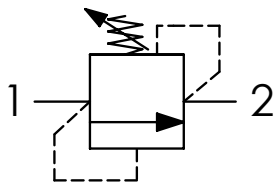


**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

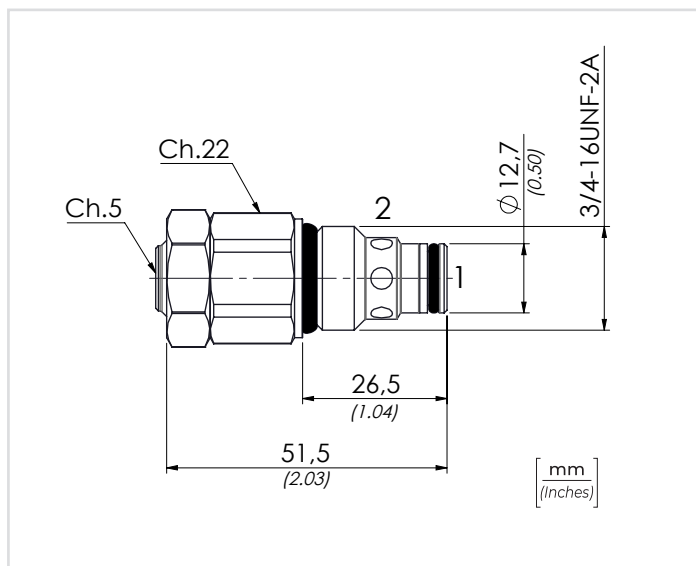
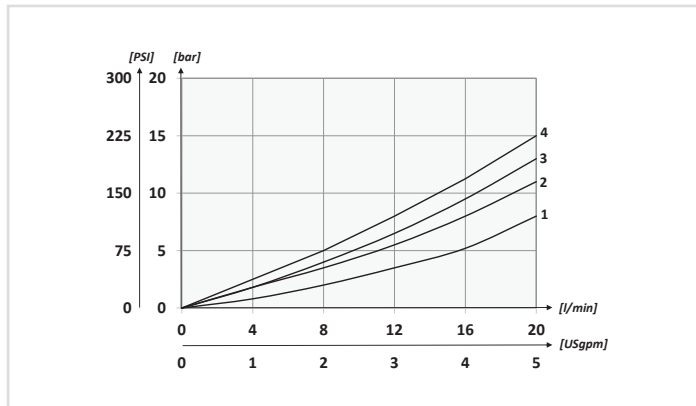
TIPO TYPE	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	PESO APPROX (kg) APPROX WEIGHT (lbt)	COPPIA DI SERRAGGIO TIGHTENING TORQUE Nm-lbt ft	CAVITÀ CAVITY	PRESSIONE DI PILOTAGGIO PILOT PRESSURE bar-PSI
VPN6	30 (7.9)	350 (5075)	0,16 (0.35)	25-30 (19-22)	SAE8/2	4/15 (58/218)



**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**PERFORMANCES**



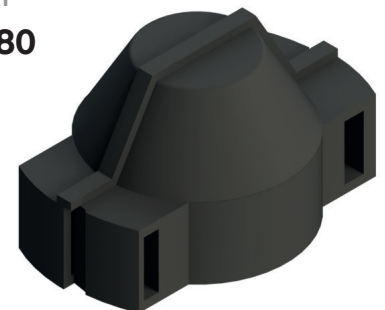
	01	02	03	04
<b>CODICE ORDINAZIONE</b> ORDERING CODE	<b>VMD1</b>	<b>C</b>		<b>N</b>

<b>01</b>	VALVOLE LIMITATRICI DI PRESSIONE DIRETTE SAE 8 (SAE8 DIRECT ACTING PRESSURE RELIEF VALVES)	<b>VMD1</b>
<b>02</b>	REGOLAZIONE (SETTING)	Chiave (Key) <b>C</b>
<b>03</b>	MOLLA (SPRING) <b>10/40 bar</b> (145/580PSI)	<b>20 bar/al giro</b> (290 PSI/turn) <b>1</b>
	MOLLA (SPRING) <b>20/110 bar</b> (290/1595 PSI)	<b>40 bar/al giro</b> (580 PSI/turn) <b>2</b>
	MOLLA (SPRING) <b>30/210 bar</b> (435/3045 PSI)	<b>70 bar/al giro</b> (1015 PSI/turn) <b>3</b>
	MOLLA (SPRING) <b>40/350 bar</b> (580/5075 PSI)	<b>130 bar/al giro</b> (1885 PSI/turn) <b>4</b>
<b>04</b>	Versione (Version)	<b>N</b>

**DATI TECNICI / TECHNICAL DATA**

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F +176°F
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b> -4°F +122°F
<b>È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)</b> It is necessary a filter use to protect the valve (advised filtration 15 µm)	

**OPTION**  
SAFETY CAP  
Cod. 12000380



**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	PESO APPROX (kg) APPROX WEIGHT (lbt)	COPPIA DI SERRAGGIO TIGHTENING TORQUE Nm-lbt ft	CAVITÀ CAVITY
<b>VMD1N</b>	<b>20</b> (5.3)	<b>350</b> (5075)	<b>0,11</b> (0.24)	<b>25-30</b> (19-22)	<b>SAE8/2</b>

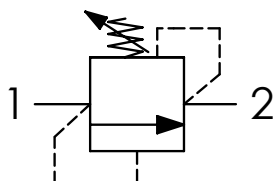
01 02 03

**CODICE ORDINAZIONE**  
ORDERING CODE

**VMD10**



**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



<b>01</b>	VALVOLE LIMITATRICI DI PRESSIONE DIRETTE SAE 8 (SAE8 DIRECT ACTING PRESSURE RELIEF VALVES)		<b>VMD10</b>
<b>02</b>	REGOLAZIONE (SETTING)	Chiave (Hex socket screw)	Opzione: Tappo piombatura (Optional: Tamper proof cap) <b>81300037</b>
		Volantino (Handknob) Tipo (Type) <b>81300109</b>	
<b>03</b>	MOLLA (SPRING) <b>10/40 bar</b> (145/580 PSI)	<b>12 bar/al giro</b> (174 PSI/turn)	<b>1</b>
	MOLLA (SPRING) <b>20/110 bar</b> (290/1595 PSI)	<b>37 bar/al giro</b> (537 PSI/turn)	<b>2</b>
	MOLLA (SPRING) <b>30/210 bar</b> (435/3045 PSI)	<b>67 bar/al giro</b> (972 PSI/turn)	<b>3</b>
	MOLLA (SPRING) <b>40/350 bar</b> (580/5075 PSI)	<b>131 bar/al giro</b> (1900 PSI/turn)	<b>4</b>

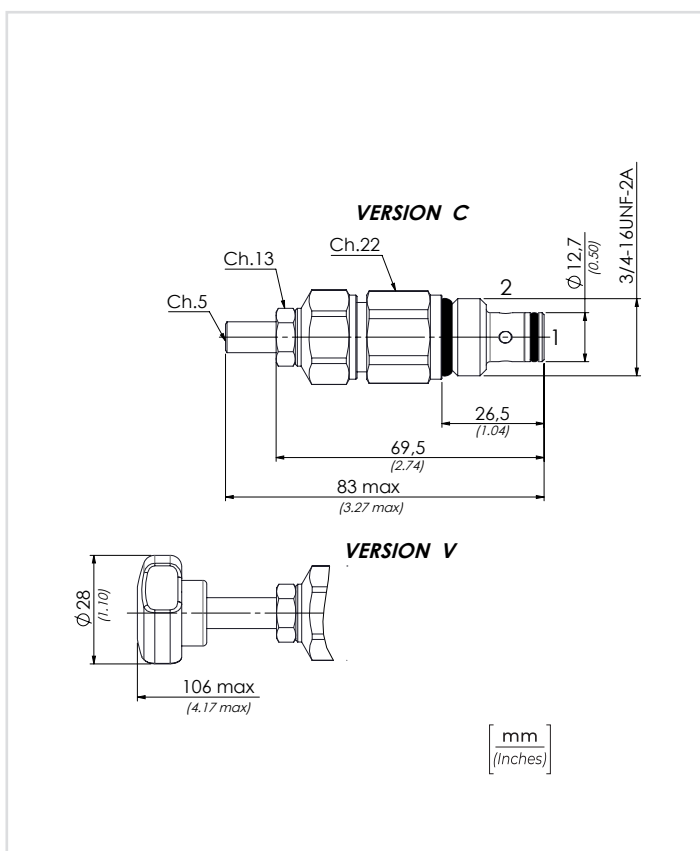
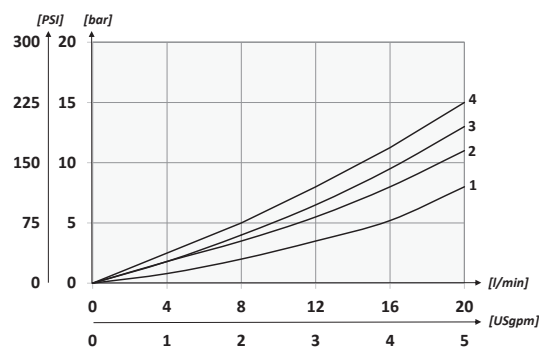
**DATI TECNICI / TECHNICAL DATA**

Oilio idraulico - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
Viscosità olio - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
Classe di contaminazione max Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
Temperatura dell'olio - Oil temperature	<b>-20°C +80°C</b> -4°F +176°F
Temperatura ambiente - Environment temperature	<b>-20°C +50°C</b> -4°F +122°F

**È indispensabile la presenza di un filtro nel circuito idraulico per proteggere la valvola (filtrazione consigliata 15 µm)**

A filter into the hydraulic circuit necessary to protect the valve (advised filtration 15 µm)

**PERFORMANCES**

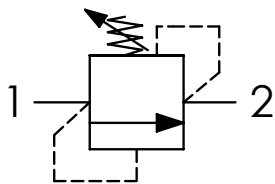


**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	PESO APPROX (kg) APPROX WEIGHT (lbt)	COPIA DI SERRAGGIO TIGHTENING TORQUE Nm-lbt ft	CAVITÀ CAVITY
VMD10	20 (5.3)	350 (5075)	0,14 (0.30)	25-30 (19-22)	SAE8/2



**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**

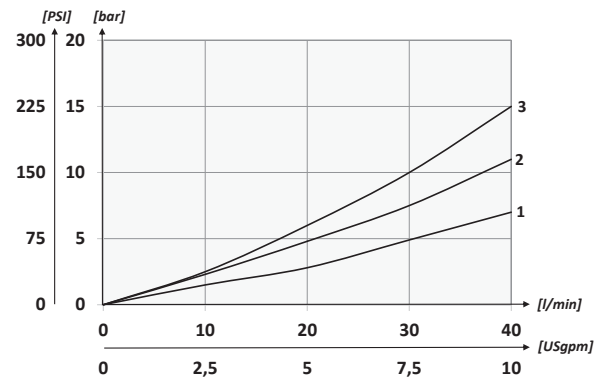


**CODICE ORDINAZIONE**  
ORDERING CODE

	01	02	03
<b>VMD8</b>			

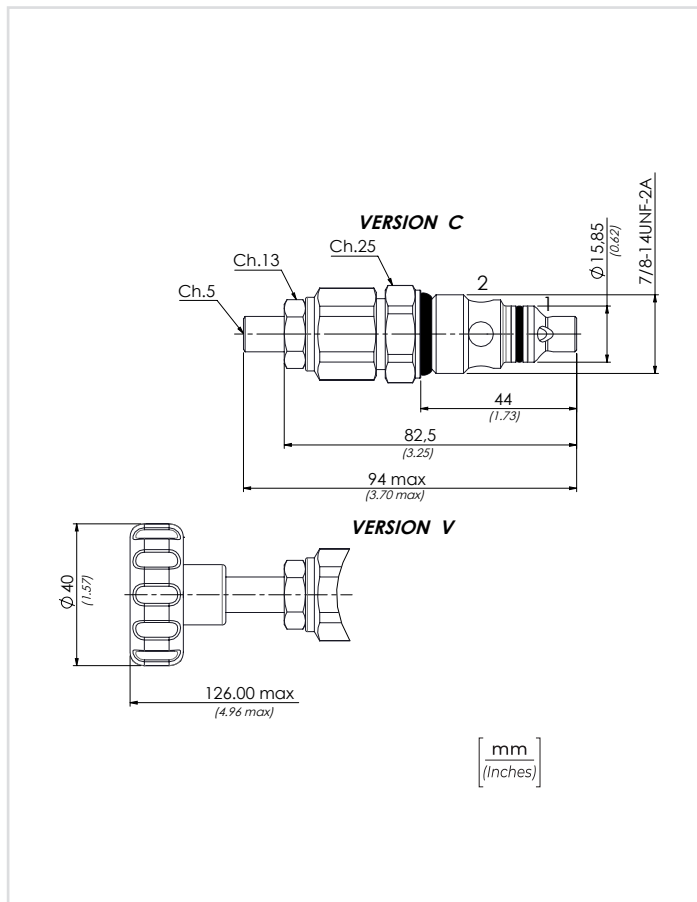
01	VALVOLE LIMITATRICI DI PRESSIONE DIRETTE SAE 10 (SAE10 DIRECT ACTING PRESSURE RELIEF VALVES)	VMD8	
<b>02</b>	REGOLAZIONE (SETTING)	Chiave (Hex socket screw)  Opzione: Tappo piombatura (Optional: Tamper proof cap) <b>81300095</b>	<b>C</b>
		Volantino (Handknob) Tipo (Type) <b>81300023</b>	<b>V</b>
<b>03</b>	MOLLA (SPRING) <b>10/90 bar</b> (145/1305 PSI)	<b>20 bar/al giro</b> (290 PSI/turn)	<b>1</b>
	MOLLA (SPRING) <b>20/210 bar</b> (290/3045 PSI)	<b>48 bar/al giro</b> (696 PSI/turn)	<b>2</b>
	MOLLA (SPRING) <b>70/350 bar</b> (1015/5075 PSI)	<b>85 bar/al giro</b> (1233 PSI/turn)	<b>3</b>

**PERFORMANCES**



**DATI TECNICI / TECHNICAL DATA**

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F + 176°F
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b> -4°F + 122°F
<b>È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)</b> It is necessary a filter use to protect the valve (advised filtration 15 µm)	

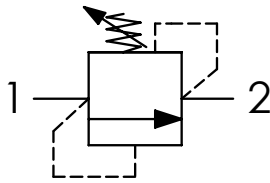


**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	PESO APPROX (kg) APPROX WEIGHT (lbt)	COPIA DI SERRAGGIO TIGHTENING TORQUE Nm-lbt ft	CAVITÀ CAVITY
<b>VMD8</b>	<b>40</b> (10.6)	<b>350</b> (5075)	<b>0,17</b> (0.37)	<b>41-47</b> (30-35)	<b>SAE10/2</b>



**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**

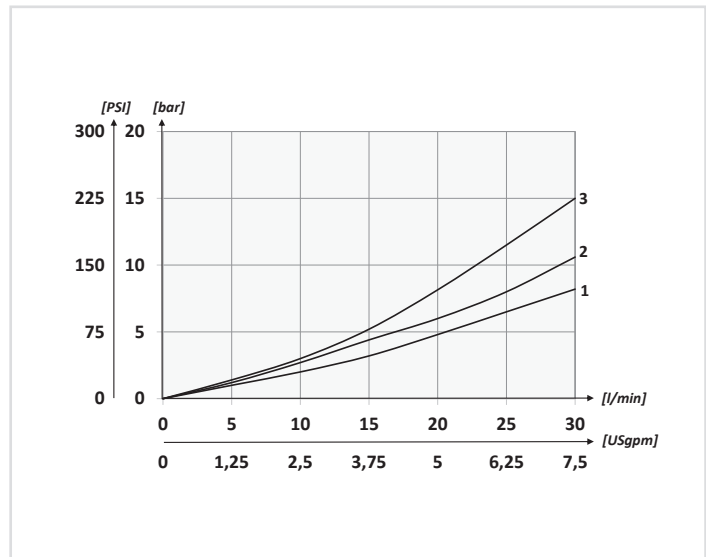


**CODICE ORDINAZIONE**  
ORDERING CODE

01	02	03
<b>VMD30</b>		

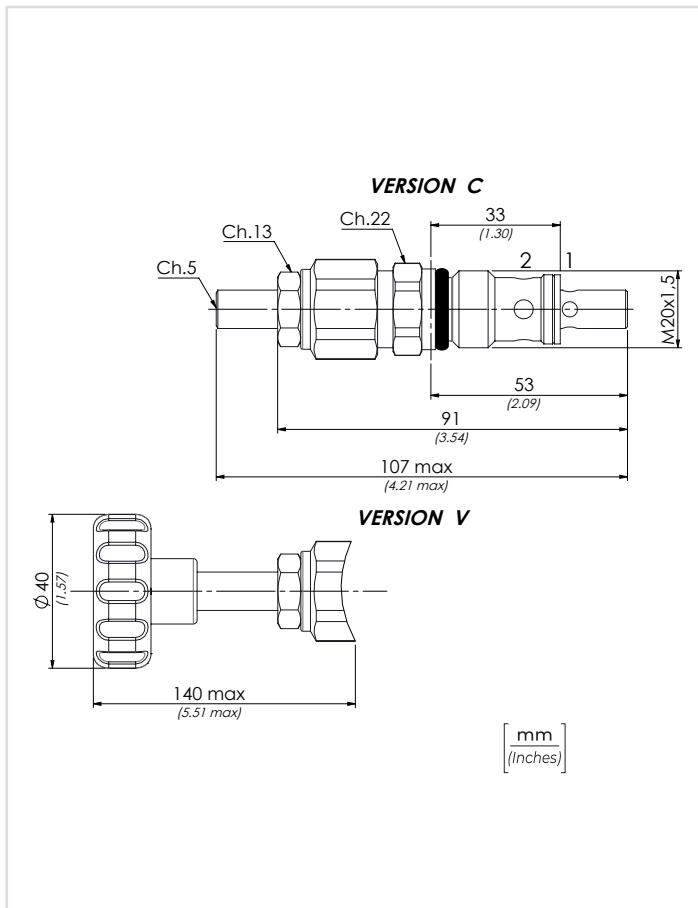
<b>01</b>	VALVOLE LIMITATRICI DI PRESSIONE DIRETTE M20X1,5 (M20X1,5 DIRECT ACTING PRESSURE RELIEF VALVES)		<b>VMD30</b>
<b>02</b>	REGOLAZIONE (SETTING)	Chiave (Hex socket screw)	<b>C</b>
		Opzione: Tappo piombatura (Optional: Tamper proof cap) <b>81300095</b>	
<b>03</b>	MOLLA (SPRING) <b>10/90 bar</b> (145/1305 PSI)	Volantino (Handknob) Tipo (Type) <b>81300109</b>	<b>V</b>
		MOLLA (SPRING) <b>20/210 bar</b> (290/3045 PSI)	<b>1</b>
<b>03</b>	MOLLA (SPRING) <b>70/350 bar</b> (1015/5075 PSI)	MOLLA (SPRING) <b>14 bar/al giro</b> (203 PSI/turn)	<b>1</b>
		MOLLA (SPRING) <b>39 bar/al giro</b> (566 PSI/turn)	<b>2</b>
<b>03</b>	MOLLA (SPRING) <b>70/350 bar</b> (1015/5075 PSI)	MOLLA (SPRING) <b>84 bar/al giro</b> (1218 PSI/turn)	<b>3</b>

**PERFORMANCES**



**DATI TECNICI / TECHNICAL DATA**

Oil idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C    -4°F + 176°F
Temperatura ambiente - Environment temperature	-20°C +50°C    -4°F + 122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	

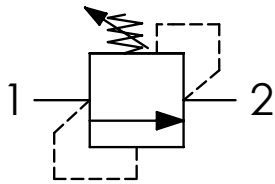


**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	PESO APPROX (kg) APPROX WEIGHT (lbt)	COPPIA DI SERRAGGIO TIGHTENING TORQUE Nm-lbt ft	CAVITÀ CAVITY
<b>VMD30</b>	<b>30</b> (7.9)	<b>320</b> (4640)	<b>0,16</b> (0.35)	<b>25-30</b> (19-22)	<b>C2015/30</b>



**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**

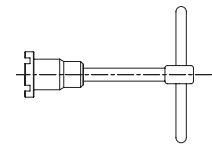


**CODICE ORDINAZIONE**  
ORDERING CODE

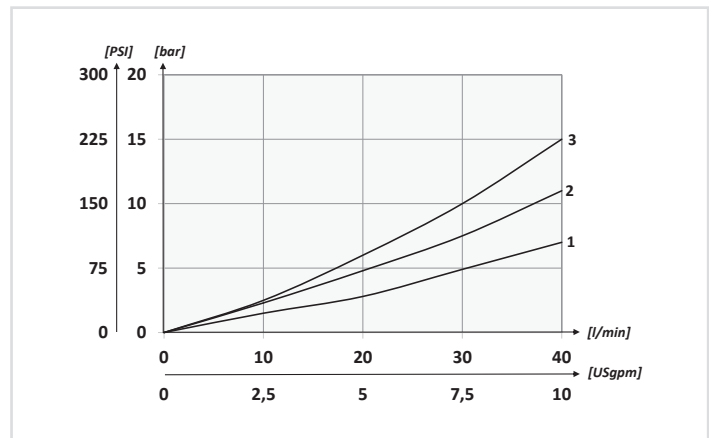
01	02	03
<b>VMD40S</b>		

<b>01</b>	VALVOLE LIMITATRICI DI PRESSIONE DIRETTE M20X1,5 (M20X1,5 DIRECT ACTING PRESSURE RELIEF VALVES)	<b>VMD40S</b>
<b>02</b>	REGOLAZIONE (SETTING)	Chiave (Hex socket screw)  Opzione: Tappo piombatura (Optional: Tamper proof cap) <b>81300037</b>  Volantino (Handknob) Tipo (Type) <b>81300109</b>
		<b>C</b>
<b>03</b>	MOLLA (SPRING) <b>10/90 bar</b> (145/1305 PSI)	<b>12 bar/al giro</b> (174 PSI/turn)
	MOLLA (SPRING) <b>20/210 bar</b> (290/3045 PSI)	<b>33 bar/al giro</b> (479 PSI/turn)
	MOLLA (SPRING) <b>70/350 bar</b> (1015/5075 PSI)	<b>70 bar/al giro</b> (1015 PSI/turn)

CHIAVE (TOOL)  
**61700008**



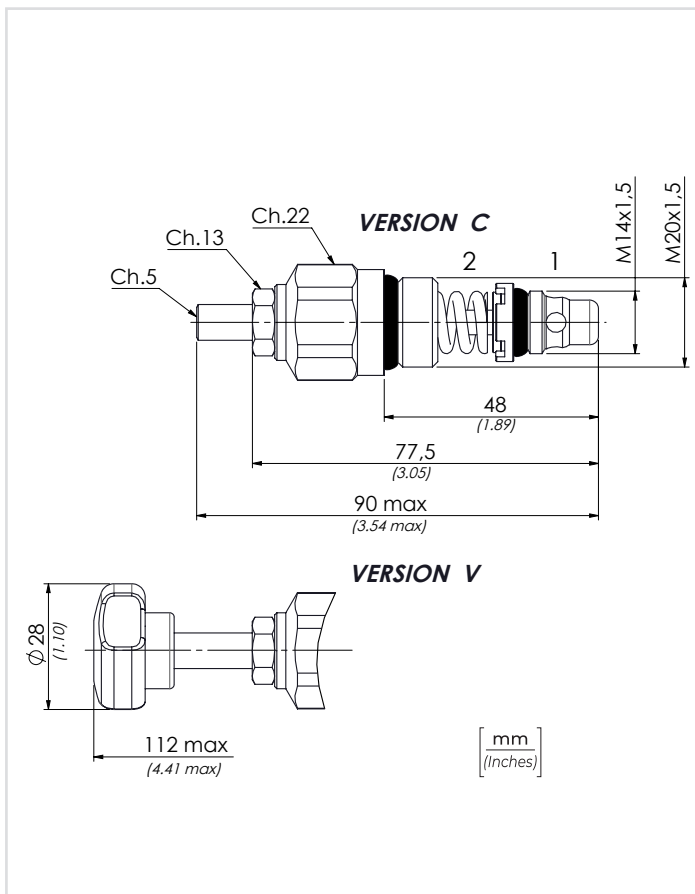
**PERFORMANCES**



**DATI TECNICI / TECHNICAL DATA**

<b>Olio idraulico - Mineral oil</b>	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio - Oil viscosity</b>	<b>15-250 mm²/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio - Oil temperature</b>	<b>-20°C +80°C</b> -4°F +176°F
<b>Temperatura ambiente - Environment temperature</b>	<b>-20°C +50°C</b> -4°F +122°F

È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)  
It is necessary a filter use to protect the valve (advised filtration 15 µm)

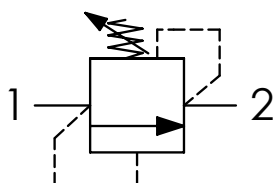


**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	PESO APPROX (kg) APPROX WEIGHT (lb)	COPPIA DI SERRAGGIO TIGHTENING TORQUE Nm-lbt ft	CAVITÀ CAVITY
<b>VMD40S</b>	<b>40</b> (10.6)	<b>350</b> (5075)	<b>0,13</b> (0.29)	<b>M20 40/45</b> (30-34)	<b>C2015/1415/2</b>
				<b>M14 10/15</b> (7-11)	



**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**

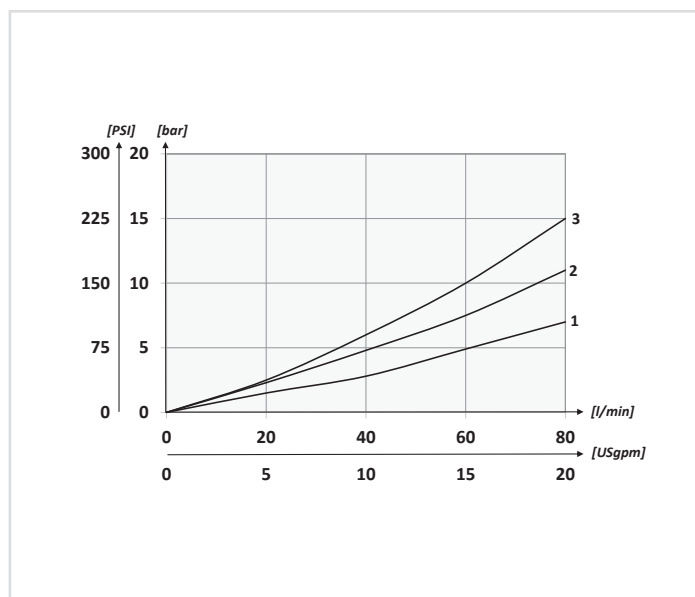


**CODICE ORDINAZIONE**  
ORDERING CODE

01	02	03
<b>VMD90</b>		

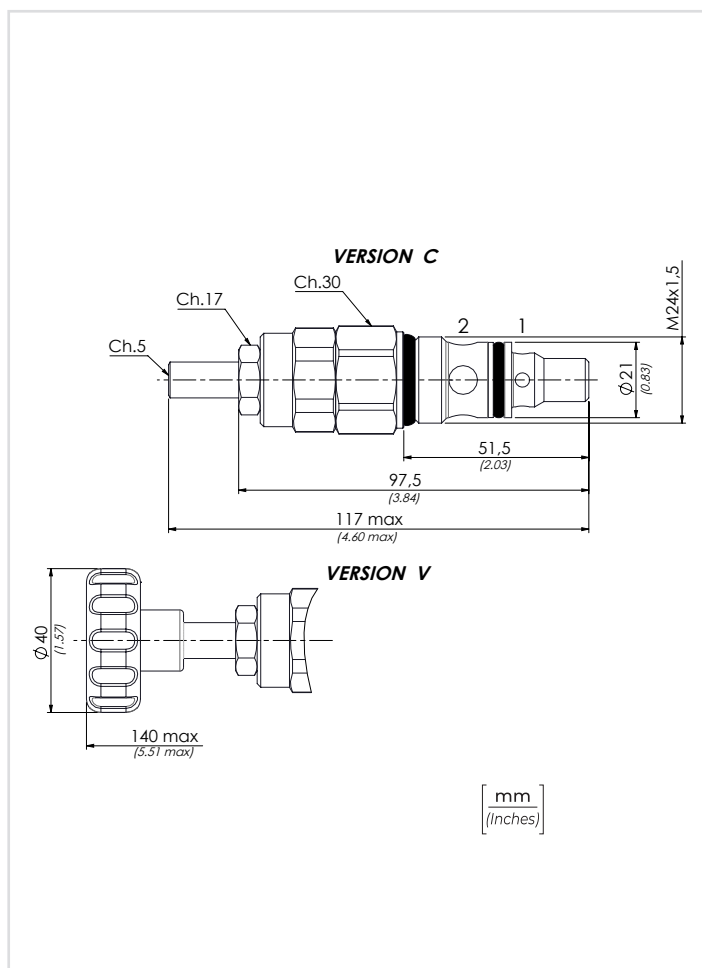
<b>01</b>	VALVOLE LIMITATRICI DI PRESSIONE DIRETTE M24X1,5 (M24X1,5 DIRECT ACTING PRESSURE RELIEF VALVE)		<b>VMD90</b>	
<b>02</b>	REGOLAZIONE (SETTING)	Chiave (Hex socket screw)	Opzione: Tappo piombatura (Optional: Tamper proof cap) <b>81300095</b>	<b>C</b>
		Volantino (Handknob) Tipo (Type) <b>81300023</b>		<b>V</b>
<b>03</b>	MOLLA (SPRING) <b>10/90 bar</b> (145/1305 PSI)	<b>26 bar/al giro</b> (377 PSI/turn)	<b>1</b>	
	MOLLA (SPRING) <b>20/250 bar</b> (290/3625 PSI)	<b>41 bar/al giro</b> (595 PSI/turn)	<b>2</b>	
	MOLLA (SPRING) <b>50/350 bar</b> (725/5075 PSI)	<b>91 bar/al giro</b> (1320 PSI/turn)	<b>3</b>	

**PERFORMANCES**



**DATI TECNICI / TECHNICAL DATA**

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F + 176°F
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b> -4°F + 122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	



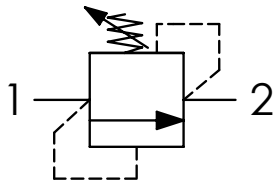
**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	PESO APPROX (kg) APPROX WEIGHT (lbt)	CILINDRATA (cm <sup>3</sup> ) DISPLACEMENT (in <sup>3</sup> )	CAVITÀ CAVITY
<b>VMD90</b>	<b>80</b> (21.1)	<b>350</b> (5075)	<b>0,25</b> (0.55)	<b>60-65</b> (45-49)	<b>C2415/2</b>





**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**

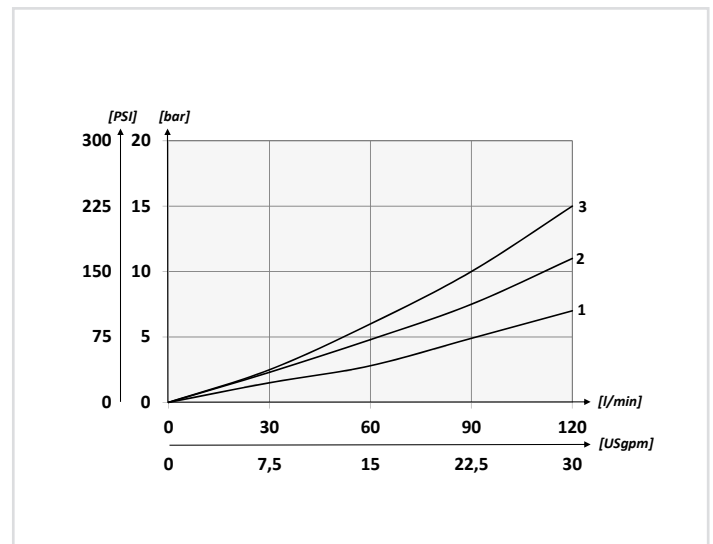


**CODICE ORDINAZIONE**  
ORDERING CODE

	01	02	03
<b>VMD120</b>			

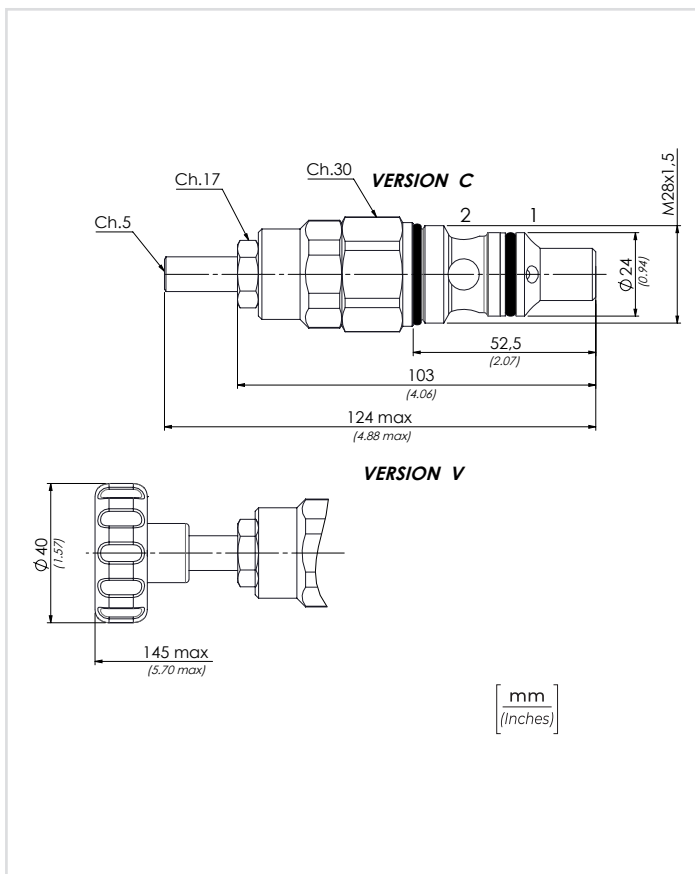
<b>01</b>	VALVOLE LIMITATRICI DI PRESSIONE DIRETTE M28X1,5 (M28X1,5 DIRECT ACTING PRESSURE RELIEF VALVE)	<b>VMD120</b>
<b>02</b>	REGOLAZIONE (SETTING)	Chiave (Hex socket screw)  Opzione: Tappo piombatura (Optional: Tamper proof cap) <b>81300095</b>
		Volantino (Handknob) Tipo (Type) <b>81300023</b>
<b>03</b>	MOLLA (SPRING) <b>10/100 bar</b> (145/1450 PSI)	<b>21 bar/al giro</b> (305 PSI/turn)
	MOLLA (SPRING) <b>20/250 bar</b> (290/3625 PSI)	<b>48 bar/al giro</b> (696 PSI/turn)
	Molla (SPRING) <b>40/350 bar</b> (580/5075 PSI)	<b>55 bar/al giro</b> (798 PSI/turn)

**PERFORMANCES**



**DATI TECNICI / TECHNICAL DATA**

Olio idraulico - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
Viscosità olio - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
Classe di contaminazione max Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
Temperatura dell'olio - Oil temperature	<b>-20°C +80°C</b> -4°F +176°F
Temperatura ambiente - Environment temperature	<b>-20°C +50°C</b> -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	

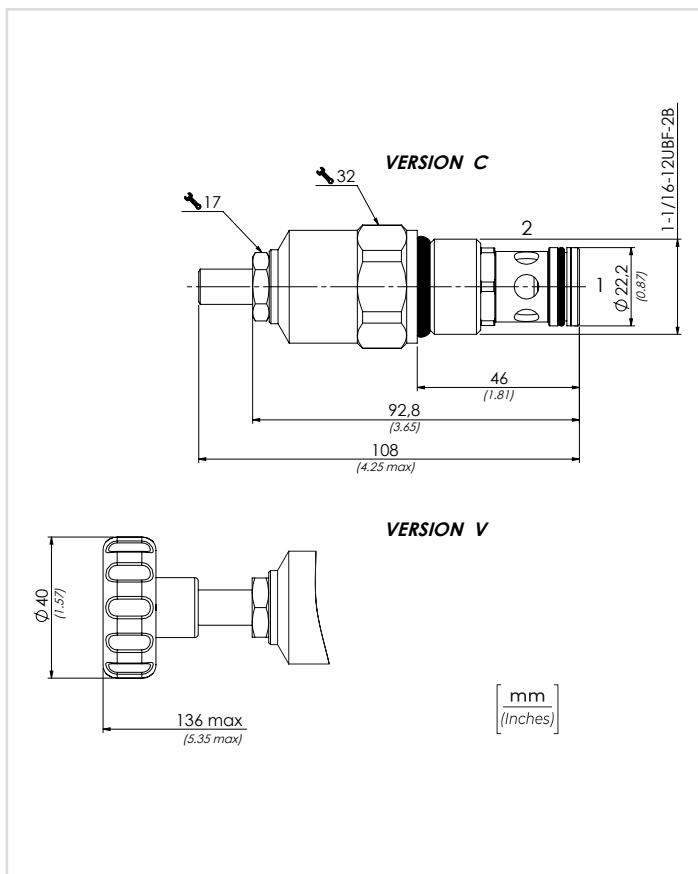
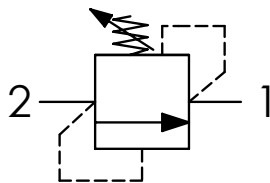


**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	PESO APPROX (kg) APPROX WEIGHT (lbt)	COPPIA DI SERRAGGIO TIGHTENING TORQUE Nm-lbt ft	Cavità Cavity
<b>VMD120</b>	<b>120</b> (31.7)	<b>350</b> (5075)	<b>0,32</b> (0.70)	<b>60-65</b> (45-49)	<b>C2815/2</b>



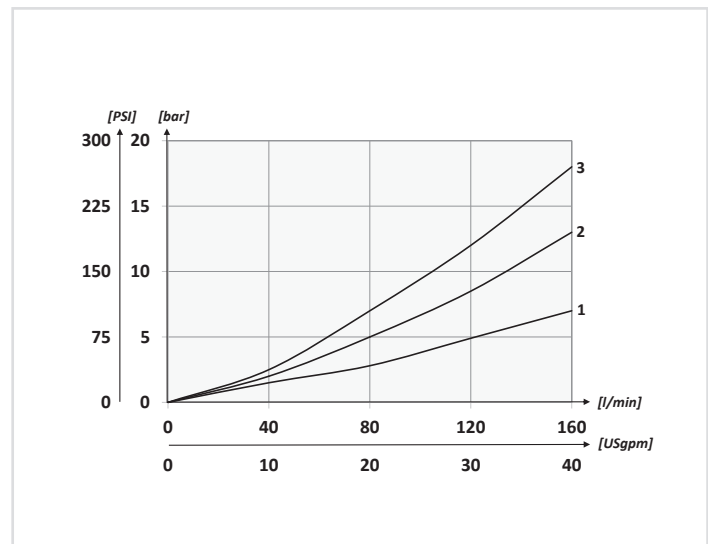
**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



	01	02	03
<b>CODICE ORDINAZIONE</b> ORDERING CODE	<b>VMD160</b>		

<b>01</b>	VALVOLE LIMITATRICI DI PRESSIONE DIRETTA DIRETTA AD AREA DIFFERENZIALE DIRECT ACTING DIFFERENTIAL AREA PRESSURE RELIEF VALVES		<b>VMD160</b>
<b>02</b>	REGOLAZIONE SETTING	Chiave Hex socket screw	Opzione: Tappo piombatura Optional: Tamper proof cap <b>81300095</b>
		Volantino - Handknob Tipo - Type <b>81300127</b>	
<b>03</b>	MOLLA - SPRING <b>10/120 bar (145/1740 PSI)</b>	<b>45 bar/al giro</b> (652.5 PSI/turn)	<b>1</b>
	MOLLA - SPRING <b>100/250 bar (1450/3625 PSI)</b>	<b>60 bar/al giro</b> (870 PSI/turn)	<b>2</b>
	Molla - SPRING <b>190/350 bar (2755/5075 PSI)</b>	<b>90 bar/al giro</b> (1305 PSI/turn)	<b>3</b>

**PERFORMANCES**



**DATI TECNICI / TECHNICAL DATA**

Oilio idraulico - Mineral oil	<b>ISO 6743/4 (DIN 51524)</b>
Viscosità olio - Oil viscosity	<b>15-250 mm²/s (15 to 250 cSt)</b>
Classe di contaminazione max con filtro Max contamination index with filter	<b>ISO 4406:1999 Classe 19/17/14</b>
Temperatura dell'olio - Oil temperature	<b>-20°C +80°C -4°F +176°F</b>
Temperatura ambiente - Environment temperature	<b>-20°C +50°C -4°F +122°F</b>
<b>È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)</b> It is necessary a filter use to protect the valve (advised filtration 15 µm)	

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	PESO APPROX (kg) APPROX WEIGHT (lbt)	COPPIA DI SERRAGGIO TIGHTENING TORQUE Nm-lbt ft	Cavità Cavity
<b>VMD160</b>	<b>160 (42.3)</b>	<b>380 (5510)</b>	<b>0,35 (0.77)</b>	<b>60-65 (45-49)</b>	<b>SAE12/2</b>



		01	02
<b>CODICE ORDINAZIONE</b> ORDERING CODE		<b>VPR</b>	
<b>01</b>	VALVOLE DI BLOCCO PILOTATE A SEMPLICE EFFETTO (SINGLE ACTING PILOT CHECK VALVES)		<b>VPR</b>
<b>02</b>	DIMENSIONE (SIZE)	3/4-16UNF	<b>08</b>
		7/8-14UNF	<b>10</b>

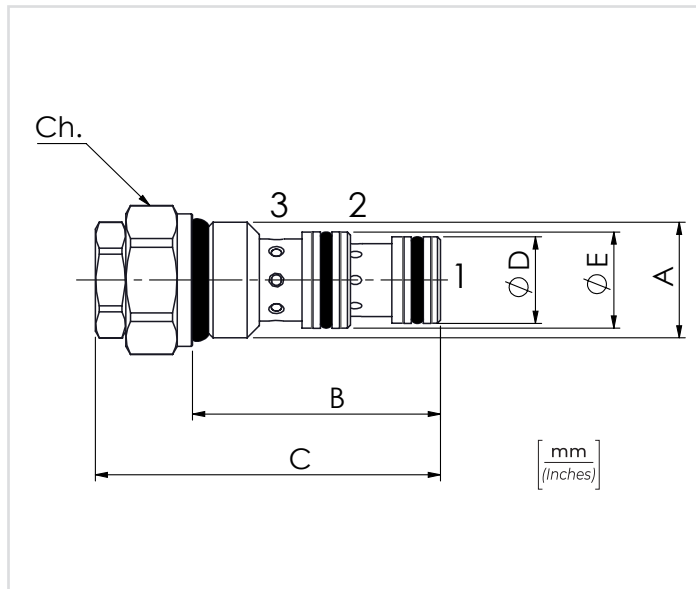
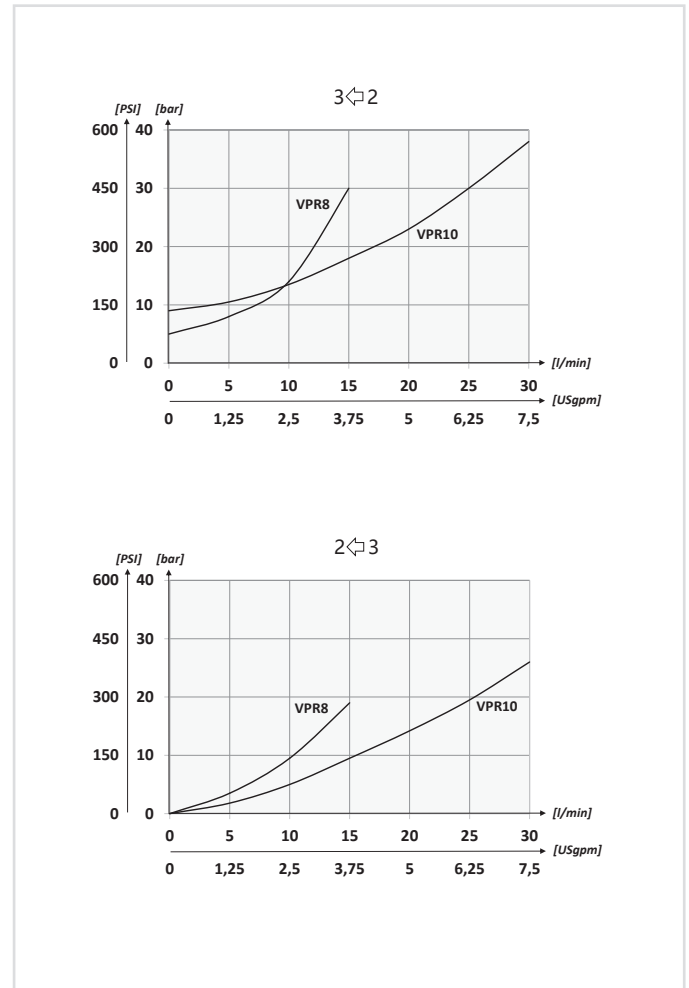
### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### DATI TECNICI / TECHNICAL DATA

Olío idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	

### PERFORMANCES



### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	B	C	D	E	PESO APPROX APPROX WEIGHT kg-lbt	COPPIA DI SERRAGGIO TIGHTENING TORQUE Nm-lbt ft	RAPPORTO DI PILOTAGGIO PILOT RATIO	CAVITÀ CAVITY	Ch. Key
VPR08	3/4-16UNF	15 (4)	350 (5075)	41 (1.61)	57 (2.24)	14,2 (0.56)	15,8 (0.62)	0,09 (0.19)	25-30 (19-22)	1:2.5	SAE8/3	22
VPR10	7/8 - 14UNF	30 (7.9)		47 (1.85)	59 (2.32)	15,8 (0.62)	17,4 (0.69)	0,11 (0.25)			41-47 (30-35)	SAE10/3

	01	02	03	04
<b>CODICE ORDINAZIONE</b> ORDERING CODE	<b>VPR</b>	<b>22</b>	<b>SP</b>	

<b>01</b>	VALVOLE DI BLOCCO PILOTATE M22X1,5 A SEMPLICE EFFETTO (M22X1,5 SINGLE ACTING PILOT CHECK VALVES)	<b>VPR</b>
<b>02</b>	DIMENSIONE (SIZE)	M22x1,5
<b>03</b>	TENUTA (SEALING)	Tenuta ad otturatore (Poppet sealing)
<b>04</b>	MOLLA (SPRING)	5 bar (72,5 PSI)
		8 bar (116 PSI)



### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT

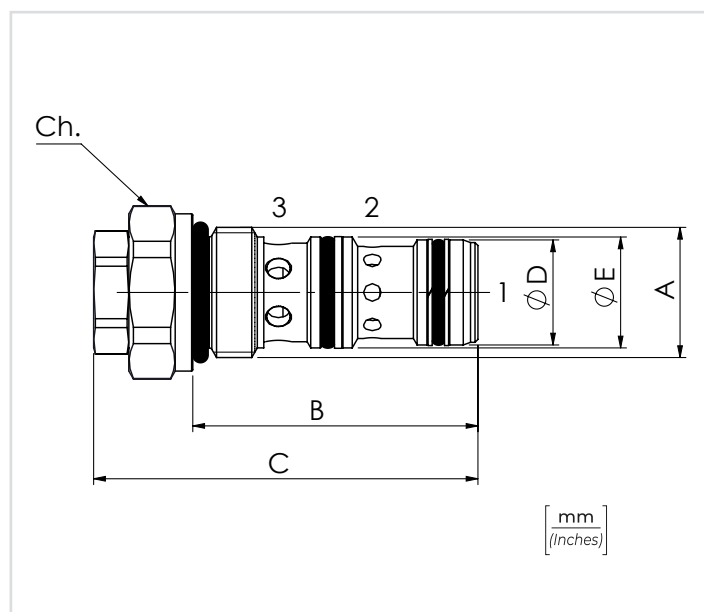
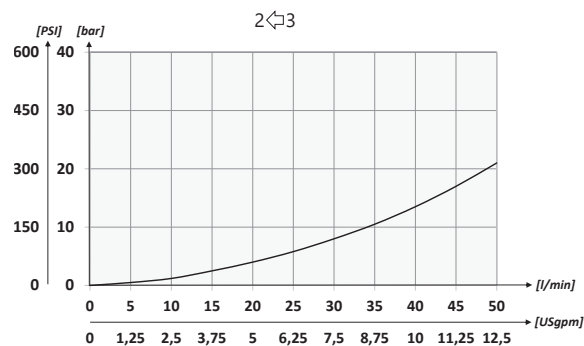
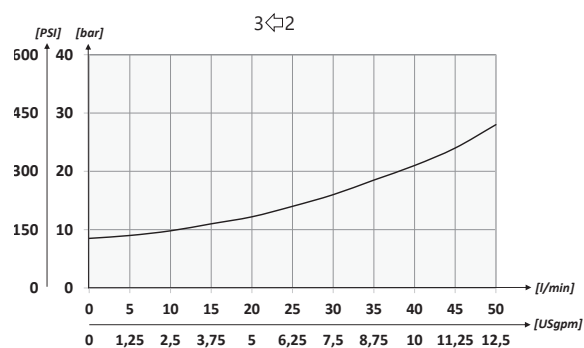


### DATI TECNICI / TECHNICAL DATA

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F + 176°F
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b> -4°F + 122°F

È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)  
It is necessary a filter use to protect the valve (advised filtration 15 µm)

### PERFORMANCES



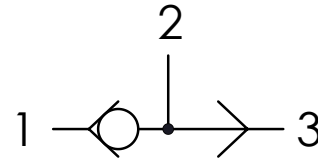
### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	B	C	D	E	PESO APPROX APPROX WEIGHT kg-lbt	COPPIA DI SERRAGGIO TIGHTENING TORQUE Nm-lbt ft	RAPPORTO DI PILOTAGGIO PILOT RATIO	CAVITÀ CAVITY	Ch. Key
VPR22	M22x1,5	50 (13,3)	350 (5075)	48,6 (1.91)	65,5 (2.58)	17,9 (0.70)	18,9 (0.74)	0,14 (0.30)	44-50 (32-37)	1:2.5	C2215/3	27

		01	02
<b>CODICE ORDINAZIONE</b> ORDERING CODE		<b>SV</b>	
<b>01</b>	VALVOLE SELETTRICI (LOAD SHUTTLE - BALL VALVES)	<b>SV</b>	
<b>02</b>	DIMENSIONE (SIZE)	3/4-16UNF	<b>08</b>
		7/8-14UNF	<b>10</b>



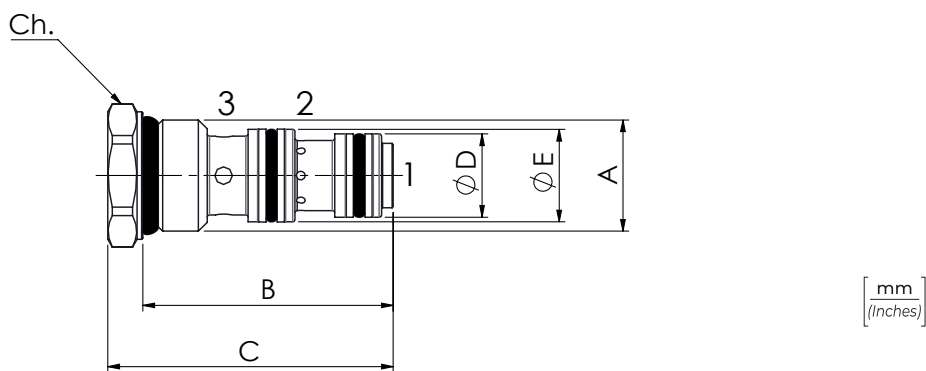
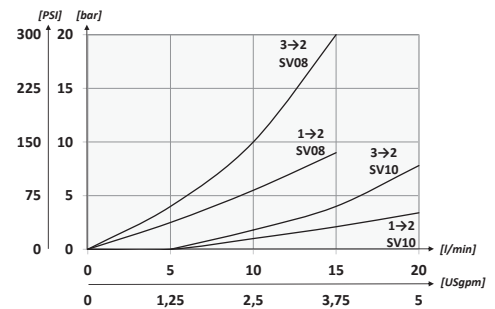
**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**DATI TECNICI / TECHNICAL DATA**

Olío idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	

**PERFORMANCES**



**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	U	V	D	E	PESO APPROX APPROXWEIGHT kg-lbt	COPPIA DI SERRAGGIO TIGHTENING TORQUE Nm-lbt ft	CAVITÀ CAVITY	Ch. Key
SV08	3/4-16UNF	15 (4)	350 (5075)	41 (1.61)	49 (1.93)	14,2 (0.56)	15,8 (0.62)	0,07 (0.15)	25-30 (19-22)	SAE8/3	22
SV10	7/8 - 14UNF	30 (7.9)		47 (1.85)	55 (2.17)	15,8 (0.62)	17,4 (0.69)	0,10 (0.22)	41-47 (30-35)	SAE10/3	27

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# notes

A series of horizontal dotted lines for taking notes.

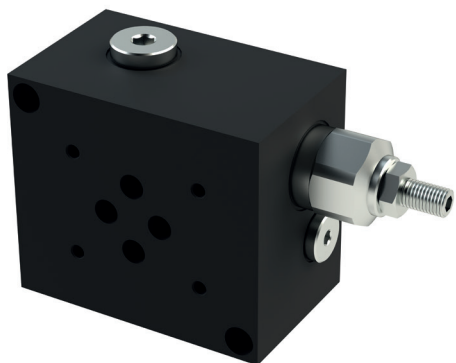
# BASI E BLOCCHI

## HYDRAULIC MANIFOLDS

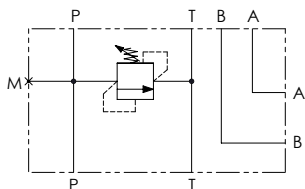
Basi CETOP in alluminio; singole CETOP 3 con porte laterali o posteriori; singole CETOP 5 o multiple con circuito in parallelo; con o senza valvola limitatrice di pressione.

Aluminium Cetop bases; single Cetop 3 with lateral or rear parts; single Cetop 5 on multiple stages with parallel circuit; with or without pressure relief valve.





### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### DATI TECNICI / TECHNICAL DATA

Olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	

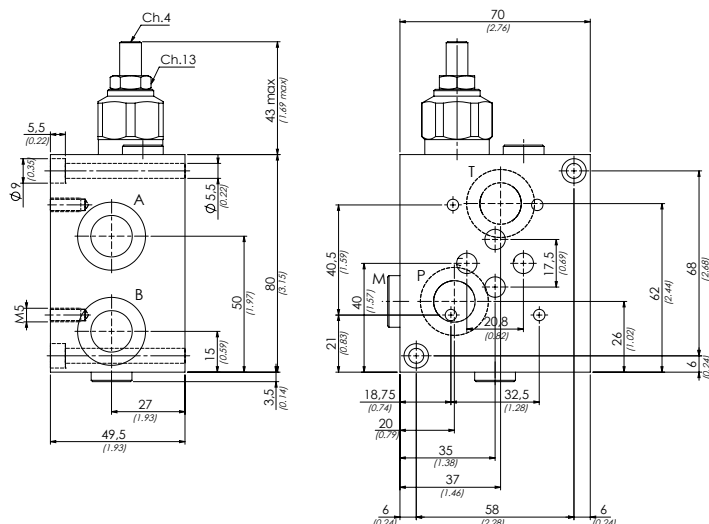
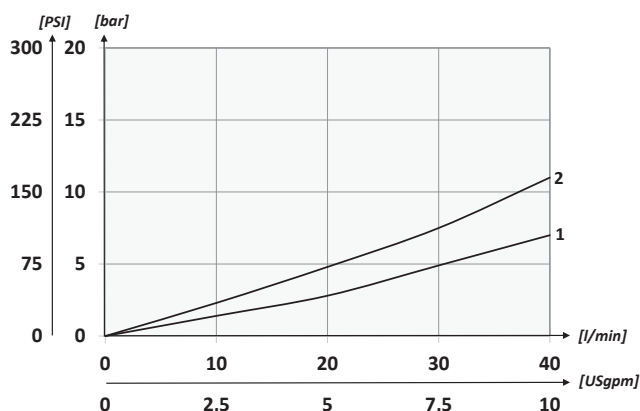
### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO TYPE	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	PESO APPROX APPROX WEIGHT kg-lbt	TIPO DI VALVOLA TYPE OF VALVE
BS3	40 (10.6)	210 (3045)	0,8 (1.76)	VMD40S

	01	02	03
<b>CODICE ORDINAZIONE</b> ORDERING CODE	<b>BS3</b>		

<b>01</b>	BASI SINGOLE CETOP3 IN ALLUMINIO - ATTACCHI LATERALI (ALUMINIUM CETOP3 SINGLE MANIFOLDS - LATERAL PORTS)	<b>BS3</b>	
<b>02</b>	REGOLAZIONE (SETTING)	Chiave (Hex socket screw)	<b>C</b>
		Volantino (Handknob) Tipo (Type) <b>81300109</b>	<b>V</b>
<b>03</b>	MOLLA (SPRING) <b>10/90 bar</b> (145/1305 PSI)	<b>12 bar/al giro</b> (174 PSI/turn)	<b>1</b>
		<b>30 bar/al giro</b> (435 PSI/turn)	<b>2</b>

### PERFORMANCES



### ATTACCHI / PRESSURE DROPS

<b>P-T-A-B</b>	<b>BSP3 3/8</b>
<b>M</b>	<b>BSP3 1/4</b>

**Il blocco in alluminio anodizzato nero può essere utilizzato per pressioni fino a 210 bar (3045 PSI)**

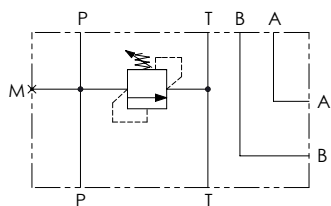
Aluminium manifold black anodized can be suitable for pressures up to 210 bar (3045 PSI)

mm  
(Inches)





### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### DATI TECNICI / TECHNICAL DATA

Olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	

### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

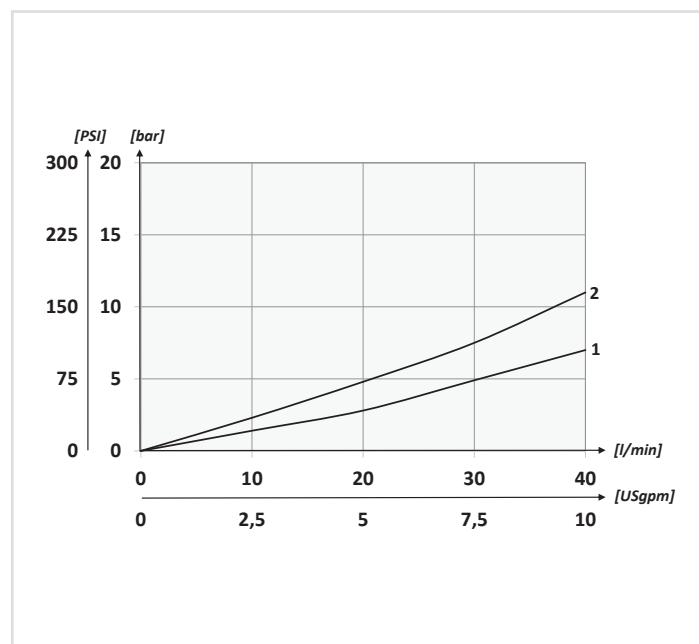
TIPO TYPE	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	PESO APPROX APPROX WEIGHT kg-lbt	TIPO DI VALVOLA TYPE OF VALVE
BP3	40 (10.6)	210 (3045)	0,72 (1.58)	VMD40S

### CODICE ORDINAZIONE ORDERING CODE

01	02	03
<b>BP3</b>		

01	BASI SINGOLE CETOP3 IN ALLUMINIO ATTACCHI POSTERIORI (ALUMINIUM CETOP3 SINGLE MANIFOLDS - REAR PORTS)	<b>BP3</b>
02	REGOLAZIONE (SETTING)	Chiave (Screw)
		Volantino (Handknob) Tipo (Type) <b>81300109</b>
03	MOLLA (SPRING) <b>10/90 bar (145/1305 PSI)</b>	<b>1</b>
	MOLLA (SPRING) <b>20/210 bar (290/3045 PSI)</b>	<b>2</b>

### PERFORMANCES



#### ATTACCHI - PRESSURE DROPS

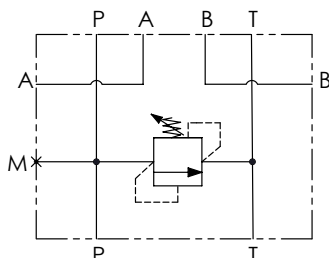
P-T-A-B	BSP3 3/8
M	BSP3 1/4

**Il blocco in alluminio anodizzato nero può essere utilizzato per pressioni fino a 210 bar (3045 PSI)**

Aluminium manifold black anodized can be suitable for pressures up to 210 bar (3045 PSI)



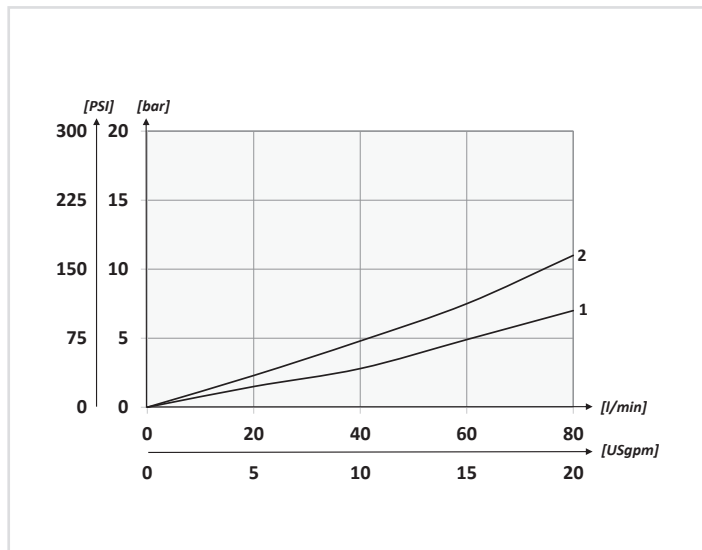
### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### DATI TECNICI / TECHNICAL DATA

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F + 176°F
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b> -4°F + 122°F
<b>È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)</b> It is necessary a filter use to protect the valve (advised filtration 15 µm)	

### PERFORMANCES

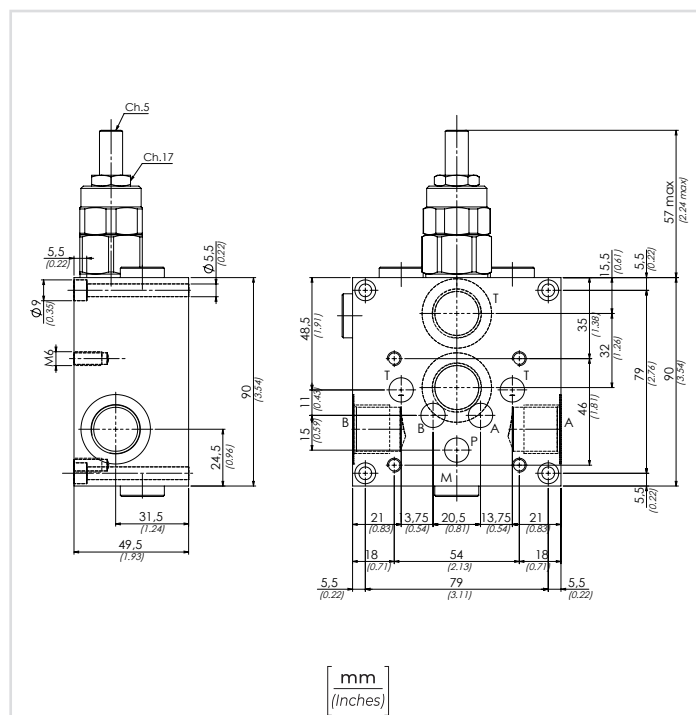


### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO TYPE	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	PESO APPROX APPROX WEIGHT kg-lbt	TIPO DI VALVOLA TYPE OF VALVE
<b>BS5</b>	<b>80</b> (21.1)	<b>210</b> (3045)	<b>1,20</b> (2.64)	<b>VMD90</b>

<b>CODICE ORDINAZIONE</b> ORDERING CODE	01	02	03
<b>BS5</b>			

<b>01</b>	BASI SINGOLE CETOP5 IN ALLUMINIO (ALUMINIUM CETOP5 SINGLE MANIFOLDS)	<b>BS5</b>
<b>02</b>	REGOLAZIONE (SETTING)	Chiave (Screw)
		Volantino (Handknob) Tipo (Type) <b>81300023</b>
<b>03</b>	MOLLA (SPRING) <b>10/100 bar</b> (145/1450 PSI)	<b>23 bar/al giro</b> (334 PSI/turn)
	MOLLA (SPRING) <b>20/210 bar</b> (290/3045 PSI)	<b>40 bar/al giro</b> (580 PSI/turn)



### ATTACCHI / PRESSURE DROPS

<b>P-T-A-B</b>	<b>BSP 1/2</b>
<b>M</b>	<b>BSP 1/4</b>

**Il blocco in alluminio anodizzato nero può essere utilizzato per pressioni fino a 210 bar (3045 PSI)**

Aluminium manifold black anodized can be suitable for pressures up to 210 bar (3045 PSI)



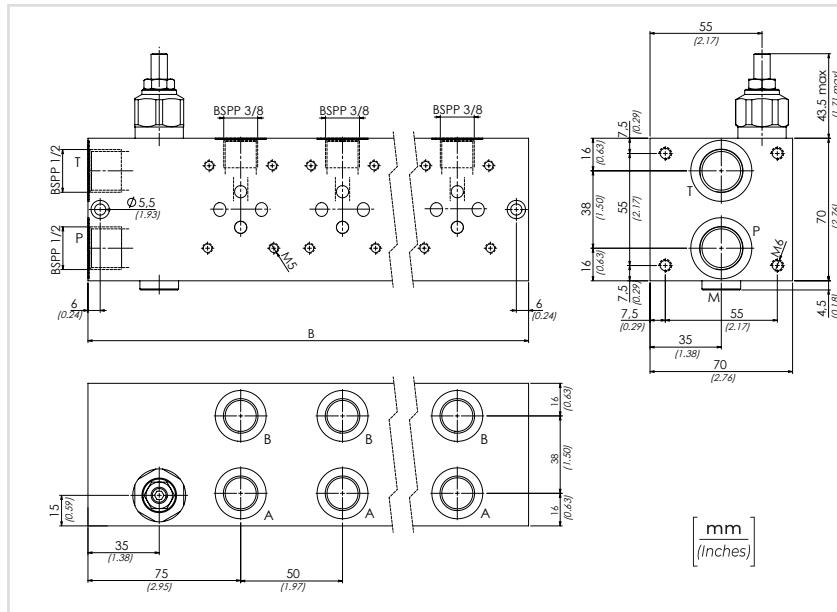
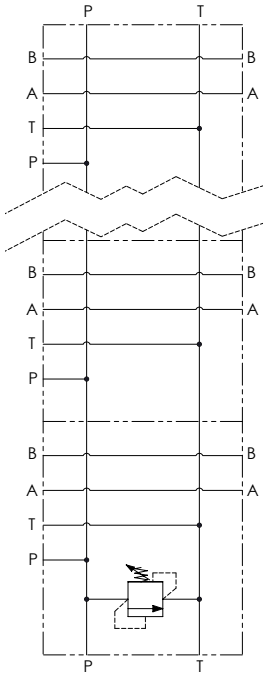
01 02 03 04 05

**CODICE ORDINAZIONE**  
ORDERING CODE

<b>BM</b>		<b>A</b>		
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<b>01</b>	BASI SI IN PARALLELO IN ALLUMINIO UTILIZZI LATERALI CON VALVOLA DI MASSIMA (ALUMINIUM PARALLEL MULTIPLE MANIFOLDS - LATERAL PORTS WITH RELIEF VALVES)	<b>BM</b>
<b>02</b>	NUMERO DI STAZIONI (NUMBER OF STATIONS)	<b>2</b> <b>3</b> <b>4</b> <b>5</b> <b>6</b> <b>7</b> <b>8</b>
<b>03</b>	ALLUMINIO (ALUMINIUM)	<b>A</b>
<b>04</b>	REGOLAZIONE (SETTING)	Chiave (Screw) Volantino (Handknob) Tipo (Type) <b>81300109</b> <b>C</b> <b>V</b>
<b>05</b>	MOLLA (SPRING) <b>10/90 bar</b> (145/1305 PSI)	<b>12 bar/al giro</b> (174 PSI/turn) <b>1</b>
	MOLLA (SPRING) <b>20/210 bar</b> (290/3045 PSI)	<b>30 bar/al giro</b> (435 PSI/turn) <b>2</b>

**SCHEMA IDRAULICO**  
HYDRAULIC CIRCUIT



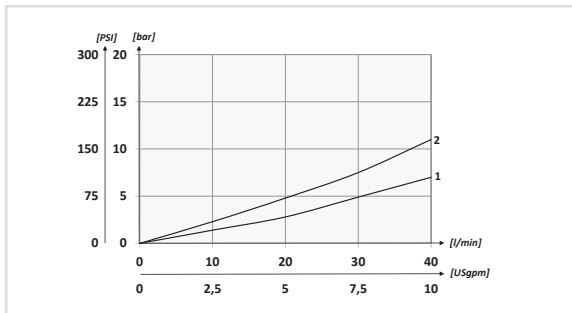
**ATTACCHI**  
PRESSURE DROPS

<b>P-T</b>	<b>BSPP 1/2</b>
<b>M</b>	<b>BSPP 1/4</b>
<b>A-B</b>	<b>BSPP 3/8</b>

**Il blocco in alluminio anodizzato nero può essere utilizzato per pressioni fino a 210 bar (3045 PSI)**

Aluminium manifold black anodized can be suitable for pressures up to 210 bar (3045 PSI)

**PERFORMANCES**



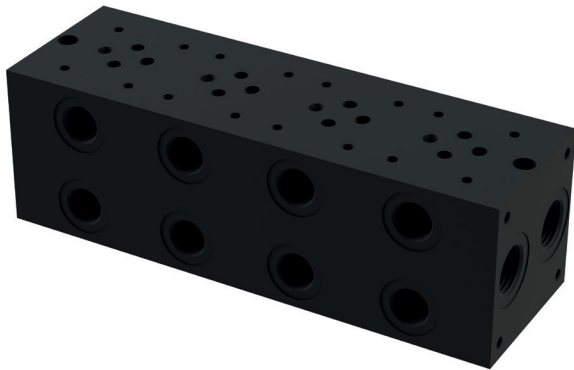
**DATI TECNICI / TECHNICAL DATA**

<b>Olio idraulico - Mineral oil</b>	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio - Oil viscosity</b>	<b>15-250 mm²/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio - Oil temperature</b>	<b>-20°C +80°C</b> -4°F + 176°F
<b>Temperatura ambiente - Environment temperature</b>	<b>-20°C +50°C</b> -4°F + 122°F

**È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)**  
It is necessary a filter use to protect the valve (advised filtration 15 µm)

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	N. DI STAZIONI N. OF STATIONS	B	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	PESO APPROX (kg) APPROX WEIGHT (lbt)	TIPO DI VALVOLA TYPE OF VALVE
<b>BM2-RV</b>	<b>2</b>	<b>160</b> (6.30)	<b>40</b> (10.6)	<b>210</b> (3045)	<b>2,1</b> (4.6)	<b>VMD40S</b>
<b>BM3-RV</b>	<b>3</b>	<b>210</b> (8.27)			<b>2,7</b> (6)	
<b>BM4-RV</b>	<b>4</b>	<b>260</b> (10.24)			<b>3,3</b> (7.3)	
<b>BM5-RV</b>	<b>5</b>	<b>310</b> (12.20)			<b>3,9</b> (8.6)	
<b>BM6-RV</b>	<b>6</b>	<b>360</b> (14.17)			<b>4,5</b> (10)	
<b>BM7-RV</b>	<b>7</b>	<b>410</b> (16.14)			<b>5,3</b> (11,7)	
<b>BM8-RV</b>	<b>8</b>	<b>460</b> (18.11)			<b>5,9</b> (13)	

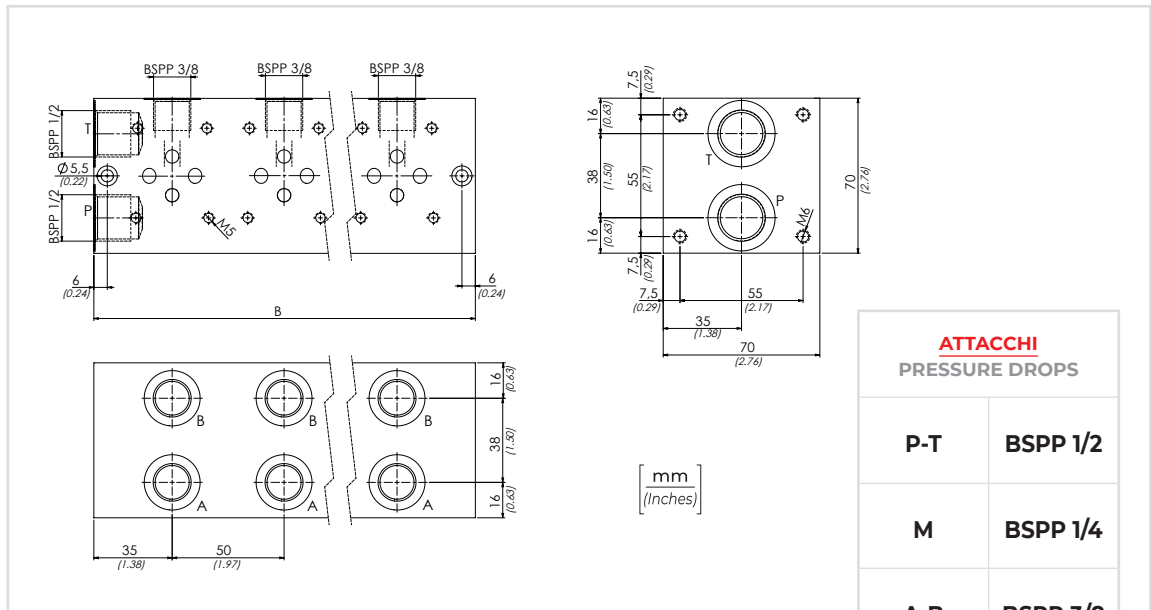
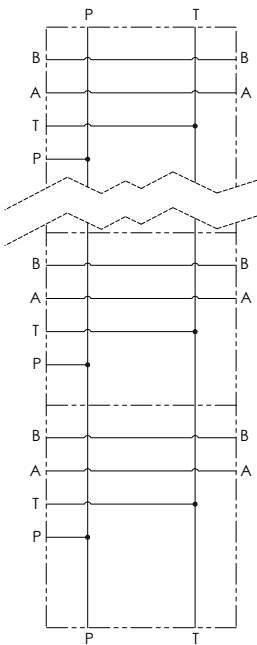


**CODICE ORDINAZIONE**  
ORDERING CODE

01	02	03
<b>BM</b>		<b>A</b>

<b>01</b>	BASI MULTIPLE IN PARALLELO IN ALLUMINIO UTILIZZI LATERALI SENZA VALVOLA DI MASSIMA (ALUMINIUM PARALLEL MULTIPLE MANIFOLDS - LATERAL PORTS WITHOUT RELIEF VALVES)	<b>BM</b>
<b>02</b>	NUMERO DI STAZIONI (NUMBER OF STATIONS)	<b>2</b>
		<b>3</b>
		<b>4</b>
		<b>5</b>
		<b>6</b>
		<b>7</b>
<b>8</b>		
<b>03</b>	ALLUMINIO (ALUMINIUM)	<b>A</b>

**SCHEMA IDRAULICO**  
HYDRAULIC CIRCUIT



**ATTACCHI**  
PRESSURE DROPS

<b>P-T</b>	<b>BSPP 1/2</b>
<b>M</b>	<b>BSPP 1/4</b>
<b>A-B</b>	<b>BSPP 3/8</b>

**DATI TECNICI / TECHNICAL DATA**

<b>Olio idraulico - Mineral oil</b>	<b>ISO 6743/4 (DIN 51524)</b>
<b>Viscosità olio - Oil viscosity</b>	<b>15-250 mm<sup>2</sup>/s (15 to 250 cSt)</b>
<b>Classe di contaminazione max Max contamination index</b>	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio - Oil temperature</b>	<b>-20°C +80°C -4°F +176°F</b>
<b>Temperatura ambiente - Environment temperature</b>	<b>-20°C +50°C -4°F +122°F</b>
<b>È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)</b>	

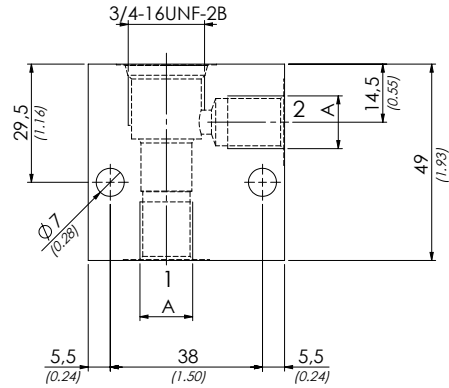
**Il blocco in alluminio anodizzato nero può essere utilizzato per pressioni fino a 210 bar (3045 PSI)**

Aluminium manifold black anodized can be suitable for pressures up to 210 bar (3045 PSI)

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	N. DI STAZIONI N. OF STATIONS	B	PORTATA MAX (l/min) MAX FLOW (USgpm)	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	PESO APPROX (kg) APPROX WEIGHT (lb)
<b>BM2</b>	<b>2</b>	<b>120 (4.72)</b>	<b>40 (10.6)</b>	<b>210 (3045)</b>	<b>1,5 (3.30)</b>
<b>BM3</b>	<b>3</b>	<b>170 (6.69)</b>			<b>2,1 (4.62)</b>
<b>BM4</b>	<b>4</b>	<b>220 (8.66)</b>			<b>2,7 (5.95)</b>
<b>BM5</b>	<b>5</b>	<b>270 (10.63)</b>			<b>3,3 (7.27)</b>
<b>BM6</b>	<b>6</b>	<b>320 (12.60)</b>			<b>3,9 (8.59)</b>
<b>BM7</b>	<b>7</b>	<b>370 (14.57)</b>			<b>4,6 (10.12)</b>
<b>BM8</b>	<b>8</b>	<b>320 (18.53)</b>			<b>5,2 (11.44)</b>

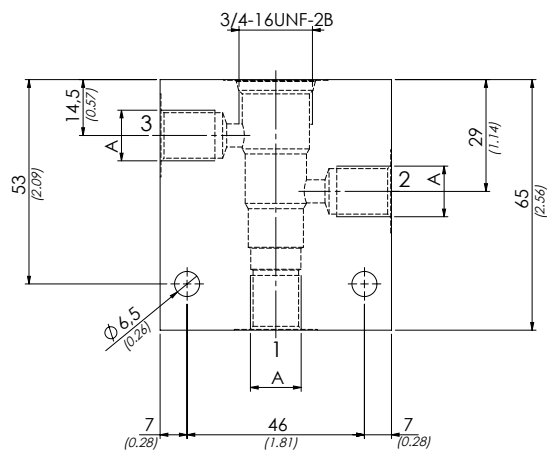
## SAE8/2



[ mm ]  
[ inches ]

CODICE - CODE	MATERIALE - MATERIAL	TRATTAMENTO SUPERFICIALE SURFACE TREATMENT	A	PRESSIONE MAX (BAR) MAX PRESSURE (PSI)	PESO APPROX (KG) APPROX WEIGHT (LBT)
62200032	Acciaio - Steel	Zincatura - Zinc-plating	BSPP 1/4	350 (5075)	0,44 (0.97)
62200051			BSPP 3/8		0,43 (0.95)
62200369	Alluminio - Aluminium	Anodizzazione nera - Black anodized	BSPP 1/4	210 (3045)	0,17 (0.37)
62200370			BSPP 3/8		0,16 (0.33)

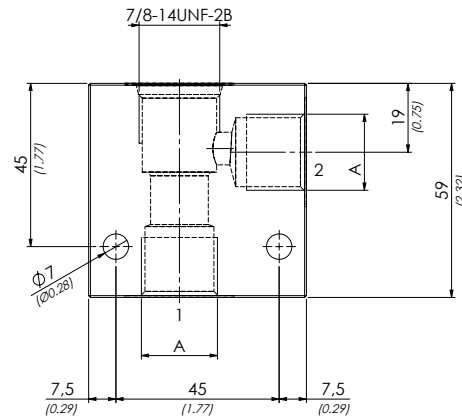
## SAE8/3



[ mm ]  
[ inches ]

CODICE - CODE	MATERIALE - MATERIAL	TRATTAMENTO SUPERFICIALE SURFACE TREATMENT	A	PRESSIONE MAX (BAR) MAX PRESSURE (PSI)	PESO APPROX (KG) APPROX WEIGHT (LBT)
62200357	Alluminio - Aluminium	Anodizzazione nera - Black anodized	BSPP 1/4	210 (3045)	0,28 (0.62)
62200358			BSPP 3/8		0,27 (0.60)

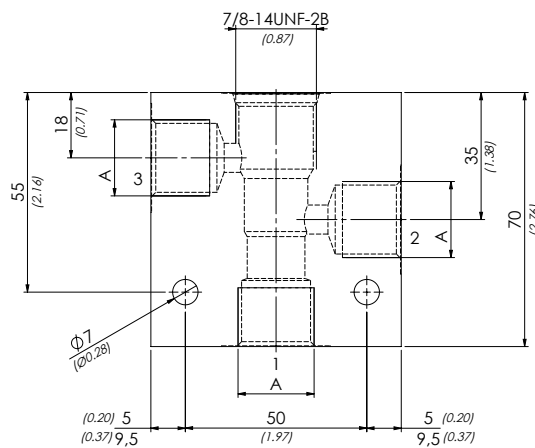
## SAE10/2



mm  
(Inches)

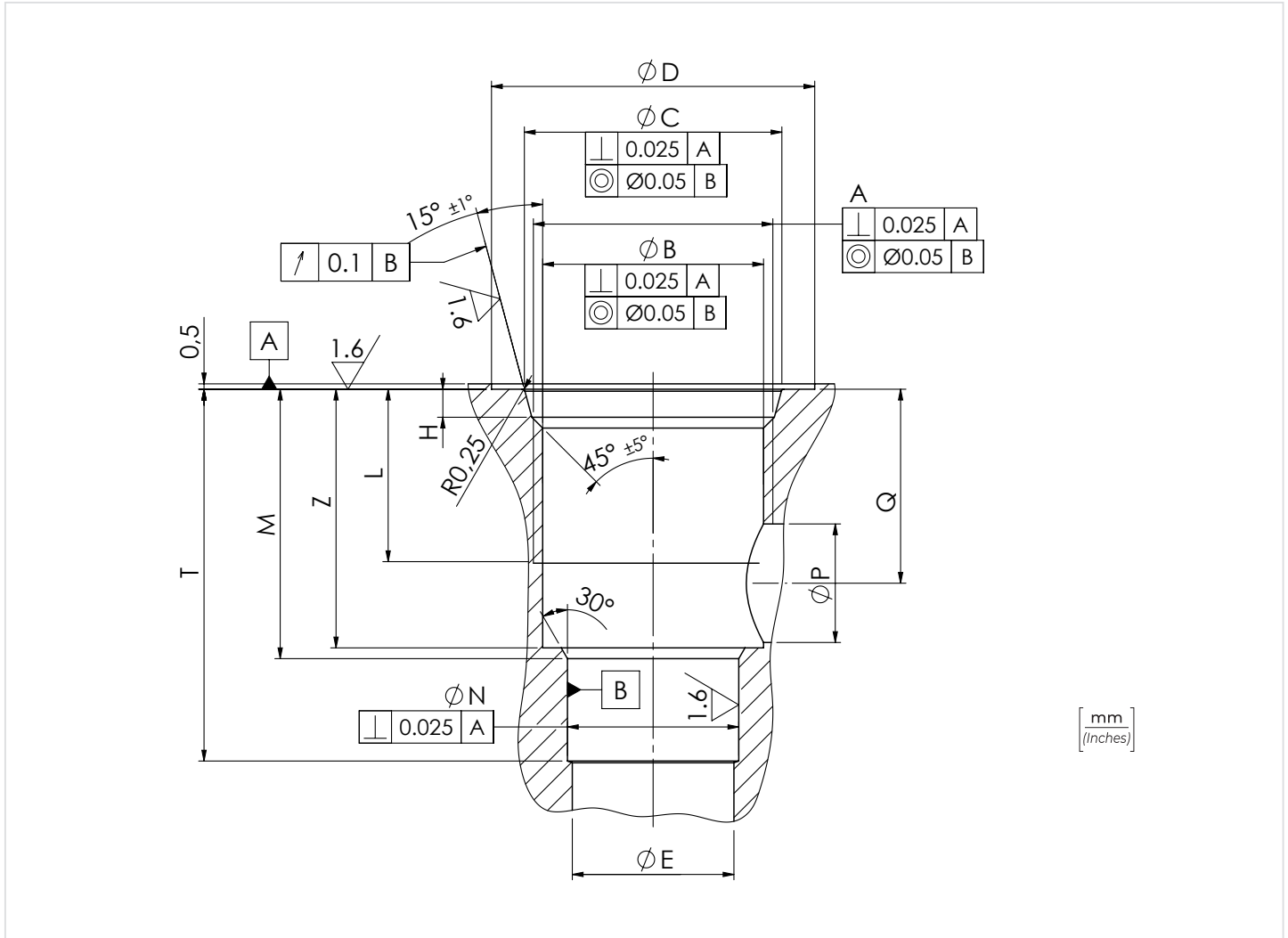
CODICE - CODE	MATERIALE - MATERIAL	TRATTAMENTO SUPERFICIALE SURFACE TREATMENT	A	PRESSIONE MAX (BAR) MAX PRESSURE (PSI)	PESO APPROX (KG) APPROX WEIGHT (LBT)
62200451	Acciaio Steel	Zincatura Zinc-plating	BSPP 3/8	350 (5075)	0,77 (170)
62200452			BSPP 1/2		0,73 (1.61)
62200367	Alluminio Aluminium	Anodizzazione nera Black anodized	BSPP 3/8	210 (3045)	0,29 (0,65)
62200368			BSPP 1/2		0,28 (0,62)

## SAE10/3



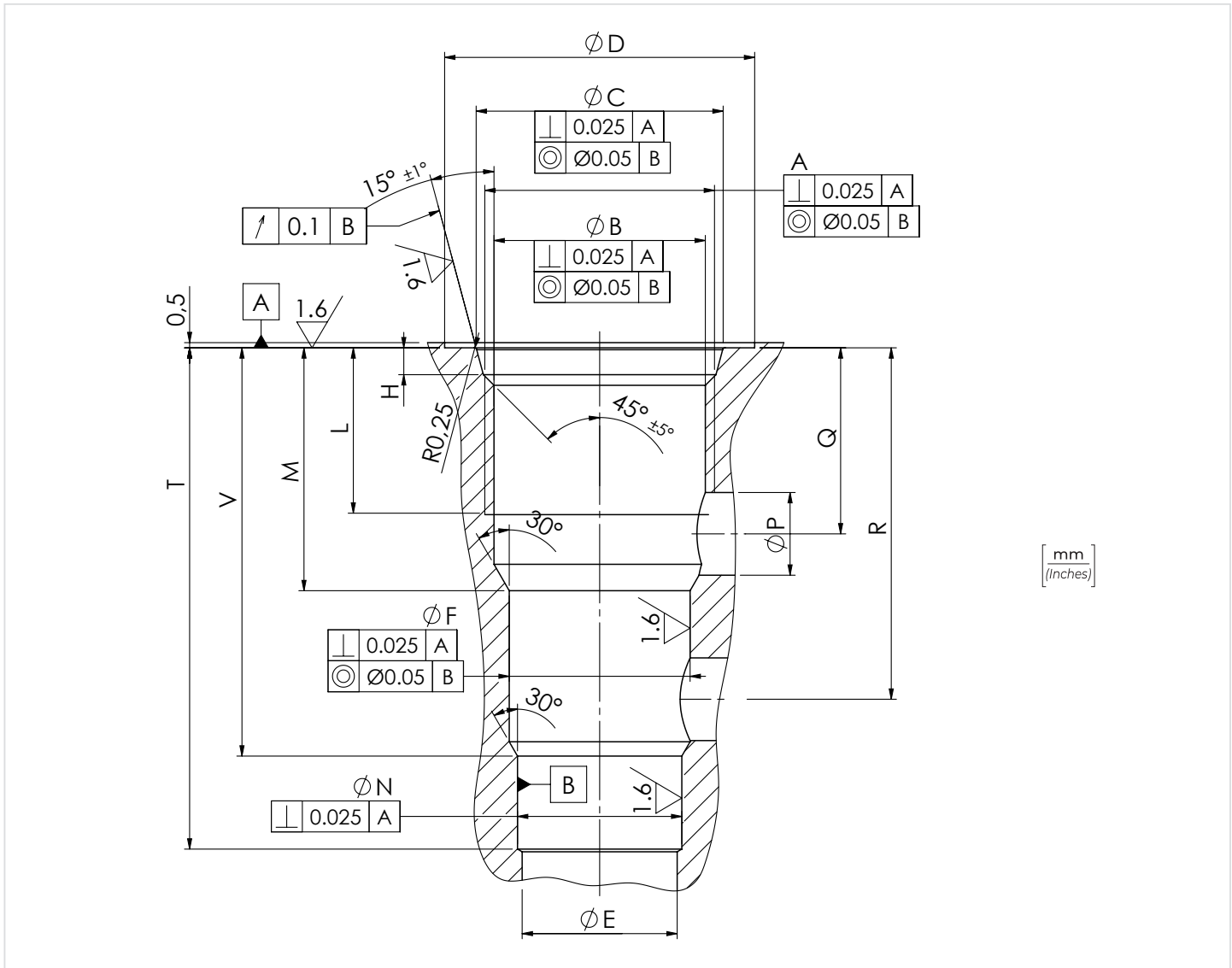
mm  
(Inches)

CODICE - CODE	MATERIALE - MATERIAL	TRATTAMENTO SUPERFICIALE SURFACE TREATMENT	A	PRESSIONE MAX (BAR) MAX PRESSURE (PSI)	PESO APPROX (KG) APPROX WEIGHT (LBT)
62200373	Alluminio Aluminium	Anodizzazione nera Black anodized	BSPP 3/8	210 (3045)	0,26 (0.57)
62200374			BSPP 1/2		0,31 (0,68?)
62200023			BSPP 1/4		0,30 (0,66)



## DIMENSIONI / DIMENSIONS

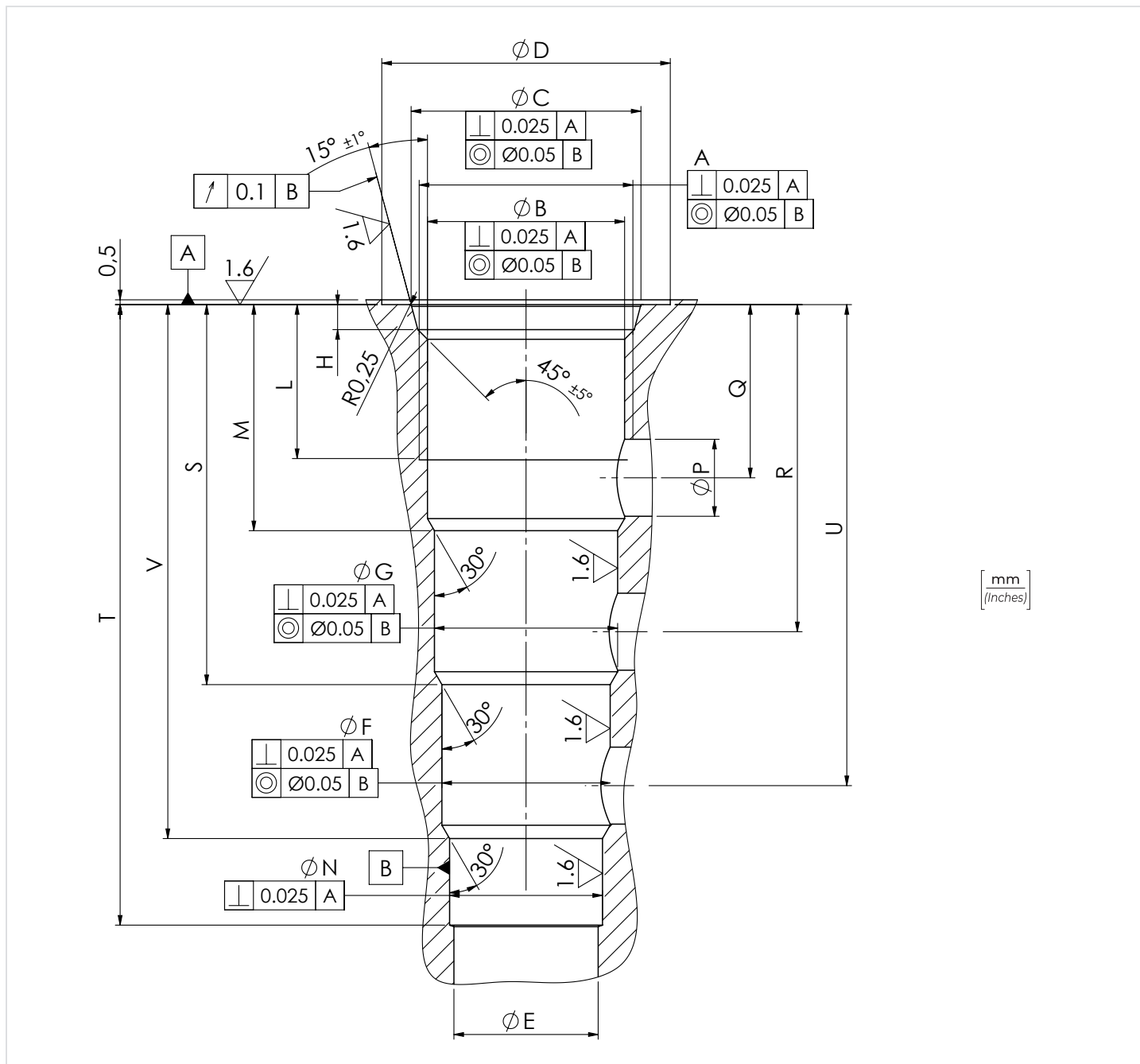
TIPO TYPE	A	B 0 + 0,1	C 0 + 0,1	D 0 + 0,5	Ø E max	H 0 + 0,3	L	M 0 - 0,2	N 0 + 0,05	P	Q	T 0 + 0,5	Z 0 + 0,1
SAE08/2	3/4-16UNF-2B	17,4 0.69	20,6 0.81	27 1.06	12 0.47	2,6 0.10	13 0.51	20,50 0.81	12,7 0.5	9 0.35	14 0.55	19,5 0.77	18,5 0.73
SAE10/2	7/8-14UNF-2B	20,5 0.81	23,9 0.94	30 1.18	15 0.59	2,6 0.10	16 0.63	25,5 1.00	15,9 0.63	11 0.43	18 0.71	34,5 1.36	24 0.94
SAE12/2	1-1/16-12UNF-2B	24,9 0.98	29,2 1.15	38 1.50	19 0.75	3,3 0.13	20 0.79	36,5 1.44	22,2 0.87	14 0.55	26 1.02	48 1.89	35,5 1.40
SAE16/2	1-5/16-12UNF-2B	31,3 1.23	35,5 1.40	45 1.77	24 0.94	3,3 0.13	20 0.79	36 1.42	28,6 1.13	14 0.55	25 0.98	49 1.93	35 1.38



## DIMENSIONI / DIMENSIONS

TIPO TYPE	A	B 0 + 0,1	C 0 + 0,1	D 0 + 0,5	E max	F 0 + 0,05	H 0 + 0,3	L	M 0 - 0,2	N 0 + 0,05	P	Q	R	T 0 + 0,5	V ± 0,1
SAE08/3	3/4-16UNF-2B	17,4 0.69	20,6 0.81	27 1.06	12 0.47	15,9 0.63	2,6 0.10	13 0.51	19,5 0.77	14,3 0.56	6 0.24	15 0.59	29 1.14	43 1.69	33,5 1.32
SAE10/3	7/8-14UNF-2B	20,5 0.81	23,9 0.94	30 1.18	15 0.59	17,5 0.69	2,6 0.10	16 0.63	23,5 0.93	15,9 0.63	8 0.31	18 0.71	34 1.34	48,5 1.91	39,5 1.56
SAE12/3	1-1/16-12UNF-2B	24,9 0.98	29,2 1.15	38 1.50	19 0.75	23,8 0.94	3,3 0.13	20 0.79	36,5 1.44	22,2 0.87	14 0.55	28 1.10	53 2.09	73 2.87	61,5 2.42
SAE16/3	1-5/16-12UNF-2B	31,3 1.23	35,5 1.40	45 1.77	24 0.94	28,6 1.13	3,3 0.13	20 0.79	35,5 1.40	27 1.06	14 0.55	25,5 1,00	54 2.13	75 2.95	64 2.52



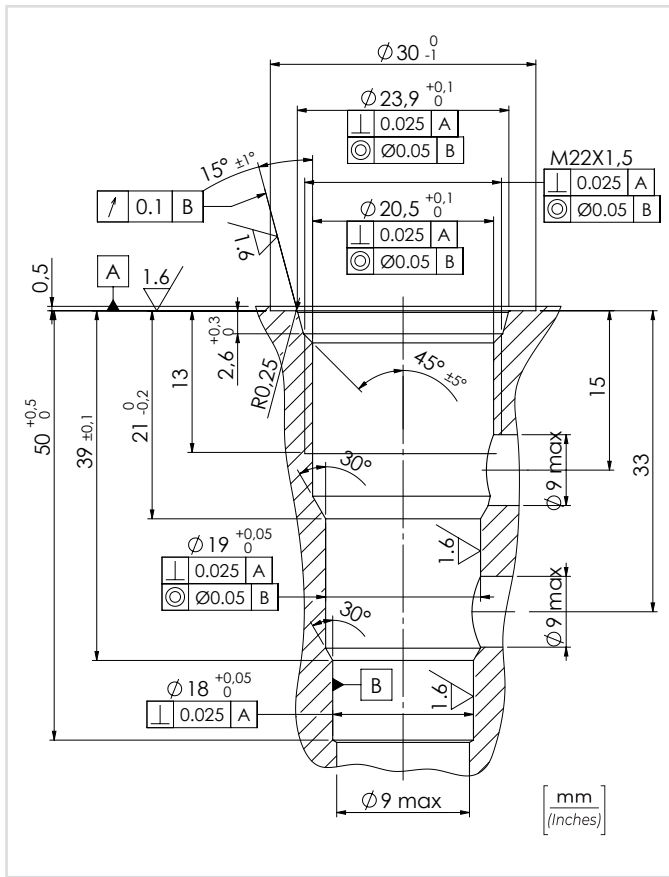


## DIMENSIONI / DIMENSIONS

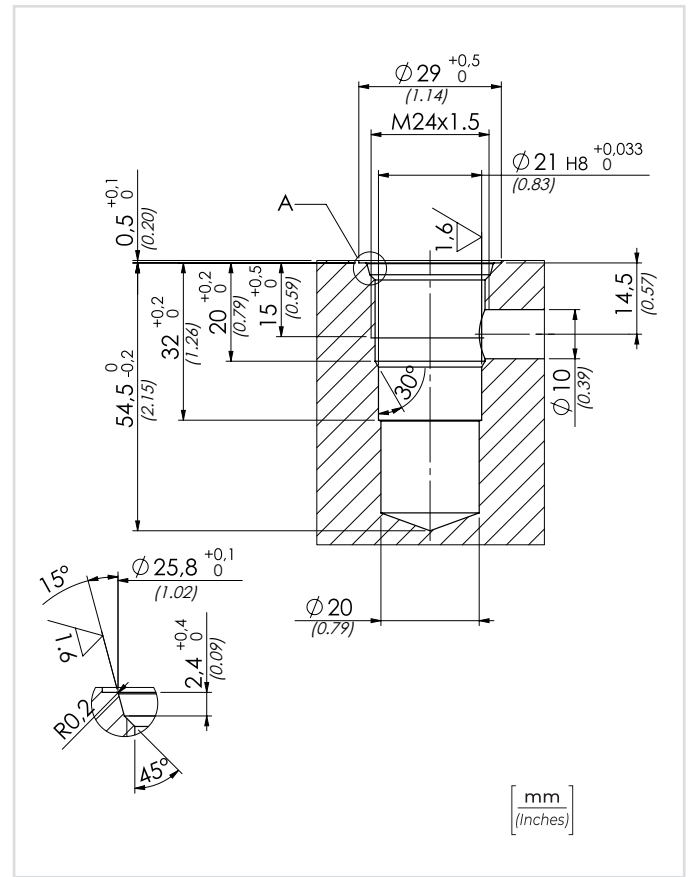
TIPO TYPE	A	B 0 +0,1	C 0 +0,1	D 0 +0,5	E	F 0 +0,05	G 0 +0,05	H 0 +0,3	L	M 0 -0,2	N 0 +0,05	P	Q	R	S ± 0,1	T 0 +0,5	U	V ± 0,1
SAE08/4	3/4-16UNF-2B	17,4 0.69	20,6 0.81	27 1.06	12 0.47	14,3 0.56	15,9 0.63	2,6 0.10	13 0.51	19,5 0.77	12,7 0.50	6 0.24	15 0.59	29 1.14	33,5 1.32	56 2.20	43 1.69	47,5 1.87
SAE10/4	7/8-14UNF-2B	20,5 0.81	23,9 0.94	30 1.18	15 0.59	17,5 0.69	19,05 0.75	2,6 0.10	16 0.63	23,5 0.93	15,9 0.63	8 0.31	18 0.71	34 1.34	39,5 1.56	64,5 2.54	50 1.97	55,5 2.19
SAE12/4	1-1/16-12UNF-2B	24,9 0.98	29,2 1.15	38 1.50	19 0.75	22,2 0.87	23,8 0.94	3,3 0.13	20 0.79	36,5 1.44	20,6 0.81	14 0.55	28 1.1	53 2.09	61,5 2.42	99 3.90	78 3.07	87,5 3.44
SAE16/4	1-5/16-12UNF-2B	31,3 1.23	35,5 1.40	45 1.77	24 0.94	27 1.06	28,6 1.13	3,3 0.13	20 0.79	35,5 1.40	25,4 1.00	16 0.63	25 0.98	53,5 2.11	64 2.52	92,5 3.64	82 3.23	92,5 3.64



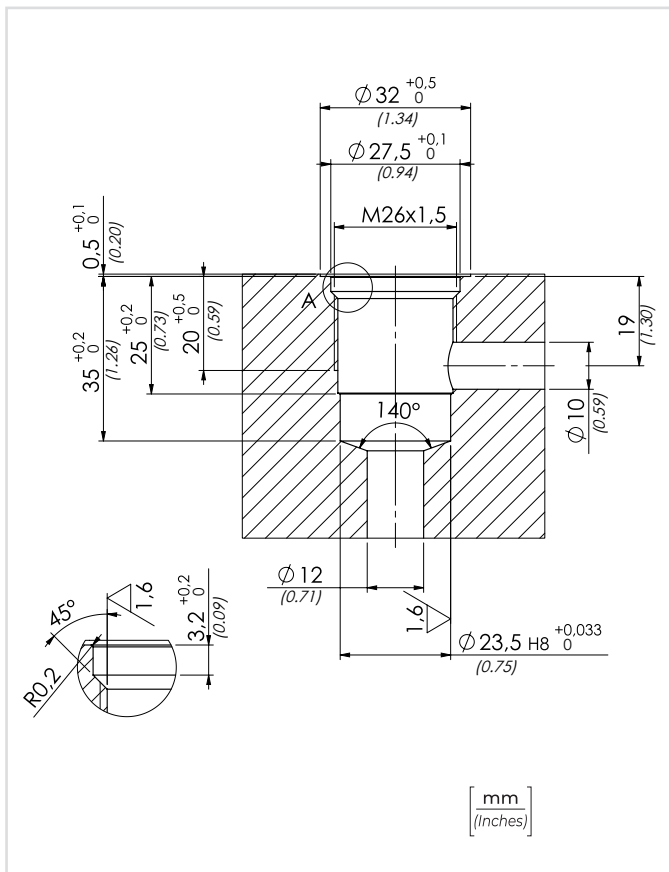
## C2215/3



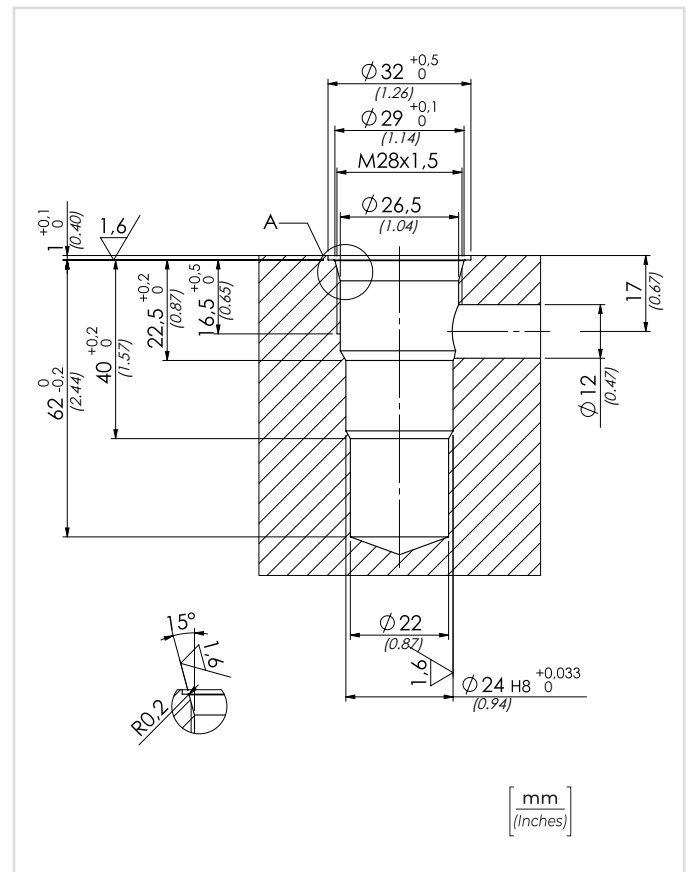
## C2415/2



## C2615/2



## C2815/2



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## notes

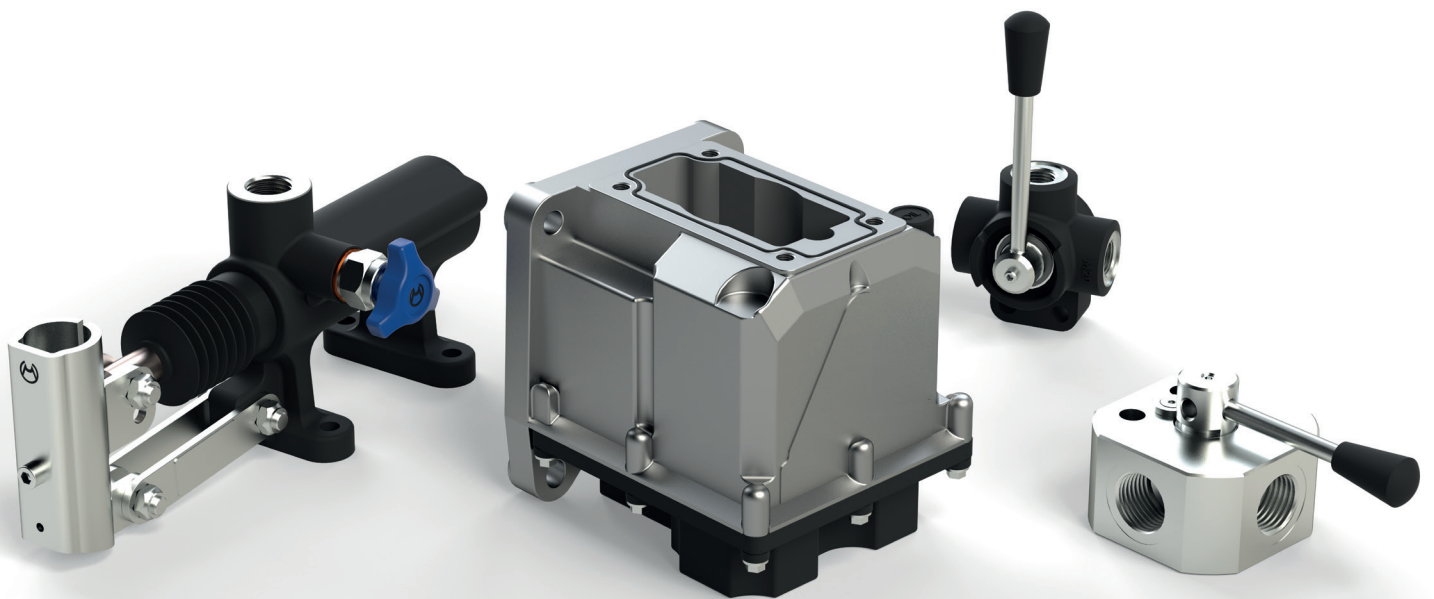
A series of horizontal dotted lines for taking notes.

# POMPE E DEVIATORI

## HAND PUMPS AND FLOW DIVERTERS

Pompe oleodinamiche a mano in diversi layout e cilindrata, serbatoi in acciaio e alluminio, deviatori di flusso a 3 vie, a 4 vie, a 6 vie e a 8 vie.

Hand pump with many layout and displacement, aluminium or steel tanks, flow diverters 3, 4, 6 and 8 ways.





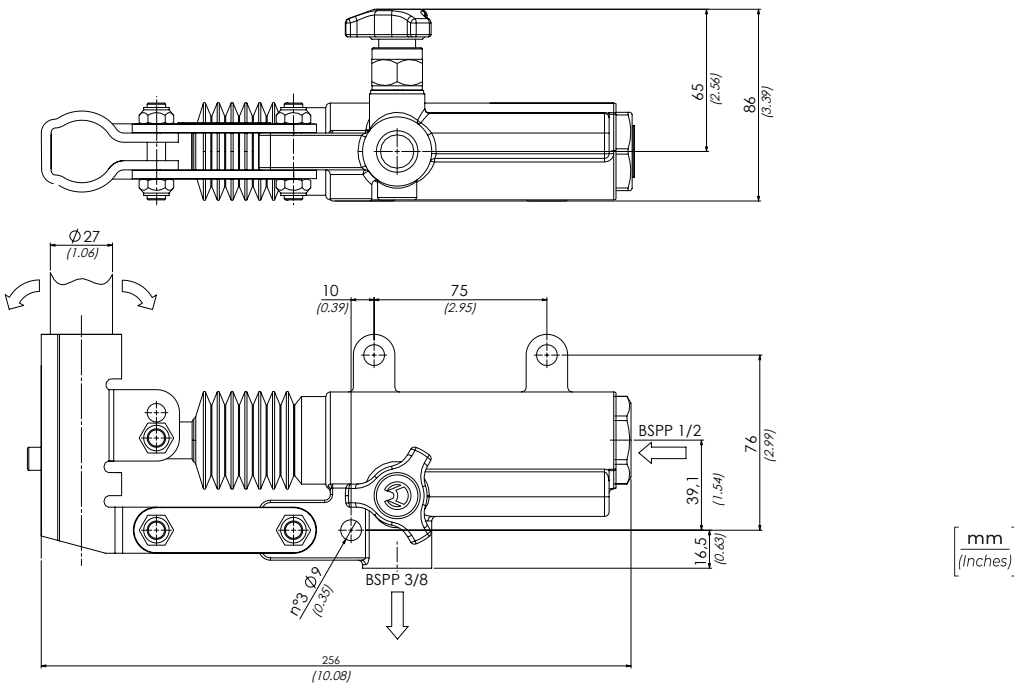
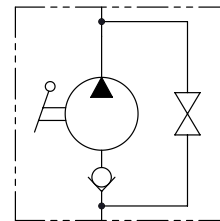
**CODICE ORDINAZIONE**  
ORDERING CODE

01	02	03
<b>PM20</b>		

<b>01</b>		POMPA A MANO SEMPLICE EFFETTO DOUBLE PUMPING HAND PUMP FOR SINGLE ACTING CYLINDER	<b>PM20</b>
<b>02</b>	OPTIONAL	Senza soffietto - Without rubber protection	
		Con soffietto - With rubber protection	<b>P</b>
<b>03</b>	OPTIONAL	Senza rubinetto di scarico con valvola di massima Without unloading valve With relief valves	<b>WRV</b>
		Senza rubinetto di scarico - Without unloading valve	<b>W</b>
		Con joystick - With joystick	<b>J</b>
		Con leva di scarico Ø 27 mm With unloading lever Ø 1.06 inch	<b>L</b>
		Con rubinetto di scarico e valvola di massima With drain valve and relief valve	<b>RRV</b>

LA POMPA VIENE FORNITA CON LEVA DI AZIONAMENTO L=600 mm  
THE PUMP IS SUPPLIED WITH ACTING LEVER 23,6 inch LONG

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



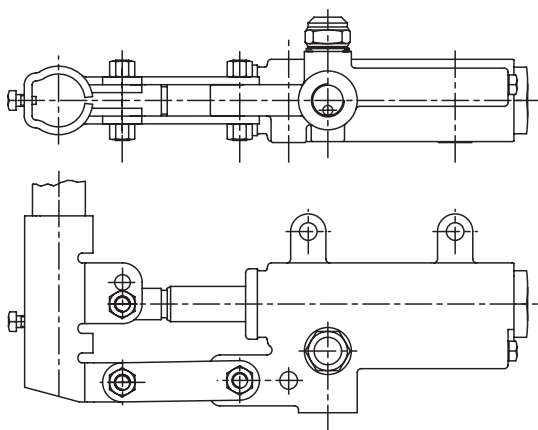
**DATI TECNICI / TECHNICAL DATA**

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F +176°F
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b> -4°F +122°F
<b>È indispensabile la presenza di un filtro nel circuito idraulico per proteggere la valvola (filtrazione consigliata 15 µm)</b> A filter into the hydraulic circuit necessary to protect the valve (advised filtration 15 µm)	

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

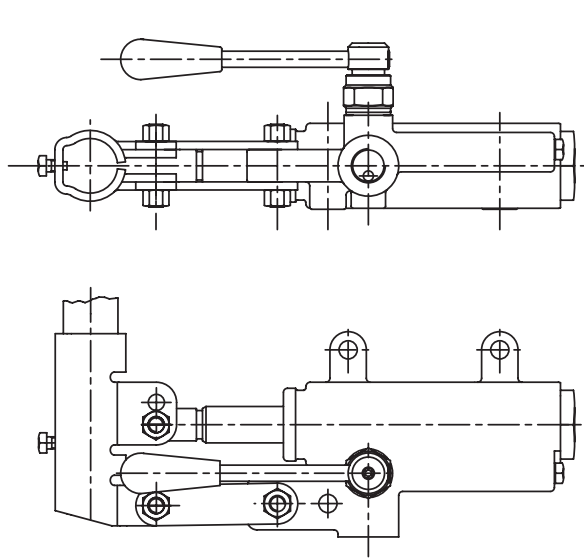
TIPO TYPE	CILINDRATA (cm <sup>3</sup> ) DISPLACEMENT (in <sup>3</sup> )	PRESSIONE OTTIMALE OPTIMAL PRESSURE bar-PSI	PRESSIONE MAX MAX PRESSURE bar-PSI	PESO APPROX APPROX WEIGHT kg-lbt
<b>PM20</b>	<b>20</b> (1.22)	<b>150</b> (2175)	<b>350</b> (5075)	<b>3,4</b> (7.5)

**WRV**

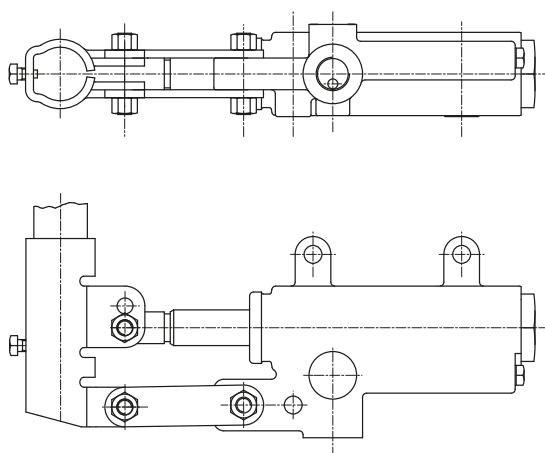


**Valvola di massima**      **Molla 40/350 bar**      **Taratura Standard 100 bar**  
Relief valve                  Spring 580/5075 PSI      Standard Setting 1500 PSI

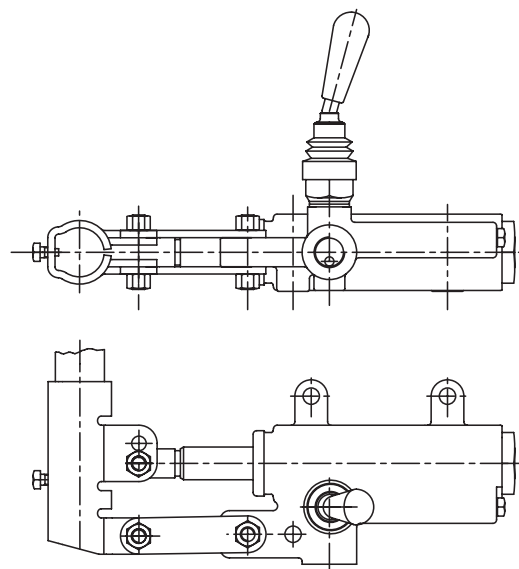
**L**



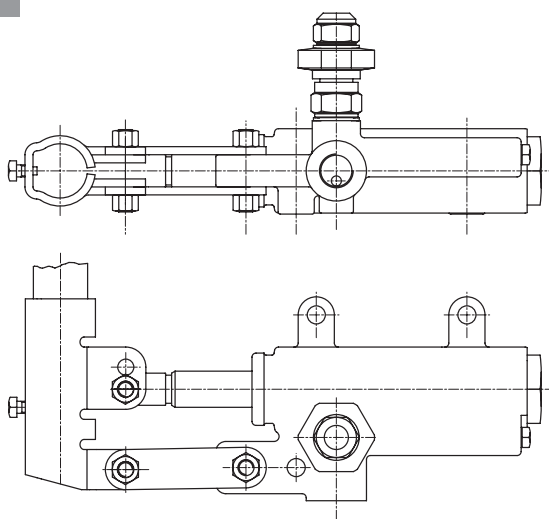
**W**



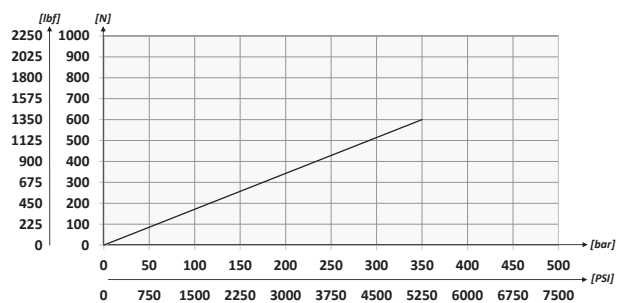
**J**



**RRV**



**SFORZO ESERCITATO ALL'ESTREMITÀ DELLA LEVA**  
**EFFORT OPERATING AT THE END OF THE LEVER**





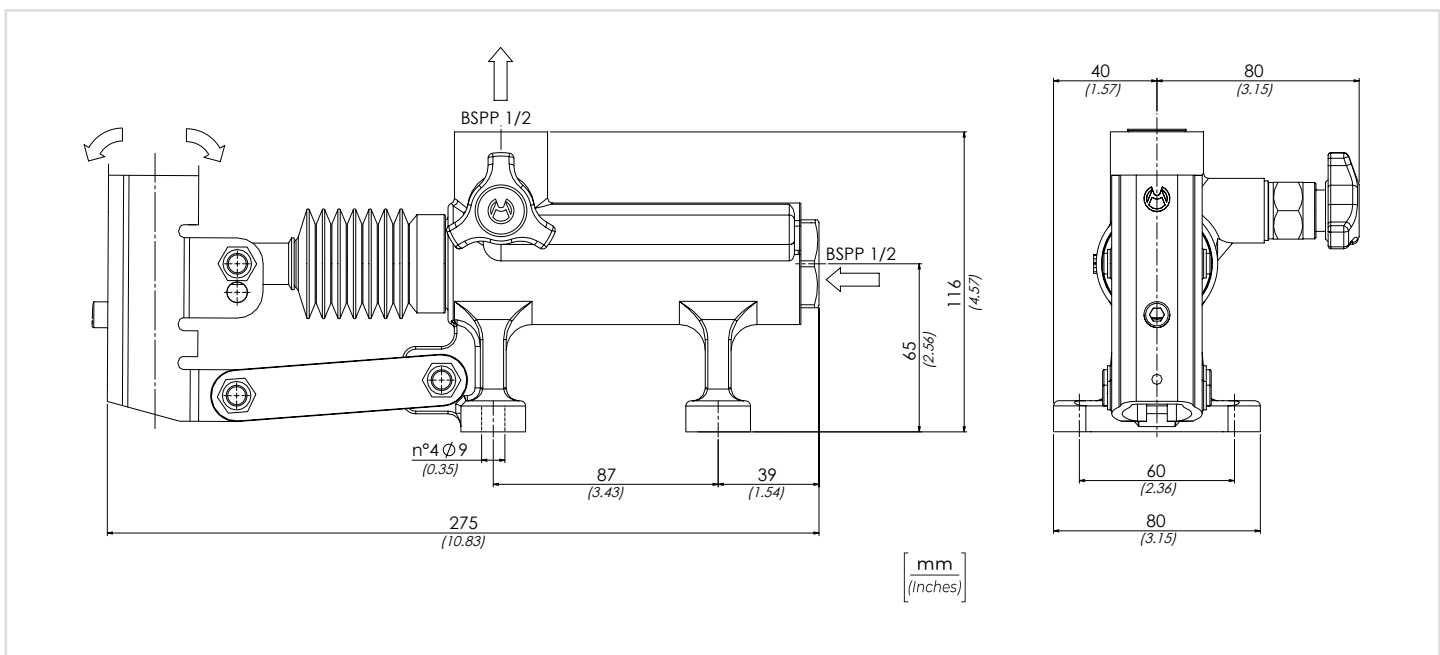
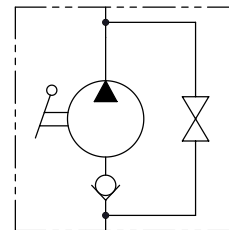
**CODICE ORDINAZIONE**  
ORDERING CODE

01	02	03
<b>PM50</b>		

<b>01</b>	POMPA A MANO DOPPIO POMPAGGIO PER CILINDRO A SEMPLICE EFFETTO DOUBLE PUMPING FOR SINGLE ACTING CYLINDER	<b>PM50</b>	
<b>02</b>	OPTIONAL	Senza soffiutto Without rubber protection	
		Con soffiutto With rubber protection	<b>P</b>
<b>03</b>	OPTIONAL	Senza rubinetto di scarico con valvola di massima Without unloading valve With relief valves	<b>WRV</b>
		Senza rubinetto di scarico Without unloading valve	<b>W</b>
		Con joystick With joystick	<b>J</b>
		Con leva di scarico Ø 27 mm With unloading lever Ø 1.06 inch	<b>L</b>
		Con rubinetto di scarico e valvola di massima With drain valve and relief valve	<b>RRV</b>

LA POMPA VIENE FORNITA CON LEVA DI AZIONAMENTO L=600 mm  
THE PUMP IS SUPPLIED WITH ACTING LEVER 23,6 inch LONG

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**DATI TECNICI / TECHNICAL DATA**

Olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F

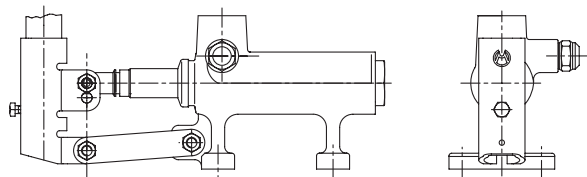
È indispensabile la presenza di un filtro nel circuito idraulico per proteggere la valvola (filtrazione consigliata 15 µm)  
A filter into the hydraulic circuit necessary to protect the valve (advised filtration 15 µm)

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	CILINDRATA (cm <sup>3</sup> ) DISPLACEMENT (in <sup>3</sup> )	PRESSIONE OTTIMALE OPTIMAL PRESSURE bar-PSI	PRESSIONE MAX MAX PRESSURE bar-PSI	PESO APPROX APPROX WEIGHT kg-lbt
<b>PM50</b>	<b>50</b> (3.05)	<b>80</b> (1160)	<b>280</b> (4060)	<b>4,2</b> (9.25)

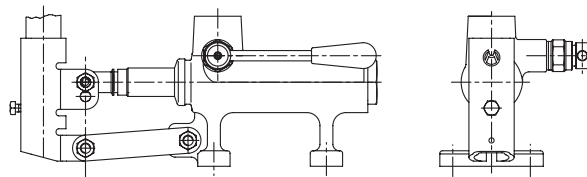


**WRV**

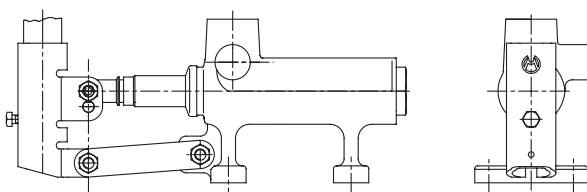


**Valvola di massima**    **Molla 40/350 bar**    **Taratura Standard 100 bar**  
Relief valve            Spring 580/5075 PSI    Standard Setting 1450 PSI

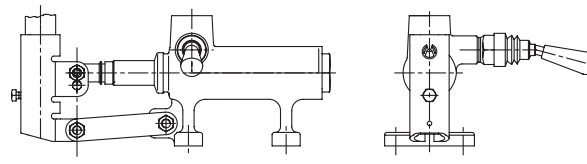
**L**



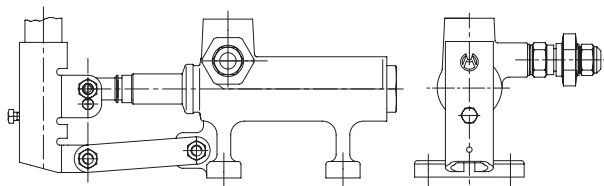
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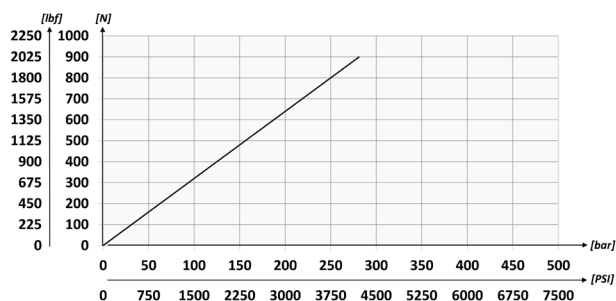
**J**



**RRV**



**SFORZO ESERCITATO ALL'ESTREMITÀ DELLA LEVA**  
**EFFORT OPERATING AT THE END OF THE LEVER**





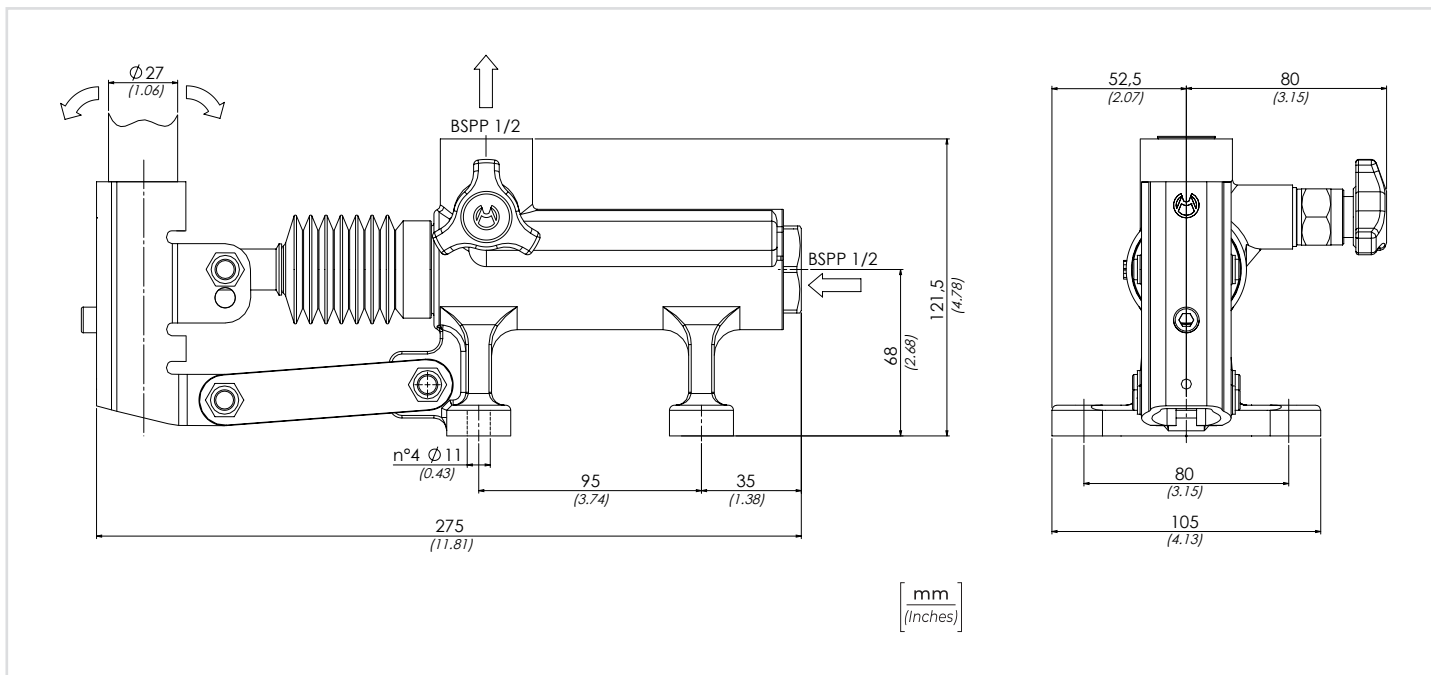
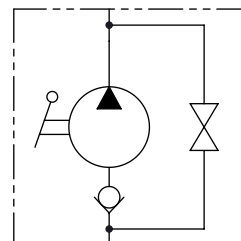
**CODICE ORDINAZIONE**  
ORDERING CODE

01	02	03
<b>PM70</b>		

<b>01</b>	POMPA A MANO DOPPIO POMPAGGIO PER CILINDRO A SEMPLICE EFFETTO DOUBLE PUMPING HAND PUMPFOR SINGLE ACTING CYLINDER	<b>PM70</b>	
<b>02</b>	OPTIONAL	Senza soffiello - Without rubber protection	
		Con soffiello - With rubber protection	<b>P</b>
<b>03</b>	OPTIONAL	Senza rubinetto di scarico con valvola di massima Without unloading valve With relief valves	<b>WRV</b>
		Senza rubinetto di scarico - Without unloading valve	<b>W</b>
		Con joystick - With joystick	<b>J</b>
		Con leva di scarico Ø 27 mm With unloading lever Ø 1.06 inch	<b>L</b>
		Con rubinetto di scarico e valvola di massima With drain valve and relief valve	<b>RRV</b>

LA POMPA VIENE FORNITA CON LEVA DI AZIONAMENTO L=600 mm  
THE PUMP IS SUPPLIED WITH ACTING LEVER 23,6 inch LONG

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



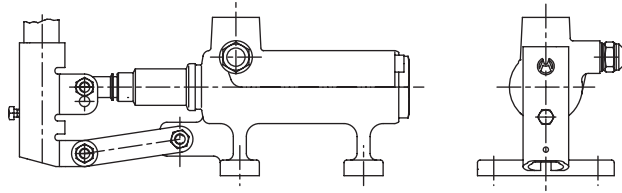
**DATI TECNICI / TECHNICAL DATA**

Olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile la presenza di un filtro nel circuito idraulico per proteggere la valvola (filtrazione consigliata 15 µm) A filter into the hydraulic circuit necessary to protect the valve (advised filtration 15 µm)	

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

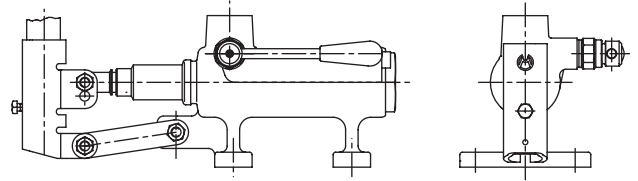
TIPO TYPE	CILINDRATA (cm <sup>3</sup> ) DISPLACEMENT (in <sup>3</sup> )	PRESSIONE OTTIMALE OPTIMAL PRESSURE bar-PSI	PRESSIONE MAX MAX PRESSURE bar-PSI	PESO APPROX APPROX WEIGHT kg-lbt
<b>PM70</b>	<b>70</b> (4.27)	<b>50</b> (725)	<b>200</b> (2900)	<b>5,6</b> (12.34)

**WRV**

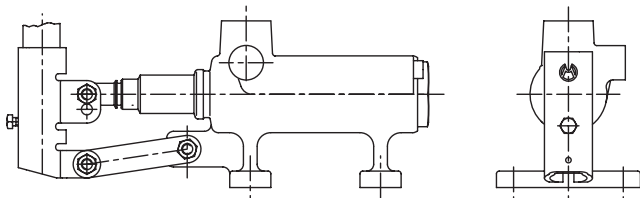


**Valvola di massima**    **Molla 40/350 bar**    **Taratura Standard 100 bar**  
Relief valve            Spring 580/5075 PSI    Standard Setting 1450 PSI

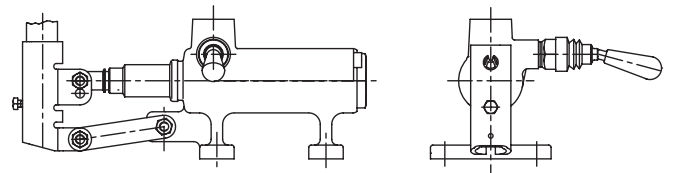
**L**



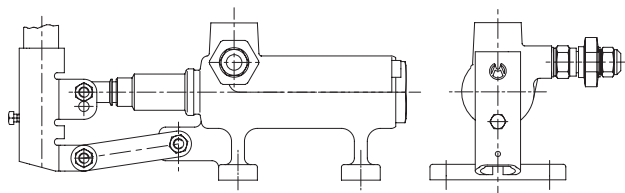
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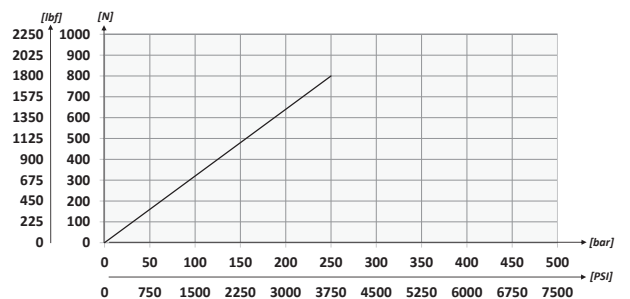
**J**



**RRV**



**SFORZO ESERCITATO ALL'ESTREMITÀ DELLA LEVA**  
**EFFORT OPERATING AT THE END OF THE LEVER**





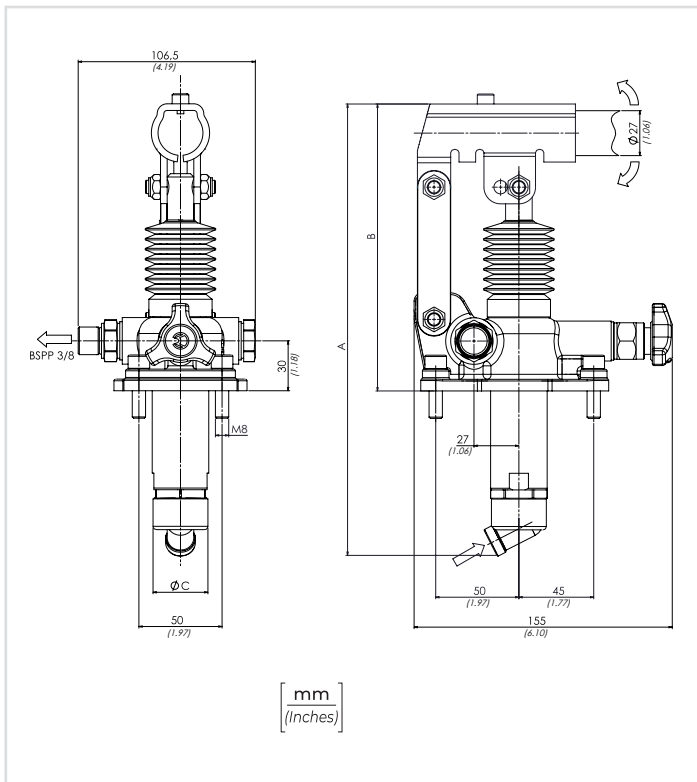
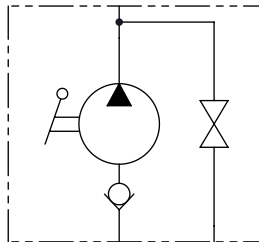
01      02      03      04

**CODICE ORDINAZIONE**  
ORDERING CODE

<b>PMS</b>			
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**LA POMPA VIENE FORNITA CON GUARNIZIONE SAGOMATA  
+ VITI DI FISSAGGIO + LEVA DI AZIONAMENTO L=600 mm**  
THE PUMP IS SUPPLIED WITH SHAPED SEAL, FIXING SCREWS  
AND ACTING LEVER 23.6 inch LONG

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



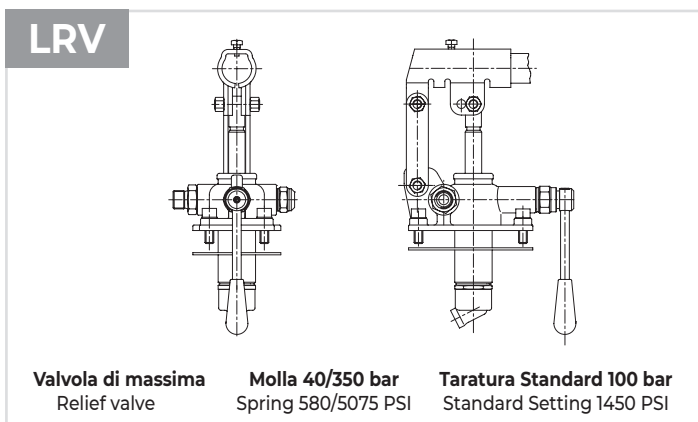
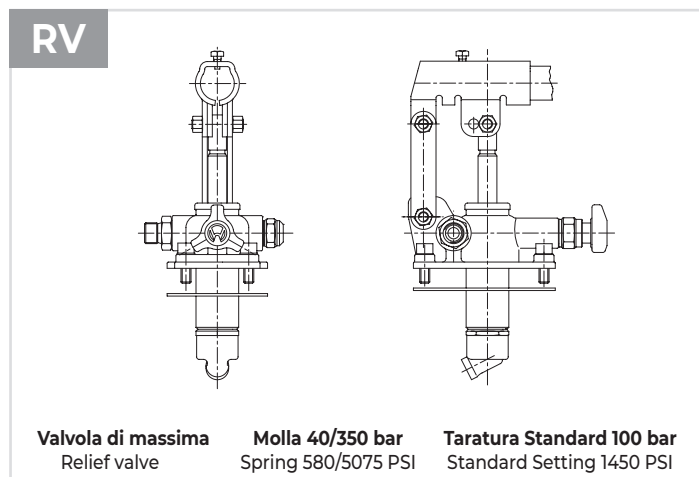
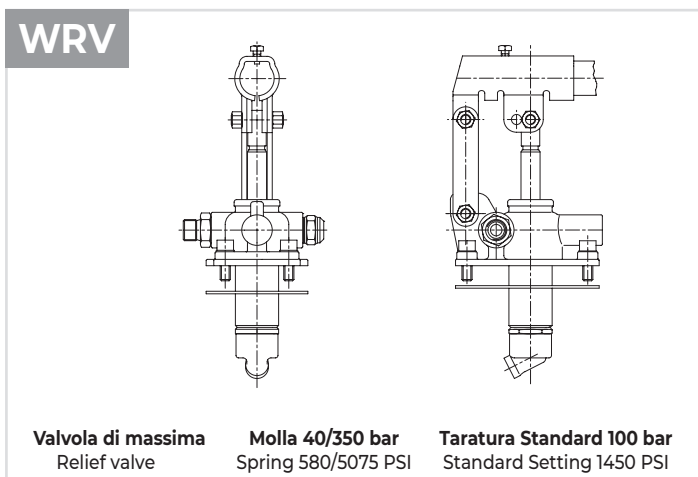
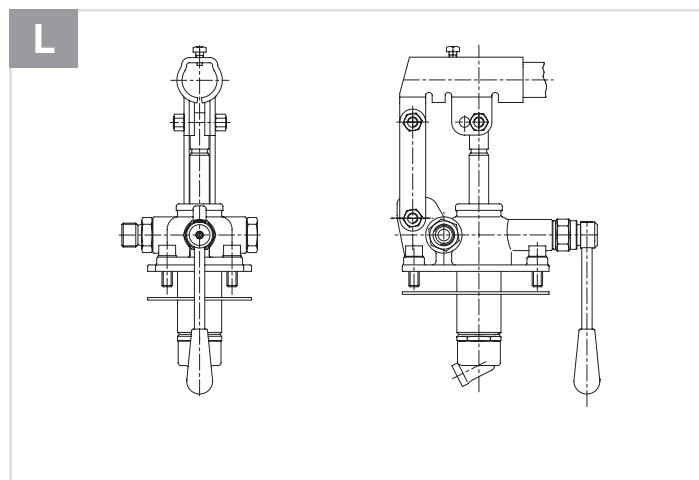
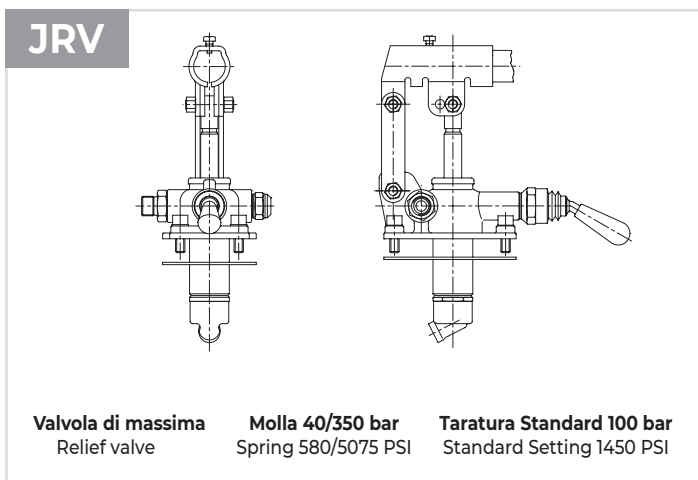
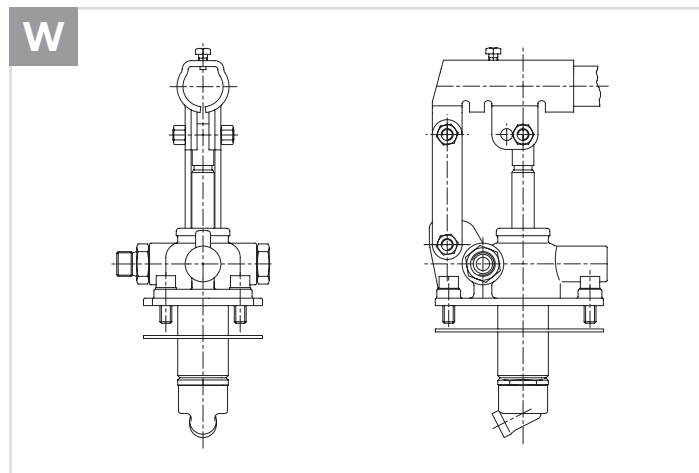
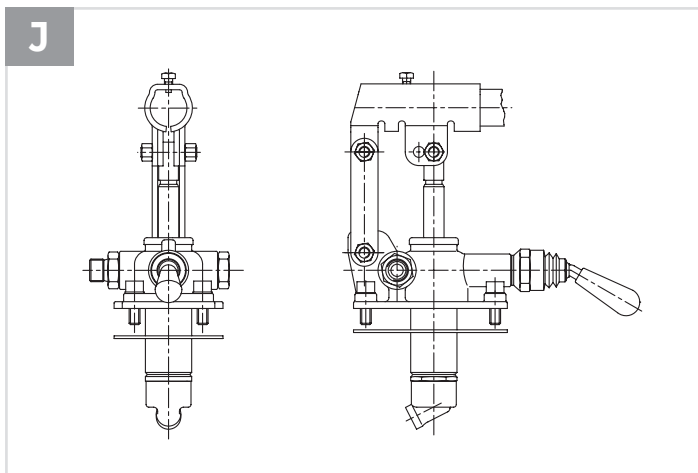
<b>01</b>	POMPA A MANO DOPPIO POMPAGGIO PER CILINDRO A SEMPLICE EFFETTO DOUBLE PUMPING HAND PUMP FOR SINGLE ACTING CYLINDER	mm - inch			<b>PMS</b>		
		CILINDRATA DISPLACEMENT	A	B		C	
<b>02</b>	6 cm <sup>3</sup> (0.37 in <sup>3</sup> )	253 (9.96)	166 (6.54)	34 (1.34)	<b>6</b>		
		12 cm <sup>3</sup> (0.73 in <sup>3</sup> )	253 (9.96)	166 (6.54)		34 (1.34)	<b>12</b>
		25 cm <sup>3</sup> (1.53 in <sup>3</sup> )	273 (10.75)	172 (6.77)		34 (1.34)	
<b>03</b>	OPTIONAL	Senza soffiello - Without rubber protection			<b>P</b>		
		Con soffiello - With rubber protection					
<b>04</b>	OPTIONAL	Senza rubinetto di scarico con valvola di massima Without unloading valve With relief valves			<b>WRV</b>		
		Senza rubinetto di scarico Without unloading valve				<b>W</b>	
		Con joystick With joystick					
		Con leva di scarico Ø 27 mm With unloading lever Ø 1.06 inch				<b>L</b>	
		Con valvola di massima pressione With relief valves					
		Con joystick e valvola di massima pressione With joystick and relief valve				<b>JRV</b>	
Con leva di scarico e valvola di massima pressione With unloading lever and relief valves			<b>LRV</b>				

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

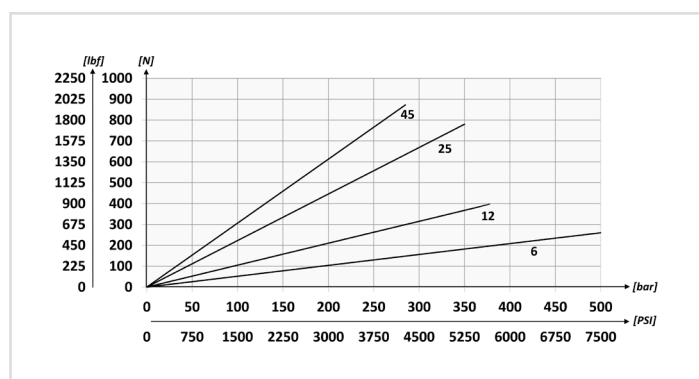
TIPO TYPE	PRESSIONE OTTIMALE OPTIMAL PRESSURE bar-PSI	PRESSIONE MAX MAX PRESSURE bar-PSI	PESO APPROX APPROX WEIGHT kg-lbt
<b>PMS6</b>	<b>420</b> (6090)	<b>500</b> (7250)	<b>3,7</b> (8.15)
<b>PMS12</b>	<b>220</b> (3190)	<b>380</b> (5510)	
<b>PMS25</b>	<b>120</b> (1740)	<b>350</b> (5075)	
<b>PMS45</b>	<b>80</b> (1160)	<b>280</b> (4060)	

**DATI TECNICI / TECHNICAL DATA**

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F +176°F
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b> -4°F +122°F
<b>È indispensabile la presenza di un filtro nel circuito idraulico per proteggere la valvola (filtrazione consigliata 15 µm)</b>	
A filter into the hydraulic circuit necessary to protect the valve (advised filtration 15 µm)	



**SFORZO ESERCITATO ALL'ESTREMITÀ DELLA LEVA**  
**EFFORT OPERATING AT THE END OF THE LEVER**





01 02 03 04

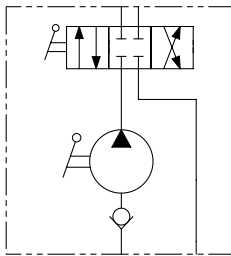
**CODICE ORDINAZIONE**  
ORDERING CODE

<b>PMI</b>			
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**LA POMPA VIENE FORNITA CON GUARNIZIONE SAGOMATA  
+ VITI DI FISSAGGIO + LEVA DI AZIONAMENTO L=600 mm**  
**THE PUMP IS SUPPLIED WITH SHAPED SEAL, FIXING SCREWS  
AND ACTING LEVER 23.6 inch LONG**

<b>01</b>	POMPA A MANO DOPPIO POMPAGGIO PER CILINDRO A DOPPIO EFFETTO - CENTRO CHIUSO DOUBLE PUMPING HAND PUMP FOR DOUBLE ACTING CYLINDER - CLOSED CENTER	<b>PMI</b>			
			CILINDRATA DISPLACEMENT	mm - inch	
<b>02</b>	6 cm <sup>3</sup> (0.37 in <sup>3</sup> ) 12 cm <sup>3</sup> (0.73 in <sup>3</sup> ) 25 cm <sup>3</sup> (1.53 in <sup>3</sup> ) 45 cm <sup>3</sup> (2.75 in <sup>3</sup> )		A	B	C
			253 (9.96)	166 (6.54)	34 (1.34)
			253 (9.96)	166 (6.54)	34 (1.34)
			273 (10.75)	172 (6.77)	34 (1.34)
<b>03</b>	OPTIONAL		Senza soffietto - Without rubber protection		
			Con soffietto - With rubber protection		
<b>04</b>	OPTIONAL		Con leva di scarico Ø 27 mm With unloading lever Ø 1.06 inch		
			Con valvola di massima pressione With relief valves		
			Con leva di scarico e valvola di massima pressione With unloading lever and relief valves		

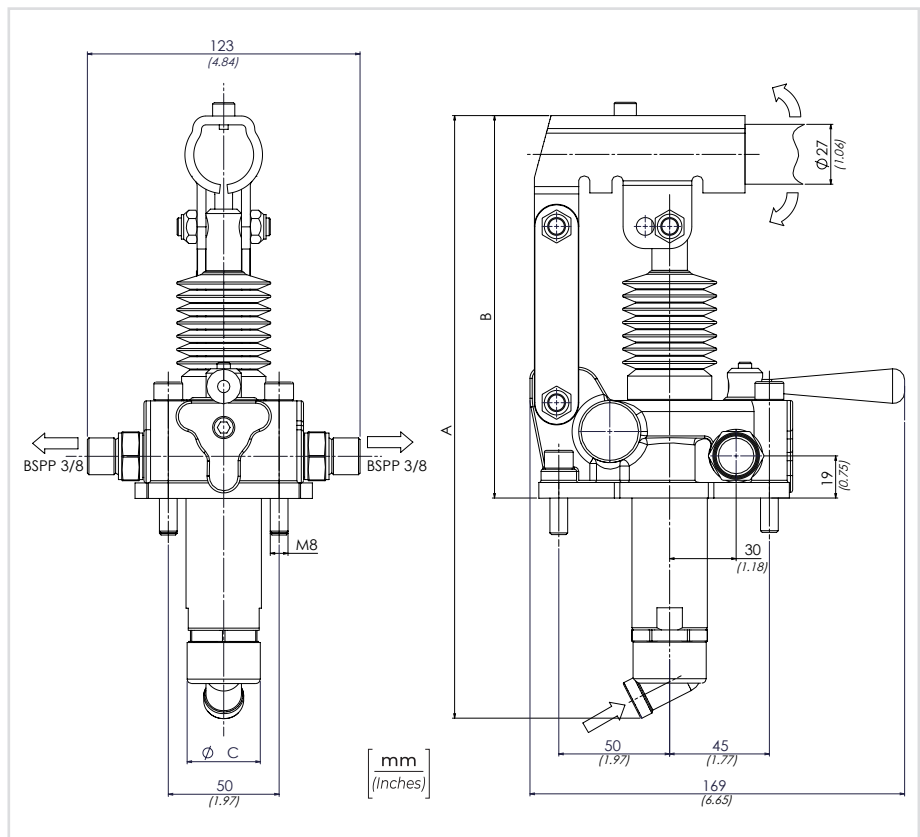
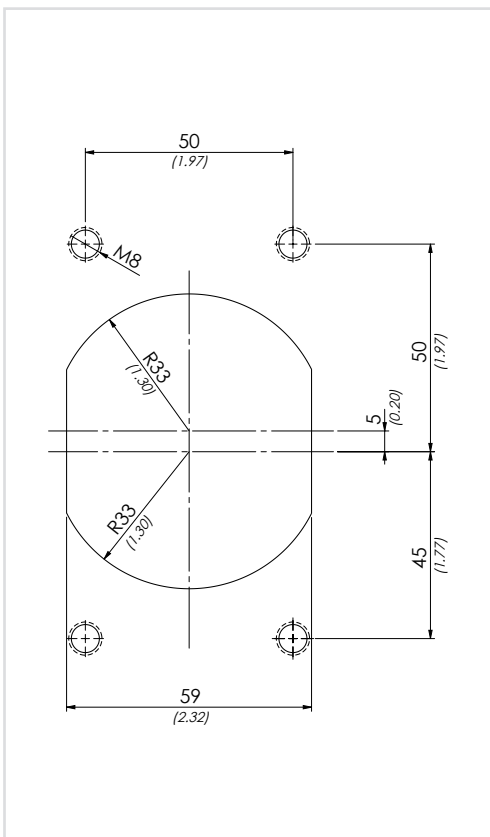
**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**

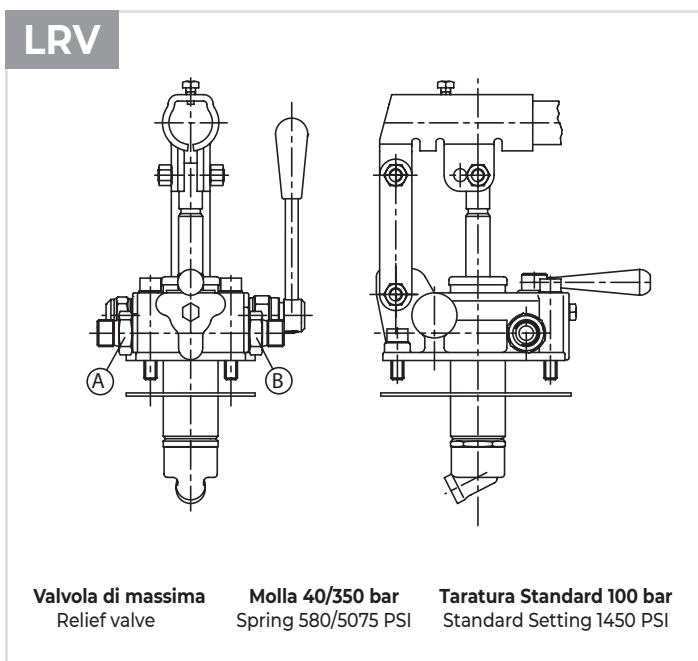
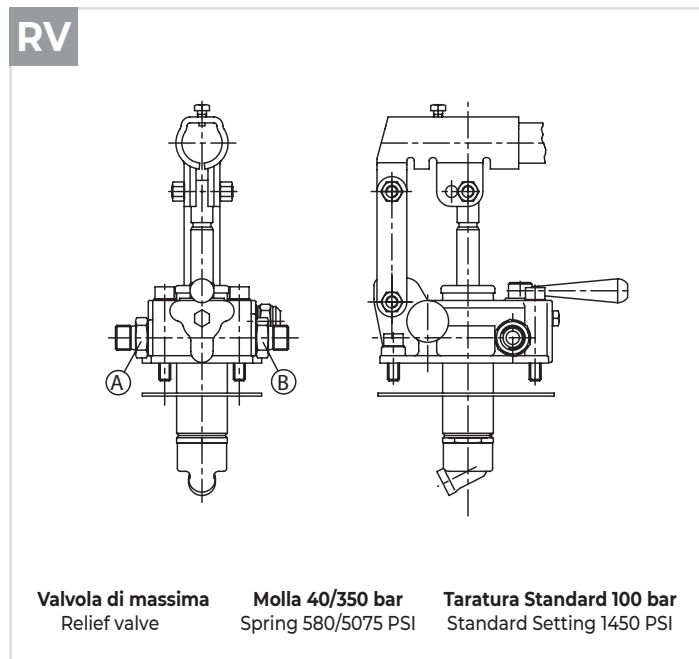
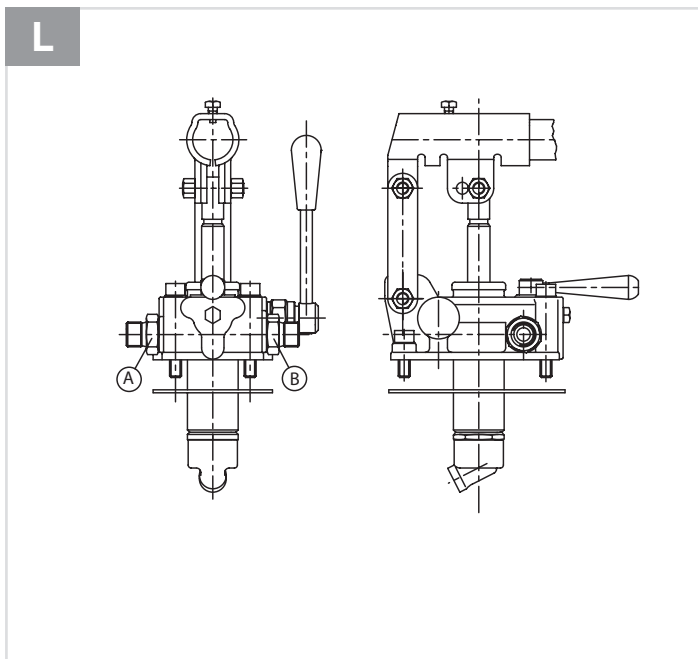


**DATI TECNICI / TECHNICAL DATA**

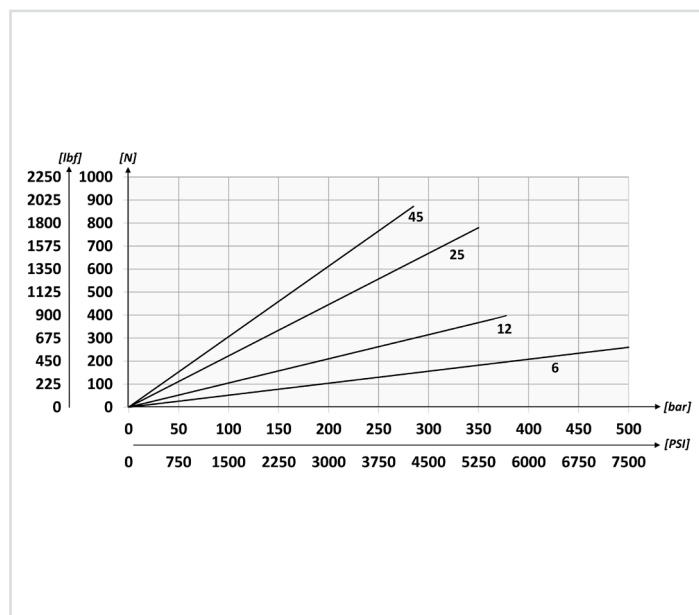
Olio idraulico - Mineral oil	<b>ISO 6743/4 (DIN 51524)</b>
Viscosità olio - Oil viscosity	<b>15-250 mm<sup>2</sup>/s (15 to 250 cSt)</b>
Classe di contaminazione max Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
Temperatura dell'olio - Oil temperature	<b>-20°C +80°C -4°F +176°F</b>
Temperatura ambiente - Environment temperature	<b>-20°C +50°C -4°F +122°F</b>

**È indispensabile la presenza di un filtro nel circuito idraulico per proteggere la valvola (filtrazione consigliata 15 µm)**  
**A filter into the hydraulic circuit necessary to protect the valve (advised filtration 15 µm)**





**SFORZO ESERCITATO ALL'ESTREMITÀ DELLA LEVA**  
**EFFORT OPERATING AT THE END OF THE LEVER**



**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	PRESSIONE OTTIMALE OPTIMAL PRESSURE bar-PSI	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	PESO APPROX APPROX WEIGHT kg-lbt
PMI6	420 (6090)	500 (7250)	4,20 (9.25)
PMI12	220 (3190)	380 (5510)	
PMI25	120 (1740)	350 (5075)	
PMI45	80 (1160)	280 (4060)	



	01	02	03	04
<b>CODICE ORDINAZIONE</b> ORDERING CODE	<b>PMT</b>			

<b>01</b>	POMPA A MANO DOPPIO POMPAGGIO PER CILINDRO A DOPPIO EFFETTO CON VALVOLE DI BLOCCO DOUBLE PUMPING HAND PUMP WITH CHECK VALVES FOR DOUBLE ACTING CYLINDER			<b>PMT</b>	
<b>02</b>	CILINDRATA DISPLACEMENT	mm - inch			<b>6</b>
		A	B	C	
	6 cm <sup>3</sup> (0.37 in <sup>3</sup> )	253 (9.96)	166 (6.54)	34 (1.34)	<b>12</b>
	12 cm <sup>3</sup> (0.73 in <sup>3</sup> )	253 (9.96)	166 (6.54)	34 (1.34)	<b>25</b>
	25 cm <sup>3</sup> (1.53 in <sup>3</sup> )	273 (10.75)	172 (6.77)	34 (1.34)	<b>45</b>
45 cm <sup>3</sup> (2.75 in <sup>3</sup> )	283 (11.14)	172 (6.77)	40 (1.57)		
<b>03</b>	OPTIONAL	Senza soffiello - Without rubber protection			
		Con soffiello - With rubber protection			<b>P</b>
<b>04</b>	OPTIONAL	Con valvola di massima pressione su A e B With relief valves on A and B			<b>RVAB</b>
		Con valvola di massima pressione su B With relief valves on B			<b>RVB</b>

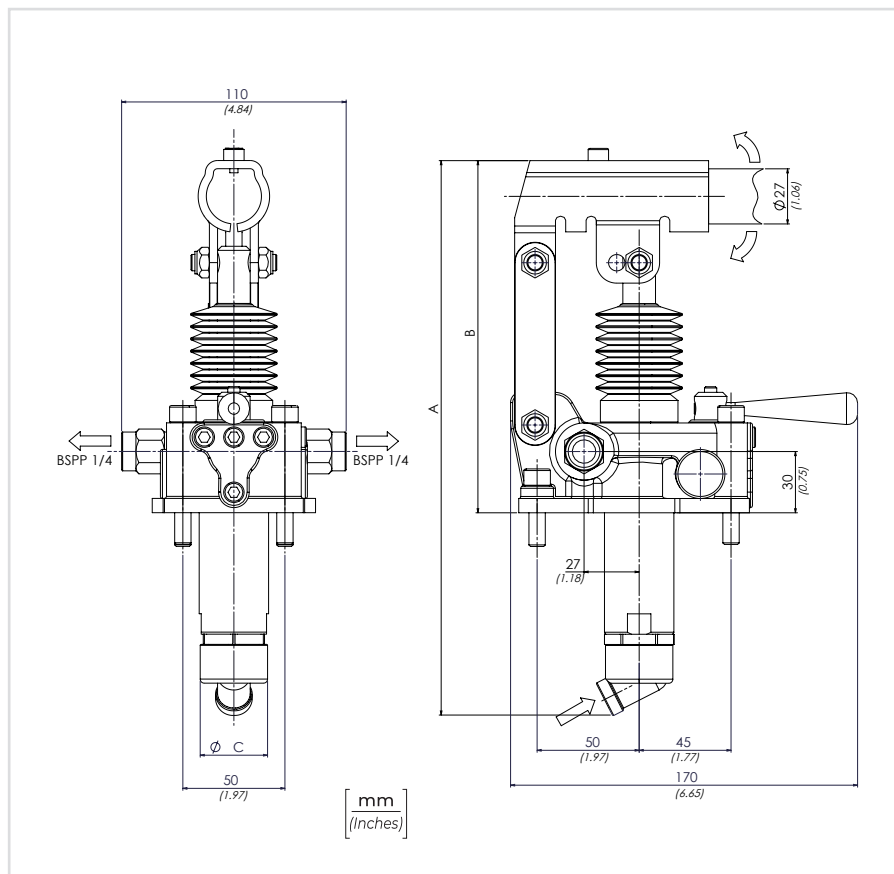
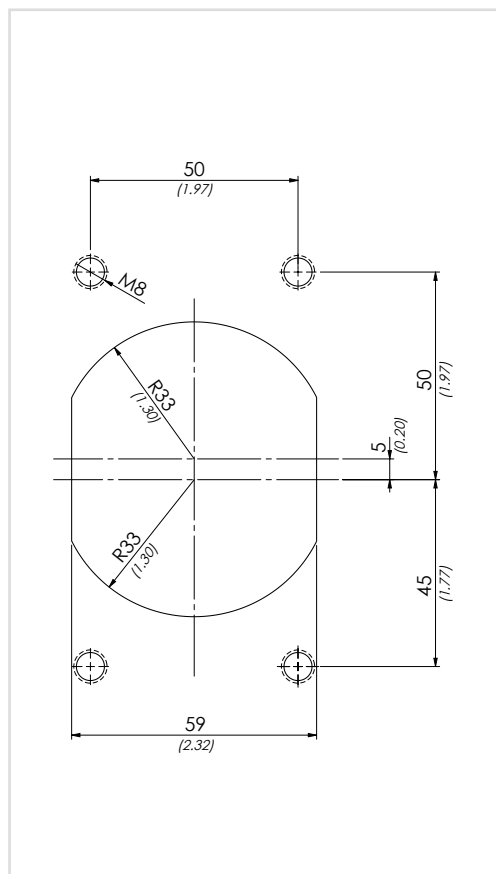
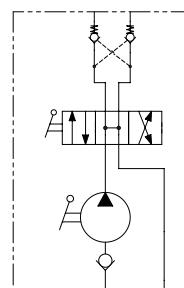
LA POMPA VIENE FORNITA CON GUARNIZIONE SAGOMATA  
+ VITI DI FISSAGGIO + LEVA DI AZIONAMENTO Ø 27 MM L=600 mm

THE PUMP IS SUPPLIED WITH SHAPED SEAL, FIXING SCREWS  
AND ACTING LEVER Ø 1,06 INCH 23 inch LONG

### DATI TECNICI / TECHNICAL DATA

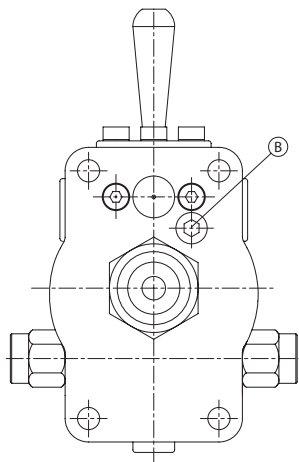
Olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)		
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)		
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14		
Temperatura dell'olio - Oil temperature	-20°C +80°C	-4°F	+176°F
Temperatura ambiente - Environment temperature	-20°C +50°C	-4°F	+122°F
<b>È indispensabile la presenza di un filtro nel circuito idraulico per proteggere la valvola (filtrazione consigliata 15 µm)</b>			
A filter into the hydraulic circuit necessary to protect the valve (advised filtration 15 µm)			

### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



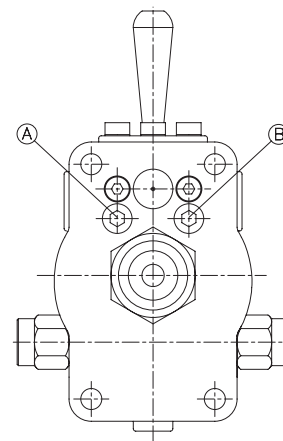


## RVB



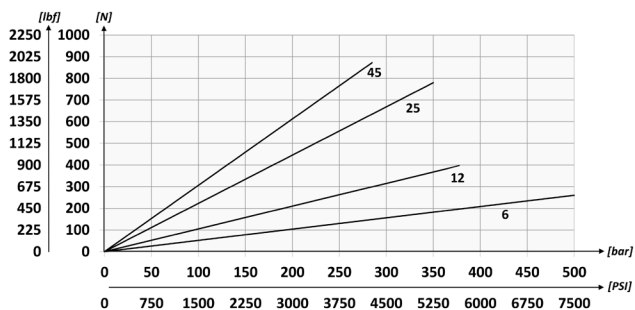
**Valvola di massima**      **Molla 40/350 bar**      **Taratura Standard 100 bar**  
 Relief valve              Spring 580/5075 PSI      Standard Setting 1450 PSI

## RVAB



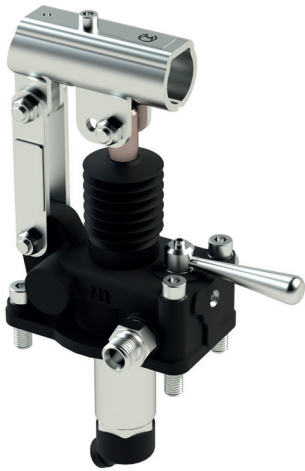
**Valvola di massima**      **Molla 40/350 bar**      **Taratura Standard 100 bar**  
 Relief valve              Spring 580/5075 PSI      Standard Setting 1450 PSI

### SFORZO ESERCITATO ALL'ESTREMITÀ DELLA LEVA EFFORT OPERATING AT THE END OF THE LEVER



### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO TYPE	PRESSIONE OTTIMALE OPTIMAL PRESSURE bar-PSI	PRESSIONE MAX MAX PRESSURE bar-PSI	PESO APPROX APPROX WEIGHT kg-lbt
PMT6	420 (6090)	500 (7250)	4,20 (9.25)
PMT12	220 (3190)	380 (5510)	
PMT25	120 (1740)	350 (5075)	
PMT45	80 (1160)	280 (4060)	



01 02 03 04

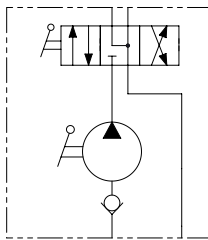
**CODICE ORDINAZIONE**  
ORDERING CODE

<b>PMA</b>			
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**LA POMPA VIENE FORNITA CON GUARNIZIONE SAGOMATA  
+ VITI DI FISSAGGIO + LEVA DI AZIONAMENTO L=600 mm**  
THE PUMP IS SUPPLIED WITH SHAPED SEAL, FIXING SCREWS  
AND ACTING LEVER 23.6 inch LONG

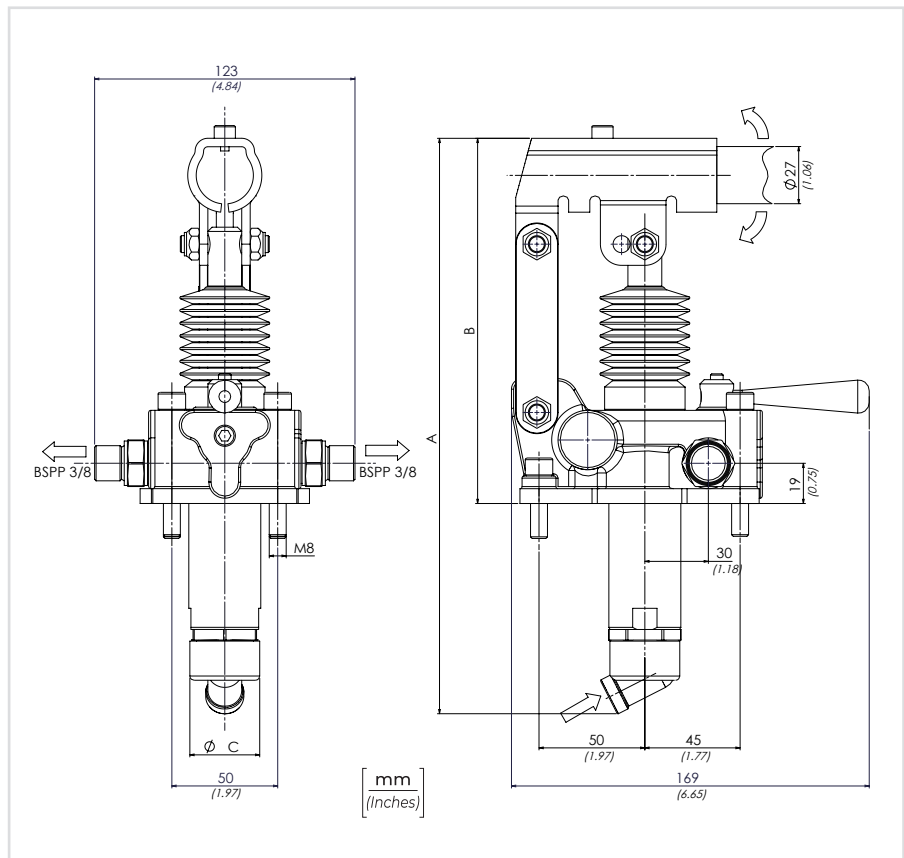
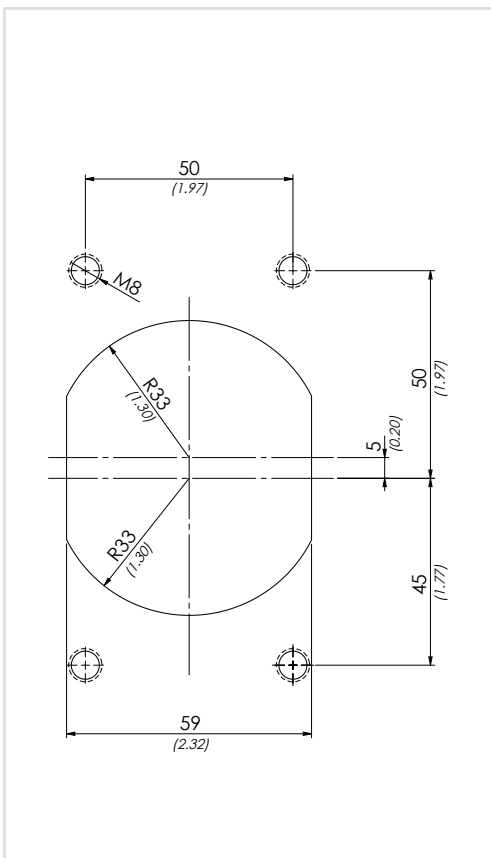
01	POMPA A MANO DOPPIO POMPAGGIO PER CILINDRO A DOPPIO EFFETTO - CENTRO APERTO DOUBLE PUMPING HAND PUMP FOR DOUBLE ACTING CYLINDER - OPEN CENTER				PMA
	CILINDRATA DISPLACEMENT	mm - inch			
		A	B	C	
	6 cm <sup>3</sup> (0.37 in <sup>3</sup> )	253 (9.96)	166 (6.54)	34 (1.34)	6
02	12 cm <sup>3</sup> (0.73 in <sup>3</sup> )	253 (9.96)	166 (6.54)	34 (1.34)	12
	25 cm <sup>3</sup> (1.53 in <sup>3</sup> )	273 (10.75)	172 (6.77)	34 (1.34)	25
	45 cm <sup>3</sup> (2.75 in <sup>3</sup> )	283 (11.14)	172 (6.77)	40 (1.57)	45
03	OPTIONAL	Senza soffiello - Without rubber protection			
		Con soffiello - With rubber protection			P
04	OPTIONAL	Con leva di scarico Ø 27 mm With unloading lever Ø 1.06 inch			L
		Con valvola di massima pressione su A e B With relief valves on A and B			RV
		Con leva di scarico e valvola di massima pressione With unloading lever and relief valves			LRV

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**

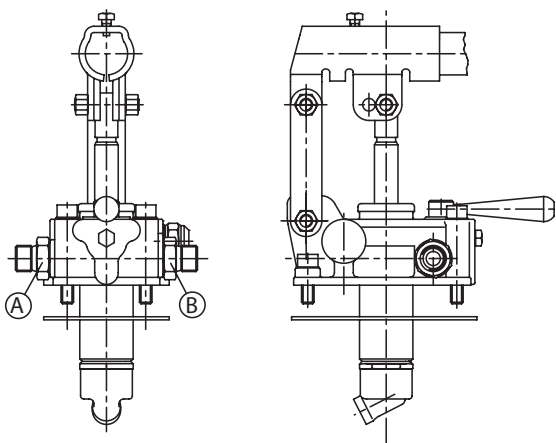


**DATI TECNICI / TECHNICAL DATA**

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F + 176°F
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b> -4°F + 122°F
<b>È indispensabile la presenza di un filtro nel circuito idraulico per proteggere la valvola (filtrazione consigliata 15 µm)</b> A filter into the hydraulic circuit necessary to protect the valve (advised filtration 15 µm)	

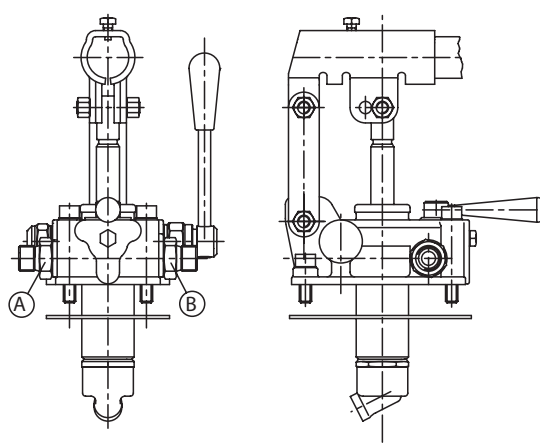


## RV



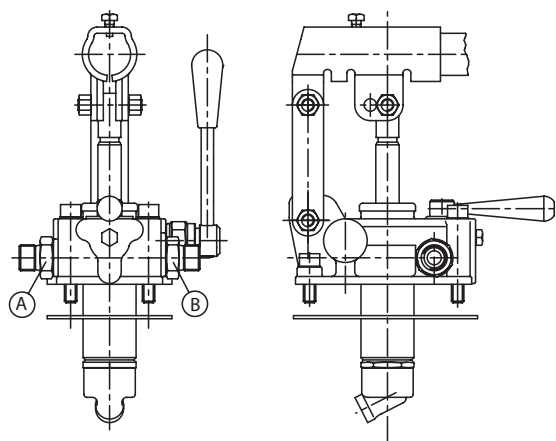
**Valvola di massima**    **Molla 40/350 bar**    **Taratura Standard 100 bar**  
 Relief valve    Spring 580/5075 PSI    Standard Setting 1450 PSI

## LRV

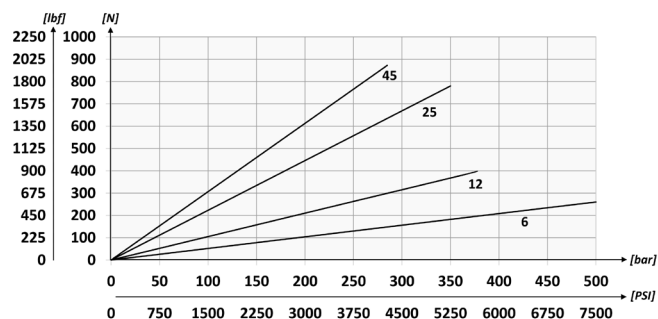


**Valvola di massima**    **Molla 40/350 bar**    **Taratura Standard 100 bar**  
 Relief valve    Spring 580/5075 PSI    Standard Setting 1450 PSI

## L

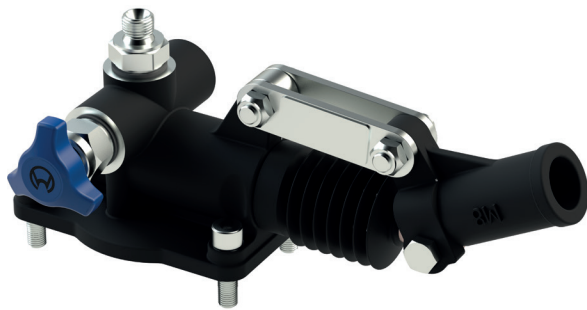


### SFORZO ESERCITATO ALL'ESTREMITÀ DELLA LEVA EFFORT OPERATING AT THE END OF THE LEVER



### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO TYPE	PRESSIONE OTTIMALE OPTIMAL PRESSURE bar-PSI	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	PESO APPROX (kg) APPROX WEIGHT (lbt)
PMA6	420 (6090)	500 (7250)	4,20 (9.25)
PMA12	220 (3190)	380 (5510)	
PMA25	120 (1740)	350 (5075)	
PMA45	80 (1160)	280 (4060)	



LA POMPA VIENE FORNITA CON GUARNIZIONE SAGOMATA  
+ VITI DI FISSAGGIO  
+ LEVA DI AZIONAMENTO Ø 20 MM L=500 mm

LA MANDATA LA SI OTTIENE SOLAMENTE  
AZIONANDO LA LEVA VERSO IL BASSO

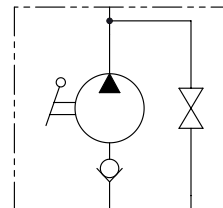
THE PUMP IS SUPPLIED WITH SHAPED SEAL,  
FIXING SCREWS AND ACTING LEVER Ø 0.79 17,7 inch LONG.  
OIL FLOW LEVER ACTION DOWNWARDS ONLY

**CODICE ORDINAZIONE**  
ORDERING CODE

01	02	03	04
<b>PME1</b>			

<b>01</b>	POMPA A MANO SINGOLO POMPAGGIO VERSO IL BASSO PER CILINDRO A SEMPLICE EFFETTO SINGLE DOWNWARD PUMPING HAND PUMP FOR SINGLE ACTING CYLINDER		<b>PME1</b>
<b>02</b>	CILINDRATA DISPLACEMENT	<b>8 cm<sup>3</sup></b> (0.49 in <sup>3</sup> )	<b>8</b>
		<b>15 cm<sup>3</sup></b> (0.92 in <sup>3</sup> )	<b>15</b>
<b>03</b>	OPTIONAL	Senza soffiello - Without rubber protection	
		Con soffiello - With rubber protection	<b>P</b>
<b>04</b>	OPTIONAL	Senza rubinetto di scarico con valvola di massima Without unloading valve With relief valves	<b>WRV</b>
		Senza rubinetto di scarico - Without unloading valve	<b>W</b>
		Con valvola di massima pressione With relief valves	<b>RV</b>

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**

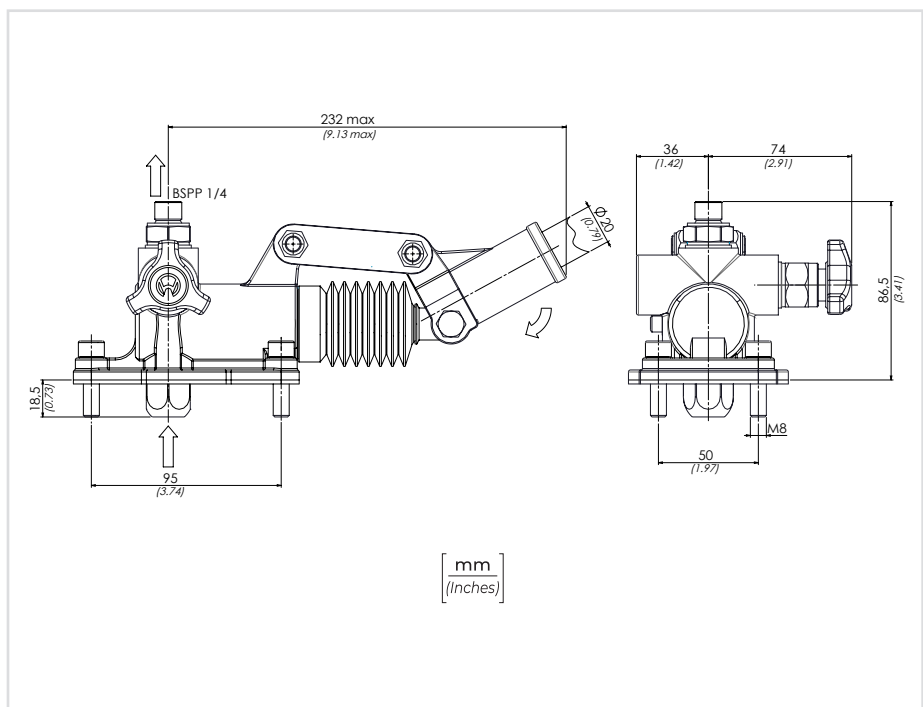
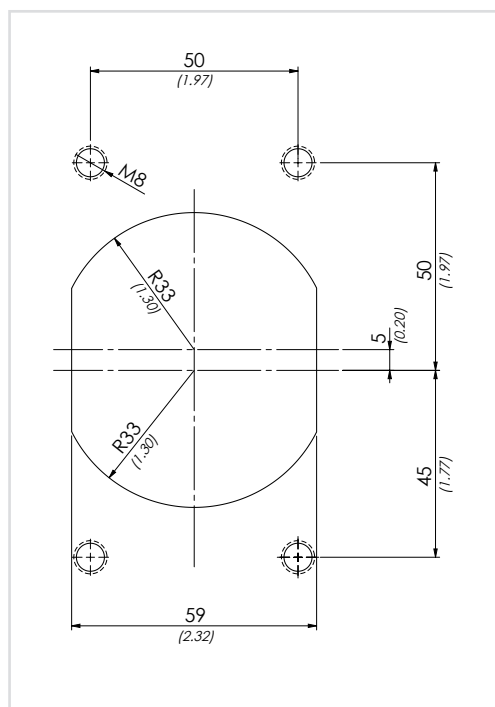


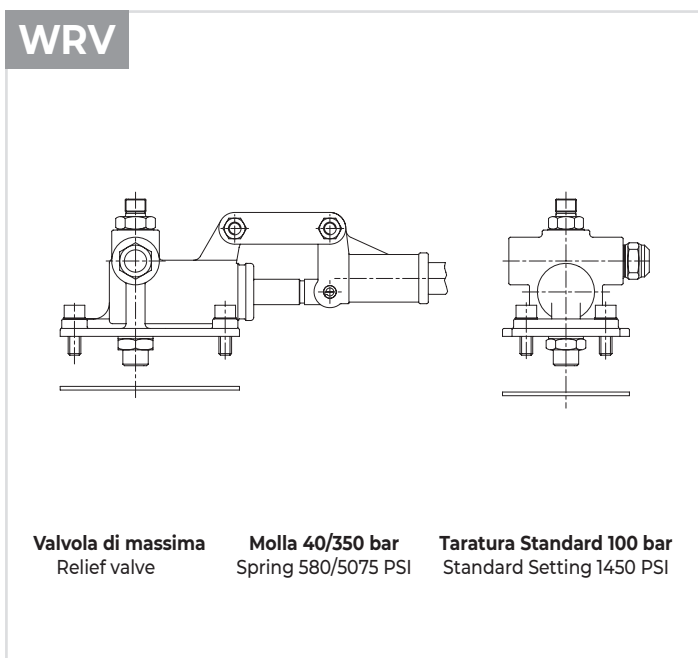
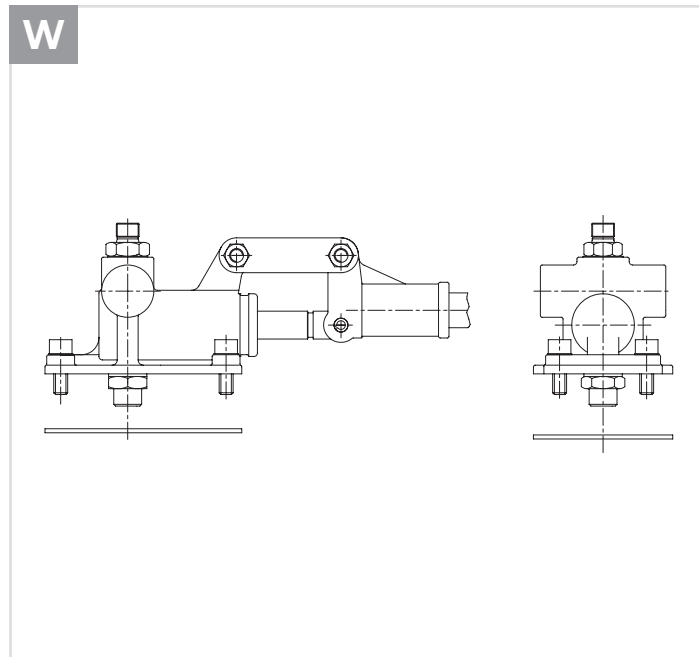
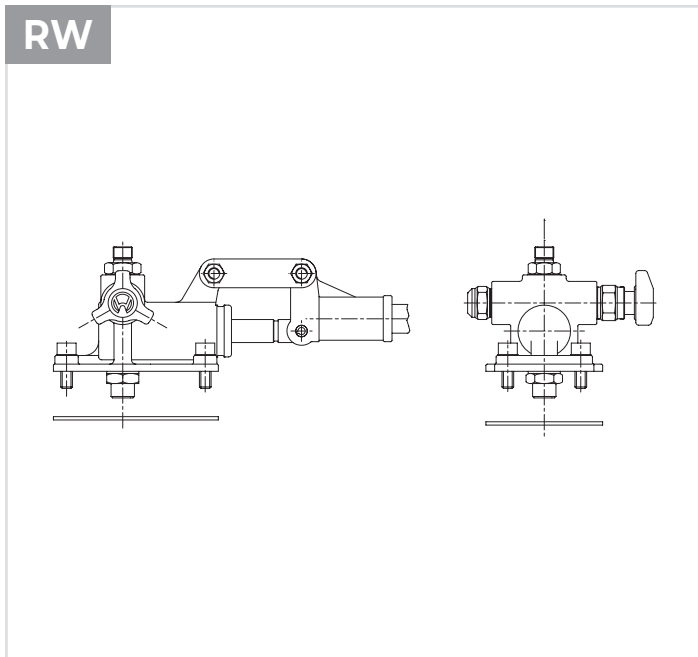
**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	PRESSIONE OTTIMALE OPTIMAL PRESSURE bar-PSI	PRESSIONE MAX MAX PRESSURE bar-PSI	PESO APPROX APPROX WEIGHT kg-lbt
<b>PME18</b>	<b>180</b> (2610)	<b>380</b> (5510)	<b>2,9</b> (6.39)
<b>PME115</b>	<b>110</b> (1595)	<b>350</b> (5075)	

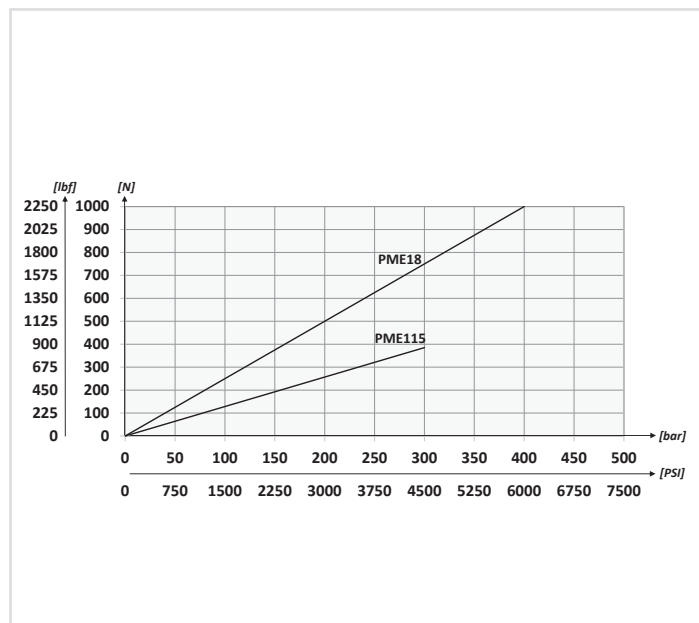
**DATI TECNICI / TECHNICAL DATA**

**Olio idraulico** - Mineral oil **ISO 6743/4** (DIN 51524)  
**Viscosità olio** - Oil viscosity **15-250 mm<sup>2</sup>/s** (15 to 250 cSt)  
**Classe di contaminazione max** **ISO 4406:1999 Classe 19/17/14**  
 Max contamination index  
**Temperatura dell'olio** - Oil temperature **-20°C +80°C** **-4°F +176°F**  
**Temperatura ambiente** - Environment temperature **-20°C +50°C** **-4°F +122°F**  
**È indispensabile la presenza di un filtro nel circuito idraulico per proteggere la valvola (filtrazione consigliata 15 µm)**  
 A filter into the hydraulic circuit necessary to protect the valve (advised filtration 15 µm)





**SFORZO ESERCITATO ALL'ESTREMITÀ DELLA LEVA**  
EFFORT OPERATING AT THE END OF THE LEVER

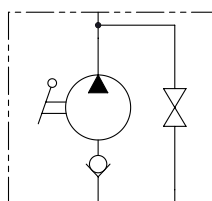




LA POMPA VIENE FORNITA CON GUARNIZIONE SAGOMATA  
+ VITI DI FISSAGGIO + LEVA DI AZIONAMENTO L=600 mm  
LA MANDATA LA SI OTTIENE SOLAMENTE AZIONANDO LA LEVA VERSO IL BASSO

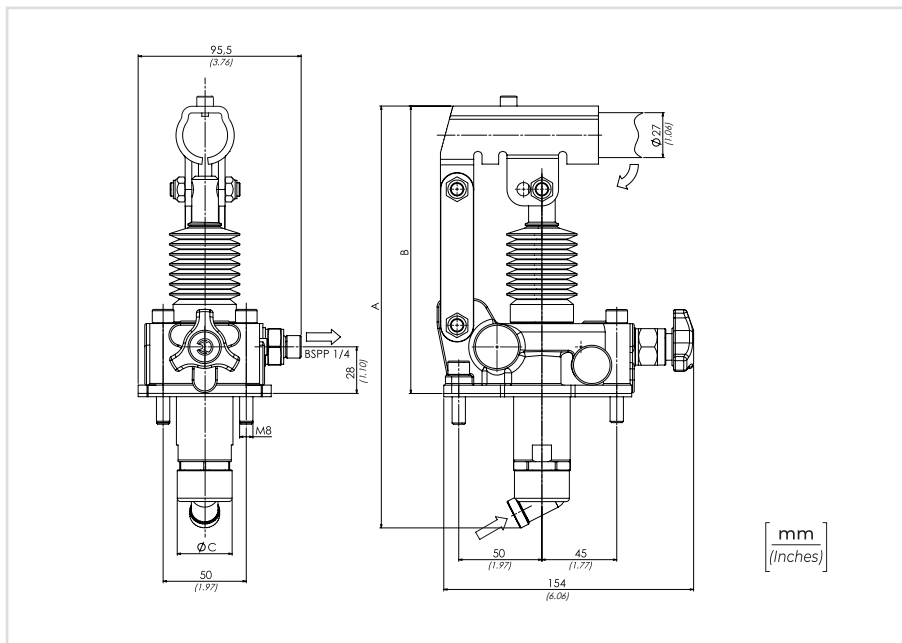
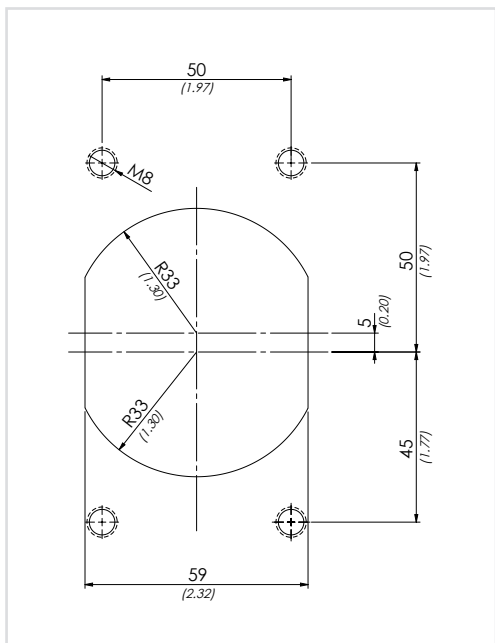
THE PUMP IS SUPPLIED WITH SHAPED SEAL,  
FIXING SCREWS AND ACTING LEVER 23,6 inch LONG.  
OIL FLOW LEVER ACTION DOWNWARDS ONLY

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



<b>CODICE ORDINAZIONE</b> ORDERING CODE	01	02	03	04
<b>PME2</b>				

<b>01</b>	POMPA A MANO SINGOLO POMPAGGIO VERSO IL BASSO PER CILINDRO A SEMPLICE EFFETTO SINGLE DOWNWARD PUMPING HAND PUMP FOR SINGLE ACTING CYLINDER			<b>PME2</b>	
<b>02</b>	CILINDRATA DISPLACEMENT	mm - inch			
		A	B	C	
	20 cm <sup>3</sup> (1.22 in <sup>3</sup> )	249 (9.80)	167 (6.57)	34 (1.33)	<b>20</b>
30 cm <sup>3</sup> (1.83 in <sup>3</sup> )	252 (9.92)	167 (6.57)	34 (1.33)	<b>30</b>	
40 cm <sup>3</sup> (2.44 in <sup>3</sup> )	252 (9.92)	167 (6.57)	40 (1.57)	<b>40</b>	
<b>03</b>	OPTIONAL	Senza soffietto - Without rubber protection			
		Con soffietto - With rubber protection			<b>P</b>
<b>04</b>	OPTIONAL	Senza rubinetto di scarico con valvola di massima Without unloading valve With relief valves			<b>WRV</b>
		Senza rubinetto di scarico Without unloading valve			<b>W</b>
		Con leva di scarico - With unloading lever			<b>L</b>
		Con valvola di massima pressione With relief valves			<b>RV</b>
		Con leva di scarico e valvola di massima pressione With unloading lever and relief valves			<b>LRV</b>



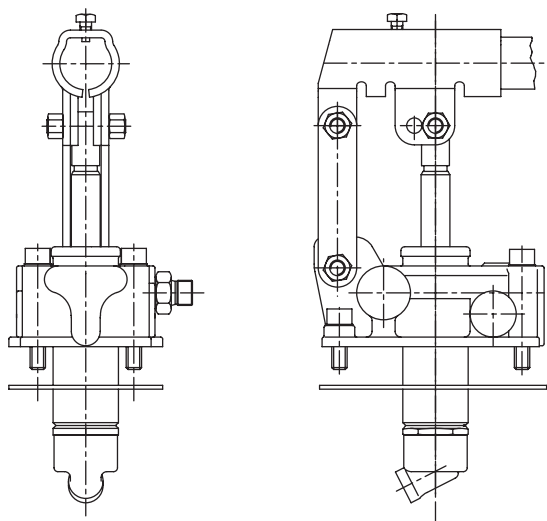
**DATI TECNICI / TECHNICAL DATA**

<b>Olio idraulico</b> - Mineral oil	ISO 6743/4 (DIN 51524)		
<b>Viscosità olio</b> - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)		
<b>Classe di contaminazione max</b> Max contamination index	ISO 4406:1999 Classe 19/17/14		
<b>Temperatura dell'olio</b> - Oil temperature	-20°C	+80°C	-4°F +176°F
<b>Temperatura ambiente</b> - Environment temperature	-20°C	+50°C	-4°F +122°F
È indispensabile la presenza di un filtro nel circuito idraulico per proteggere la valvola (filtrazione consigliata 15 µm) A filter into the hydraulic circuit necessary to protect the valve (advised filtration 15 µm)			

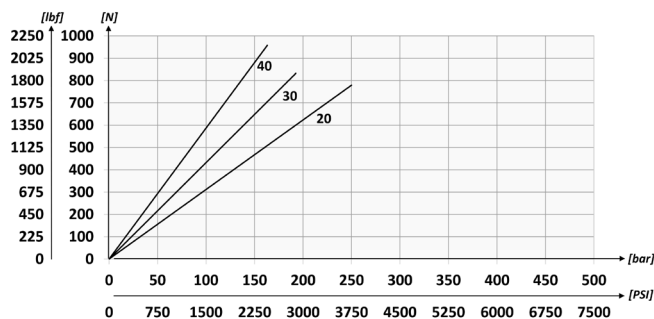
**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	PRESSIONE OTTIMALE OPTIMAL PRESSURE bar-PSI	PRESSIONE MAX MAX PRESSURE bar-PSI	PESO APPROX APPROX WEIGHT kg-lbt
PME220	80 (1160)	240 (3480)	4,2 (9.2)
PME230	60 (870)	185 (2683)	
PME240	40 (580)	160 (2320)	

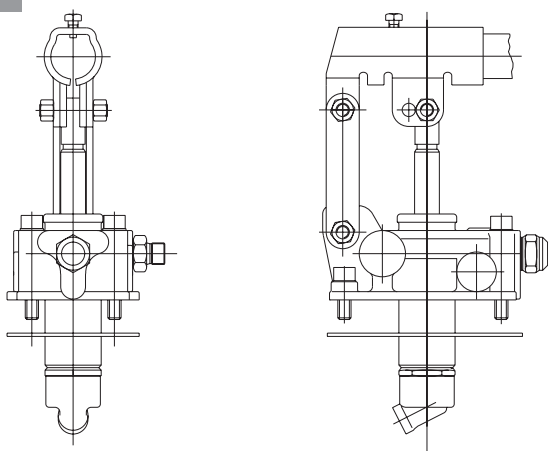
**W**



**SFORZO ESERCITATO ALL'ESTREMITÀ DELLA LEVA**  
EFFORT OPERATING AT THE END OF THE LEVER

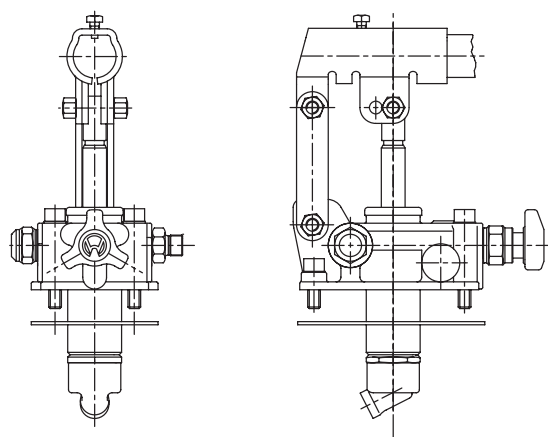


**WRV**



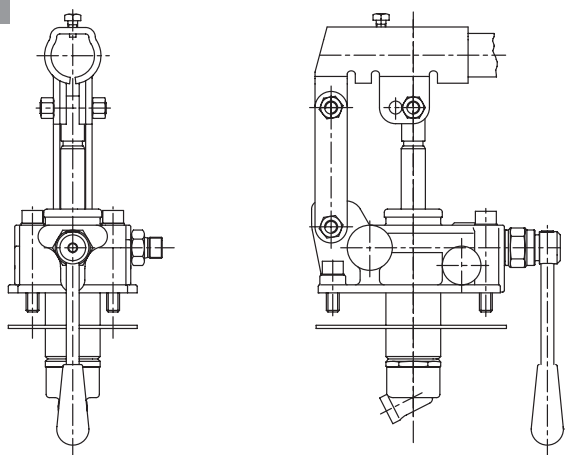
**Valvola di massima**    **Molla 40/350 bar**    **Taratura Standard 100 bar**  
Relief valve    Spring 580/5075 PSI    Standard Setting 1450 PSI

**RV**

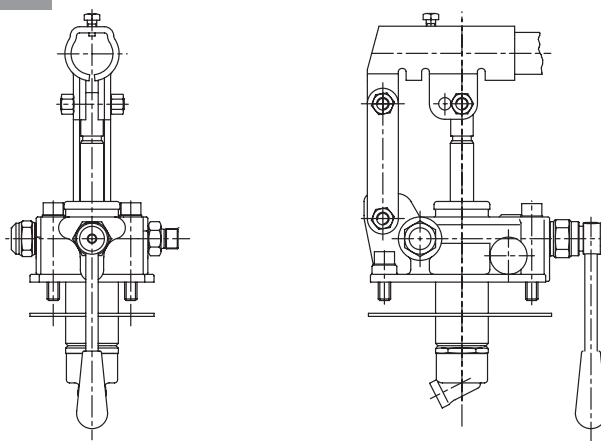


**Valvola di massima**    **Molla 40/350 bar**    **Taratura Standard 100 bar**  
Relief valve    Spring 580/5075 PSI    Standard Setting 1450 PSI

**L**



**LRV**



**Valvola di massima**    **Molla 40/350 bar**    **Taratura Standard 100 bar**  
Relief valve    Spring 580/5075 PSI    Standard Setting 1450 PSI



LA POMPA VIENE FORNITA CON GUARNIZIONE SAGOMATA  
+ VITI DI FISSAGGIO + LEVA DI AZIONAMENTO L=500 mm

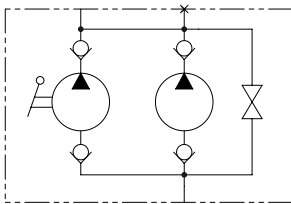
THE PUMP IS SUPPLIED WITH SHAPED SEAL, FIXING SCREWS  
AND ACTING LEVER 19.7 inch LONG

**CODICE ORDINAZIONE**  
ORDERING CODE

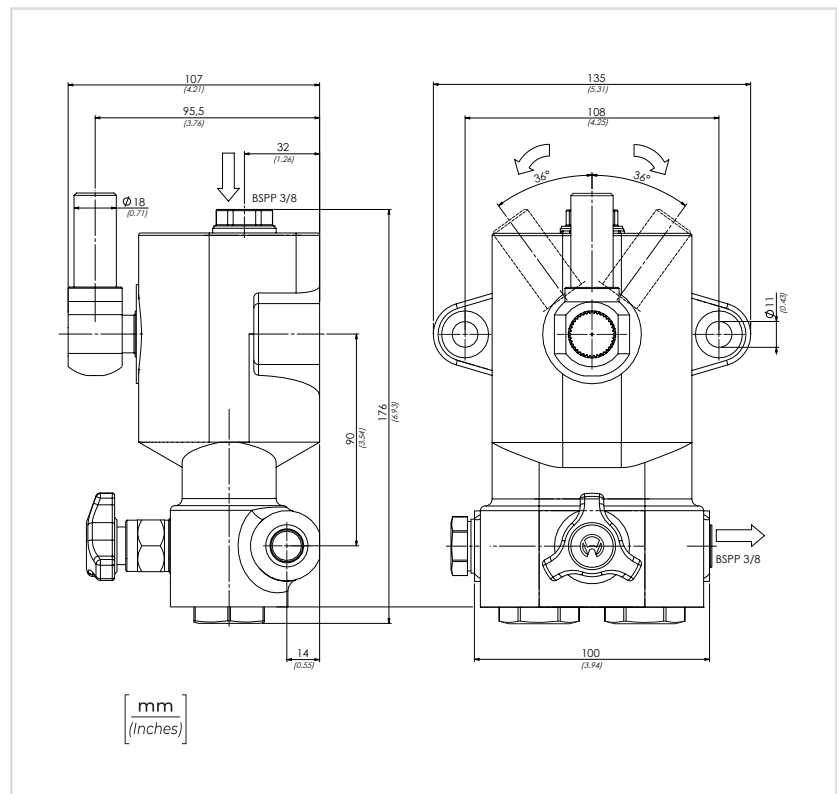
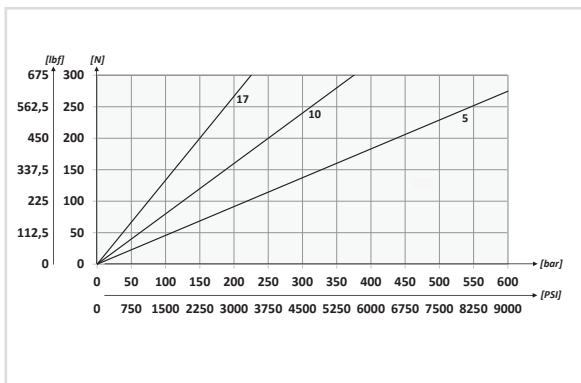
01	02	03
<b>PMD</b>		

<b>01</b>	POMPA A MANO SEMPLICE EFFETTO DOPPIO POMPANTE (SINGLE ACTING HAND PUMP WITH DOUBLE CYLINDER)	<b>PMD</b>
<b>02</b>	CILINDRATA (DISPLACEMENT)	<b>5</b>
		<b>10</b>
		<b>17</b>
<b>03</b>	OPTIONAL	Senza rubinetto di scarico (Without unloading valve)

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**SFORZO ESERCITATO ALL'ESTREMITÀ DELLA LEVA**  
EFFORT OPERATING AT THE END OF THE LEVER



**DATI TECNICI / TECHNICAL DATA**

Olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm²/s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	PRESSIONE OTTIMALE OPTIMAL PRESSURE bar-PSI	PRESSIONE MAX MAX PRESSURE bar-PSI	PESO APPROX APPROX WEIGHT kg-lbt	CILINDRATA (cm³) DISPLACEMENT (in³)
PMD5	500 (7250)	500 (7250)	5,7 (12.56)	5 (0.31)
PMD10	250 (3625)	250 (3625)		10 (0.61)
PMD17	150 (2175)	150 (2175)		17 (1.04)



01

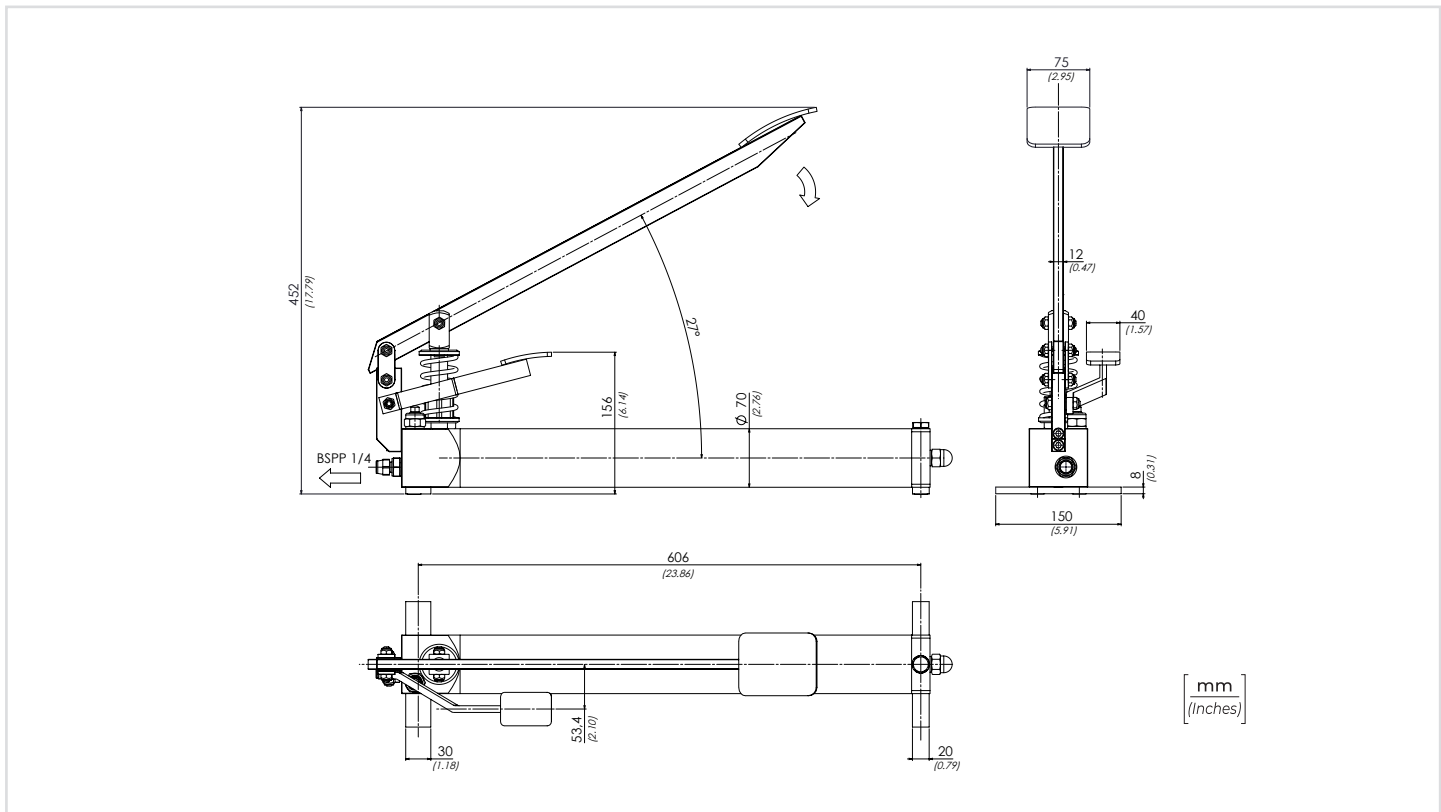
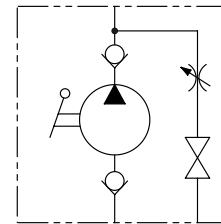
**CODICE ORDINAZIONE**  
ORDERING CODE

**PME3**



<b>01</b>	POMPA A PEDALE (FOOT PUMP)	<b>PME3</b>
Serbatoio It. 1,5 (Reservoir It. 1.5)		

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



[ mm ]  
[ Inches ]

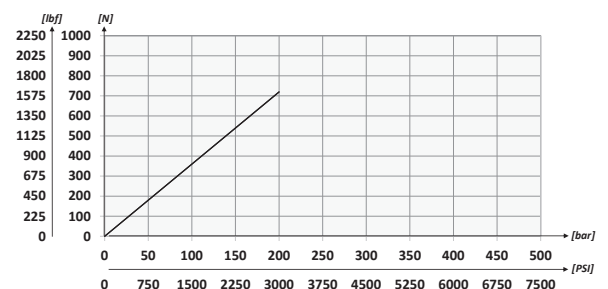
**DATI TECNICI / TECHNICAL DATA**

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4 (DIN 51524)</b>
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s (15 to 250 cSt)</b>
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C -4°F +176°F</b>
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C -4°F +122°F</b>
<b>È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)</b> It is necessary a filter use to protect the valve (advised filtration 15 µm)	

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	PRESSIONE MAX MAX PRESSURE bar-PSI	PESO APPROX APPROX WEIGHT kg-lbt	CILINDRATA (cm <sup>3</sup> ) DISPLACEMENT (in <sup>3</sup> )
<b>PME3</b>	<b>220 (3190)</b>	<b>10,40 (22.92)</b>	<b>14 (0.85)</b>

**SFORZO ESERCITATO ALL'ESTREMITÀ DELLA LEVA**  
EFFORT OPERATING AT THE END OF THE LEVER

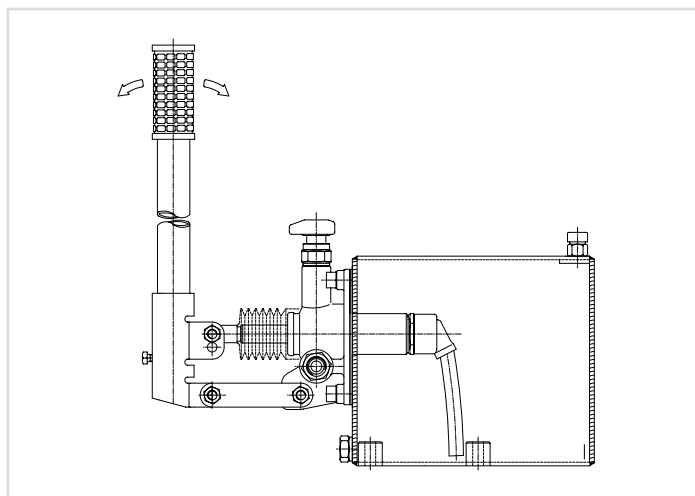




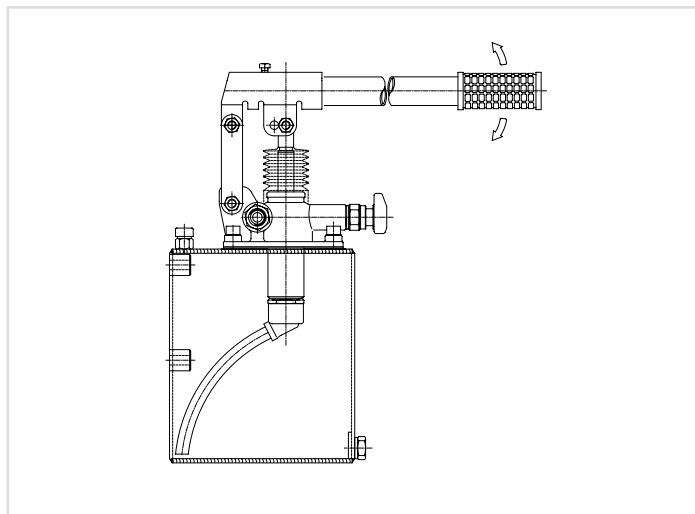
### DATI TECNICI / TECHNICAL DATA

Oilio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)		
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)		
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14		
Temperatura dell'olio - Oil temperature	-20°C	+80°C	-4°F + 176°F
Temperatura ambiente - Environment temperature	-20°C	+50°C	-4°F + 122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)			

### MONTAGGIO ORIZZONTALE / HORIZONTAL MOUNTING

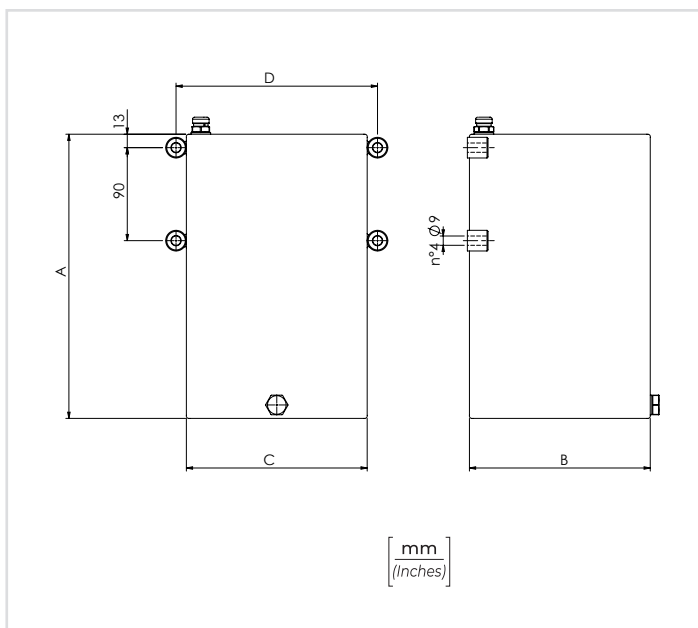


### MONTAGGIO VERTICALE / VERTICAL MOUNTING



SERBATOIO IN ACCIAIO, VERNICIATURA RAL9005 ANTIOLIO-NERO, IL SERBATOIO È COMPRESIVO DI TAPPO SFIATO, TAPPO SCARICO E TUBO PESCAGGIO

STEEL RESERVOIR, RAL9005 BLACK OIL PROOF PAINTING, THE RESERVOIR IS INCLUDING THE BREATHER PLUGS AND DRAFT TUBE



01

**CODICE ORDINAZIONE**  
ORDERING CODE

### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO TYPE	CAPACITÀ CAPACITY	A	B	C	D	PESO APPROX (kg) APPROX WEIGHT (lbt)
01	17900001	1 Lt. - 61 in. <sup>3</sup>	150 (5.91)	100 (3.94)	120 (4.72)	2,2 (5)
	17900002	2 Lt. - 122 in. <sup>3</sup>				2,7 (6)
	17900003	3 Lt. - 183 in. <sup>3</sup>				3,5 (7.71)
	17900006	5 Lt. - 305 in. <sup>3</sup>	175 (6.89)	195 (7.68)	5 (10.9)	
	17900004	7 Lt. - 427 in. <sup>3</sup>			5,5 (12.1)	
	17900005	10 Lt. - 610 in. <sup>3</sup>			7,1 (15.39)	
	17900014	13 Lt. - 793 in. <sup>3</sup>			10,75 (23.7)	
	17900015	15 Lt. - 915 in. <sup>3</sup>			12,10 (26.67)	
	17900016	20 Lt. - 1220 in. <sup>3</sup>			16 (35.26)	



**TNA 1**



**TNA 2 - TNA 3 - TNA 5**

SERBATOIO IN ALLUMINIO, IL SERBATOIO È COMPRESIVO DI TAPPO SFIATO, TAPPO SCARICO E TUBO PESCAGGIO

ALUMINIUM RESERVOIR, THE RESERVOIR INCLUDES THE AIR BLEEDING PLUGS AND SUCTION TUBE

	01	02
<b>CODICE ORDINAZIONE</b> ORDERING CODE	<b>TNA</b>	

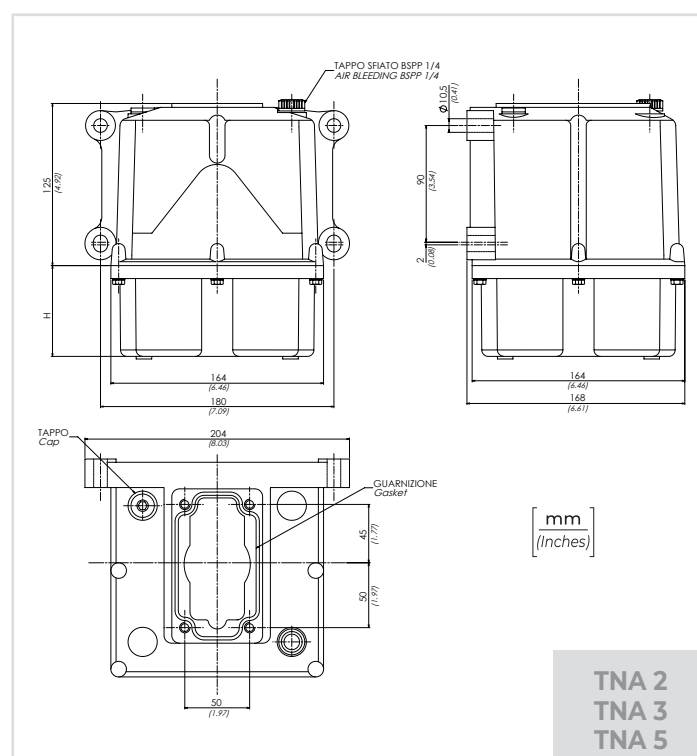
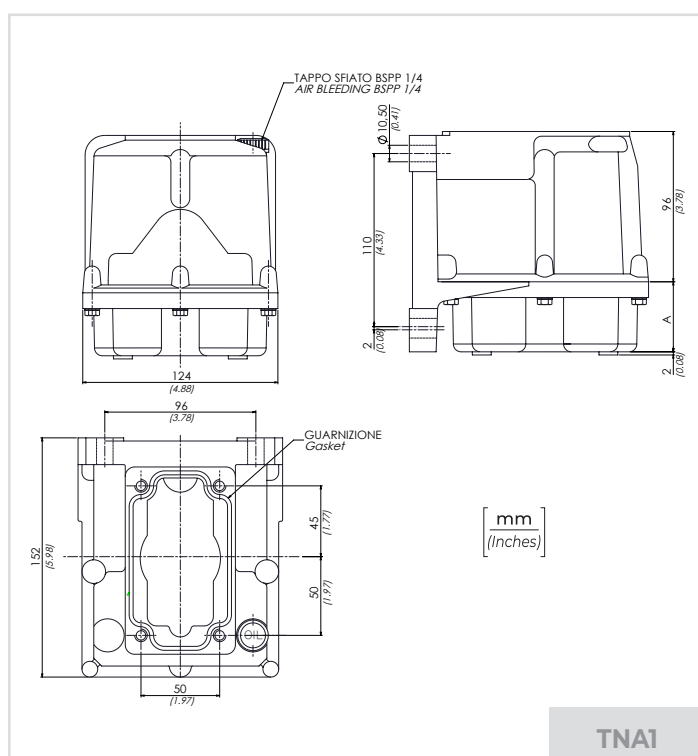
01	SERBATOI IN ALLUMINIO (ALUMINIUM RESERVOIRS)	TNA	
02	CAPACITÀ (CAPACITY)	1 Lt. - 61 in. <sup>3</sup>	1
		2 Lt. - 122 in. <sup>3</sup>	2
		3 Lt. - 183 in. <sup>3</sup>	3
		5 Lt. - 305 in. <sup>3</sup>	5

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

Tipo Type	Capacità Capacity Lt./in	A	H	Peso Appross (kg) Approx weight (lb)
TNA 1	1 Lt. - 61 in. <sup>3</sup>	40 (1.57)	/	1,1 (2.4)
TNA 2	2 Lt. - 122 in. <sup>3</sup>	/	25 (0.98)	1,5 (3.3)
TNA 3	3 Lt. - 183 in. <sup>3</sup>	/	70 (2.76)	1,6 (3.5)
TNA 5	5 Lt. - 305 in. <sup>3</sup>	/	180 (7.09)	1,8 (4)

**DATI TECNICI / TECHNICAL DATA**

Olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	



## MONTAGGIO POMPA NEL SERBATOIO

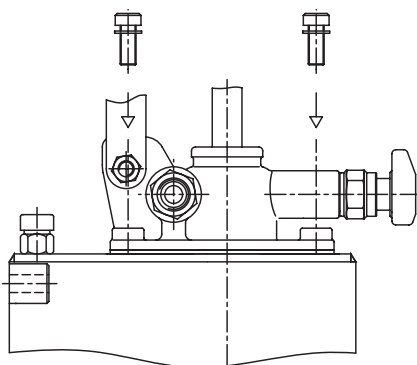
1

### Montaggio del tubo aspirazione



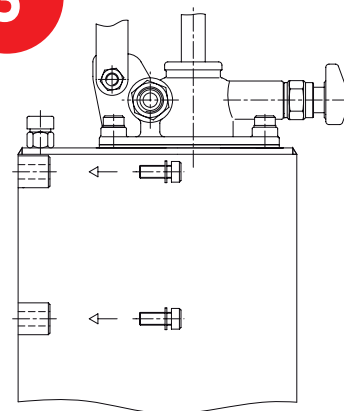
Introdurre il tubo di aspirazione nell'apposito raccordo.

2



Appoggiare la guarnizione in gomma sul serbatoio, posizionare la pompa, assemblare la pompa sul serbatoio mediante kit viti di fissaggio.

3

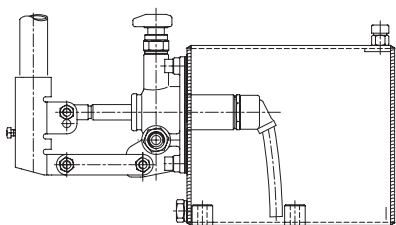


Collocare pompa e serbatoio nella posizione desiderata fissando con 4 viti.

Avvitare per minimo 20 mm.

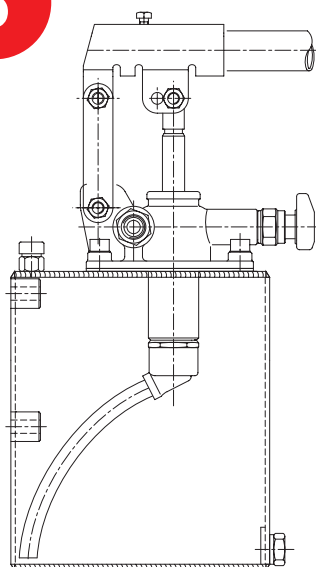
Collegare la mandata della pompa al circuito a semplice o doppio effetto.

4



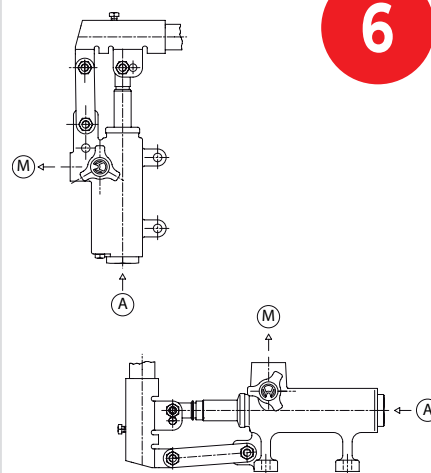
Montaggio orizzontale.

5



Montaggio verticale.

6



Posizionare la pompa in orizzontale o verticale fissandola con apposite viti. Collegare aspirazione (A) e mandata (M) della pompa al circuito.

## USO

Per un corretto funzionamento, dopo aver montato la pompa nel o sul serbatoio in modo appropriato, utilizzare esclusivamente olio idraulico a base minerale ISO6743/4 (DIN 51524), viscosità secondo i parametri ISO 3448 (DIN51519).

**Viscosità consigliata:** 46 mm<sup>2</sup>/s (cSt)

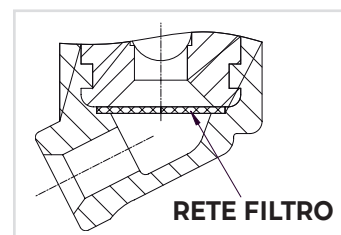
**Filtrazione consigliata:** 15 µm

**Classe di contaminazione:** 18/14 ISO4406 (9 NAS 1638)

## MANUTENZIONE

Per un corretto funzionamento, si consiglia di seguire le seguenti procedure periodiche:

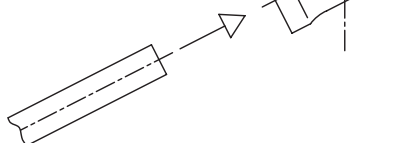
- PULIZIA DELLA RETE FILTRO
- SOSTITUZIONE OLIO



## MOUNTING OF PUMP INSIDE THE TANK

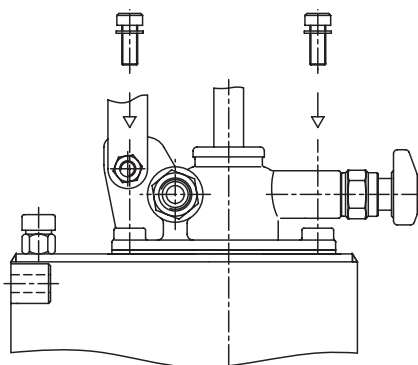
1

Mounting the suction hose



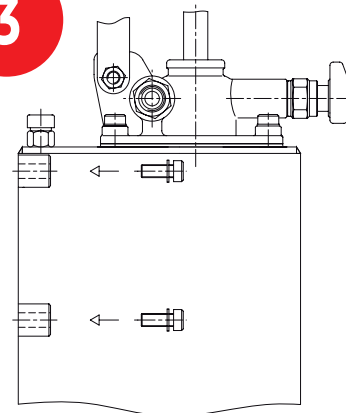
Insert the suction hose in the proper fitting.

2



Put the rubber seal on the tank, position the pump, assemble the pump to the tank by means of the fixing screws kit.

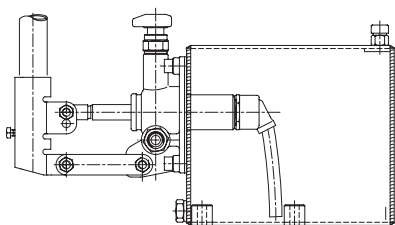
3



Place pump and tank in the position you need and fix them with nr.4 screws. You have to screw for at least 0.79 inch.

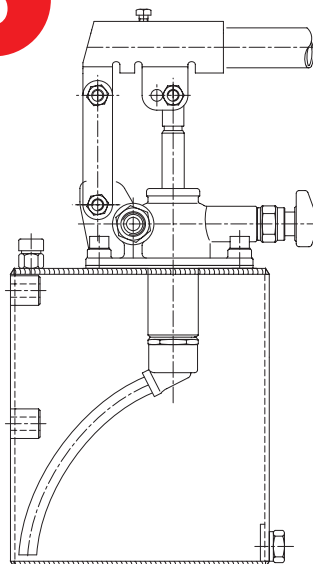
Connect pump delivery to the single or double acting circuit.

4



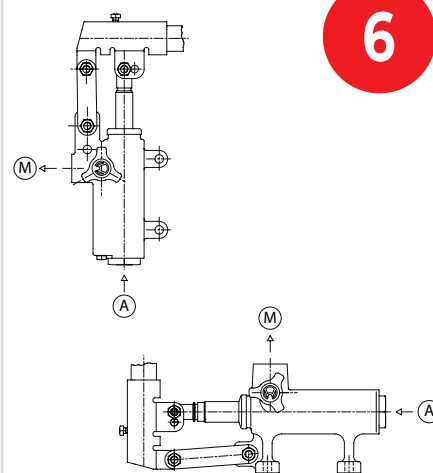
Horizontal mounting.

5



Vertical mounting.

6



Place pump horizontally or vertically and fix with proper screws.

Connect pump suction (A) and delivery (M) to the circuit.

## USE

For a good service of the pump, after having assembled the pump inside or on the tank in the proper way, please use only ISO6743/4 (DIN 51524), hydraulic mineral oil, viscosity according to ISO 3448 (DIN51519) standards.

**Advised viscosity:** 46 mm<sup>2</sup>/s (cSt)

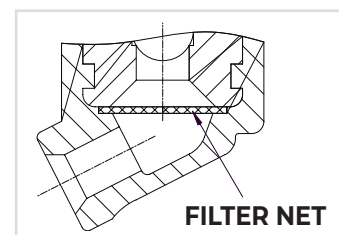
**Advised filtration:** 15 μm

**Contamination class:** 18/14 ISO4406  
(9 NAS 1638)

## MAINTENANCE

For a good service, we advise following periodical operations:

- FILTER NET CLEANING
- OIL REPLACEMENT



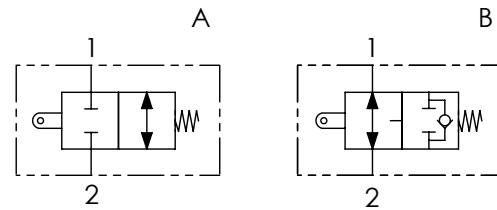


**CODICE ORDINAZIONE**  
ORDERING CODE

	01	02	03
	<b>FCT</b>		

<b>01</b>	VALVOLE DI FINE CORSA A TRAZIONE (TUG END - STROKE VALVES)	<b>FCT</b>
<b>02</b>	DIMENSIONE (SIZE)	BSPP 3/8
		BSPP 1/2
		BSPP 3/4
		BSPP 1
<b>03</b>	SCHEMA (CIRCUIT)	Centro chiuso (Closed centre)
		Centro aperto (Open centre)

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**

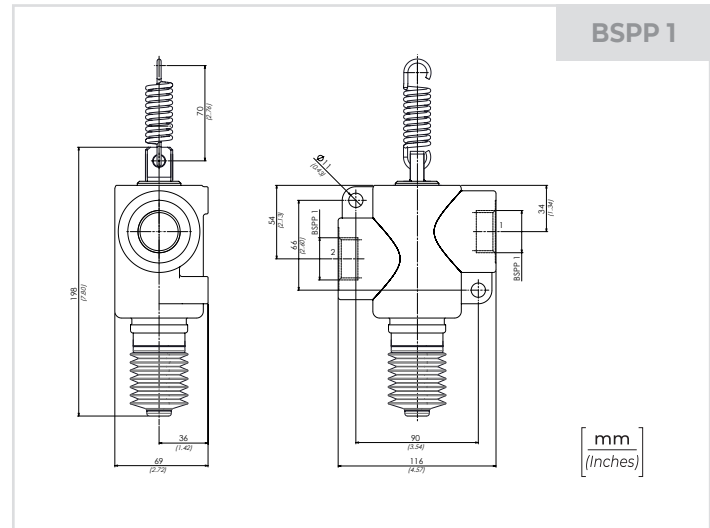
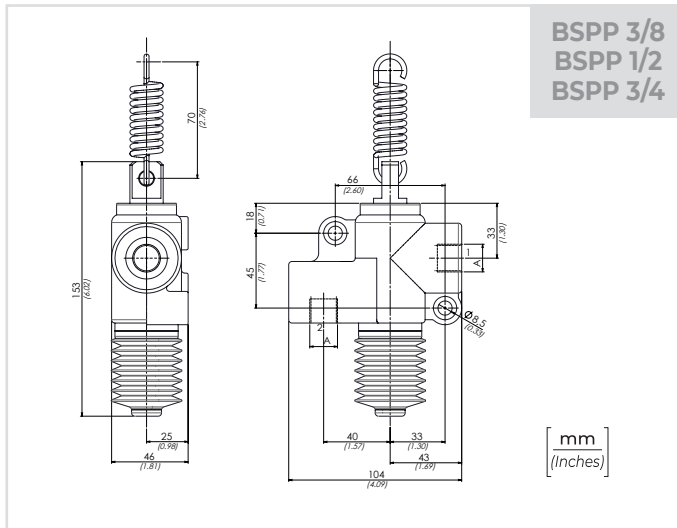


**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

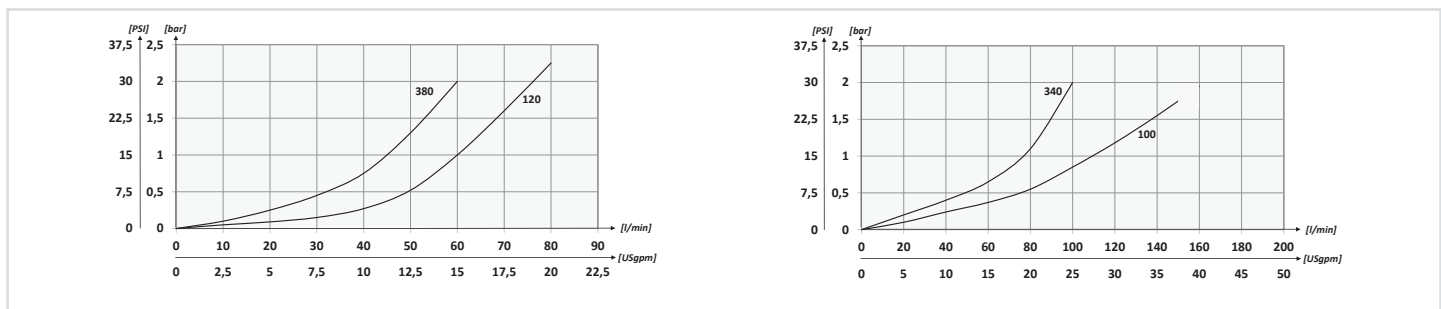
TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	PESO APPROX APPROX WEIGHT kg-lbt
380	BSPP 3/8	60 (15.8)	250 (3625)	1,7 (3.7)
120	BSPP 1/2	80 (21.1)		1,8 (4)
340	BSPP 3/4	100 (26.4)		1,9 (4.1)
100	BSPP 1	140 (37)	200 (2900)	2,5 (5.5)

**DATI TECNICI / TECHNICAL DATA**

**Olio idraulico** - Mineral oil **ISO 6743/4** (DIN 51524)  
**Viscosità olio** - Oil viscosity **15-250 mm<sup>2</sup>/s** (15 to 250 cSt)  
**Classe di contaminazione max** **ISO 4406:1999 Classe 19/17/14**  
 Max contamination index  
**Temperatura dell'olio** - Oil temperature **-20°C +80°C** **-4°F +176°F**  
**Temperatura ambiente** - Environment temperature **-20°C +50°C** **-4°F +122°F**  
 È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)  
 It is necessary a filter use to protect the valve (advised filtration 15 µm)



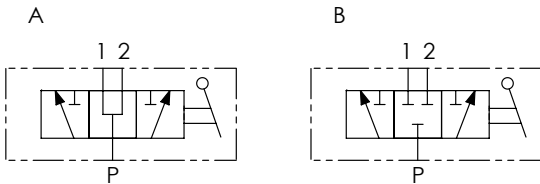
**PERFORMANCES**



# DDFA3-N DEVIATORI DI FLUSSO A 3 VIE ALTA PRESSIONE HIGH PRESSURE 3 WAYS FLOW DIVERTERS



### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT

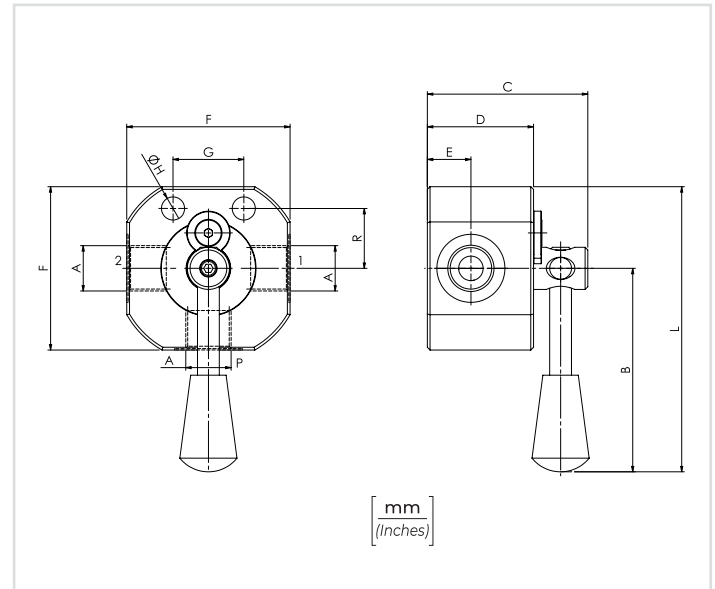


	01	02	03	04	05
<b>CODICE ORDINAZIONE</b> ORDERING CODE	<b>DDFA3</b>		<b>N</b>		<b>S</b>

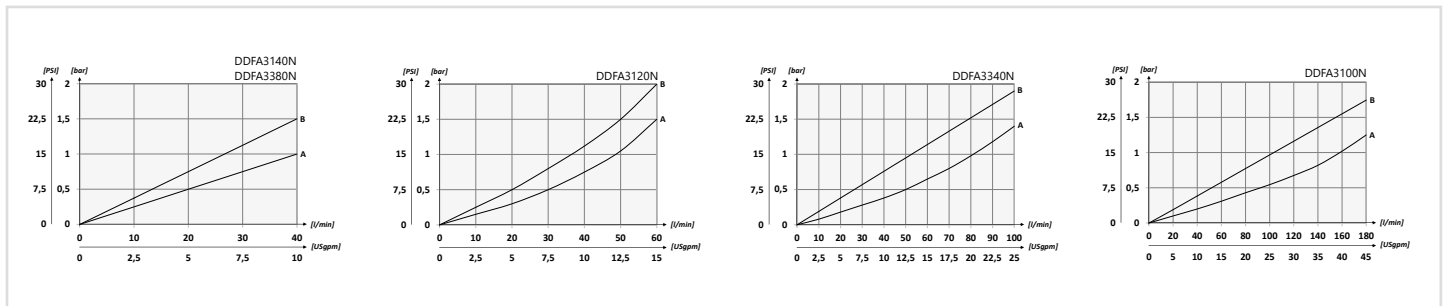
<b>01</b>	DEVIATORI DI FLUSSO A 3 VIE ALTA PRESSIONE (HIGH PRESSURE 3 WAYS FLOW DIVERTERS)			<b>DDFA3</b>
<b>02</b>	DIMENSIONE (SIZE)	BSPP 1/4	<b>140</b>	
		BSPP 3/8	<b>380</b>	
		BSPP 1/2	<b>120</b>	
		BSPP 3/4	<b>340</b>	
		BSPP 1	<b>100</b>	
<b>03</b>	NUOVA VERSIONE (NEW VERSION)			<b>N</b>
<b>04</b>	SCHEMA (CIRCUIT)	Centro aperto (Open centre)	<b>A</b>	
		Centro chiuso (Closed centre)	<b>B</b>	
<b>05</b>	MATERIALE (MATERIAL)	Acciaio (Steel)		<b>S</b>

### DATI TECNICI / TECHNICAL DATA

Olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)	
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)	
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14	
Temperatura dell'olio - Oil temperature	-20°C +80°C	-4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C	-4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)		
Trafilamento massimo Max leakage	7 gocce al min. 0,015 in <sup>3</sup> /min	200 bar drops/min



### PERFORMANCES

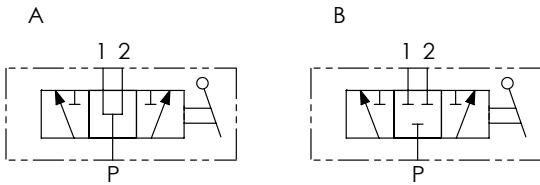


### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	B	C	D	E	F	G	H	L	R	PESO APPROX APPROX WEIGHT kg-lbt
DDFA3140-N	BSPP 1/4	40 (10.6)	500 (7250)	80 (3.15)	59 (2.32)	39 (1.54)	16 (0.63)	60 (2.36)	26 (1.02)	8,5 (0.33)	110 (4.33)	22 (0.87)	0.97 (2.13)
DDFA3380-N	BSPP 3/8												0.94 (2.07)
DDFA3120-N	BSPP 1/2	60 (15.8)											0.90 (1.98)
DDFA3340-N	BSPP 3/4	100 (26.4)											2.24 (4.93)
DDFA3100-N	BSPP 1	180 (47.5)											2.33 (5.14)



### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT

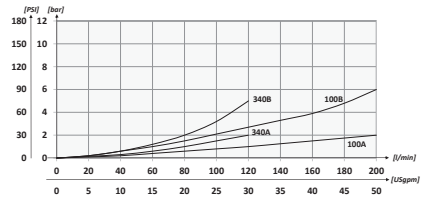
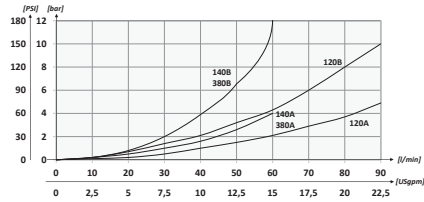


### CODICE ORDINAZIONE / ORDERING CODE

01	02	03
<b>DDF3</b>		

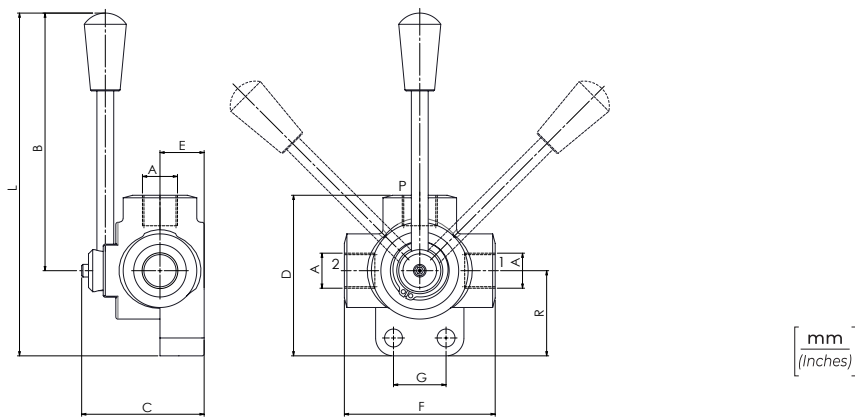
<b>01</b>	DEVIATORI DI FLUSSO A 3 VIE (3 WAYS FLOW DIVERTERS)	<b>DDF3</b>
<b>02</b>	DIMENSIONE (SIZE)	BSPP 1/4
		BSPP 3/8
		BSPP 1/2
		BSPP 3/4
		BSPP 1
<b>03</b>	SCHEMA (CIRCUIT)	Centro aperto (Open centre)
		Centro chiuso (Closed centre)

### PERFORMANCES



### DATI TECNICI / TECHNICAL DATA

Olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C    -4°F + 176°F
Temperatura ambiente - Environment temperature	-20°C +50°C    -4°F + 122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	
Trafilamento massimo Max leakage	7 gocce al min.    200 bar 7 drops-min        2900 PSI



### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	B	C	D	E	F	G	H	L	R	PESO APPROX APPROX WEIGHT kg-lbt
DDF3140	BSPP 1/4	60 (15.8)	350 (5075)	115 (4.53)	57 (2.24)	75,5 (2.97)	21 (0.83)	70 (2.76)	25 (0.98)	8,5 (0.33)	155,5 (6.12)	32 (1.26)	0,8 (1.8)
DDF3380	BSPP 3/8												
DDF3120	BSPP 1/2	90 (23.8)			63 (2.48)	86 (3.39)	24 (0.94)	80 (3.15)	32 (1.26)	10,5 (0.41)	161 (6.34)	36 (1.42)	1,3 (2.8)
DDF3340	BSPP 3/4	120 (31.7)			67 (2.64)	98,5 (3.88)	26 (1.02)	90 (3.54)					
DDF3100	BSPP 1	200 (52.8)	300 (4350)	77 (3.03)	110 (4.33)	31 (1.22)	98 (3.86)	176,5 (6.95)	50 (1.97)	2,5 (5.5)			



# DDF3-SAE DEVIATORI DI FLUSSO A 3 VIE

## 3 WAYS FLOW DIVERTERS



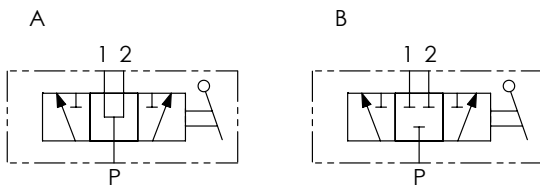
### CODICE ORDINAZIONE

#### ORDERING CODE

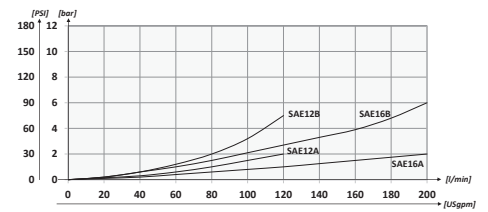
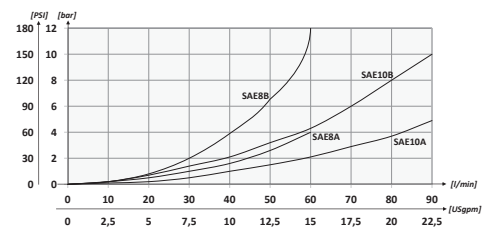
01	02	03
<b>DDF3SAE</b>		

<b>01</b>	DEVIATORI DI FLUSSO A 3 VIE (3 WAYS FLOW DIVERTERS)	<b>DDF3SAE</b>
<b>02</b>	DIMENSIONE (SIZE)	3/4-16UNF <b>8</b>
		7/8-14UNF <b>10</b>
		1-1/16-12UN <b>12</b>
		1-5/16-12UN <b>16</b>
<b>03</b>	SCHEMA (CIRCUIT)	<b>Centro aperto</b> (Open centre) <b>A</b>
		<b>Centro chiuso</b> (Closed centre) <b>B</b>

### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT

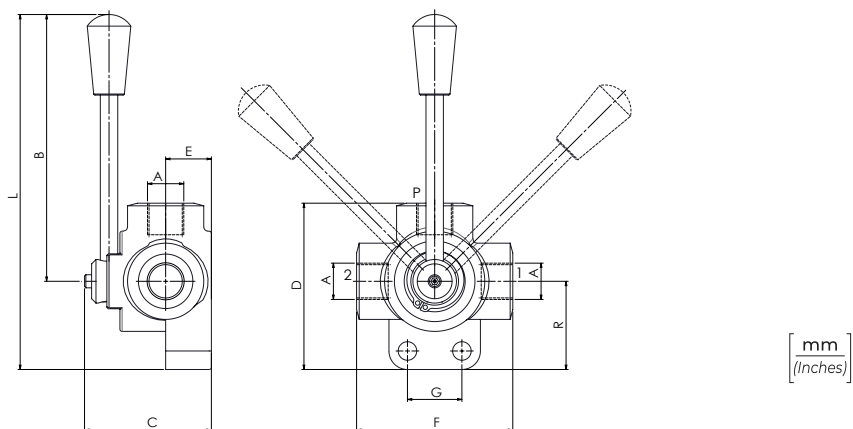


### PERFORMANCES



### DATI TECNICI / TECHNICAL DATA

Olío idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	
Trafilamento massimo Max leakage	<b>7 gocce al min. 200 bar</b> 7 drops-min 2900 PSI



### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	B	C	D	E	F	G	H	L	R	PESO APPROX APPROX WEIGHT kg-lbt
DDF3SAE8	3/4-16UNF	60 (15.8)	350 (5075)	115 (4.53)	57 (2.24)	75,5 (2.97)	21 (0.83)	70 (2.76)	25 (0.98)	8,5 (0.33)	155,5 (6.12)	32 (1.26)	0,8 (1.8)
DDF3SAE10	7/8-14UNF	90 (23.8)			63 (2.48)	86 (3.39)	24 (0.94)	80 (3.15)	32 (1.26)		161 (6.34)	36 (1.42)	1,3 (2.8)
DDF3SAE12	1-1/16-12UN	120 (31.7)			67 (2.64)	98,5 (3.88)	26 (1.02)	90 (3.54)		10,5 (0.41)	168,5 (6.63)	42 (1.65)	1,7 (3.7)
DDF3SAE16	1-5/16-12UN	200 (52.8)			300 (4350)	77 (3.03)	110 (4.33)	31 (1.22)	98 (3.86)		176,5 (6.95)	50 (1.97)	2,2 (5.5)

# DDF6 DEVIATORI DI FLUSSO A 6 VIE 6 WAYS FLOW DIVERTERS

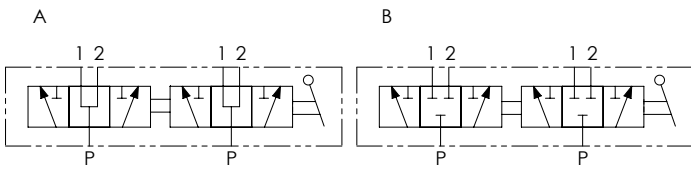


### CODICE ORDINAZIONE ORDERING CODE

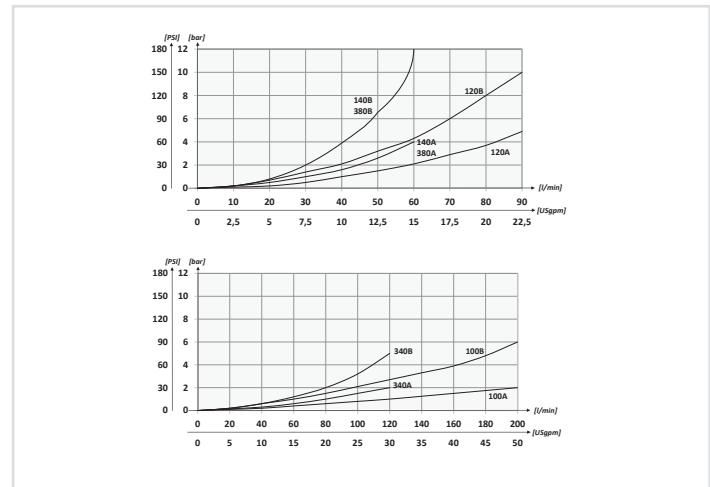
01	02	03
<b>DDF6</b>		

<b>01</b>	DEVIATORI DI FLUSSO A 6 VIE (6 WAYS FLOW DIVERTERS)	<b>DDF6</b>	
<b>02</b>	DIMENSIONE (SIZE)	BSPP 1/4	<b>140</b>
		BSPP 3/8	<b>380</b>
		BSPP 1/2	<b>120</b>
		BSPP 3/4	<b>340</b>
		BSPP 1	<b>100</b>
<b>03</b>	SCHEMA (CIRCUIT)	Centro aperto (Open centre)	<b>A</b>
		Centro chiuso (Closed centre)	<b>B</b>

### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT

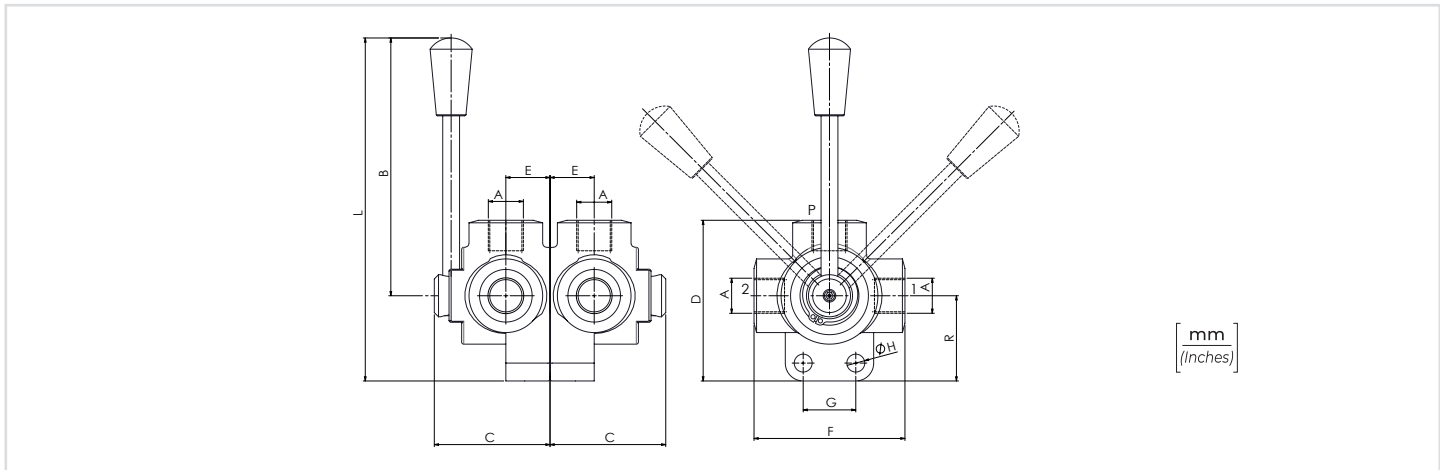


### PERFORMANCES



### DATI TECNICI / TECHNICAL DATA

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4 (DIN 51524)</b>		
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s (15 to 250 cSt)</b>		
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>		
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b>	<b>-4°F +176°F</b>	
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b>	<b>-4°F +122°F</b>	
<b>È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)</b> It is necessary a filter use to protect the valve (advised filtration 15 µm)			
<b>Trafilamento massimo</b> Max leakage	<b>7 gocce al min.</b> 7 drops-min	<b>200 bar</b> 2900 PSI	



### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	B	C	D	E	F	G	H	L	R	PESO APPROX APPROX WEIGHT kg-lbt
DDF6140	BSPP 1/4	60+60 (15.8+15.8)	350 (5075)	115 (4.53)	57 (2.24)	75,5 (2.97)	21 (0.83)	70 (2.76)	25 (0.98)	8,5 (0.33)	155,5 (6.12)	32 (1.26)	1,6 (3.52)
DDF6380	BSPP 3/8												
DDF6120	BSPP 1/2												
DDF6340	BSPP 3/4												
DDF6100	BSPP 1												
		90+90 (23.8+23.8)			63 (2.48)	86 (3.39)	24 (0.94)	80 (3.15)			161 (6.34)	36 (1.42)	2,6 (5.7)
		120+120 (31.7+31.7)			67 (2.64)	98,5 (3.88)	26 (1.02)	90 (3.54)	32 (1.26)		168,5 (6.63)	42 (1.65)	3,4 (7.5)
		200+200 (52.8+52.8)			77 (3.03)	110 (4.33)	31 (1.22)	98 (3.86)		10,5 (0.41)	176,5 (6.95)	50 (1.97)	5,3 (12)

# DDF6-SAE DEVIATORI DI FLUSSO A 6 VIE 6 WAYS FLOW DIVERTERS

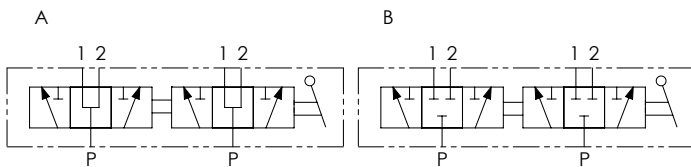


**CODICE ORDINAZIONE**  
ORDERING CODE

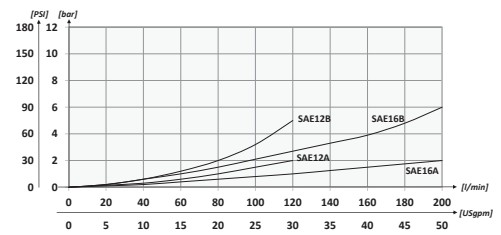
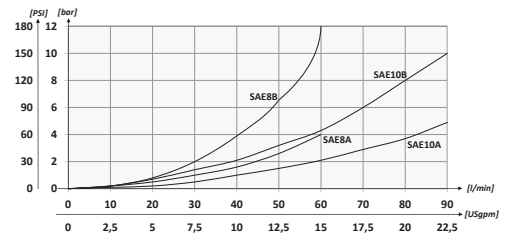
	01	02	03
	<b>DDF6SAE</b>		

<b>01</b>	DEVIATORI DI FLUSSO A 6 VIE (6 WAYS FLOW DIVERTERS)		<b>DDF6SAE</b>
<b>02</b>	DIMENSIONE (SIZE)	3/4-16UNF	<b>8</b>
		7/8-14UNF	<b>10</b>
		1-1/16-12UN	<b>12</b>
		1-5/16-12UN	<b>16</b>
<b>03</b>	SCHEMA (CIRCUIT)	Centro aperto (Open centre)	<b>A</b>
		Centro chiuso (Closed centre)	<b>B</b>

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**

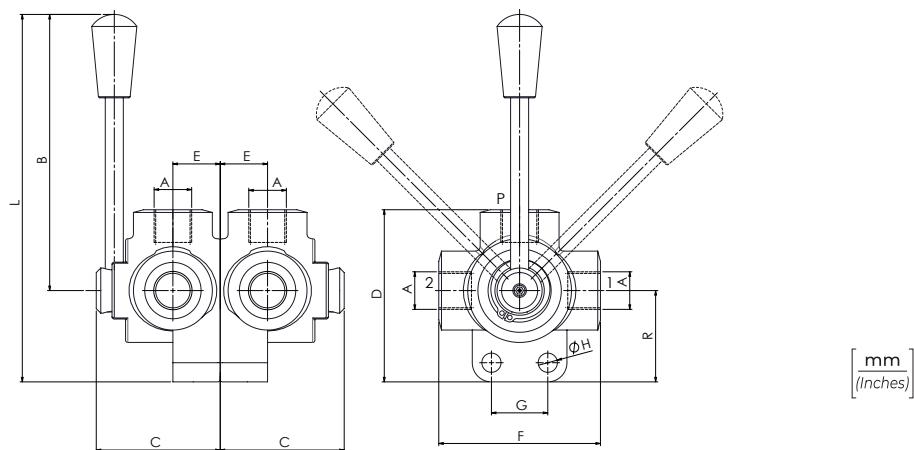


**PERFORMANCES**



**DATI TECNICI / TECHNICAL DATA**

<b>Olio idraulico - Mineral oil</b>	<b>ISO 6743/4 (DIN 51524)</b>
<b>Viscosità olio - Oil viscosity</b>	<b>15-250 mm<sup>2</sup>/s (15 to 250 cSt)</b>
<b>Classe di contaminazione max Max contamination index</b>	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio - Oil temperature</b>	<b>-20°C +80°C -4°F +176°F</b>
<b>Temperatura ambiente - Environment temperature</b>	<b>-20°C +50°C -4°F +122°F</b>
<b>È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)</b>	
<b>Trafilamento massimo Max leakage</b>	<b>7 gocce al min. 200 bar 7 drops-min 2900 PSI</b>



**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	B	C	D	E	F	G	H	L	R	PESO APPROX APPROX WEIGHT kg-lbt
DDF6SAE8	3/4-16UNF	60+60 (15.8+15.8)	350 (5075)	115 (4.53)	57 (2.24)	75,5 (2.97)	21 (0.83)	70 (2.76)	25 (0.98)	8,5 (0.33)	155,5 (6.12)	32 (1.26)	1,5 (3.3)
DDF6SAE10	7/8-14UNF	90+90 (23.8+23.8)			63 (2.48)	86 (3.38)	24 (0.95)	80 (3.15)	161 (6.34)		36 (1.42)	2,6 (5.7)	
DDF6SAE12	1-1/16-12UN	120+120 (31.7+31.7)			67 (2.64)	98,5 (3.88)	26 (1.02)	90 (3.54)	32 (1.26)	168,5 (6.63)	42 (1.65)	3,4 (7.5)	
DDF6SAE16	1-5/16-12UN	200+200 (52.8+52.8)			300 (4000)	77 (3.03)	110 (4.33)	31 (1.22)	98 (3.86)	176,5 (6.95)	50 (1.97)	5,3 (12)	

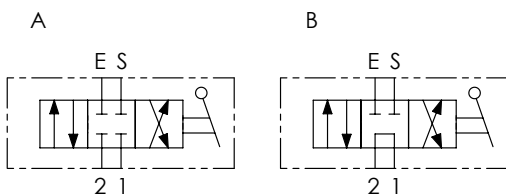


**CODICE ORDINAZIONE**  
ORDERING CODE

01	02	03
<b>IDF4</b>		

<b>01</b>	DEVIATORI DI FLUSSO A 4 VIE (4 WAYS FLOW DIVERTERS)	<b>IDF4</b>
<b>02</b>	DIMENSIONE (SIZE)	BSPP 1/4 <b>140</b>
		BSPP 3/8 <b>380</b>
		BSPP 1/2 <b>120</b>
		BSPP 3/4 <b>340</b>
		BSPP 1 <b>100</b>
<b>03</b>	SCHEMA (CIRCUIT)	Centro chiuso (Closed centre) <b>A</b>
		Centro aperto (Open centre) <b>B</b>

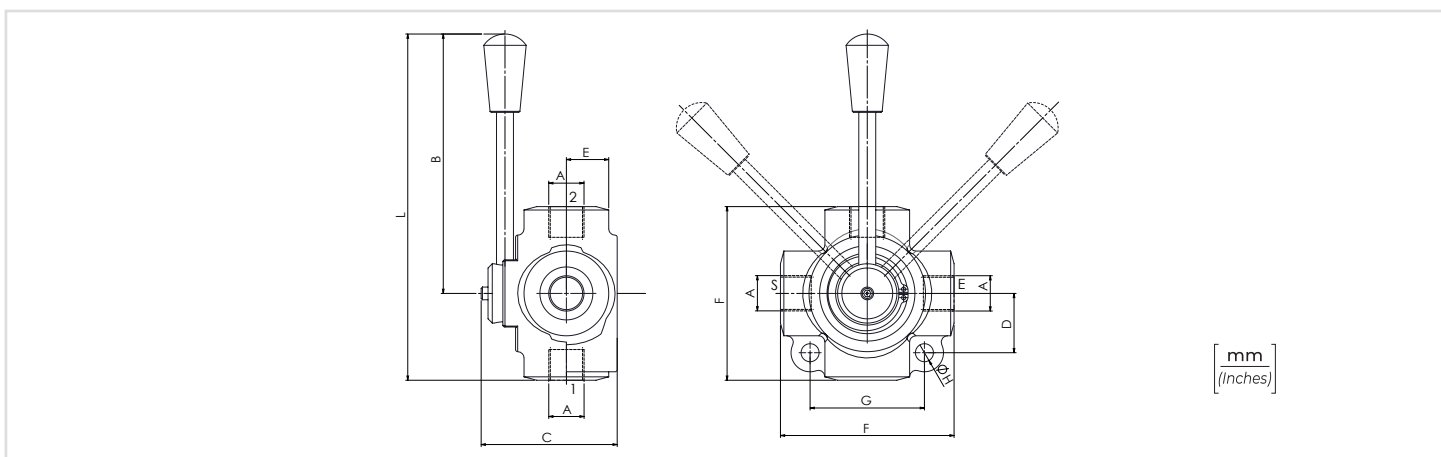
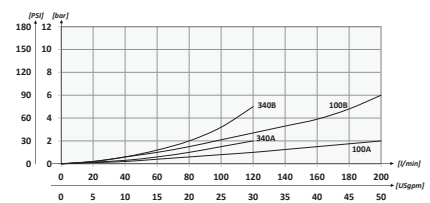
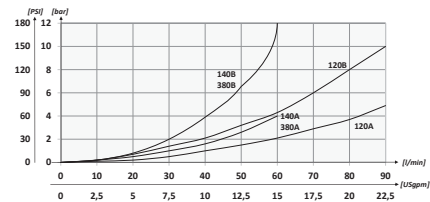
**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**DATI TECNICI / TECHNICAL DATA**

Olio idraulico - Mineral oil	<b>ISO 6743/4 (DIN 51524)</b>
Viscosità olio - Oil viscosity	<b>15-250 mm<sup>2</sup>/s (15 to 250 cSt)</b>
Classe di contaminazione max Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
Temperatura dell'olio - Oil temperature	<b>-20°C +80°C -4°F +176°F</b>
Temperatura ambiente - Environment temperature	<b>-20°C +50°C -4°F +122°F</b>
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	
Trafilamento massimo Max leakage	<b>7 gocce al min. 200 bar</b> <b>7 drops-min 2900 PSI</b>

**PERFORMANCES**



**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	B	C	D	E	F	G	H	L	PESO APPROX (kg) APPROX WEIGHT (lb)					
IDF4140	BSPP 1/4	60 (15.8)	350 (5075)	115 (4.53)	63 (2.48)	28 (1.10)	24 (0.94)	80 (3.15)	54 (2.13)	8,5 (0.33)	155 (6.10)	1,3 (2.8)					
IDF4380	BSPP 3/8											1,87 (4.06)					
IDF4120	BSPP 1/2	90 (23.8)							300 (4350)	77 (3.03)	38 (1.50)	31 (1.22)	94 (3.70)	74 (2.91)	10,5 (0.41)	162 (6.38)	2,8 (6.1)
IDF4340	BSPP 3/4																2,5 (5.51)
IDF4100	BSPP 1	200 (52.8)															

# IDF4-SAE DEVIATORI DI FLUSSO A 4 VIE 4 WAYS FLOW DIVERTERS

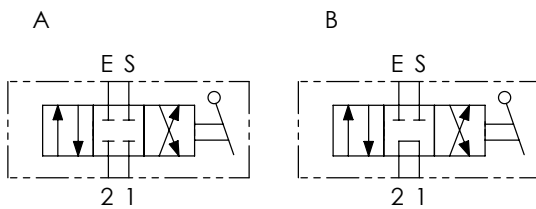


**CODICE ORDINAZIONE**  
ORDERING CODE

01	02	03
<b>IDF4SAE</b>		

<b>01</b>	DEVIATORI DI FLUSSO A 4 VIE (4 WAYS FLOW DIVERTERS)	<b>IDF4SAE</b>
<b>02</b>	DIMENSIONE (SIZE)	3/4-16UNF
		7/8-14UNF
		1-1/16-12UN
		1-5/16-12UN
<b>03</b>	SCHEMA (CIRCUIT)	Centro chiuso (Closed centre)
		Centro aperto (Open centre)

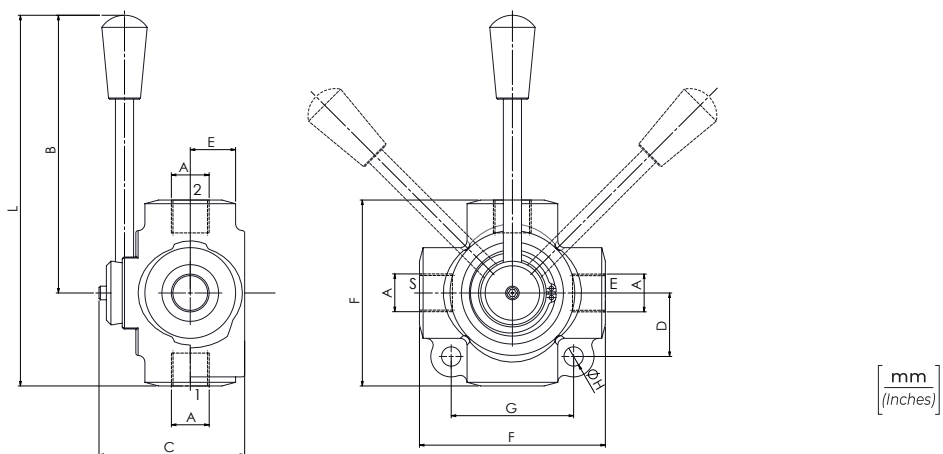
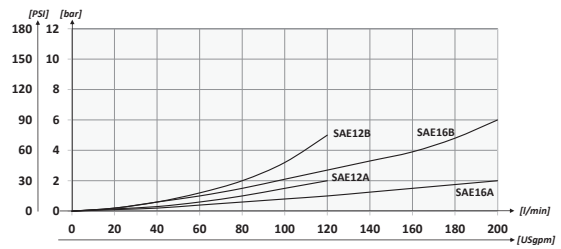
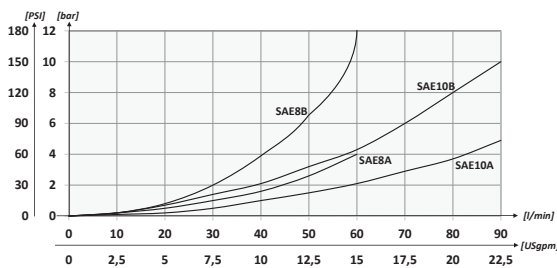
**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**DATI TECNICI / TECHNICAL DATA**

<b>Olio idraulico - Mineral oil</b>	<b>ISO 6743/4 (DIN 51524)</b>
<b>Viscosità olio - Oil viscosity</b>	<b>15-250 mm<sup>2</sup>/s (15 to 250 cSt)</b>
<b>Classe di contaminazione max Max contamination index</b>	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio - Oil temperature</b>	<b>-20°C +80°C -4°F +176°F</b>
<b>Temperatura ambiente - Environment temperature</b>	<b>-20°C +50°C -4°F +122°F</b>
<b>È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)</b>	
<b>Trafilamento massimo Max leakage</b>	<b>7 gocce al min. 200 bar 7 drops-min 2900 PSI</b>

**PERFORMANCES**

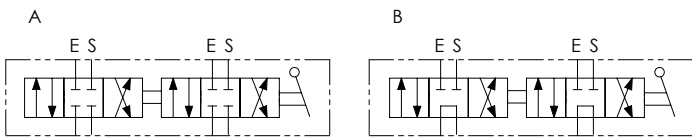


**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	B	C	D	E	F	G	H	L	PESO APPROX APPROX WEIGHT kg-lbt
IDF4SAE8	3/4-16UNF	60 (15.8)	350 (5075)	115 (4.53)	63 (2.48)	28 (1.10)	24 (0.94)	80 (3.15)	54 (2.13)	8,5 (0.33)	155 (6.10)	1,3 (2.8)
IDF4SAE10	7/8-14UNF	90 (23.8)										2,8 (6.1)
IDF4SAE12	1-1/16-12UN	120 (31.7)	2,8 (6.1)									
IDF4SAE16	1-5/16-12UN	200 (52.8)	300 (4350)	77 (3.03)	38 (1.50)	31 (1.22)	94 (3.70)	74 (2.91)	10,5 (0.41)	162 (6.38)	2 (4.4)	



### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT

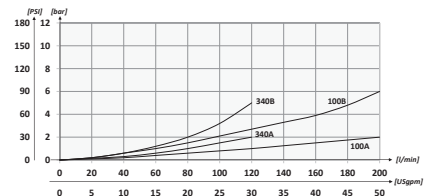
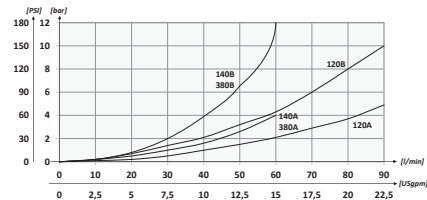


### CODICE ORDINAZIONE ORDERING CODE

01	02	03
<b>IDF8</b>		

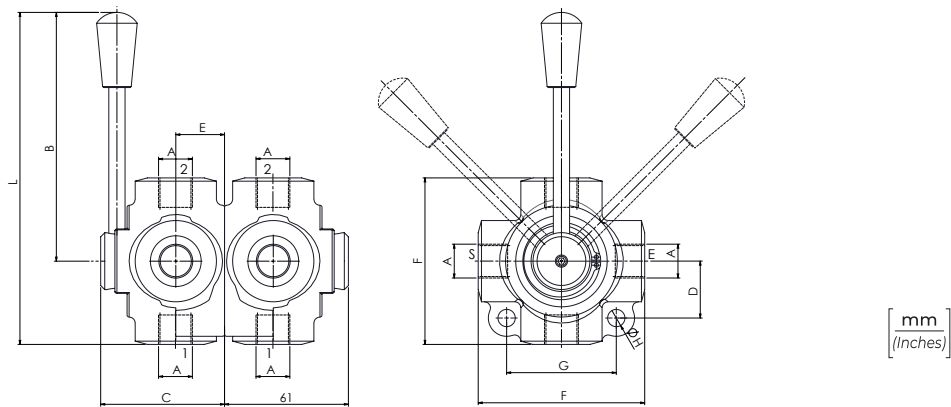
<b>01</b>	DEVIATORI DI FLUSSO A 8 VIE (8 WAYS FLOW DIVERTERS)	<b>IDF8</b>
<b>02</b>	DIMENSIONE (SIZE)	BSPP 1/4
		BSPP 3/8
		BSPP 1/2
		BSPP 3/4
		BSPP 1
<b>03</b>	SCHEMA (CIRCUIT)	Centro chiuso (Closed centre)
		Centro aperto (Open centre)

### PERFORMANCES



### DATI TECNICI / TECHNICAL DATA

Olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	
Trafilamento massimo Max leakage	7 gocce al min. 200 bar 7 drops-min 2900 PSI



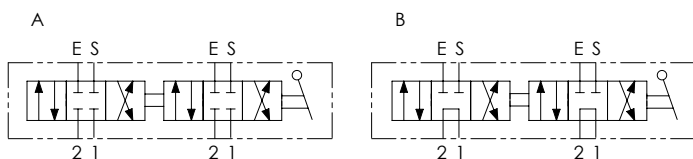
### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	B	C	D	E	F	G	H	L	PESO APPROX (kg) APPROX WEIGHT (lbt)
IDF8140	BSPP 1/4	60+60 (15.8+15.8)	350 (5075)	115 (4.53)	63 (2.48)	28 (1.10)	24 (0.94)	80 (3.15)	54 (2.13)	8,5 (0.33)	155 (6.10)	2,70 (5.86)
IDF8380	BSPP 3/8											2,52 (5.47)
IDF8120	BSPP 1/2	90+90 (23.8+23.8)										5,10 (11.07)
IDF8340	BSPP 3/4	120+120 (31.7+31.7)										4 (8.8)
IDF8100	BSPP 1	200+200 (52.8+52.8)										300 (4000)

# IDF8-SAE DEVIATORI DI FLUSSO A 8 VIE 8 WAYS FLOW DIVERTERS



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



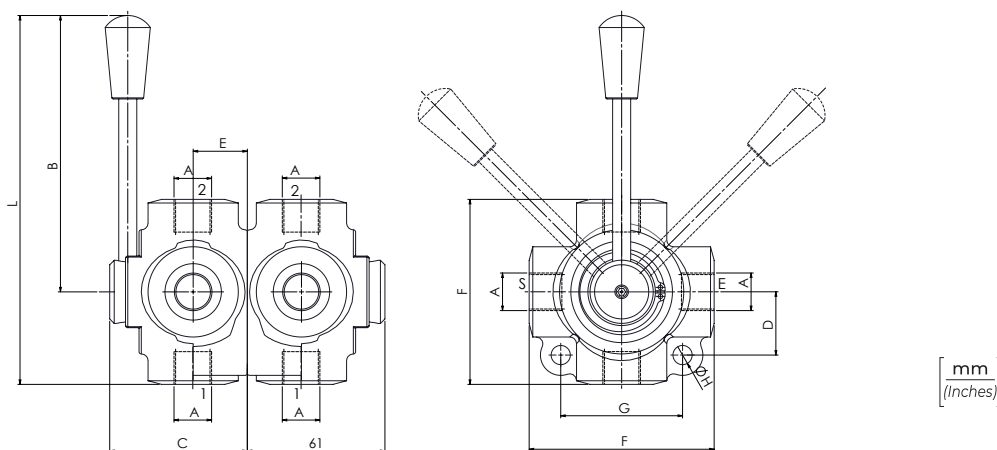
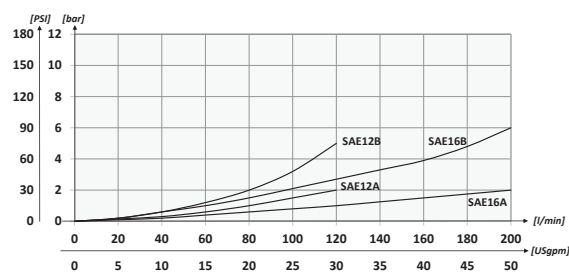
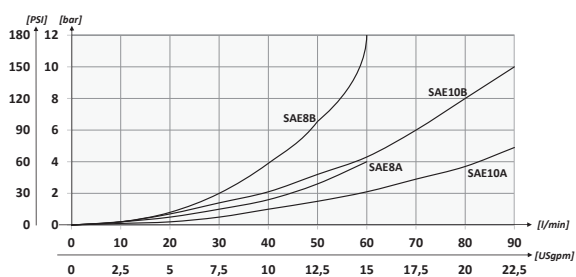
	01	02	03
<b>CODICE ORDINAZIONE</b> ORDERING CODE	<b>IDF8SAE</b>		

<b>01</b>	DEVIATORI DI FLUSSO A 8 VIE (8 WAYS FLOW DIVERTERS)	<b>IDF8SAE</b>	
<b>02</b>	DIMENSIONE (SIZE)	3/4-16UNF	<b>8</b>
		7/8-14UNF	<b>10</b>
		1-1/16-12UN	<b>12</b>
		1-5/16-12UN	<b>16</b>
<b>03</b>	SCHEMA (CIRCUIT)	Centro chiuso (Closed centre)	<b>A</b>
		Centro aperto (Open centre)	<b>B</b>

## DATI TECNICI / TECHNICAL DATA

olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	
Trafilamento massimo Max leakage	<b>7 gocce al min.</b> <b>200 bar</b> 7 drops-min      2900 PSI

## PERFORMANCES



## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	B	C	D	E	F	G	H	L	PESO APPROX APPROX WEIGHT kg-lbt
IDF8SAE8	3/4-16UNF	60+60 (15.8+15.8)	350 (5075)	115 (4.53)	63 (2.48)	28 (1.10)	24 (0.94)	80 (3.15)	54 (2.13)	8,5 (0.33)	155 (6.10)	2,3 (5)
IDF8SAE10	7/8-14UNF	90+90 (23.8+23.8)										2,1 (4.6)
IDF8SAE12	1-1/16-12UN	120+120 (31.7+31.7)	4,3 (9.5)									
IDF8SAE16	1-5/16-12UN	200+200 (52.8+52.8)	300 (4350)	77 (3.03)	38 (1.50)	31 (1.22)	94 (3.70)	74 (2.91)	10,5 (0.41)	162 (6.38)	4 (8.8)	





# COMPONENTI E ACCESSORI

## HYDRAULIC COMPONENTS

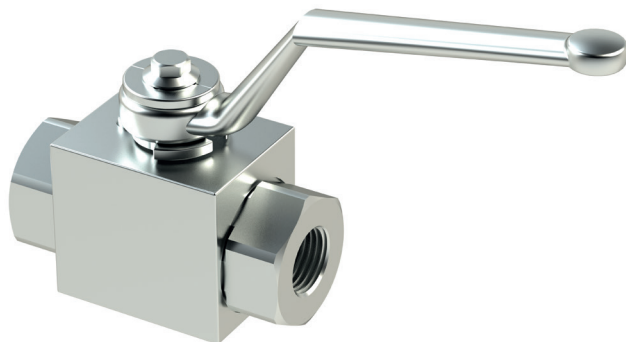
Valvole a sfera a 2, 3 e 4 vie, giunti girevoli, mini-prese di pressione ed esclusori manometro.

Ball valves 2, 3 or 4 ways, rotating couplings, pressure gauge shut-off valves and test couplings for pressure checking.



# RAS2-BSPP VALVOLE A SFERA A 2 VIE

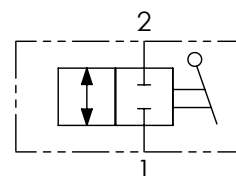
## 2 WAYS BALL VALVES



	01	02	03
<b>CODICE ORDINAZIONE</b> ORDERING CODE	<b>RAS2</b>		

<b>01</b>	VALVOLE A SFERA A 2 VIE (2 WAYS BALL VALVES)	<b>RAS2</b>	
<b>02</b>	DIMENSIONE (SIZE)	BSPP 1/8	<b>180</b>
		BSPP 1/4	<b>140</b>
		BSPP 3/8	<b>380</b>
		BSPP 1/2	<b>120</b>
		BSPP 3/4	<b>340</b>
		BSPP 1	<b>100</b>
		BSPP 1-1/4	<b>114</b>
<b>03</b>	OPTIONAL	Fori di fissaggio (Fixing ports)	<b>P</b>

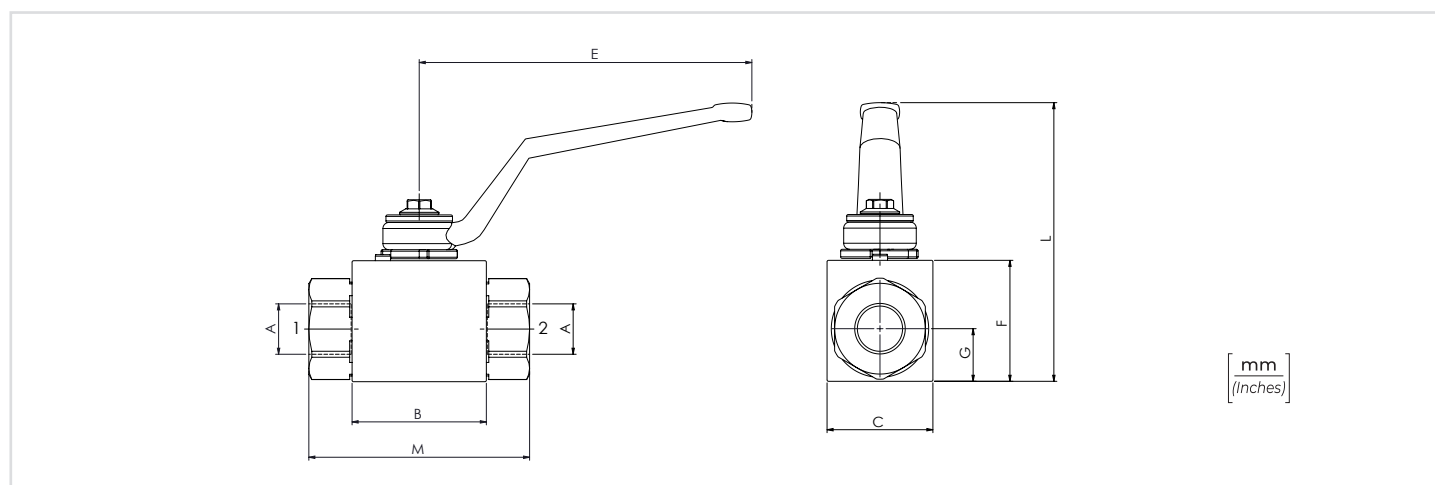
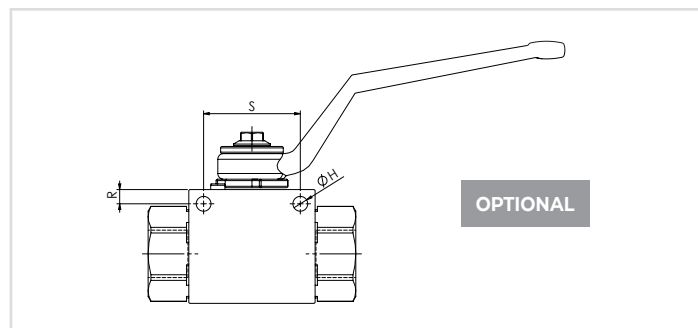
### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### DATI TECNICI / TECHNICAL DATA

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> <b>-4°F +176°F</b>
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b> <b>-4°F +122°F</b>

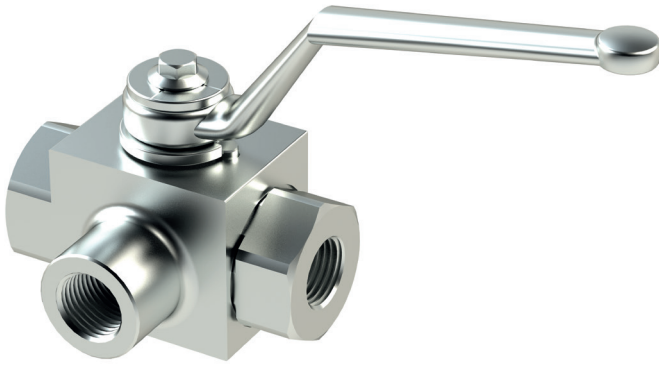
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)  
It is necessary a filter use to protect the valve (advised filtration 15 µm)



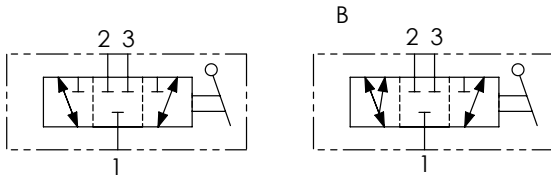
### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	B	C	E	F	G	H	L	M	R	S	PESO APPROX APPROX WEIGHT kg-lbt
RAS2180	BSPP 1/8	15 (4)	500 (7250)	42,4 (1.67)	30 (1.18)	110 (4.33)	35 (1.38)	14,5 (0.57)	5,2 (0.20)	91,5 (3.60)	71 (2.80)	4,5 (0.18)	34 (1.34)	0,5 (1.1)
RAS2140	BSPP 1/4	25 (6.6)												
RAS2380	BSPP 3/8	35 (9.2)												
RAS2120	BSPP 1/2	60 (15.8)	400 (5800)	48,4 (1.91)	37 (1.46)	180 (7.09)	43 (1.69)	18 (0.71)	6,2 (0.24)	99,5 (3.92)	83 (3.27)	5 (0.20)	36 (1.42)	0,8 (1.8)
RAS2340	BSPP 3/4	100 (26.4)												
RAS2100	BSPP 1	150 (39.6)	350 (5075)	66,5 (2.62)	55 (2.17)	180 (7.09)	65 (2.56)	29,5 (1.16)	6,2 (0.24)	116,5 (4.59)	112 (4.41)	6 (0.24)	50 (1.97)	2,3 (5)
RAS2114	BSPP 1-1/4										120 (4.72)			
RAS2112	BSPP 1-1/2										124 (4.88)			

# RAS3-BSPP VALVOLE A SFERA A 3 VIE 3 WAYS BALL VALVES



SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



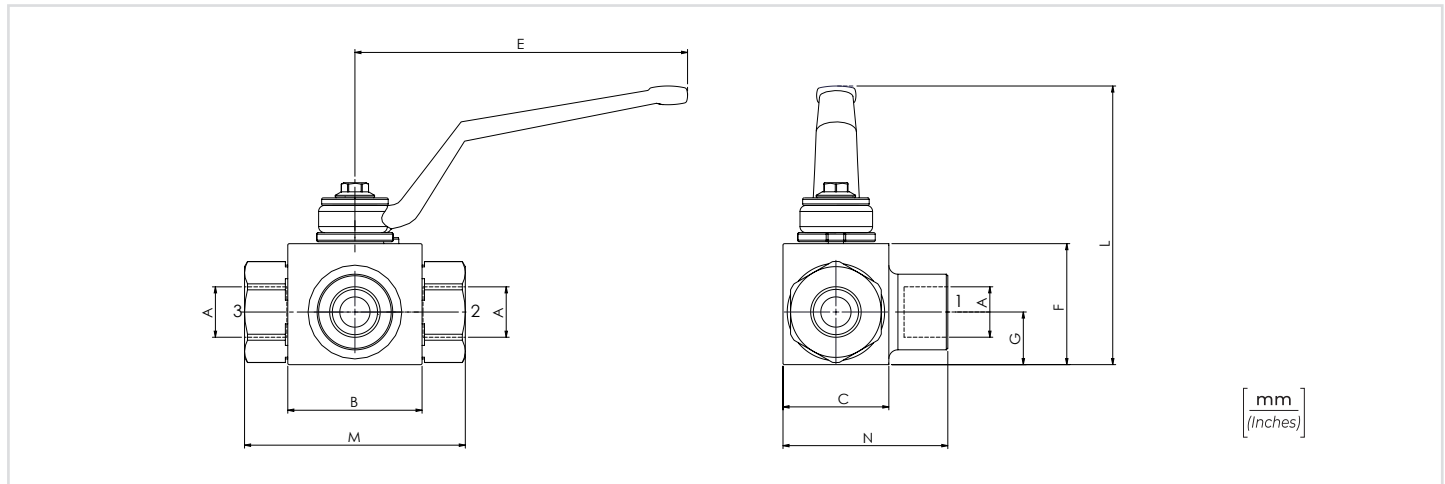
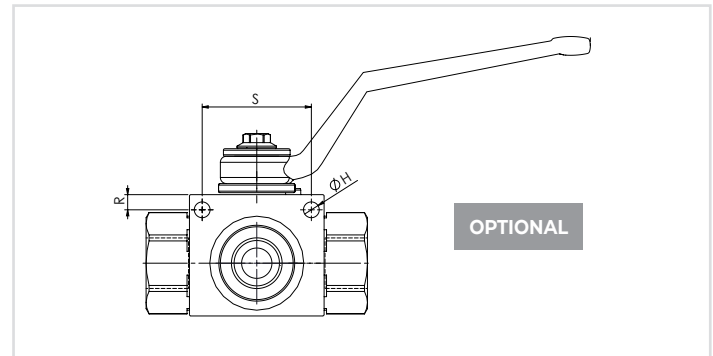
**CODICE ORDINAZIONE**  
ORDERING CODE

01	02	03	04
<b>RAS3</b>			

<b>01</b>		VALVOLE A SFERA A 3 VIE (3 WAYS BALL VALVES)	<b>RAS3</b>
<b>02</b>	DIMENSIONE (SIZE)	BSPP 1/8	<b>180</b>
		BSPP 1/4	<b>140</b>
		BSPP 3/8	<b>380</b>
		BSPP 1/2	<b>120</b>
		BSPP 3/4	<b>340</b>
		BSPP 1	<b>100</b>
		BSPP 1-1/4	<b>114</b>
		BSPP 1-1/2	<b>112</b>
<b>03</b>	SCHEMA (CIRCUIT)	STANDARD	<b>/</b>
		SCHEMA B	<b>B</b>
<b>04</b>	OPTIONAL	Fori di fissaggio (Fixing ports)	<b>P</b>

**DATI TECNICI / TECHNICAL DATA**

Olío idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	

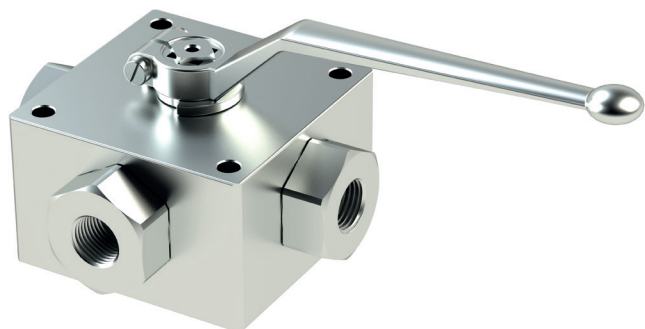


**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

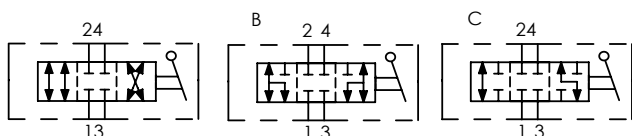
TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	B	C	E	F	G	H	L	M	N	R	S	PESO APPROX APPROX WEIGHT kg-lbt
RAS3180	BSPP 1/8	15 (4)	400 (5800)	42,4 (1.67)	30 (1.18)	110 (4.33)	35 (1.38)	14,5 (0.57)	5,2 (0.20)	91,5 (3.60)	71 (2.80)	48,5 (1.91)	4,5 (0.18)	34 (1.34)	0,6 (1.3)
RAS3140	BSPP 1/4	25 (6.6)		44,4 (1.75)	35 (1.38)		40 (1.57)	17,5 (0.69)		96,5 (3.80)	73 (2.87)	54,5 (2.15)	5 (0.20)	36 (1.42)	0,7 (1.5)
RAS3380	BSPP 3/8	35 (9.2)		48,4 (1.91)	37 (1.46)		43 (1.69)	18 (0.71)		99,5 (3.92)	83 (3.27)	58,5 (2.30)	6 (0.24)	50 (1.97)	0,8 (1.8)
RAS3120	BSPP 1/2	60 (15.8)		62,5 (2.46)	45 (1.77)		55 (2.16)	23,5 (0.93)		106,5 (4.19)	95 (3.74)	75 (2.95)			1,6 (3.5)
RAS3100	BSPP 1	150 (89.6)	350 (5075)	66,5 (2.62)	55 (2.17)	180 (7.09)	65 (2.56)	29,5 (1.16)	6,2 (0.24)	112 (4.41)	116,5 (4.59)	120 (4.72)	87,5 (3.44)	2,4 (5.3)	
RAS3114	BSPP 1-1/4									124 (4.88)		87,5 (3.44)			2,6 (5.7)
RAS3112	BSPP 1-1/2									124 (4.88)		87,5 (3.44)			2,8 (6)

# RAS4-BSPP VALVOLE A SFERA A 4 VIE

## 4 WAYS BALL VALVES



### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



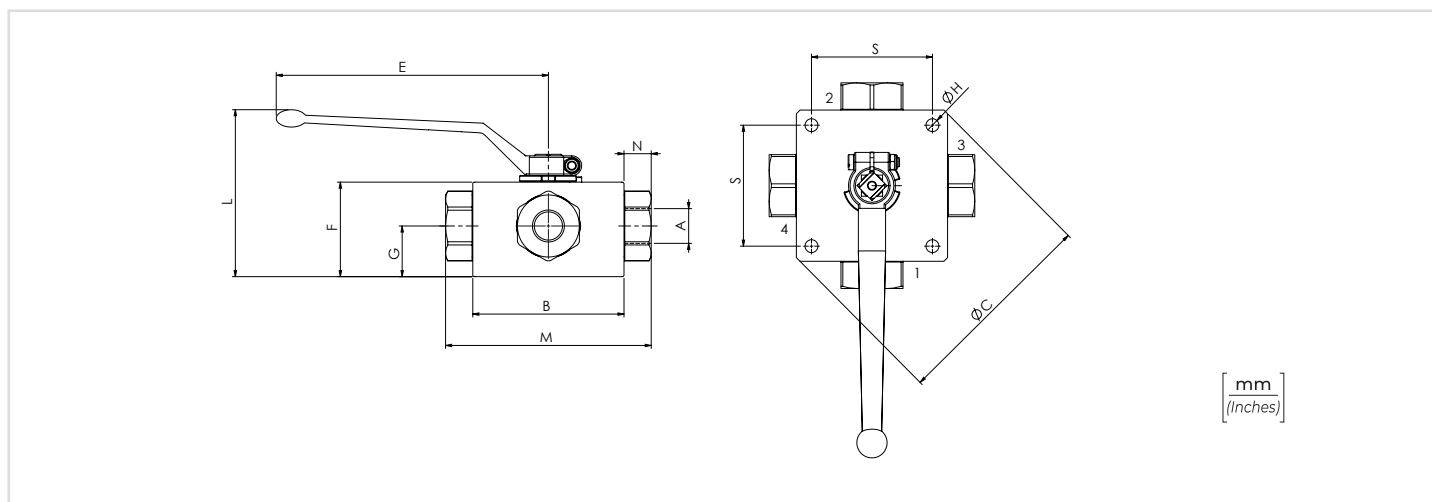
### DATI TECNICI / TECHNICAL DATA

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F + 176°F
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b> -4°F + 122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	

### CODICE ORDINAZIONE ORDERING CODE

01	02	03	04
<b>RAS4</b>			<b>P</b>

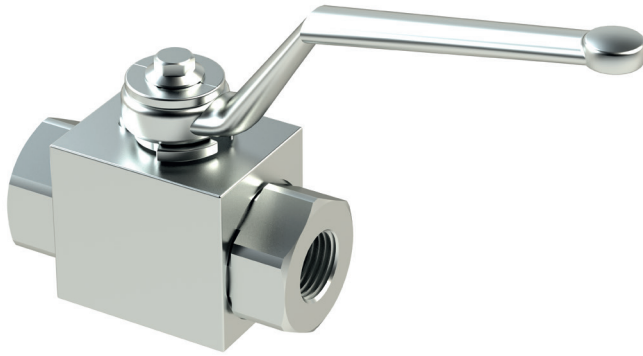
<b>01</b>	VALVOLE A SFERA A 4 VIE (4 WAYS BALL VALVES)		<b>RAS4</b>
<b>02</b>	DIMENSIONE (SIZE)	BSPP 1/4	<b>140</b>
		BSPP 3/8	<b>380</b>
		BSPP 1/2	<b>120</b>
		BSPP 3/4	<b>340</b>
		BSPP 1	<b>100</b>
		BSPP 1-1/4	<b>114</b>
		BSPP 1-1/2	<b>112</b>
<b>03</b>	SCHEMA (CIRCUIT)	STANDARD	<b>/</b>
		SCHEMA B	<b>B</b>
		SCHEMA C	<b>C</b>
<b>04</b>	STANDARD	Fori di fissaggio (Fixing ports)	<b>P</b>



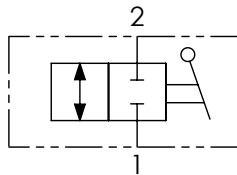
### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	B	C	E	F	G	H	L	M	N	S	PESO APPROX APPROX WEIGHT kg-lbt
RAS4140	BSPP 1/4	25 (6.6)	500 (7250)	70 (2.76)	/	110 (4.33)	42 (1.65)	21,5 (0.85)	6,5 (0.26)	97,5 (3.84)	100 (3.94)	15,5 (0.61)	55 (2.17)	1,80 (3.96)
RAS4380	BSPP 3/8	35 (9.2)	400 (5800)	80 (3.15)		180 (7.09)	53 (2.09)	28,5 (1.12)		101 (3.98)	115 (4.53)		65 (2.56)	3 (6.60)
RAS4120	BSPP 1/2	60 (15.8)	350 (5075)	100 (3.94)	/	300 (11.81)	62 (2.44)	33 (1.30)	8,5 (0.33)	110 (4.33)	136 (5.35)	17 (0.67)	80 (3.15)	5,2 (11.44)
RAS4340	BSPP 3/4	100 (26.4)		113 (4.45)			68 (2.68)	36 (1.42)		116,5 (4.59)	156 (6.14)	21 (0.83)	6,9 (15.18)	
RAS4100	BSPP 1	150 (89.6)	350 (5075)	118 (4.65)	138 (5.43)	300 (11.81)	82 (3.23)	47,5 (1.87)	8,5 (0.33)	130,5 (5.14)	181 (7.13)	24 (0.94)	85 (3.35)	9 (19.80)
RAS4114	BSPP 1-1/4													9,2 (20.24)
RAS4112	BSPP 1-1/2													9,2 (20.24)

# RAS2-NPT VALVOLE A SFERA A 2 VIE 2 WAYS BALL VALVES



SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



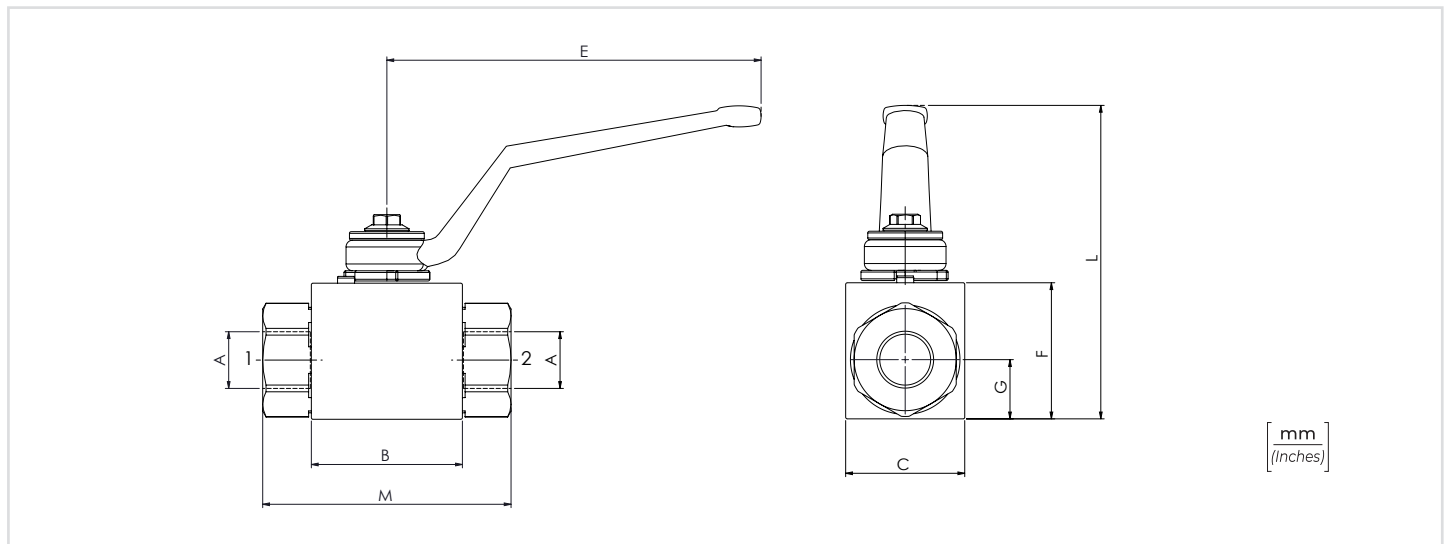
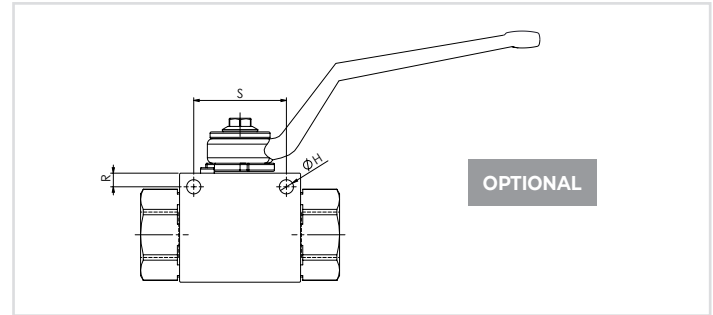
**CODICE ORDINAZIONE**  
ORDERING CODE

01	02	03	04
<b>RAS2</b>		<b>NPT</b>	

<b>01</b>	VALVOLE A SFERA A 2 VIE (2 WAYS BALL VALVES)	<b>RAS2</b>
<b>02</b>	DIMENSIONE (SIZE)	NPT 1/8 <b>180</b>
		NPT 1/4 <b>140</b>
		NPT 3/8 <b>380</b>
		NPT 1/2 <b>120</b>
		NPT 3/4 <b>340</b>
		NPT 1 <b>100</b>
		NPT 1-1/4 <b>114</b>
	NPT 1-1/2 <b>112</b>	
<b>03</b>	FILETTATURA (THREAD)	<b>NPT</b>
<b>04</b>	OPTIONAL	Fori di fissaggio (Fixing ports) <b>P</b>

**DATI TECNICI / TECHNICAL DATA**

Olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	

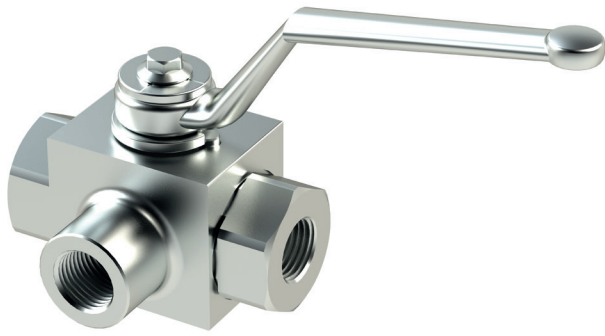


**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

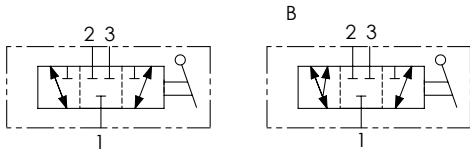
TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	B	C	E	F	G	H	L	M	R	S	PESO APPROX APPROX WEIGHT kg-lbt
RAS2180NPT	NPT 1/8	15 (4)	500 (7250)	42,4 (1.67)	30 (1.18)	110 (4.33)	35 (1.38)	14,5 (0.57)	5,2 (0.20)	91,5 (3.60)	71 (2.80)	4,5 (0.18)	34 (1.34)	0,5 (1.1)
RAS2140NPT	NPT 1/4	25 (6.6)												0,7 (1.5)
RAS2380NPT	NPT 3/8	35 (9.2)												0,7 (1.5)
RAS2120NPT	NPT 1/2	60 (15.8)												0,8 (1.8)
RAS2340NPT	NPT 3/4	100 (26.4)	400 (5800)	62,5 (2.46)	45 (1.77)	180 (7.09)	55 (2.17)	23,5 (0.93)	106,5 (4.19)	95 (3.74)	6 (0.24)	50 (1.97)	1,5 (3.3)	
RAS2100NPT	NPT 1	150 (39.6)	350 (5075)	66,5 (2.62)	55 (2.17)		65 (2.56)	29,5 (1.16)	116,5 (4.59)	95 (3.74)			112 (4.41)	2,3 (5)
RAS2114NPT	NPT 1-1/4						120 (4.72)	2,3 (5)						
RAS2112NPT	NPT 1-1/2					124 (4.88)	2,5 (5.5)							

I dati presenti nel catalogo possono essere soggetti a variazioni, pertanto OLEOWEB si riserva il diritto di apporre modifiche in qualunque momento e senza alcun preavviso. OLEOWEB reserves the right to modify the products at any time and without notice: the technical data of the catalogue can consequently change.

# RAS3-NPT VALVOLE A SFERA A 3 VIE 3 WAYS BALL VALVES



SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



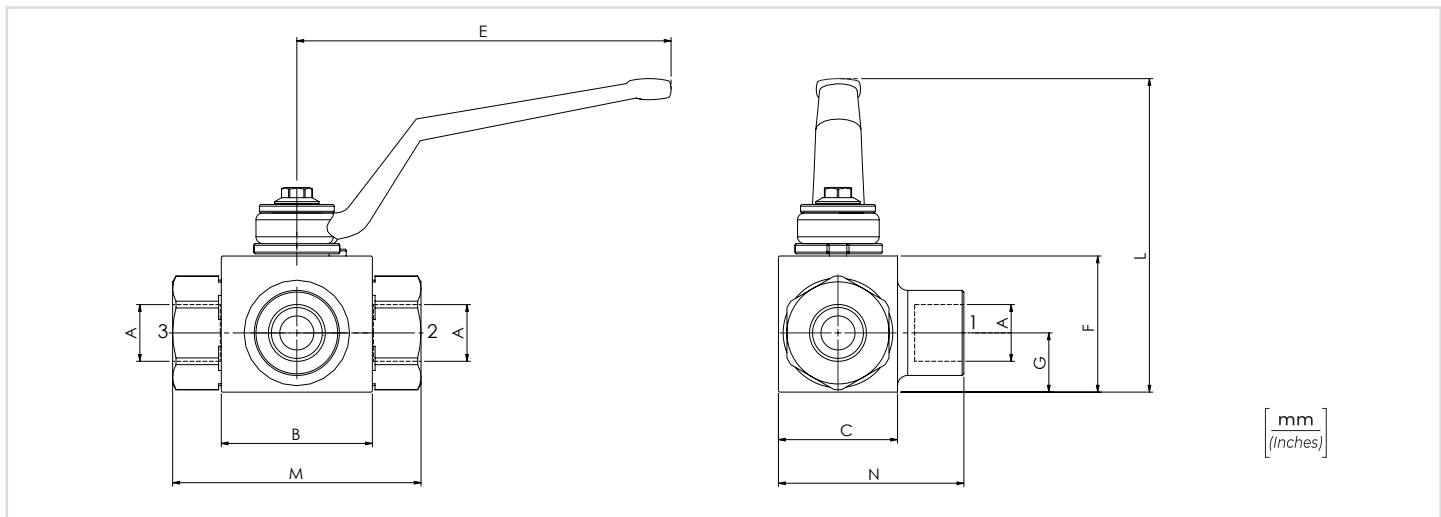
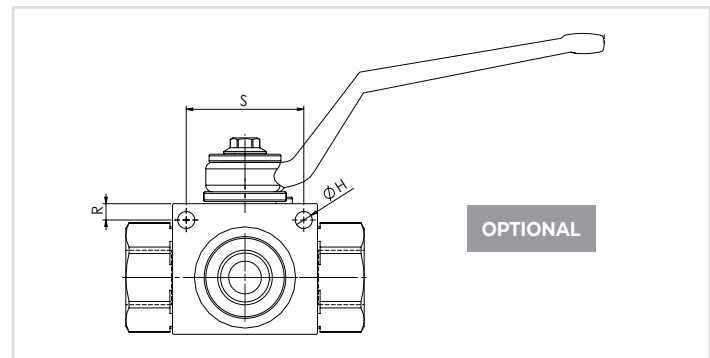
**CODICE ORDINAZIONE**  
ORDERING CODE

01	02	03	04	05
<b>RAS3</b>	<b>NPT</b>			

<b>01</b>	VALVOLE A SFERA A 3 VIE (3 WAYS BALL VALVES)	<b>RAS3</b>
<b>02</b>	DIMENSIONE (SIZE)	NPT 1/8 <b>180</b>
		NPT 1/4 <b>140</b>
		NPT 3/8 <b>380</b>
		NPT 1/2 <b>120</b>
		NPT 3/4 <b>340</b>
		NPT 1 <b>100</b>
		NPT 1-1/4 <b>114</b>
<b>03</b>	FILETTATURA (THREAD)	NPT <b>NPT</b>
<b>04</b>	SCHEMA (CIRCUIT)	Standard <b>/</b>
		Schema B <b>B</b>
<b>05</b>	OPTIONAL	Fori di fissaggio (Fixing ports) <b>P</b>

**DATI TECNICI / TECHNICAL DATA**

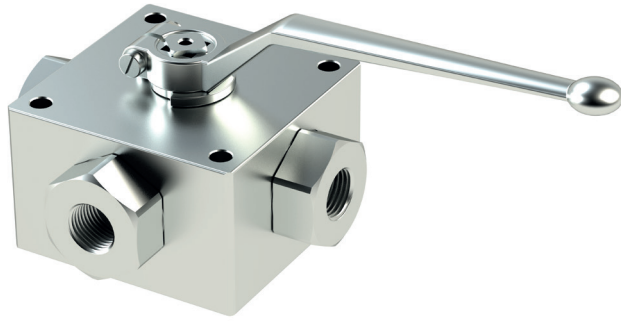
<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> <b>-4°F +176°F</b>
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b> <b>-4°F +122°F</b>
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	



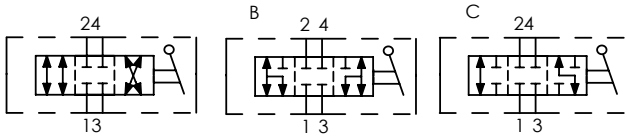
**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	B	C	E	F	G	H	L	M	N	R	S	PESO APPROX APPROX WEIGHT kg-lbt
RAS3180NPT	NPT 1/8	15 (4)	400 (5800)	42,4 (1.67)	30 (1.18)	110 (4.33)	35 (1.38)	14,5 (0.57)	5,2 (0.20)	91,5 (3.60)	71 (2.80)	48,5 (1.91)	4,5 (0.18)	34 (1.34)	0,6 (1.3)
RAS3140NPT	NPT 1/4	25 (6.6)		44,4 (1.75)	35 (1.38)		40 (1.57)	17,5 (0.69)		96,5 (3.80)	73 (2.87)	54,5 (2.15)	5 (0.20)	36 (1.42)	0,7 (1.5)
RAS3380NPT	NPT 3/8	35 (9.2)		48,4 (1.91)	37 (1.46)		43 (1.69)	18 (0.71)		99,5 (3.92)	83 (3.27)	58,5 (2.30)	6 (0.24)	50 (1.97)	0,8 (1.8)
RAS3120NPT	NPT 1/2	60 (15.8)		62,5 (2.46)	45 (1.77)		55 (2.16)	23,5 (0.93)		106,5 (4.19)	95 (3.74)	75 (2.95)			1,6 (3.5)
RAS3340NPT	NPT 3/4	100 (26.4)	350 (5075)	66,5 (2.62)	55 (2.17)	180 (7.09)	65 (2.56)	29,5 (1.16)	6,2 (0.24)	112 (4.41)	120 (4.72)	87,5 (3.44)	6 (0.24)	50 (1.97)	2,4 (5.3)
RAS3100NPT	NPT 1	150 (89.6)								112 (4.41)		87,5 (3.44)			2,4 (5.3)
RAS3114NPT	NPT 1-1/4									124 (4.88)		120 (4.72)			2,6 (5.7)
RAS3112NPT	NPT 1-1/2									124 (4.88)					2,8 (6)

# RAS4-NPT VALVOLE A SFERA A 4 VIE 4 WAYS BALL VALVES



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



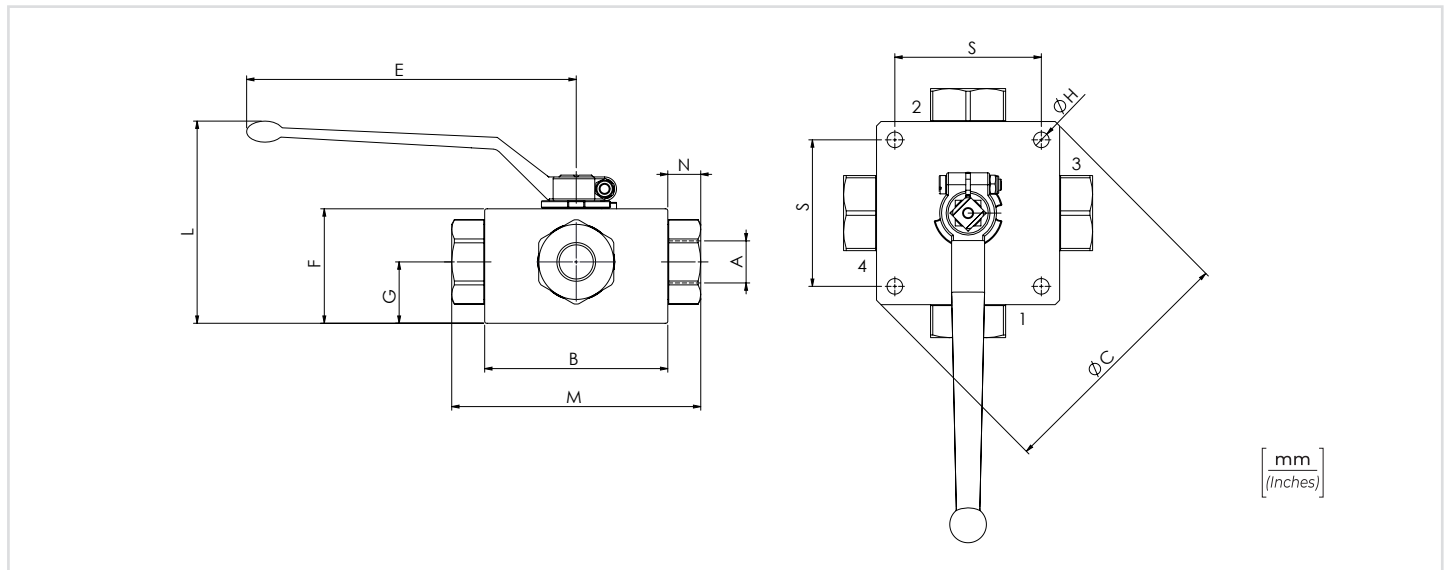
## DATI TECNICI / TECHNICAL DATA

Olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	

## CODICE ORDINAZIONE ORDERING CODE

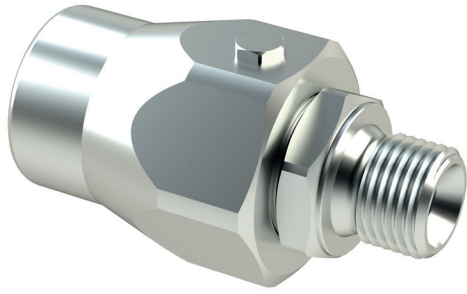
01	02	03	04	05
<b>RAS4</b>		<b>NPT</b>		<b>P</b>

<b>01</b>	VALVOLE A SFERA A 4 VIE (4 WAYS BALL VALVES)	<b>RAS4</b>
<b>02</b>	DIMENSIONE (SIZE)	NPT 1/4 <b>140</b>
		NPT 3/8 <b>380</b>
		NPT 1/2 <b>120</b>
		NPT 3/4 <b>340</b>
		NPT 1 <b>100</b>
		NPT 1-1/4 <b>114</b>
		NPT 1-1/2 <b>112</b>
<b>03</b>	FILETTATURA (THREAD)	<b>NPT</b>
<b>04</b>	SCHEMA (CIRCUIT)	Standard <b>/</b>
		Schema B <b>B</b>
	Schema C <b>C</b>	
<b>05</b>	STANDARD	Fori di fissaggio (Fixing ports) <b>P</b>



## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	B	C	E	F	G	H	L	M	N	S	PESO APPROX APPROX WEIGHT kg-lbt
RAS4140NPT	NPT 1/4	25 (6.6)	500 (7250)	70 (2.76)	/	110 (4.33)	42 (1.65)	21,5 (0.85)	6,5 (0.26)	97,5 (3.84)	100 (3.94)	15,5 (0.61)	55 (2.17)	1,80 (3.96)
RAS4380NPT	NPT 3/8	35 (9.2)	400 (5800)	80 (3.15)		180 (7.09)	53 (2.09)	28,5 (1.12)		101 (3.98)	115 (4.53)		65 (2.56)	3 (6.60)
RAS4120NPT	NPT 1/2	60 (15.8)	350 (5075)	100 (3.94)	/	300 (11.81)	62 (2.44)	33 (1.30)	8,5 (0.33)	110 (4.33)	136 (5.35)	17 (0.67)	80 (3.15)	5,2 (11.44)
RAS4340NPT	NPT 3/4	100 (26.4)		113 (4.45)			68 (2.68)	36 (1.42)		116,5 (4.59)	156 (6.14)	21 (0.83)	6,9 (15.18)	
RAS4100NPT	NPT 1	150 (89.6)		118 (4.65)	138 (5.43)	82 (3.23)	47,5 (1.87)	130,5 (5.14)	181 (7.13)	24 (0.94)	85 (3.35)	9 (19.80)		
RAS4114NPT	NPT 1-1/4			118 (4.65)	138 (5.43)	82 (3.23)	47,5 (1.87)	130,5 (5.14)	181 (7.13)	24 (0.94)	9,2 (20.24)			
RAS4112NPT	NPT 1-1/2		118 (4.65)	138 (5.43)	82 (3.23)	47,5 (1.87)	130,5 (5.14)	181 (7.13)	24 (0.94)	9,2 (20.24)				



**CODICE ORDINAZIONE**  
ORDERING CODE

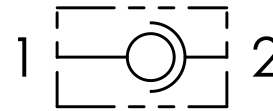
01	02
<b>GGIL</b>	

01	GIUNTI GIREVOLI IN LINEA (IN-LINE ROTATING COUPLINGS)	GGIL	
02	DIMENSIONE (SIZE)	BSPP 1/4	<b>140</b>
		BSPP 3/8	<b>380</b>
		BSPP 1/2	<b>120</b>
		BSPP 3/4	<b>340</b>
		BSPP 1	<b>100</b>

### DATI TECNICI / TECHNICAL DATA

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> <b>-4°F +176°F</b>
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b> <b>-4°F +122°F</b>
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	

### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



#### COPPIE DI SERRAGGIO RACCORDO TIGHTENING TORQUES FOR STUD

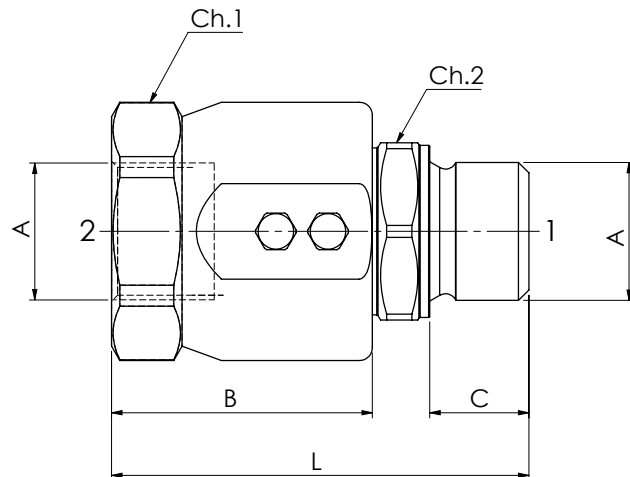
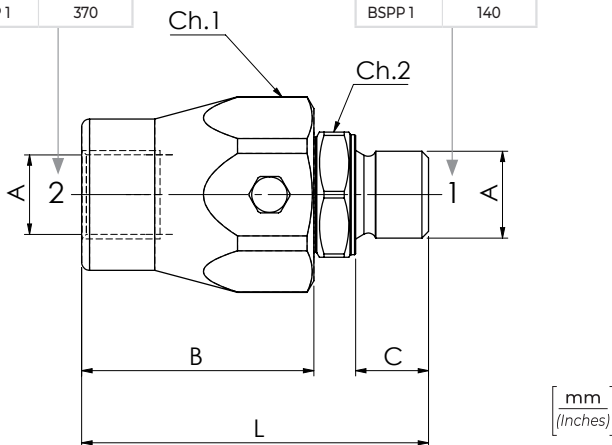
②	Nm
BSPP 1/4	40
BSPP 3/8	90
BSPP 1/2	120
BSPP 3/4	210
BSPP 1	370

#### COPPIE DI SERRAGGIO FEMMINA GIREVOLE 60° 60° FEMALE SWIVEL ENDS TIGHTENING TORQUE VALUES

①	Nm
BSPP 1/4	20
BSPP 3/8	35
BSPP 1/2	60
BSPP 3/4	115
BSPP 1	140

**GGIL140  
GGIL380  
GGIL120**

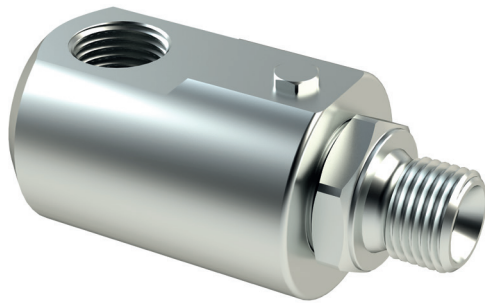
**GGIL340  
GGIL100**



### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

TIPO TYPE	A	PORTATA MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	PRESSIONE MAX IN ROTAZIONE MAX ROTATION PRESSURE bar-PSI	VELOCITÀ MAX DI ROTAZIONE MAX ROTATION SPEED rev-min	B	C	Ch. 1	Ch. 2	L	PESO APPROX APPROX WEIGHT kg-lbt
GGIL140	BSPP 1/4	25 (6.6)	400 (5800)	200 (2900)	212	42 (1.65)	11 (0.43)	30	19	61 (2.40)	0,21 (0.46)
GGIL380	BSPP 3/8	35 (9.2)				44 (1.73)	14 (0.55)	34	24	66 (2.60)	0,27 (0.60)
GGIL120	BSPP 1/2	60 (15.8)	300 (4350)	150 (2175)	160	47 (1.85)	15 (0.59)	36	27	71 (2.80)	0,34 (0.75)
GGIL340	BSPP 3/4	100 (26.4)				50 (1.97)	19 (0.75)	45	34	80 (3.15)	0,66 (1.45)
GGIL100	BSPP 1	180 (47.5)				57 (2.24)	21 (0.83)	50	41	90 (3.54)	0,90 (1.98)





**CODICE ORDINAZIONE**  
ORDERING CODE

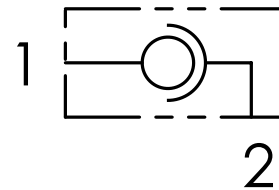
01	02
<b>GG90</b>	

<b>01</b>	GIUNTI GIREVOLI A 90° (90° ROTATING COUPLINGS)	<b>GG90</b>	
<b>02</b>	DIMENSIONE (SIZE)	BSPP 1/4	<b>140</b>
		BSPP 3/8	<b>380</b>
		BSPP 1/2	<b>120</b>
		BSPP 3/4	<b>340</b>
		BSPP 1	<b>100</b>

**DATI TECNICI / TECHNICAL DATA**

<b>Olio idraulico</b> - Mineral oil	<b>ISO 6743/4</b> (DIN 51524)
<b>Viscosità olio</b> - Oil viscosity	<b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)
<b>Classe di contaminazione max</b> Max contamination index	<b>ISO 4406:1999 Classe 19/17/14</b>
<b>Temperatura dell'olio</b> - Oil temperature	<b>-20°C +80°C</b> -4°F +176°F
<b>Temperatura ambiente</b> - Environment temperature	<b>-20°C +50°C</b> -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**

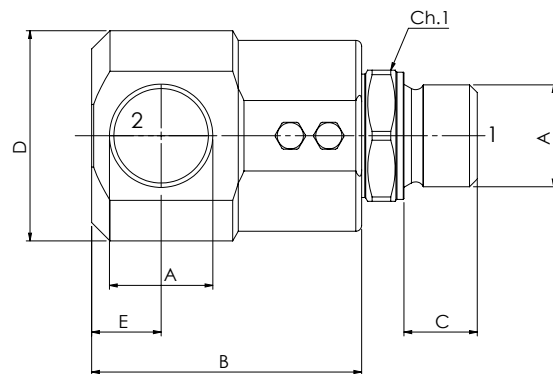
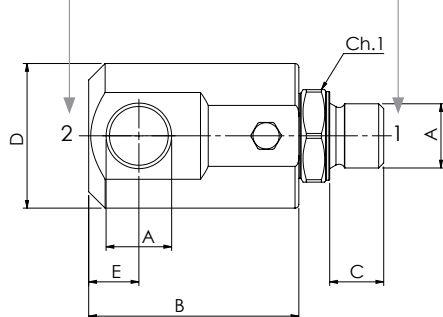


**COPPIE DI SERRAGGIO RACCORDO**  
**TIGHTENING TORQUES FOR STUD**

②	Nm
BSPP 1/4	40
BSPP 3/8	90
BSPP 1/2	120
BSPP 3/4	210
BSPP 1	370

**COPPIE DI SERRAGGIO FEMMINA GIREVOLE 60°**  
**60° FEMALE SWIVEL ENDS TIGHTENING TORQUE VALUES**

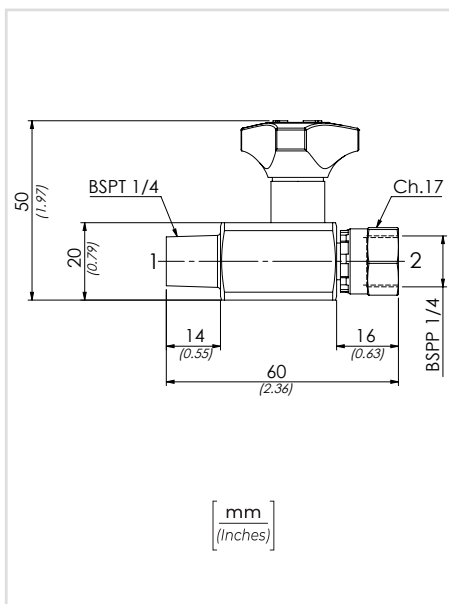
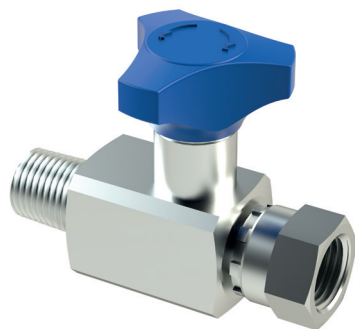
①	Nm
BSPP 1/4	20
BSPP 3/8	35
BSPP 1/2	60
BSPP 3/4	115
BSPP 1	140



[ mm ]  
[ Inches ]

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	A	PORTATA MAX MAX FLOW l/min-USgpm	PRESSIONE MAX MAX PRESSURE bar-PSI	PRESSIONE MAX MAX ROTAZIONE PRESSURE bar-PSI	VELOCITÀ MAX MAX ROTAZIONE SPEED rev-min	B	C	D	E	L	Ch.1	Peso Approx Approx weight kg-lbt
GG90140	BSPP 1/4	25 (6.6)	400 (5800)	200 (2900)	212	50 (1.97)	11 (0.43)	33,5 (1.32)	11 (0.43)	69 (2.71)	19	0,31 (0.68)
GG90380	BSPP 3/8	35 (9.2)			173	54 (2.13)	14 (0.55)	37,5 (1.48)	13 (0.51)	76 (2.99)	24	0,41 (0.90)
GG90120	BSPP 1/2	60 (15.8)	300 (4350)	150 (2175)	160	63 (2.48)	15 (0.59)	39,5 (1.56)	14 (0.55)	87 (3.43)	27	0,52 (1.15)
GG90340	BSPP 3/4	100 (26.4)			120	70 (2.76)	19 (0.75)	54,5 (2.15)	18 (0.71)	100 (3.94)	34	0,96 (2.11)
GG90100	BSPP 1	180 (47.5)			100	80 (3.15)	21 (0.83)	59 (2.32)	25 (0.98)	113 (4.45)	41	1,25 (2.75)



**CODICE ORDINAZIONE**  
ORDERING CODE

**SOV1400**

## DATI TECNICI / TECHNICAL DATA

**Olio idraulico** **ISO 6743/4**  
Mineral oil DIN 51524

**Viscosità olio** **15-250 mm<sup>2</sup>/s**  
Oil viscosity 45 to 2000 ssu (15 to 250 cSt)

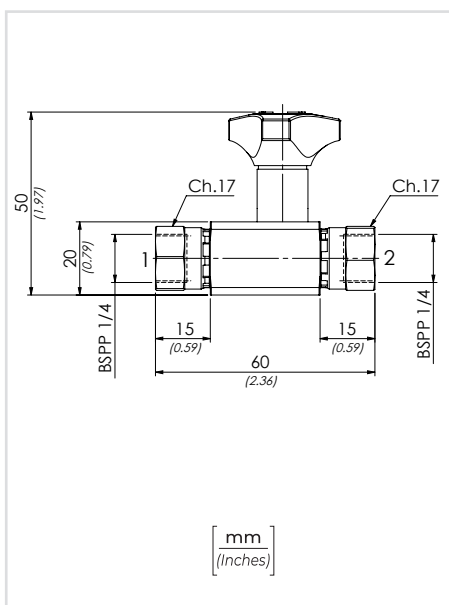
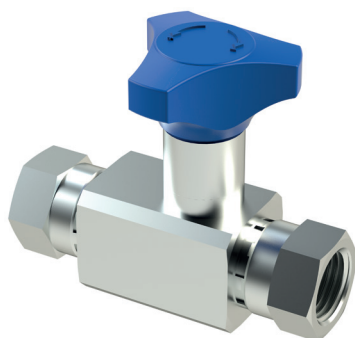
**Classe di contaminazione max**  
Max contamination index  
**ISO 4406:1999 - Classe 19/17/14**

**Temperatura dell'olio** **-20°C +80°C**  
Oil temperature -4°F + 176°F

**Temperatura ambiente** **-20°C +50°C**  
Environment temperature -4°F + 122°F

**Pressione max (bar)** **400**  
Max pressure (PSI) (5800)

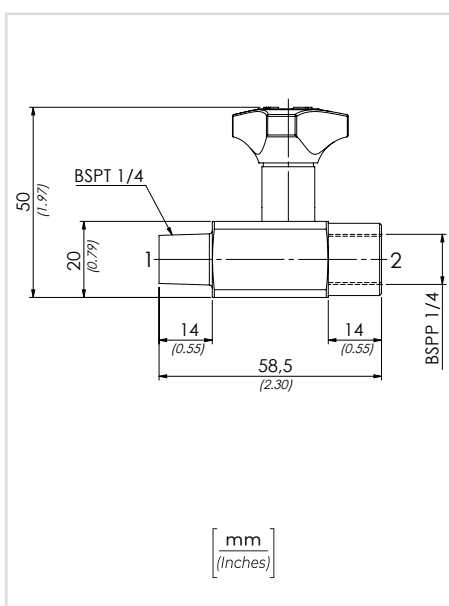
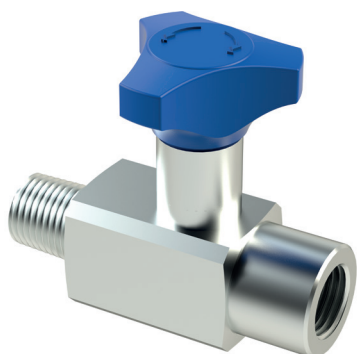
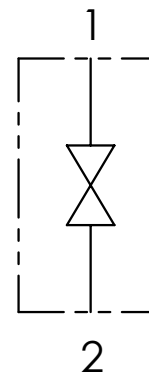
**Peso Approx (kg)** **0,15**  
Approx weight (lb) (0.33)



**CODICE ORDINAZIONE**  
ORDERING CODE

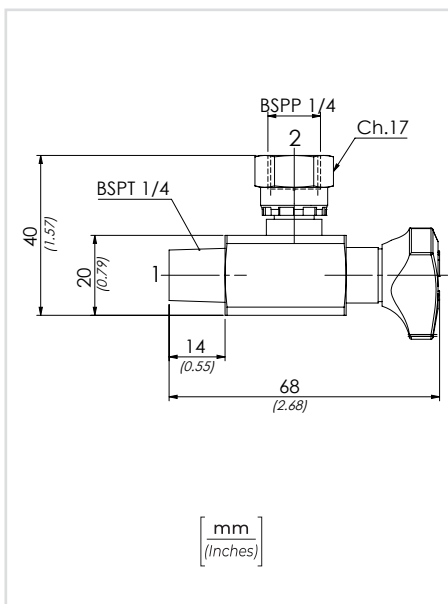
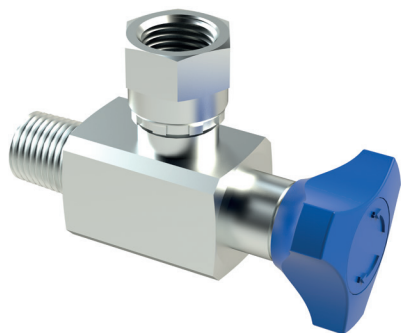
**SOV1400FF**

## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



**CODICE ORDINAZIONE**  
ORDERING CODE

**SOV1400MF**



**CODICE ORDINAZIONE**  
ORDERING CODE

**SOV1490**

### DATI TECNICI / TECHNICAL DATA

**Olio idraulico** ISO 6743/4  
Mineral oil DIN 51524

**Viscosità olio** 15-250 mm<sup>2</sup>/s  
Oil viscosity 45 to 2000 ssu (15 to 250 cSt)

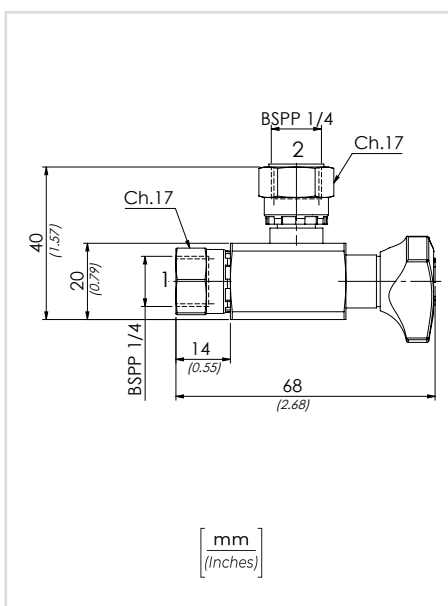
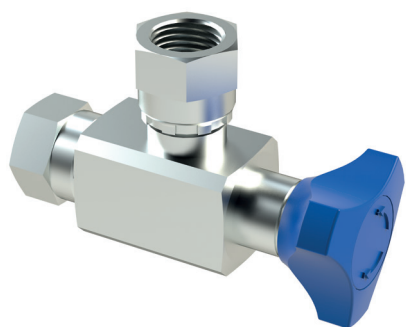
**Classe di contaminazione max**  
Max contamination index  
ISO 4406:1999 - Classe 19/17/14

**Temperatura dell'olio** -20°C +80°C  
Oil temperature -4°F +176°F

**Temperatura ambiente** -20°C +50°C  
Environment temperature -4°F +122°F

**Pressione max (bar)** 400  
Max pressure (PSI) (5800)

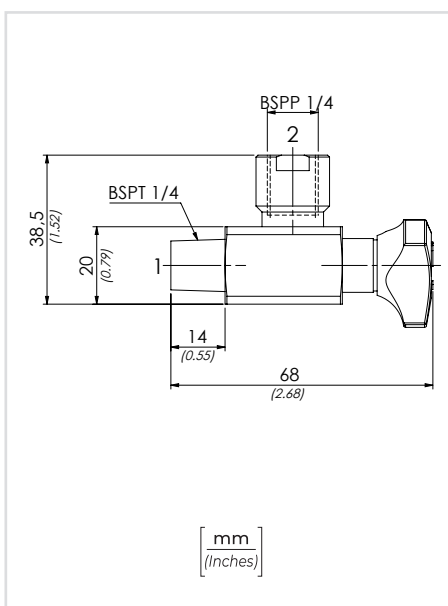
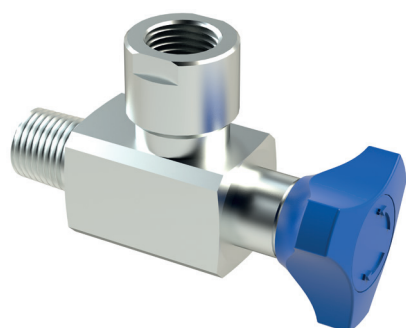
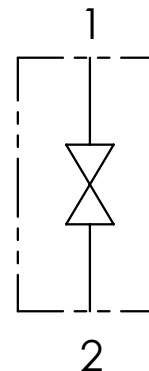
**Peso Approx (kg)** 0,15  
Approx weight (lb) (0.33)



**CODICE ORDINAZIONE**  
ORDERING CODE

**SOV1490FF**

### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



**CODICE ORDINAZIONE**  
ORDERING CODE

**SOV1490MF**



**CODICE ORDINAZIONE**  
ORDERING CODE

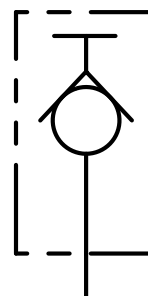
01	02
<b>MNP</b>	

<b>01</b>	MINIPRESE PROVA PRESSIONE (TEST COUPLINGS FOR PRESSURE CHECKING)	<b>MNP</b>
<b>02</b>	DIMENSIONE (SIZE)	BSPP 1/8
		BSPP 1/4
		BSPP 3/8
		BSPP 1/2

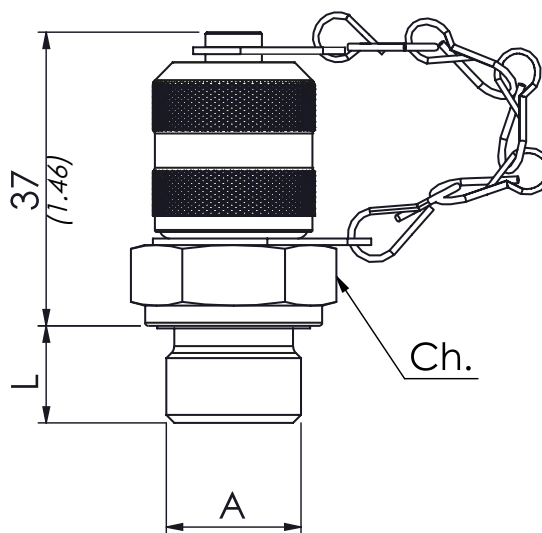
**DATI TECNICI / TECHNICAL DATA**

Olio idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C    -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C    -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**MINIPRESE**  
**TEST COUPLINGS**  
**M16X2**



[ mm  
(Inches) ]

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

TIPO TYPE	A	PRESSIONE MAX MAX PRESSURE bar-PSI	Ch. mm	L	COPPIA DI SERRAGGIO TIGHTENING TORQUE Nm-lbt ft	PESO APPROX (kg) APPROX WEIGHT (lbt)
MNP180	BSPP 1/8	630 (9135)	17	8 (0.31)	20 (14.6)	0,07 (0.16)
MNP140	BSPP 1/4		19	12 (0.47)	30 (22)	0,08 (0.18)
MNP380	BSPP 3/8		22	12 (0.47)	60 (44)	0,10 (0.22)
MNP120	BSPP 1/2		27	14 (0.55)	80 (58.6)	0,13 (0.29)



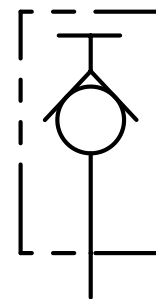
<b>CODICE ORDINAZIONE</b> ORDERING CODE	01	02
	<b>MNP</b>	

<b>01</b>	MINIPRESE PROVA PRESSIONE (TEST COUPLINGS FOR PRESSURE CHECKING)	<b>MNP</b>
<b>02</b>	DIMENSIONE (SIZE)	NPTF 1/8 <b>180N</b>
		NPTF 1/4 <b>140N</b>
		NPTF 3/8 <b>380N</b>
		NPTF 1/2 <b>120N</b>

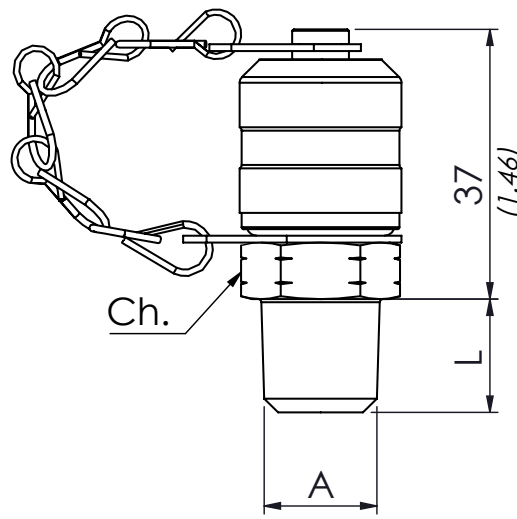
### DATI TECNICI / TECHNICAL DATA

Olivo idraulico - Mineral oil	ISO 6743/4 (DIN 51524)
Viscosità olio - Oil viscosity	15-250 mm <sup>2</sup> /s (15 to 250 cSt)
Classe di contaminazione max Max contamination index	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio - Oil temperature	-20°C +80°C    -4°F +176°F
Temperatura ambiente - Environment temperature	-20°C +50°C    -4°F +122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)	

### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## MINIPRESE TEST COUPLINGS M16X2



[ mm ]  
[ Inches ]

### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

CODICE CODE	A	PRESSIONE MAX (bar) MAX PRESSURE (PSI)	Ch. mm	L	COPPIA DI SERRAGGIO TIGHTENING TORQUE Nm-lbt ft	PESO APPROX (kg) APPROX WEIGHT (lbt)
MNP180N	NPTF 1/8	630 (9135)	17	10 (0.39)	20 (14.6)	0,07 (0.16)
MNP140N	NPTF 1/4		19	12 (0.47)	30 (22)	0,08 (0.18)
MNP380N	NPTF 3/8		22	14 (0.55)	60 (44)	0,10 (0.22)
MNP120N	NPTF 1/2		27		80 (58.6)	0,13 (0.29)



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# notes

A series of horizontal dotted lines for taking notes, spanning the width of the page.



### MACCHINARI AGRICOLI AGRICULTURE AND SERVICE



**ARATRI**  
PLOUGHS



**FRESATRICI**  
ROTARY TILLERS



**AUTOMEZZI  
RACCOLTA RIFIUTI**  
WASTE MACHINES



**ERPICI ROTANTI**  
POWER HARROWS



**MACCHINARI  
FORESTALI**  
FOREST MACHINES



**TRINCIATRICI**  
MULCHERS



**ROTOPRESSE**  
ROUND BALERS



**MACCHINARI  
DA SEMINA**  
SEEDING MACHINES



**BRACCI  
DECESPUGLIATORI**  
BOOM MOWERS



**MACCHINARI  
SPARGISALE**  
SALT SPREADERS



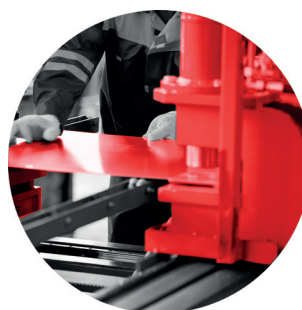
**ATOMIZZATORI**  
SPRAYERS



**MACCHINARI INDUSTRIALI**  
INDUSTRIAL AND SERVICE MACHINERIES



**SMONTAGOMME**  
TIRE CHANGERS



**PRESSE**  
PRESSES



**INSTALLAZIONI INDUSTRIALI**  
INDUSTRIAL INSTALLATIONS



**NASTRI INDUSTRIALI**  
INDUSTRIAL TAPES



**INSTALLAZIONI SOLARI ED EOLICHE**  
SOLAR AND WIND INSTALLATIONS

**MACCHINARI MOVIMENTAZIONE TERRA E COSTRUZIONI**  
EARTH MOVING AND CONSTRUCTION MACHINERIES



**GRU MOBILI**  
MOBILE CRANES



**MINI PALE**  
SKID LOADERS



**RUSPE**  
DOZERS



**TRASPORTI INERTI**  
MINI DUMPERS



**ESCAVATORI  
E MINI-ESCAVATORI**  
EXCAVATORS  
AND MINI-EXCAVATORS



**MACCHINARI  
PER ASFALTI**  
ASPHALT MACHINES



**CARICATORI  
CINGOLATI**  
CRAWLER CARRIES



**ACCESSORI**  
ATTACHMENTS



### MACCHINARI PER TRASPORTO E SOLLEVAMENTO

#### LIFTING AND TRANSPORT MACHINERIES



**MINI GRU**  
MINI CRANES



**CARRELLI ELEVATORI**  
FORKLIFTS



**MINI ELVEVATORI**  
MINI PICKERS



**SCARRABILI MULTIBENNA**  
SKIP LOADERS



**SOLLEVATORI POSTERIORI**  
TAIL LIFTS



**SOLLEVATORI PER AUTO**  
CAR LIFTERS



**GRU PER CAMION**  
TRUCK CRANES



**SCARRABILI A GANCIO**  
HOOK LOADERS



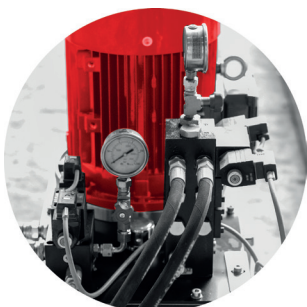
**PIATTAFORME AEREE**  
AERIAL PLATFORMS



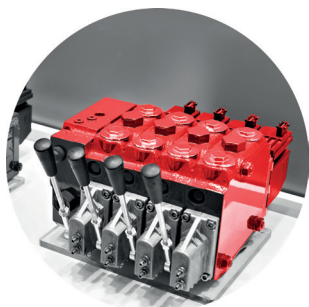
**UTENSILI**  
TOOLS

### COMPONENTI IDRAULICI

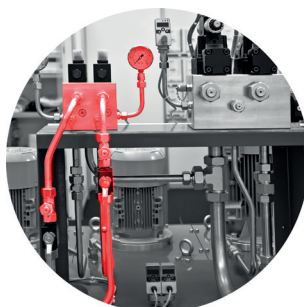
#### HYDRAULIC COMPONENTS



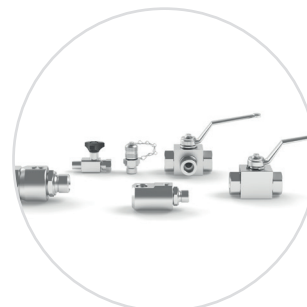
**MINI CENTRALINE**  
MINI-POWER PACKS



**DISTRIBUTORI IDRAULICI**  
DCVS



**IMPIANTI IDRAULICI**  
HYDRAULIC SYSTEMS



**RICAMBI**  
SPARE PARTS



# HYDRAULIC VALVES MAINTENANCE BOOKLET

This handbook is directed to specialized and competent staff that may not replace in any case the knowledge and competence of the installer. The Producer disclaims any responsibility for damage to persons and objects due to a bad or improper installation of the valves. Oleoweb Srl is geared to a continuous research and development of its products and therefore reserves the right to change at any time and without notice all the technical characteristics deemed necessary. This manual will undergo changes and additions, but shall in no circumstances be regarded as outdated. This manual and the technical documentation of Oleoweb Srl are intended to provide additional technical information to competent users of the department and/or employees.



## COMPETENT PERSON

It's a person that has sufficient knowledge of the field due to technical worth of training and experience. The User, however, is the only responsible for the choice of the product and its accessories. It is therefore important that the user analyses the problems of its application, running adequate tests. The same user is also responsible for the implementation of security and warnings required by existing laws.

## ENGRAVING

Oleoweb's valves can be simply identified through the stamp placed on the valve:

- Corporate Logo
- Hydraulic circuit
- Article code
- Month and year of manufacture (extension code)

## USE OF THE VALVES

Oleoweb valves are destined from Oleoweb to manufacturers of hydraulic power equipment. Given the wide application of hydraulic valves and given the fact that it's not always possible to know the final destination of the product, this manual has been produced only on the basis of know generic application.

## LIMITATIONS OF USE

Oleoweb Srl warns each user/customer or manufacturer not to employ valves in the following applications:

- Environments where there is danger of explosion and fire;
- Vehicles and aeronautical or space equipment;
- Steering systems and equipment for vehicles due to carry person, things and animals;
- Brake systems, blocking and deadlock in general;
- Equipment and installation of application in the military, nuclear, medical and hospital department

HOWEVER, THE TECHNICAL DEPARTMENT IN OLEOWEB SRL, AFTER REQUEST OF THE USER, MAY EVALUATE CASE-BY-CASE APPLICATIONS AND GIVE IT'S AUTHORIZATION.

## MECHANICAL SPECIFICATIONS

- Do not tamper with any type of valve: a simple loosening of valve could cause the free fall of loads or failure of structures.
- All operations of installation, assembly, maintenance and removal of valves and components applied to it must be executed with the utmost respect of safety standards. During these operations, within the hydraulic circuit there must never be pressure (pressure zero) and there should not be any type of cargo on the structures of the equipment or the machinery to which the valve is applied (load zero).

## ELECTRICAL SPECIFICATION

- All electrical connections and disconnections must be carried out by skilled and competent staff.
- Before making any action or intervention on the valve, this must be disconnected from its power source.

## SECURITY SPECIFICATION

- Use safety protection;
- Work under very clean conditions;
- Work under maximum security conditions;
- Use tools and service desks always in suitable and clean conditions;
- During the start-up operations, normal work, maintenance, adjustment, leaking, intervention and drive of valves and various elements of control, SUDDEN SPILLS AND LEAKS OF HYDRAULIC FLUID MAY OCCUR, WHICH CAN REACH TEMPERATURES SUCH AS TO CAUSE BURNS TO THE SKIN.
- Hydraulic fluid may be dangerous to health as in contact with skin and eyes and can cause serious damage. Follow scrupulously the protection and security provisions imposed by the manufacturer of the hydraulic fluid listed on the technical and toxicological schedule of the product. Hydraulic fluid may be a pollutant product. It's good practice therefore to avoid loss of hydraulic fluid using tanks to collect and protect against accidental spills and leakage of hydraulic fluid using also oil-absorbing products. Quick changes in temperature may affect both the characteristics and the duration of the product, so it is essential to protect it from these situations.

## MOUNTING

- A fitting and proper installation are essential factors for the smooth functioning of an hydraulic plant. Dust and dirt are the worst enemies of hydraulic.
- During installation you have to concentrate on the utmost clean by conducting the main operations in a clean and non-dusty room. Valves must be mounted in such a way as to allow easy access to controls, inspections, maintenance and repair, it is also equally essential that they are mounted in an accidental bumps protected area and repaired by random physical contact, as the temperature reached during the operation can cause burns.

## HANDLING

Hydraulic valves are products to handle with care and attention. Characteristic of those valve is to have protuberances subject to breakage.

## STORAGE

Hydraulic valves must be stored in a protected place, possibly closed, away from dust, dirt, humidity and bad weather conditions, with a minimum temperature of -15°C and not exceeding +50°C. In addition, valves are provided with protective plastic caps into their holes routes to avoid the loss of hydraulic fluid left in the valve after testing and not allow access to foreign bodies, which could be very dangerous for the smooth functioning and for the duration of the valve. It is therefore essential not remove these caps if not before mounting the valve.

## DISPOSAL OF THE VALVES

Hydraulic valves are constructed primarily of aluminum alloy, steel alloy and plastic; therefore they can be disposed of as normal materials sending them for recycling with the only advice to make a complete emptying of the hydraulic fluid they may contain.

## DISPOSAL OF THE HYDRAULIC FLUID

Hydraulic fluids are subject to special disposal requirements: therefore comply with the directions and instructions of producers and abide by the laws in force in the country of use.

## DO NOT THROW THE REPLACED FLUID IN THE ENVIRONMENT

## MAINTENANCE

The good installation and care during installation and putting into operation ensures a long duration of the oilhydraulic plant without drawbacks or need of special care maintenance. The principle basic is the need to frequently monitor the quality and status of the fluid that transmits power and ensure that there are no impurities in the circuit: the good condition of the fluid is reported the reliability of any oilhydraulic machine. Indeed, among the leading causes of out of service or fault, you can report the equipment block as a result of seizing or braking due to wear and aging of the fluid that transmits power, with consequent loss of its chemical and physical properties. It's now certain that the main cause of all these drawbacks is due to the presence of hosts and microparticles circulating continuously in the fluid and which constitute grounds for wear. A large quantity of these microparticles, if left circulating in the system, acts as an abrasive mixture scraping the surfaces with which it comes into contact and dragging in cycle further contaminant particles; damage are, of course, the more severe the more sophisticated the installed equipment is. From the putting in motion of the installation, maintenance is basically made of small operations that, to be truly effective, must be carried out with regularity. It is therefore extremely important that these operations of control and verification are planned and reported on sheets of machinery or plant.

## EXTERIOR CLEANING

It allows easy location of any losses and therefore immediate intervention.

## CONTINUOUS MONITORING OF THE TEMPERATURE

Alteration of the fluid because of the temperature is a cause of pollution and degradation of the plant. The creation of particles inside the oil is particularly favoured by the heat: the rate of oxidation can be considered almost constant up to 60°C, doubling starting from this point to each increment of 10°C. The presence of sludge and sediment in the oil, because of a roiled appearance, reports it's degradation.

## REPLACEMENT OF THE FLUID

Ensure over time better working conditions, with frequent monitoring of the fluid and its periodic replacement. On average, after the first 100 hours of work, then every 2000 hours or once a year. For each exchange replace also the filters and clean the tank. Before running the exchange of hydraulic fluid, completely clear the plant from it.

## GUARANTEE

### GUARANTEE TERMS

The products we manufacture are guaranteed against possible failures due to manufacturing defects or materials used. The duration of the guarantee will be 12 months after the shipment from our premises. Any intervention of revision within the guarantee period must be carried out by Technical Assistance authorized by us, or at our establishment where products must be sent in free port with appropriate packaging. It will be considered lapsed in case of improper use, tampering, amendment and/or repair carried out by non authorized staff.

### TECHNICAL ASSISTANCE AFTER GUARANTEE PERIOD

Oleoweb Srl is available for repairs of their products even when the period of guarantee has already run out.

Oleoweb Srl will carry out the repair also after several years of use (provided it is still cost convenient). The availability of spare parts made on Oleoweb drawing is guaranteed up to 5 years by ceased production. The cost of repair of our no longer under warranty products is normally calculated on the actual cost.

**Any price request must be made expressly on delivery of the goods that have to be repaired. If the estimate will not be accepted, we will be anyway charging the costs we incurred for its formulation.**

**Every product sent back for the revision must be accompanied by:**

1. Law Regular and complete transport document.
2. Defect identifying letter and reference of a Technical Manager for any clarifications.

MANUFACTURE MONTH	MANUFACTURE YEAR											
	2020	2021	2022	2023	2024	2025	2026	2028	2029	2030	2031	
JANUARY	20M	21M	22M	23M	24M	25M	26M	28M	29M	30M	31M	
FEBRUARY	20N	21N	22N	23N	24N	25N	26N	28N	29N	30N	31N	
MARCH	20P	21P	22P	23P	24P	25P	26P	28P	29P	30P	31P	
APRIL	20Q	21Q	22Q	23Q	24Q	25Q	26Q	28Q	29Q	30Q	31Q	
MAY	20R	21R	22R	23R	24R	25R	26R	28R	29R	30R	31R	
JUNE	20S	21S	22S	23S	24S	25S	26S	28S	29S	30S	31S	
JULY	20T	21T	22T	23T	24T	25T	26T	28T	29T	30T	31T	
AUGUST	20U	21U	22U	23U	24U	25U	26U	28U	29U	30U	31U	
SEPTEMBER	20V	21V	22V	23V	24V	25V	26V	28V	29V	30V	31V	
OCTOBER	20Z	21Z	22Z	23Z	24Z	25Z	26Z	28Z	29Z	30Z	31Z	
NOVEMBER	20X	21X	22X	23X	24X	25X	26X	28X	29X	30X	31X	
DECEMBER	20Y	21Y	22Y	23Y	24Y	25Y	26Y	28Y	29Y	30Y	31Y	





2021 - 21R

# THE ITALIAN QUALITY IN HYDRAULIC



**HYDRAULIC VALVES AND COMPONENTS**

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[WWW.OLEOWEB.COM](http://WWW.OLEOWEB.COM)

ORGANIZATION WITH A  
ISO 9001-2015  
MANAGEMENT SYSTEM

