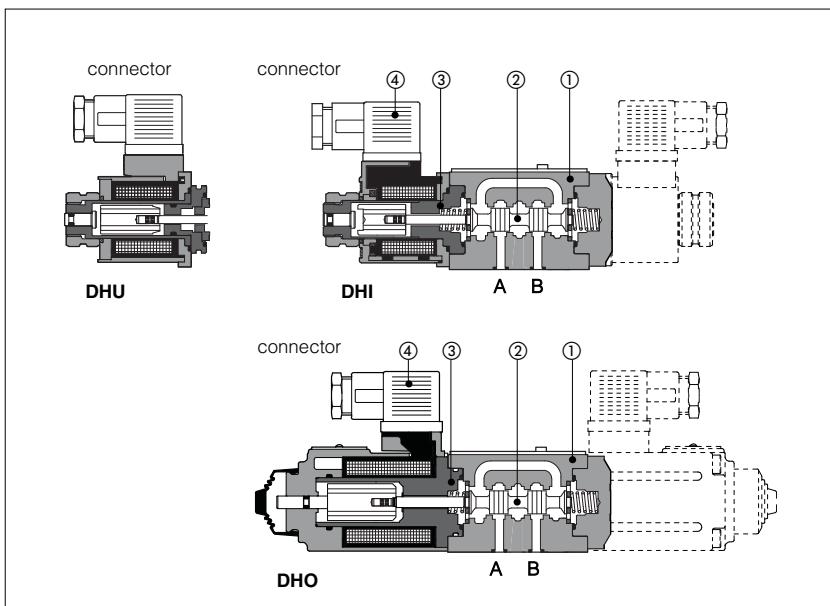


# Solenoid directional valves type DHI, DHU, DHO

direct operated, ISO 4401 size 06



## 1 MODEL CODE

DHI - 0 63 1/2 /A - X 24 DC \*\* /\*

Directional control valves size 06  
**DHI-0** = AC and DC supply  
**DHU-0** = for DC supply  
**DHO-0** = for DC supply, high performances

Valve configuration, see table ②  
**61** = single solenoid, center plus external position, spring centered  
**63** = single solenoid, 2 external positions, spring offset  
**67** = single solenoid, center plus external position, spring offset  
**70** = double solenoid, 2 external positions, without springs  
**71** = double solenoid, 3 positions, spring centered  
**75** = double solenoid, 2 external positions, with detent  
**77** = double solenoid, center plus external position, without springs  
Other configurations are available on request.

Spool type, see table ③.

Options, see note 1 at section ⑤.

**Note:** configuration 63, 70 and 75 are available only with spools type 0/2, 1/2 and 2/2.

DHI, DHU and DHO are spool type, three or four way, two or three position direct operated solenoid valves designed to operate in oil hydraulic systems.

They are operated by wet and pressure sealed solenoid ③ with manual override and with coils certified according the North American standard **C UR US**:

- **DHI** for AC and DC supply;
- **DHU** for DC supply with improved performance;
- **DHO** for DC supply with high performance.

Moving parts are protected, lubricated and cushioned in oil.

Shell-moulding casting ① machined by transfer lines and then cleaned by thermal deburring.

Optimized flow paths largely cored with extrawide channels to tank for low pressure drops.

Interchangeable spools ② available in a wide variety of configurations.

DHU and DHO valves can be supplied with optional devices for control of switching times.

Standard electric/electronic connectors ④ able to satisfy the requirements of modern machines for electric interfaces characteristics.

Coils are fully encapsulated (class H). In DHI and DHU, coils are easily replaceable without aid of tools.

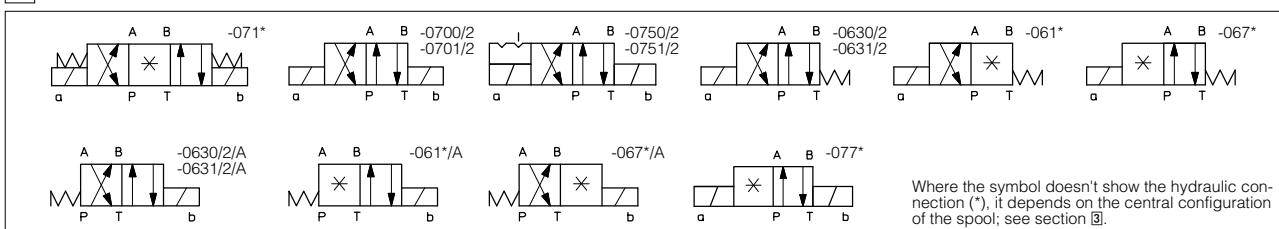
Rugged execution suitable for outdoor use.

**Surface mounting ISO 4401 size 06.**

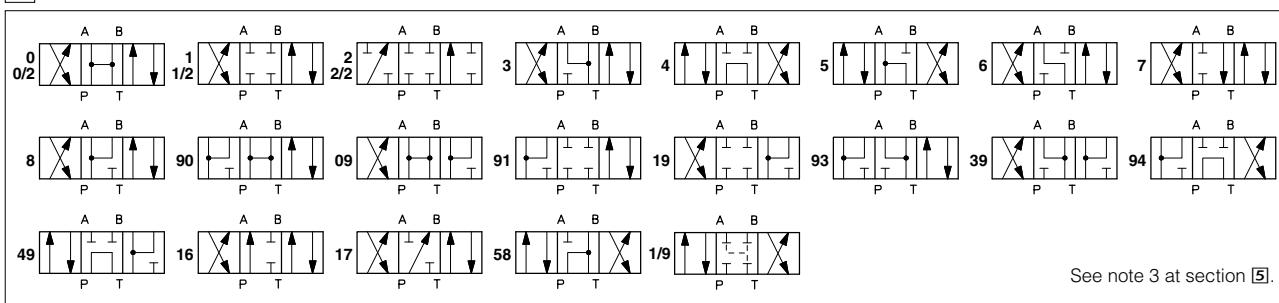
**Max flow up to 60 l/min for DHI/DHU and up to 80 l/min for DHO.**

**Max pressure: 350 bar.**

## 2 CONFIGURATION



## 3 SPOOLS - for intermediate passages, see tab. E001.



#### 4 MAIN CHARACTERISTICS OF DHI, DHU AND DHO DIRECTIONAL VALVES

Assembly position / location	Any position for all valves except for type - 070* (without springs) that must be installed with horizontal axis if operated by impulses	
Subplate surface finishing	Roughness index $\sqrt{0.4}$ flatness ratio 0,01/100 (ISO 1101)	
Ambient temperature	from -20°C to +70°C	
Fluid	Hydraulic oil as per DIN 51524 .... 535; for other fluids see section [1]	
Recommended viscosity	15 ÷ 100 mm²/s at 40°C (ISO VG 15 ÷ 100)	
Fluid contamination class	ISO 19/16, achieved with in line filters at 25 µm value to $\beta_{25} \geq 75$ (recommended)	
Fluid temperature	-20°C +60°C (standard and WG seals) -20°C +80°C (PE seals)	
Flow direction	As shown in the symbols of tables [2] and [3]	
<b>Operating pressure</b>	<b>DHI</b>	Ports P,A,B: <b>350</b> bar; Port T: <b>120</b> bar
For versions with proximity switches (/F/NC and /F/NO versions) maximum counter pressure allowed on T port is 5 bar	<b>DHU, DHO</b>	Ports P,A,B: <b>350</b> bar; Port T <b>210</b> bar
Rated flow	See diagrams Q/Δp at section [7]	
<b>Maximum flow</b>	<b>60 l/min</b> for DHI and DHU; <b>80 l/min</b> for DHO, see operating limits at section [8]	

#### 4.1 Coils characteristics

Insulation class	H (180°C) Due to the occurring surface temperatures of the solenoid coils, the European standards EN563 and EN982 must be taken into account
Connector protection degree DIN 43650	IP 65
Relative duty factor	100%
Supply voltage and frequency	See electric feature [6]
Supply voltage tolerance	± 10%
Certification	<b>C UR US</b>

#### 5 NOTES

##### 1 Options

**A** = Solenoid mounted at side of port B (only for single solenoid valves). In standard versions, solenoid is mounted at side of port A.

**WP** = prolonged manual override protected by rubber cap (standard for DHO models) - see section [12].

**L1, L2, L3** = device for switching time control, installed in the valve solenoid (only for DHU and DHO models).

For spools 4 and 4/8 only device L3 is available.

**F \*** = with proximity switch for monitoring spool position: see tab. E110.

**MV, MO** = auxiliary hand lever positioned vertically (MV) or horizontally (MO). For available configuration and dimensions see table E138.

##### 2 Type of electric/electronic connector DIN 43650, to be ordered separately

**SP-666** = standard connector IP-65, suitable for direct connection to electric supply source.

**SP-667** = as SP-666, but with built-in signal led.

**SP-669** = with built-in rectifier bridge for supplying DC coils by alternate current (AC 110V and 230V - Imax 1A).

**E-SD** = electronic connector which eliminates electric disturbances when solenoid valves are de-energized.

##### 3 Spools

- spools type **0/2, 1/2, 2/2** are only used for two position valves: single solenoid valves, type DH\*-063\*/2 and double solenoid valves type DH\*-070\*/2 and DH\*-075\*/2.
- spools type **0** and **3** are also available as **0/1** and **3/1** with restricted oil passages in central position, from user ports to tank.
- spools type **1, 4** and **5** are also available as **1/1, 4/8** and **5/1**. They are properly shaped to reduce water-hammer shocks during the switching.
- spools type **1, 3, 8** and **1/2** are available as **1P, 3P, 8P** and **1/2P** to limit valve internal leakages.
- spool type **1/9** has closed center in rest position but it avoids the pressurization of A and B ports due to the internal leakages.
- Other types of spools can be supplied on request.

#### 6 ELECTRIC FEATURES

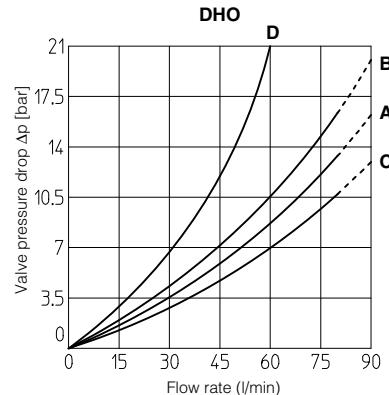
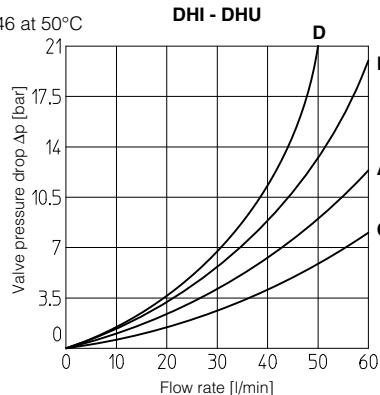
Valve	External supply nominal voltage ± 10%	<b>Voltage code</b>	Type of connector	Power consumption (2)	Code of spare coil		Colour of coil label
					DHI	DHU	
DHI DHU	6 DC	<b>6 DC</b>	SP-666 or SP-667	33 W	SP-COU-6DC /80	SP-COU-6DC /80	brown
	9 DC	<b>9 DC</b>			SP-COU-9DC /80	SP-COU-9DC /80	light blue
	12 DC	<b>12 DC</b>			SP-COU-12DC /80	SP-COU-12DC /10	green
	14 DC	<b>14 DC</b>			SP-COU-14DC /80	SP-COU-14DC /10	brown
	18 DC	<b>18 DC</b>			SP-COU-18DC /80	SP-COU-18DC /80	blue
	24 DC	<b>24 DC</b>			SP-COU-24DC /80	SP-COU-24DC /10	red
	28 DC	<b>28 DC</b>			SP-COU-28DC /80	SP-COU-28DC /10	silver
	48 DC	<b>48 DC</b>			SP-COU-48DC /80	SP-COU-48DC /80	silver
	110 DC	<b>110 DC</b>			SP-COU-110DC /80	SP-COU-110DC /10	black
	125 DC	<b>125 DC</b>			SP-COU-125DC /80	SP-COU-125DC /80	silver
	220 DC	<b>220 DC</b>			SP-COU-220DC /80	SP-COU-220DC /10	black
	24/50 AC 24/60 AC	<b>24/50/60 AC</b>		60 VA (3)	SP-COI-24/50/60AC /80 (1)	-	pink
	48/50 AC 48/60 AC	<b>48/50/60 AC</b>			SP-COI-48/50/60AC /80 (1)	-	white
	110/50 AC 120/60 AC	<b>110/50/60 AC 120/60 AC</b>			SP-COI-110/50/60AC /80 (1) SP-COI-120/60AC /80	-	yellow white
	230/50 AC 230/60 AC	<b>230/50/60 AC 230/60 AC</b>	SP-669	40 VA 35 VA	SP-COI-230/50/60AC /80 (1) SP-COI-230/60AC /80	-	light blue silver
	110/50 AC 120/60 AC	<b>110RC</b>			SP-COU-110RC /80	SP-COUR-110RC /10	gold
	230/50 AC 230/60 AC	<b>230RC</b>		40 VA 35 VA	SP-COU-230RC /80	SP-COUR-230RC /10	blue

Valve	External supply nominal voltage ± 10%	<b>Voltage code</b>	Type of connector	Power consumption (2)	External supply nominal voltage ± 10%	<b>Voltage code</b>	Type of connector	Power consumption (2)
DHO	12 DC	<b>12 DC</b>	SP-666 or SP-667	32 W	110/50 AC	<b>110 DC</b>	SP-669	40 W
	24 DC	<b>24 DC</b>			120/60 AC			35 W
	110 DC	<b>110 DC</b>		40W	230/50 AC	<b>220 DC</b>		40 W
	220 DC	<b>220 DC</b>			230/60 AC			35 W

- (1) Coil can be supplied also with 60 Hz of voltage frequency: in this case the performances are reduced by 10 ÷ 15% and the power consumption is 55 VA.
- (2) Average values based on tests preformed at nominal hydraulic condition and ambient/coil temperature of 20°C.
- (3) When solenoid is energized, the inrush current is approx 3 times the holding current. Inrush current values correspond to a power consumption of about 150 VA.

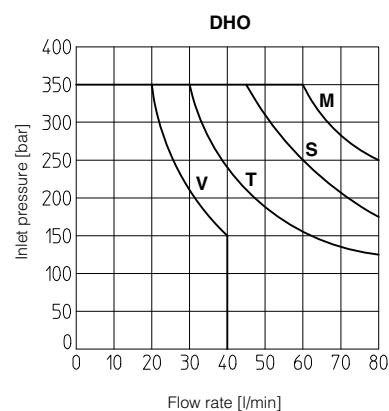
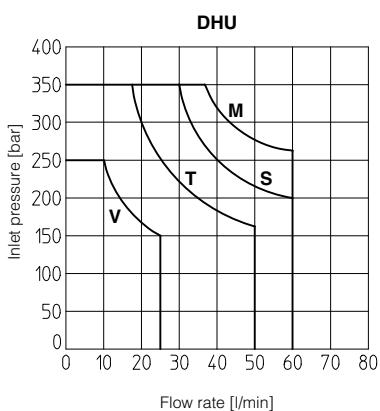
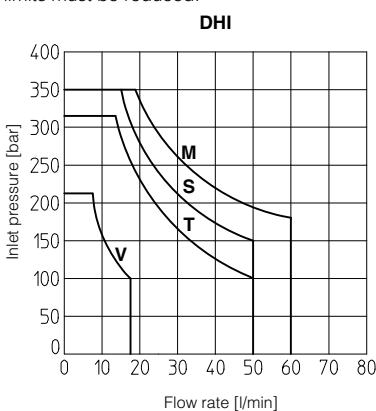
**7 Q/ΔP DIAGRAMS** based on mineral oil ISO VG 46 at 50°C

	Flow direction	P→A	P→B	A→T	B→T	P→T
Spool type						
0	C	C	C	C		
0/2, 1, 1/2	A	A	A	A		
2, 3	A	A	C	C		
2/2, 4, 5, 9*	D	D	D	D	A	
6	A	A	C	A		
7	A	A	A	C		
8	C	C	B	B		



**8 OPERATING LIMITS** based on mineral oil ISO VG 46 at 50°C

The diagrams have been obtained with warm solenoids and power supply at lowest value ( $V_{nom} - 10\%$ ). The curves refer to application with symmetrical flow through the valve (i.e. P→A and B→T). In case of asymmetric flow and if the valves have the devices for controlling the switching times the operating limits must be reduced.



M = Spools 0, 1, 1/2, 8  
S = Spools 0/2, 3, 6, 7  
V = Spools 2, 2/2, "9, 9"  
T = Spools 4, 5

M = Spools 0, 1, 1/2, 8  
S = Spools 0/2, 3, 6, 7  
V = Spools 2, 2/2, "9, 9"  
T = Spools 4, 5

M = Spools 0, 1, 1/2, 8  
S = Spools 0/2, 3, 6, 7  
V = Spools 2, 2/2, "9, 9"  
T = Spools 4, 5

**9 SWITCHING TIMES** (average values in msec)

Valve	Switch-on AC	Switch-on DC	Switch-off
DHI + SP-666	30	45	20
SP-667			
DHI + SP-669	45	—	80
DHI + E-SD	30	45	50

Valve	Switch-on AC	Switch-on DC	Switch-off
DHU + SP-666	—	45	20
SP-667			
DHU + SP-669	45	—	80
DHU + E-SD	—	45	50
DHU-*L1	—	60	60
DHU-*L2	—	80	80
DHU-*L3	—	110	150

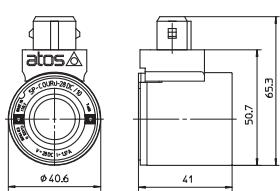
Valve	Switch-on AC	Switch-on DC	Switch-off
DHO + SP-666	—	50	20
SP-667			
DHO + SP-669	50	—	80
DHO + E-SD	—	50	50
DHO-*L1	—	60	60
DHO-*L2	—	80	80
DHO-*L3	—	150	150

Test conditions:

- 36 l/min; 150 bar
- nominal voltage
- 2 bar of counter pressure on port T
- mineral oil: ISO VG 46 at 50°C.

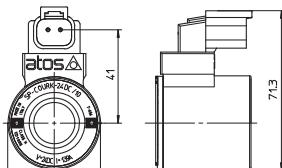
The elasticity of the hydraulic circuit and the variations of the hydraulic characteristics and temperature affect the response time.

**10 COILS TYPE COU\* and COUR\* WITH SPECIAL CONNECTORS** (only for DHI and DHU)



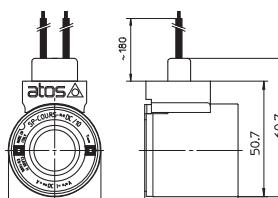
Options -XJ

Coil type SP-COUJ, SP-COURJ  
AMP Junior Timer connector  
Protection degree IP67



Options -XK

Coil type SP-COURK  
(not available for COU)  
Deutsch connector  
DT-04-2P male  
Protection degree IP67

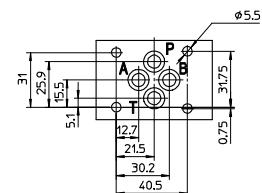


Options -XS

Coil type SP-COUS, SP-COURS  
Lead Wire connection  
Cable lenght = 180 mm

Note: The above coils are available only for voltage supply 12, 14, 24 and 28 VDC. For the characteristics refer to standard coils features - see sect. 6

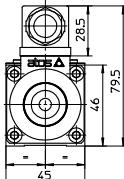
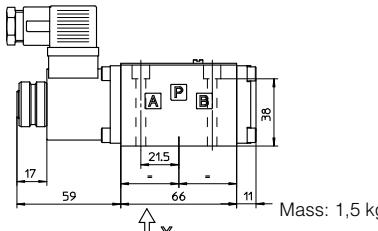
## 11 DIMENSIONS [mm]



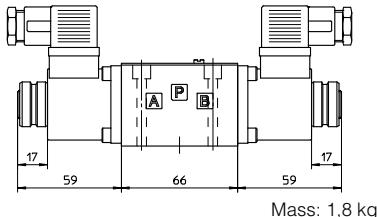
**ISO 4401: 2005**  
**Mounting surface: 4401-03-02-0-05**  
 Fastening bolts:  
 4 socket head screws M5x50 class 12.9  
 Tightening torque = 8 Nm  
 Seals: 4 OR 108  
 Ports P,A,B,T: Ø = 7.5 mm (max).

**P** = PRESSURE PORT  
**A, B** = USE PORT  
**T** = TANK PORT  
 For the max pressures on ports, see section 4

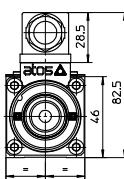
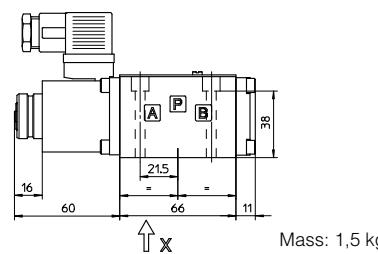
**DHI-06**



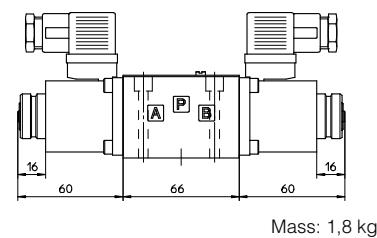
**DHI-07**



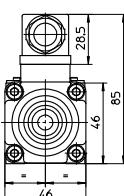
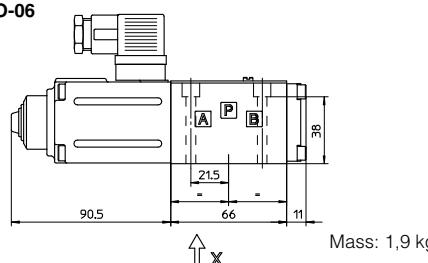
**DHU-06**



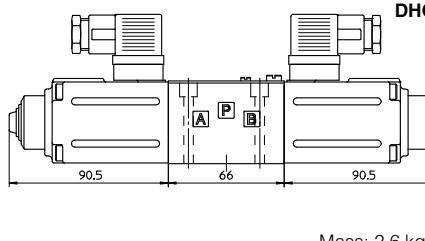
**DHU-07**



**DHO-06**

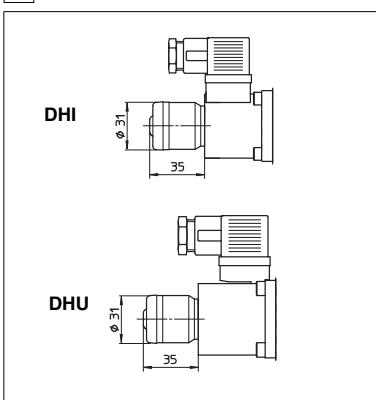


**DHO-07**



Overall dimensions refer to valves with connectors type SP-666

## 12 OPTION /WP (for DHI and DHU)



## 13 ELECTRIC CONNECTORS ACCORDING TO DIN 43650

The connectors must be ordered separately

<b>SP-666, SP-667</b> (for AC or DC supply)	<b>SP-669</b> (for AC supply)
<b>CONNECTOR WIRING</b>	<b>SP-669</b>
SP-666, SP-667	SP-669
1 = Positive $\oplus$ 2 = Negative $\ominus$ $\ominus$ = Coil ground	1,2 = Supply voltage VAC 3 = Coil ground
<b>SUPPLY VOLTAGES</b>	
SP-666 All voltages	SP-667 24 AC or DC 110 AC or DC 220 AC or DC
110/50 AC 110/60 AC 230/50 AC 230/60 AC	

Note: for electronic connectors type E-SD, see tab. K500

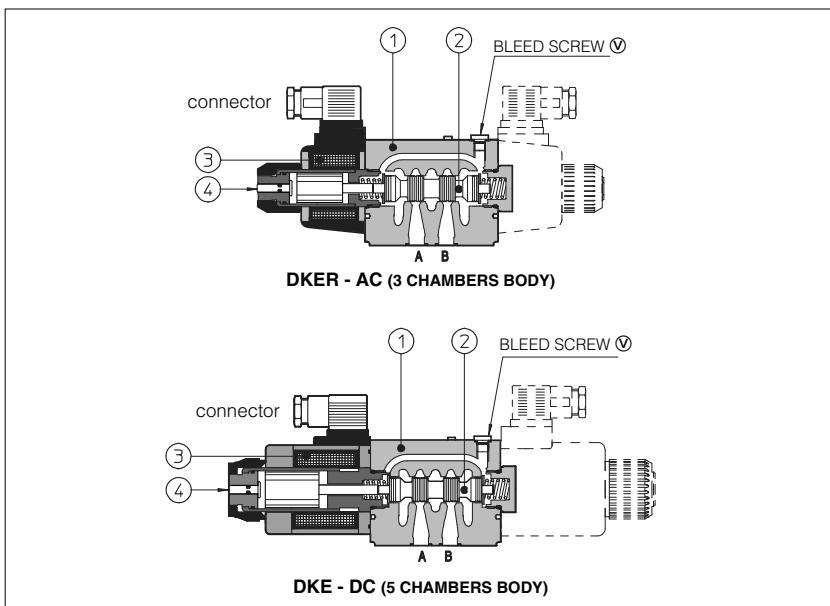
## 14 MOUNTING SUBPLATES

Model	Ports location	GAS Ports A-B-P-T	Ø Counterbore [mm] A-B-P-T	Mass [kg]
BA-202	Ports A, B, P, T underneath;	3/8"	—	1,2
BA-204	Ports P, T underneath; ports A, B on lateral side	3/8"	25,5	1,8
BA-302	Ports A, B, P, T underneath	1/2"	30	1,8

The subplates are supplied with 4 fastening bolts M5x50. Also available are multi-station subplates and modular subplates. For further details see table K280.

# Solenoid directional valves type DKE and DKER

direct operated, ISO 4401 size 10



## 1 MODEL CODE

**DKER** - **1** **63** **1/2** **/A - X** **24 DC** **\*\*** **/\***

Directional control valves ISO 4401 size 10  
**DKE** = standard solenoids  
**DKER** = high performances solenoids

Valve configuration, see section 2  
**61** = single solenoid, center plus external position, spring centered  
**63** = single solenoid, 2 external positions, spring offset  
**67** = single solenoid, center plus external position, spring offset  
**70** = double solenoid, 2 external positions, without springs  
**71** = double solenoid, 3 positions, spring centered  
**75** = double solenoid, 2 external positions, with detent  
Other configurations are available on request.

Spool type, see section 3

Note: configuration 63, 70 and 75 are available only with spools type 0/2, 1/2, 2/2, 2/7, 5/7 (2/7 and 5/7 only for configuration 63)

Synthetic fluids  
**WG** = water glycol  
**PE** = phosphate ester

Series number  
**00** = valve without coils

**X** = without connector  
See note 2 at section 5 for available connectors, to be ordered separately  
Coils with special connectors, see section 7  
**XJ** = AMP junior Timer connector  
**XK** = Deutsch connector (only DKE)  
**XS** = Lead Wire connection (only DKE)

Options, see note 1 at section 5

Spool type, direct operated solenoid valves available in two different versions:

**DKE** basic version equipped with standard solenoids

**DKER** high performance version equipped with improved force solenoids certified according the North American standard **CUR US**

## Configurations and construction

The valves are available in three or four way configurations and with two or three spool positions, see section 2.

The spools ② are interchangeable and they are available in a wide range of hydraulic configurations, see section 3.

The solenoids ③ have two different executions for AC or DC power supply and they are composed by:

- wet type screwed tube with integrated manual override pin ④ (the tube are different for AC and DC power supply).
- AC and DC coils see section 6

The coils are interchangeable for the same type of power supply AC or DC and they can be easily replaced without tools (they are not interchangeable between DKE and DKER).

The coils are fully encapsulated with the following temperature classes:

- class H for DC coils
- class F for AC coils

The valve body ① is 5 chambers type, for all DC versions and for AC version with option /\*\*. Standard AC version use 3 chambers type body.

The optimized internal flow paths, largely cored with extrawide channels to the tank port, ensure low pressure drops.

## Options

The following optional devices are available for DKE and DKER:

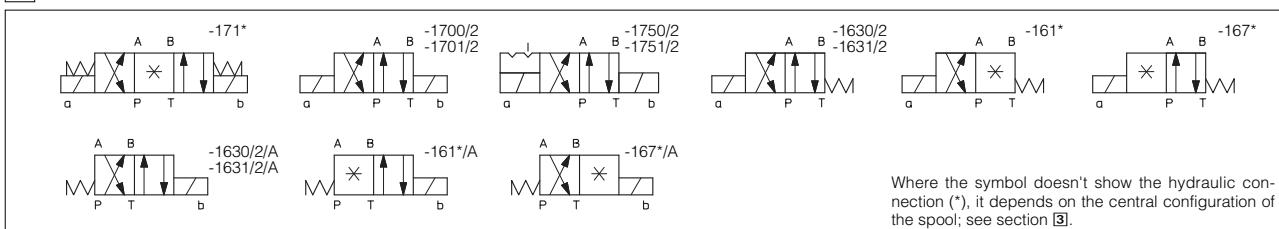
- prolonged manual override protected with rubber cap for easy hand operation
- control devices of the valve switching time
- spool position monitor devices for safety applications
- external drain port Y for high tank pressure (only DC version)

## Surface mounting ISO 4401 size 10

**Max flow up to 120 l/min**

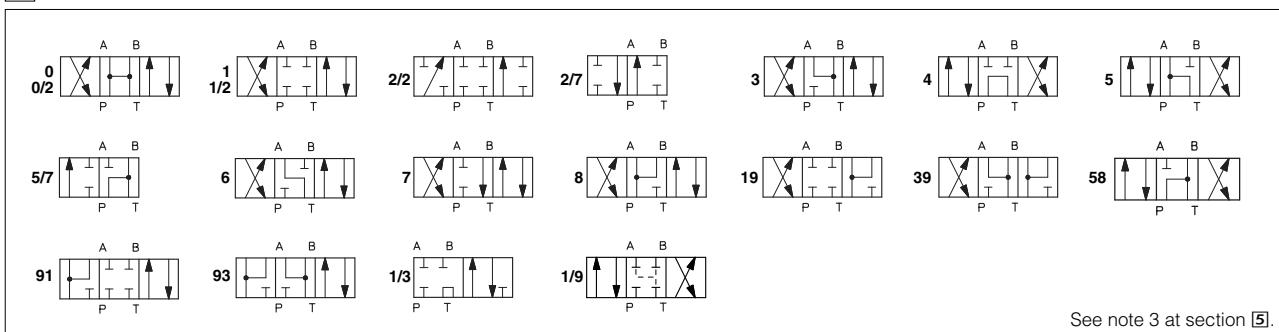
**Max pressure: 315 bar**

## 2 CONFIGURATION



Where the symbol doesn't show the hydraulic connection (\*), it depends on the central configuration of the spool; see section 3.

## 3 SPOOLS - for intermediate passages, see tab. E001.



See note 3 at section 5.

#### 4 MAIN CHARACTERISTICS OF DKE AND DKER DIRECTIONAL VALVES

Assembly position / location	Any position for all valves except for type - 170* (without springs) that must be installed with horizontal axis if operated by impulses
Subplate surface finishing	Roughness index $\sqrt{a}$ flatness ratio 0,01/100 (ISO 1101)
Ambient temperature	from -20°C to +70°C.
Fluid	Hydraulic oil as per DIN 51524 .... 535; for other fluids see section 1
Recommended viscosity	15 ÷ 100 mm²/s at 40°C (ISO VG 15 ÷ 100)
Fluid contamination class	ISO 19/16, achieved with in line filters at 25 µm value to $\beta_{25} \geq 75$ (recommended)
Fluid temperature	-20°C +60°C (standard and /WG seals) -20°C +80°C (/PE seals)
Flow direction	As shown in the symbols of tables 2 and 3
<b>Operating pressure</b>	<b>DKE</b>
For versions with proximity switches (/FC, /FI and /FIE versions) port Y must be drained	Ports P, A, B: <b>315 bar</b> Port T: <b>120 bar</b> for AC solenoids; <b>210 bar</b> for DC solenoids; <b>250 bar</b> for option /Y
	<b>DKER</b>
	Ports P,A,B: <b>315 bar</b> Port T: <b>160 bar</b> for AC solenoid; <b>210 bar</b> for DC solenoids; <b>250 bar</b> for option /Y
Rated flow	See diagrams Q/Δp at section 8
<b>Maximum flow</b>	<b>120 l/min</b> , see operating limits at section 9

#### 4.1 Coils characteristics

Insulation class	<b>H</b> (180°C) for DC coils <b>F</b> (155°C) for AC coils Due to the occurring surface temperatures of the solenoid coils, the European standards EN563 and EN982 must be taken into account
Connector protection degree	IP 65
Relative duty factor	100%
Supply voltage and frequency	See electric feature 6
Supply voltage tolerance	± 10%
Certification (only for DKER)	<b>C UR US</b>

#### 5 NOTES

##### 1 Options

**A** = Solenoid mounted at side of port B (only for single solenoid valves). In standard versions, solenoid is mounted at side of port A.

**WP** = prolonged manual override protected by rubber cap - see section 14.

**L, L1, L2, L3, LR**, see section 12 = device for switching time control (only for DC solenoids).

**F\*** = 5 chambers body for DC and AC versions with proximity switch for spool position monitoring: see tab. E110.

**Y** = external drain, only for DC version, to be selected if the pressure at T port is higher than the max allowed limits.

##### 2 Type of electric connectors DIN 43650, to be ordered separately - see section 15.

**SP-666** = standard connector IP-65 for direct connection to electric supply source.

**SP-667** = as SP-666, but with built-in signal led.

**SP-669** = with built-in rectifier bridge for supplying DC coils by alternate current (AC 110V and 230V - Imax 1A).

##### 3 Spools

- spools type **0/2, 1/2, 2/2** are only used for two position valves: single solenoid valves, type DKE\*-163\*/\*; double solenoid valves type DKE\*-170\*/2 and DKE\*-175\*/2.
- spools type **2/7 and 5/7** are used only for single solenoid valves, type DKE-163\* (option /A not available).
- spools type **0 and 3** are also available as **0/1** and **3/1** with restricted oil passages in central position, from user ports to tank.
- spools type **1** is also available as **1/1**, properly shaped to reduce the water-hammer shocks during the switching.
- spool type **1/3** (only for execution DKE(R)-1611/3AY DC version) is particularly used as shut-off valve for safety applications, consult our technical office.
- spool type **1/9** has closed center in rest position but it avoids the pressurization of A and B ports due to the internal leakages.
- other types of spools can be supplied on request.

#### 6 ELECTRIC FEATURES

External supply nominal voltage ± 10%	<b>Voltage code</b>	Type of connector	Power consumption (2)	Code of spare coil		(1) In case of 60 Hz voltage frequency the performances are reduced by 10÷15% and the power consumption is 80 VA for DKE and 90 VA for DKER.
				<b>DKE</b>	<b>DKER</b>	
12 DC	<b>12 DC</b>	SP-666 or SP-667	36 W (DKE) 39 W (DKER)	SP-CAE-12DC	SP-CAER-12DC	(2) Average values based on tests performed at nominal hydraulic condition and ambient/coil temperature of 20°C.
14 DC	<b>14 DC</b>			SP-CAE-14DC	SP-CAER-14DC	
24 DC	<b>24 DC</b>			SP-CAE-24DC	SP-CAER-24DC	
28 DC	<b>28 DC</b>			SP-CAE-28DC	SP-CAER-28DC	
110 DC	<b>110 DC</b>			SP-CAE-110DC	SP-CAER-110DC	
125 DC	<b>125 DC</b>			-	SP-CAER-125DC	
220 DC	<b>220 DC</b>			SP-CAE-220DC	SP-CAER-220DC	
110/50/60 AC	<b>110/50/60 AC</b>		85 VA (DKE) 105 VA (DKER) (3)	SP-CAE-110/50/60AC (1)	SP-CAER-110/50/60AC (1)	(3) When solenoid is energized, the inrush current is approx 3 times the holding current. Inrush current values correspond to a power consumption of about 280 VA for DKE and 320 VA for DKER.
230/50/60 AC	<b>230/50/60 AC</b>			SP-CAE-230/50/60AC (1)	SP-CAER-230/50/60AC (1)	
115/60 AC	<b>115/60 AC</b>			SP-CAE-115/60AC	SP-CAER-115/60AC	
230/60 AC	<b>230/60 AC</b>			SP-CAE-230/60AC	SP-CAER-230/60AC	
110/50/60 AC	<b>110 DC</b>	SP-669	36 W (DKE)	SP-CAE-110DC	SP-CAER-110DC	
230/50/60 AC	<b>220 DC</b>		39 W (DKER)	SP-CAE-220DC	SP-CAER-220DC	

#### 7 COILS TYPE CAE\* and CAER\* WITH SPECIAL CONNECTORS (only for 12DC, 14DC, 24DC and 28DC)

##### Options -XJ

Coil type SP-CAEJ, SP-CAERJ

AMP Junior Timer connector

Protection degree IP67

##### Options -XK

Coil type SP-CAEK

Deutsch connector, DT-04-2P male

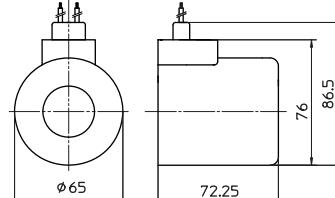
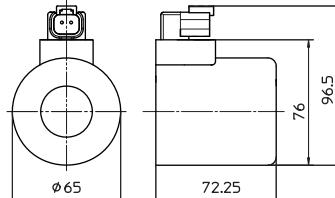
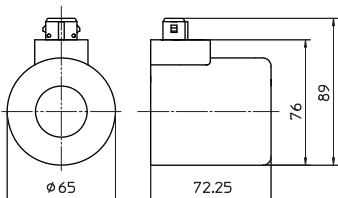
Protection degree IP67

##### Options -XS

Coil type SP-CAES

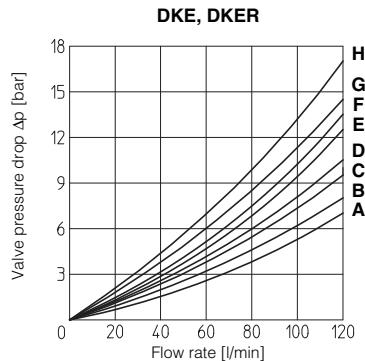
Lead Wire connection

Cable lenght = 180 mm



## 8 Q/ΔP DIAGRAMS based on mineral oil ISO VG 46 at 50°C

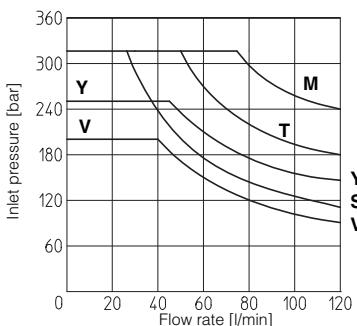
Spool type \ Flow direction	P→A	P→B	A→T	B→T	P→T	B→A
0, 0/1, 0/2, 2/2	A	A	B	B		
1, 1/1, 1/3, 6, 8	A	A	D	C		
3, 3/1, 7	A	A	C	D		
4	B	B	B	B	F	
5	A	B	C	C	G	
1/2	B	C	C	B		
2/7	D			F		
5/7	B		A	E		
19	A	D	C			H



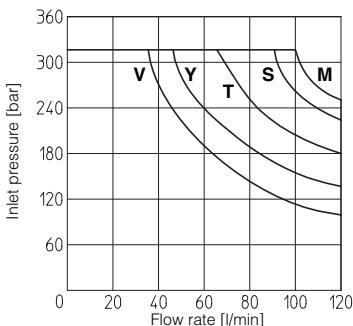
## 9 OPERATING LIMITS based on mineral oil ISO VG 46 at 50°C

The diagrams have been obtained with warm solenoids and power supply at lowest value ( $V_{nom} - 10\%$ ). The curves refer to application with symmetrical flow through the valve (i.e. P→A and B→T). In case of asymmetric flow and if the valves have the devices for controlling the switching times the operating limits must be reduced.

**DKE - AC**



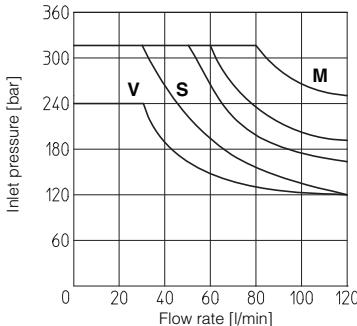
**DKE - DC**



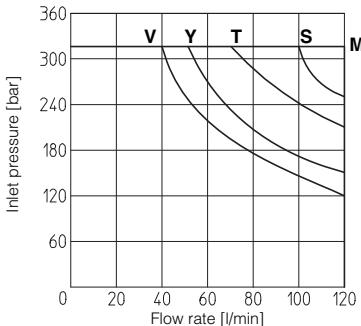
**DKE, DKER**

Curve	Spool type	
	AC	DC
<b>M</b>	0/1, 5/7, 1/3	0, 0/1, 1, 1/1, 3, 3/1, 1/2, 0/2, 8
<b>S</b>	2/7, 4, 5, 19	1/3, 5/7, 6, 7
<b>Y</b>	1, 1/2, 0/2	4, 5, 2/7
<b>V</b>	6, 7, 8, 2/2	2/2
<b>T</b>	0, 1/1, 3, 3/1	19

**DKER - AC**



**DKER - DC**



## 10 SWITCHING TIMES (average values in msec)

Valve	Switch-on AC	Switch-on DC	Switch-off AC	Switch-off DC
DKE / DKER + SP-666 / SP-667	40	60	25	35
DKE / DKER + SP-669	60	—	90	—
DKE-* / L* - DKER-* / L*	—	75÷150	—	45÷150

Test conditions:

- 50 l/min; 150 bar
- nominal supply voltage
- 2 bar of back pressure on port T
- mineral oil ISO VG 46 at 50°C

The elasticity of the hydraulic circuit and the variations of the hydraulic characteristics and temperature affect the response time.

## 11 SWITCHING FREQUENCY

Valve	AC (cycles/h)	DC (cycles/h)
DKE / DKER + SP-666 / SP-667	7200	15000

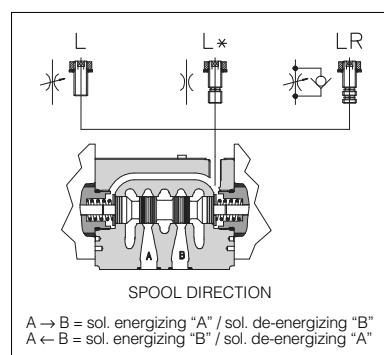
## 12 DEVICES FOR SWITCHING TIME CONTROL

These devices are only available for DC valve version (5 chambers body) and can control the switching time and therefore reduce the coil hammering in the hydraulic circuit. The different types are available shown in the figure.

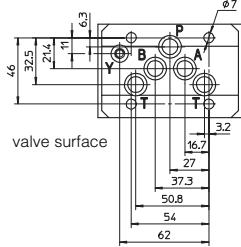
The functionality of the device time control depends on the type of regulating element.

- **L**: controls and regulates the switching time in both moving directions of the spool: regulation is carried out by screwing/unscrewing the element itself (regulating choke);
- **L1/L2/L3**: controls the switching time in both moving directions of the spool by means of fixed calibrated restrictor (gauged flow)  
ØL1 = 1,25 mm; ØL2 = 1 mm; ØL3 = 0,75 mm;
- **LR**: controls and regulates the switching time in the B→A direction of the spool movement. The device does not control the switching time (standard time) in the opposite direction A→B of the spool movement.

For a correct operation of the switching time control, the passage in which the control device is installed must be completely filled with oil.

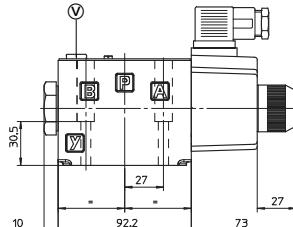


## 13 INSTALLATION DIMENSIONS [mm]

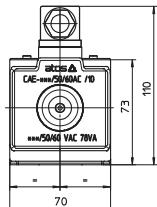


**ISO 4401: 2005**  
**Mounting surface according to 4401-05-05-0-05**  
**(without X port, Y port optional)**  
 Fastening bolts:  
 4 socket head screws M6x40 class 12.9  
 Tightening torque = 15 Nm  
 Seals: 5 OR 2050 and 1 OR 108  
 Ports P,A,B,T: Ø = 11.5 mm (max)  
 Ports Y: Ø = 5 mm

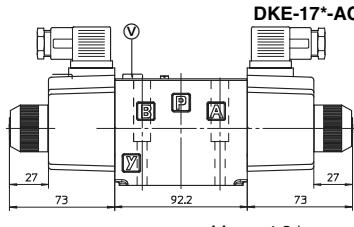
**P** = PRESSURE PORT  
**A, B** = USE PORT  
**T** = TANK PORT  
**Y** = DRAIN PORT (only for option /Y)  
 For the max pressures on ports, see section 4



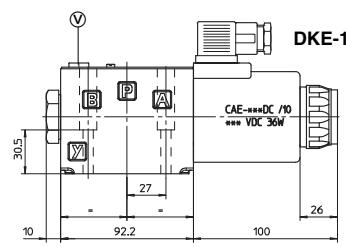
**DKE-16\*-AC**



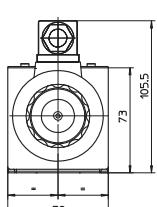
Mass: 3,6 kg



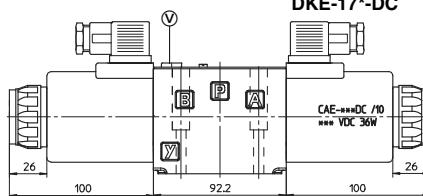
Mass: 4,3 kg



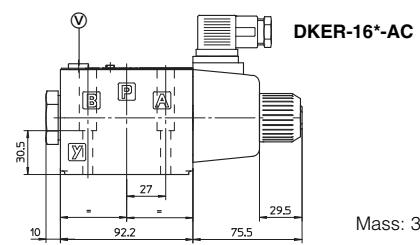
**DKE-16\*-DC**



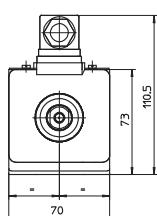
Mass: 4,2 kg



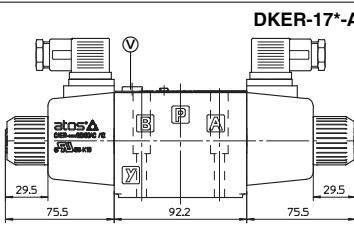
Mass: 5,7 kg



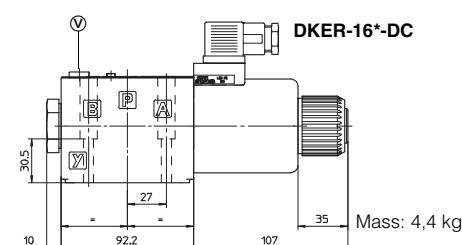
**DKER-16\*-AC**



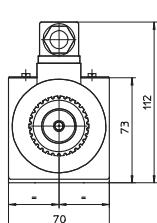
Mass: 3,6 kg



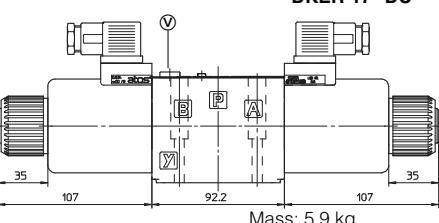
Mass: 4,3 kg



**DKER-16\*-DC**



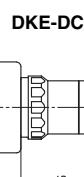
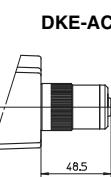
Mass: 4,4 kg



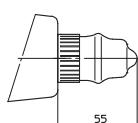
Mass: 5,9 kg

Overall dimensions refer to valves with connectors type SP-666

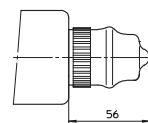
## 14 OPTION /WP



**DKER-AC**



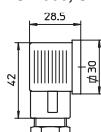
**DKER-DC**



## 15 ELECTRIC CONNECTORS ACCORDING TO DIN 43650

The connectors must be ordered separately

**SP-666, SP-667** (for AC or DC supply)



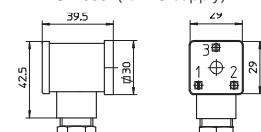
**SP-666, SP-667**

1 = Positive +  
 2 = Negative -  
 ⊕ = Coil ground

**CONNECTOR WIRING**

**SP-669**

**SP-669 (for AC supply)**



**SP-666**

**SP-667**

**SP-669**

SP-666	SP-667	SP-669
All voltages	24 AC or DC 110 AC or DC 220 AC or DC	1,2 = Supply voltage V <sub>AC</sub> 3 = Coil ground

### SUPPLY VOLTAGES

SP-666	SP-667	SP-669
All voltages	24 AC or DC 110 AC or DC 220 AC or DC	110/50 AC 110/60 AC 115/60 AC 230/50 AC 230/60 AC

## 16 MOUNTING SUBPLATES

Model	Ports location	GAS Ports A-B-P-T (X-Y)	Ø Counterbore [mm] A-B-P-T (X-Y)	Mass [kg]
BA-308	(/Y) Ports A, B, P, T (X, Y) underneath	1/2" (1/4")	30 (21,5)	2,5
BA-428	(/Y) Ports A, B, P, T (X, Y) underneath	3/4" (1/4")	36,5 (21,5)	5,5
BA-434	(/Y) Ports P, T, (X, Y) underneath; ports A, B on lateral side	3/4" (1/4")	36,5 (21,5)	8,5

The subplates are supplied with 4 fastening bolts M6x40. Also available are multi-station subplates and modular subplates. For further details see table K280.

Nº	Descripción
ATO230001	BOBINA NG-6 SP-COI-110/50/60
ATO230002	BOBINA NG-6 SP-COI-230/50/60
ATO230003	BOBINA NG-6 SP-COI-24AC VTJ.ESP.
ATO230003.1	BOBINA NG-6 SP-COI-48/50/60/80 AC
ATO230004	BOBINA NG-6 SP-COU-12DC
ATO230005	BOBINA NG-6 SP-COU-24DC
ATO230006	BOBINA NG-6 SP-COU-220 DC
ATO230007	BOBINA NG-6 SP-COU-28DC
ATO230008	BOBINA NG-6 SP-COU 48V DC
ATO230009	BOBINA NG-6 SP-COU 110 DC
ATO230009.1	BOBINA NG-6 SP-COU 125 DC
ATO230010	BOBINA NG-6 SP-COU 230RC
ATO230011	BOBINA NG-6 SP-COU-110RC

Nº	Descripción
ATO190001	BOBINA NG-10 SP-CAI-110AC
ATO190002	BOBINA NG-10 SP-CAI-220AC
ATO190004	BOBINA NG-10 SP-CAU-12DC
ATO190005	BOBINA NG-10 SP-CAU-24DC
ATO190007	BOBINA NG-10 SP-CAU 110DC
ATO190008	BOBINA NG-10 SP-CAU 220DC
ATO190009	BOBINA NG-10 SP-CAU 48DC
ATO190010	BOBINA NG-10-SP-CAU-230R
ATO190011	BOBINA NG-10-SP-CAU-110RC
ATO190101	BOBINA NG-10 SP-CAE-110/50/60AC
ATO190102	BOBINA NG-10 SP-CAE-220/50/60AC
ATO190103	BOBINA NG-10 SP-CAE-12DC
ATO190104	BOBINA NG-10 SP-CAE-24DC
ATO190105	BOBINA NG-10 SP-CAE-110DC
ATO190106	BOBINA NG-10 SP-CAE-220DC

E/V. NG-6 TIPO DHI (40 LTS)

Nº	Descripción
ATO150004	E/V DHI-0610-X-00
ATO150006	E/V DHI-0611-X-00
ATO150006.1	E/V DHI-0611/A-X-00
ATO150008.2	E/V DHI-0614-X-00
ATO150008.3	E/V DHI-0614/A-X-00
ATO150008.4	E/V DHI-0615-X-00
ATO150008.6	E/V DHI-0618-X-00
ATO150008.8	E/V DHI-0630/2
ATO150008.9	ELECT. DHI-0630/2-FC-24VDC
ATO150010	E/V DHI-0631/2-X-00
ATO150011	E/V.DHI-0631/2-12DC/WP
ATO150012.4	E/V DHI-0631/2/A
ATO150013	E/V DHI-0632/2
ATO150015	E/V DHI-0671-X-00
ATO150015.1	E/V DHI-0671/A-X-00
ATO150022	E/V DHI-0710
ATO150024.1	E/V DHI-07109
ATO150026	E/V DHI-0711
ATO150028	E/V DHI-0711P
ATO150030	E/V DHI-0713
ATO150031	E/V DHI-0713/P-X-00
ATO150032	E/V DHI-0713/WP
ATO150034	E/V DHI-0714-X-00
ATO150037	E/V DHI-0715
ATO150042	E/V DHI-0716
ATO150045	E/V DHI-0717
ATO150055	E/V DHI-0750/2-X-00
ATO150058	E/V DHI-0751/2
ATO150059	E/V DHI-0701/2

E/V. NG-6 TIPO DHU ( 40 LTS)

Nº	Descripción
ATO150105	E/V DHU-0610
ATO150106	E/V DHU 0610/A-X-00
ATO150107	E/V DHU-0611-X-00
ATO150107.1	E/V DHU 0611/A-X-00
ATO150108	E/V DHU 0613-X-00
ATO150109	E/V DHU 0614-X-00
ATO150110	E/V DHU 0614/A-X-00
ATO150111	E/V DHU 0615-X-00
ATO150112	E/V DHU 0616-X-00
ATO150113	E/V DHU 0617-X-00
ATO150114	E/V DHU 0618-X-00
ATO150120	E/V DHU-0630/2-X-00
ATO150129	E/V DHU-0631/2-X-00
ATO150130	E/V DHU-0631/2/A-X-00
ATO150134	E/V DHU-0670-X-00
ATO150134.1	E/V DHU-0670/A-X-00
ATO150135	E/V DHU-0671-X-00
ATO150135.1	E/V DHU-0671/A-X-00
ATO150141	E/V DHU-0674
ATO150141.1	E/V DHU-0674/A-X-00
ATO150149	E/V. DHU-0701/2P
ATO150150	E/V DHU-0710
ATO150158	E/V DHU-0711
ATO150166	E/V DHU-0713
ATO150167	E/V DHU-0713/P-X-00
ATO150177	E/V DHU-0714/FI/NC/24DC
ATO150178	E/V DHU-0714-X-00
ATO150178.2	E/V DHU-0715-X-00
ATO150178.3	E/V DHU-0716-X-00
ATO150178.4	E/V DHU-0718-X-00
ATO150179	E/V DHU-0750/2
ATO150217	E/V DHU-0751/2

E/V. NG-10 TIPO DKE (80 LTS)

Nº	Descripcion
ATO151001	E/V DKE-1610-X-00 DC
ATO151002	E/V DKE-1610-X-00 AC
ATO151002.1	E/V DKE-1610/A-X-00 DC
ATO151002.2	E/V DKE-1610/A-X-00 AC
ATO151003	E/V DKE-1611-X-00 DC
ATO151004	E/V DKE-1611-X-00 AC
ATO151004.1	E/V DKE-1611/A-X-00 DC
ATO151004.2	E/V DKE-1611/A-X-00 AC
ATO151005	E/V DKE-1613-X-00 DC
ATO151006	E/V DKE-1613-X-00 AC
ATO151007	E/V DKE-1614-X-00 DC
ATO151008	E/V DKE-1614-X-00 AC
ATO151008.1	E/V DKE-1614/A-X-00 DC
ATO151008.2	E/V DKE-1614/A-X-00 AC
ATO151008.3	E/V DKE-1615-X-00 DC
ATO151008.4	E/V DKE-1615-X-00 AC
ATO151008.5	E/V DKE-1616-X-00 DC
ATO151008.6	E/V DKE-1616-X-00 AC
ATO151008.7	E/V DKE-1617-X-00 DC
ATO151008.8	E/V DKE-1617-X-00 AC
ATO151008.9	E/V DKE-1618-X-00 DC
ATO151008.91	E/V DKE-1618-X-00 AC
ATO151009	E/V DKE-1630/2-X-00 DC
ATO151010	E/V DKE-1630/2-X-00 AC
ATO151011	E/V DKE-1631/2-X-00 DC
ATO151012	E/V DKE-1631/2-X-00 AC
ATO151013	E/V DKE-1631/2/A-X-00 DC
ATO151014	E/V DKE-1631/2/A-X-00 AC
ATO151015	E/V DKE-1632/2-X-00 DC
ATO151016	E/V DKE-1632/2-X-00 AC
ATO151016.0	E/V DKE-1671-X-00 DC
ATO151016.01	E/V DKE-1671-X-00 AC
ATO151016.02	E/V DKE-1671/A-X-00 DC
ATO151016.03	E/V DKE-1671/A-X-00 AC
ATO151016.1	E/V DKE-1701/2-X-00 DC
ATO151016.2	E/V DKE-1701/2-X-00 AC
ATO151017	E/V DKE-1710-X-00 DC
ATO151018	E/V DKE-1710-X-00 AC
ATO151019	E/V DKE-1711-X-00 DC
ATO151019.1	E/V DKE-1711-X-24 DC
ATO151020	E/V DKE-1711-X-00 AC
ATO151021	E/V DKE-1713-X-00 DC
ATO151022	E/V DKE-1713-X-00 AC
ATO151023	E/V DKE-1714-X-00 DC
ATO151024	E/V DKE-1714-X-00 AC
ATO151025.1	E/V DKE-1715-X-00 DC

ATO151027	E/V DKE-1716-X-00 DC
ATO151027.1	E/V DKE-1716-X-00 AC
ATO151028.1	E/V DKE-1717-X-00 AC
ATO151029.1	E/V DKE-1718-X-00 AC
ATO151031	E/V DKE-1751/2-X-00 DC
ATO151032	E/V DKE-1751/2-X-00 AC

E/V. NG-10 TIPO DKI (80 LTS)

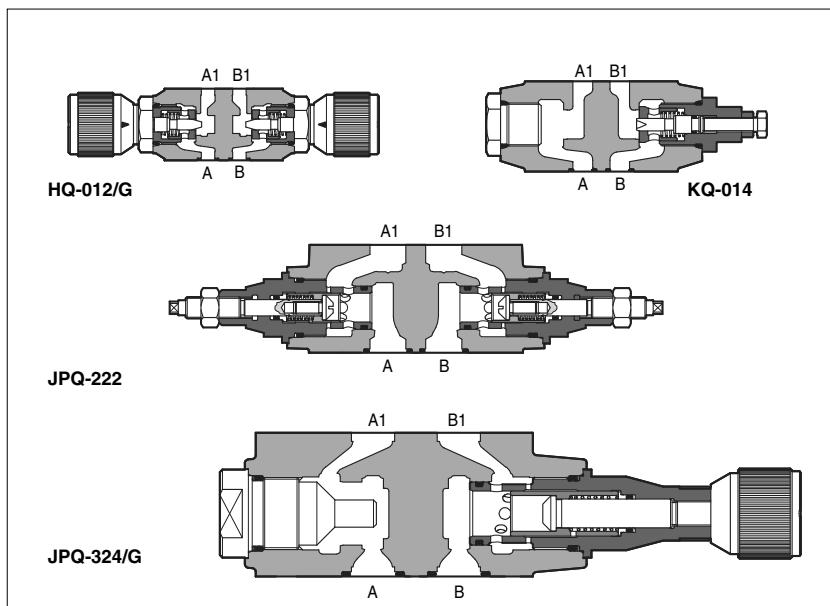
Nº	Descripción
ATO150390	E/V DKI-1610
ATO150392	E/V DKI-1611
ATO150394	E/V DKI-1613
ATO150396	E/V DKI-1614
ATO150398	E/V DKI-1630/2
ATO150400	E/V DKI-1631/2
ATO150401	E/V DKI-1632/2-
ATO150408	E/V DKI-1710
ATO150412	E/V DKI-1711
ATO150416	E/V DKI-1713
ATO150420	E/V DKI-1714
ATO150424	E/V DKI-1715
ATO150428	E/V DKI-1716
ATO150440	E/V DKI-1751/2

E/V. NG-10 TIPO DKU (80 LTS)

Nº	Descripción
ATO150272	E/V DKU-1610
ATO150282	E/V DKU-1613
ATO150288	E/V DKU-1614
ATO150291	E/V DKU-1630/2
ATO150292	E/V DKU-1631/2
ATO150294	E/V DKU-1617
ATO150300	E/V DKU-1632/2
ATO150315	E/V DKU-1710
ATO150322	E/V DKU-1711
ATO150334	E/V DKU-1713
ATO150338	E/V DKU-1714
ATO150359	E/V DKU-1716
ATO150367	E/V DKU-1717
ATO150374	E/V DKU-1718
ATO150382	E/V DKU-1751/2

## Modular throttle valves type HQ, KQ, JPQ

flow control, ISO 4401 sizes 06, 10, 16 and 25



### 1 MODEL CODE

**HQ-0**

Modular flow control valve,  
size:  
**HQ-0** = 06  
**KQ-0** = 10  
**JPQ-2** = 16  
**JPQ-3** = 25

**13**
**/G**
**\*\***
**/\***

Synthetic fluids:  
**WG** = water-glycol  
**PE** = phosphate ester

Series number

Configuration, see section 2

control of flow discharged from the actuator:

- 12** = double, acting on port A and B
- 13** = single, acting on port A
- 14** = single, acting on port B

control of flow entering the actuator:

- 22** = double, acting on port A and B
  - 23** = single, acting on port A
  - 24** = single, acting on port B
- Options  
**/U** = better accuracy for reduced flow (only for HQ-0)  
**/G** = adjustment by graduated micrometer

### 2 VALVE CONFIGURATION

**HQ-012**  
**KQ-012**  
**JPQ-212**  
**JPQ-312**

**HQ-013**  
**KQ-013**  
**JPQ-213**  
**JPQ-313**

**HQ-014**  
**KQ-014**  
**JPQ-214**  
**JPQ-314**

**HQ-022**  
**KQ-022**  
**JPQ-222**  
**JPQ-322**

**HQ-023**  
**KQ-023**  
**JPQ-223**  
**JPQ-323**

**HQ-024**  
**KQ-024**  
**JPQ-224**  
**JPQ-324**

### 3 MAIN CHARACTERISTICS OF MODULAR FLOW CONTROL VALVES TYPE HQ, KQ, JPQ

Assembly position	Any position. JPQ cannot be associated with directional valves having hydraulic centring device because JPQ don't have the drain port.
Subplate surface finishing	Roughness index $\sqrt{0.4}$ , flatness ratio 0,01/100 (ISO 1101)
Ambient temperature	-20°C to + 70°C
Fluid	Hydraulic oil as per DIN 51524...535, for other fluids see section 1
Recommended viscosity	15 ÷ 100 mm²/s at 40°C (ISO VG 15 ÷ 100)
Fluid contamination class	ISO 19/16, achieved with in line filters at 25 µm value and $\beta_{25} \geq 75$ (recommended)
Fluid temperature	-20°C +60°C (standard and /WG seals) -20°C +80°C (/PE seals)

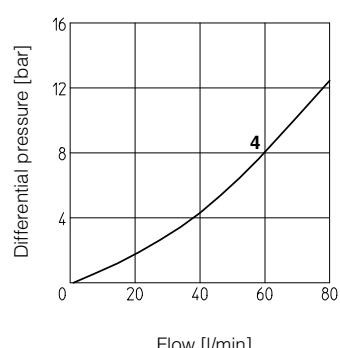
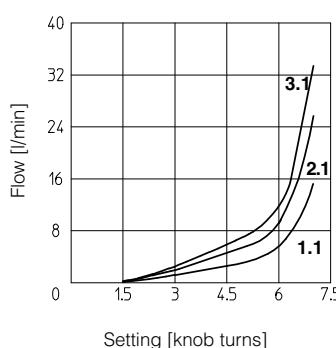
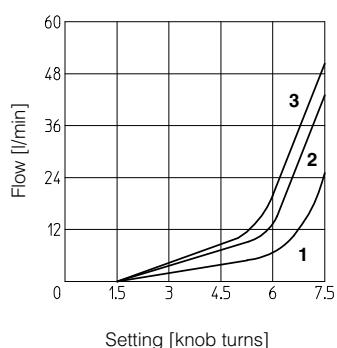
### 4 DIAGRAMS OF HQ-0 based on mineral oil ISO VG 46 at 50°C

1 = Regulation diagram at  $\Delta p$  10 bar  
(1.1 = option /U)

2 = Regulation diagram at  $\Delta p$  30 bar  
(2.1 = option /U)

3 = Regulation diagram at  $\Delta p$  50 bar  
(3.1 = option /U)

4 = Q/ $\Delta p$  diagram for free flow through the non-return valve



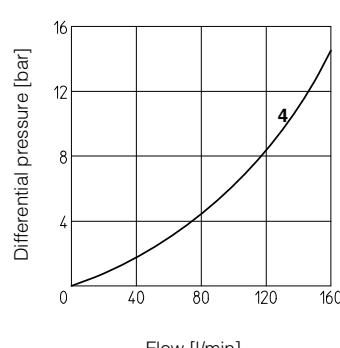
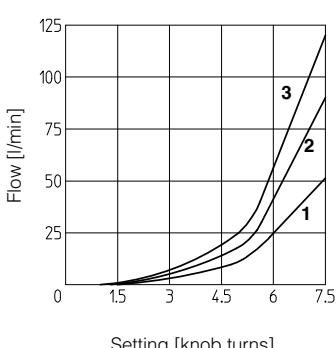
### 5 DIAGRAMS OF KQ-0 based on mineral oil ISO VG 46 at 50°C

1 = Regulation diagram at  $\Delta p$  10 bar

2 = Regulation diagram at  $\Delta p$  30 bar

3 = Regulation diagram at  $\Delta p$  50 bar

4 = Q/ $\Delta p$  diagram for free flow through the non-return valve



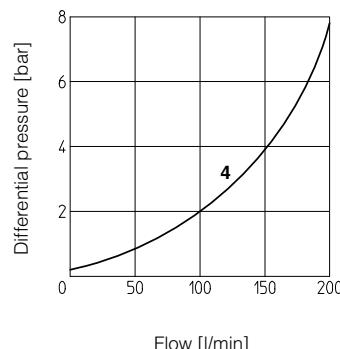
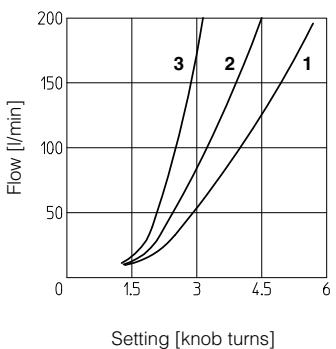
### 6 DIAGRAMS OF JPQ-2 based on mineral oil ISO VG 46 at 50°C

1 = Regulation diagram at  $\Delta p$  10 bar

2 = Regulation diagram at  $\Delta p$  30 bar

3 = Regulation diagram at  $\Delta p$  50 bar

4 = Q/ $\Delta p$  diagram for free flow through the non-return valve



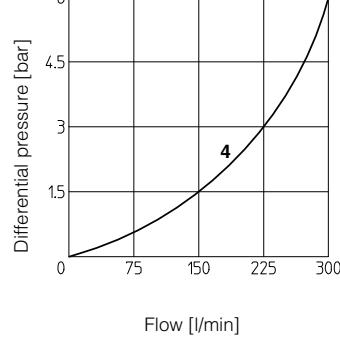
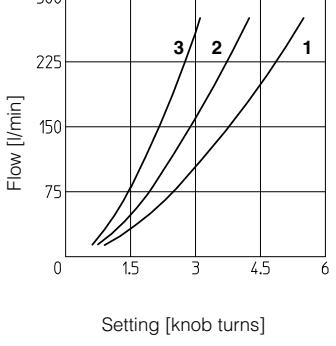
### 7 DIAGRAMS OF JPQ-3 based on mineral oil ISO VG 46 at 50°C

1 = Regulation diagram at  $\Delta p$  10 bar

2 = Regulation diagram at  $\Delta p$  30 bar

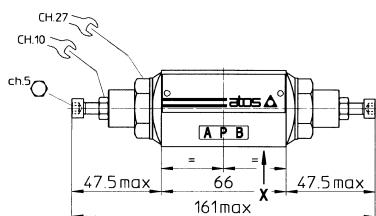
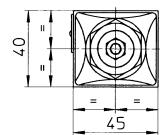
3 = Regulation diagram at  $\Delta p$  50 bar

4 = Q/ $\Delta p$  diagram for free flow through the non-return valve



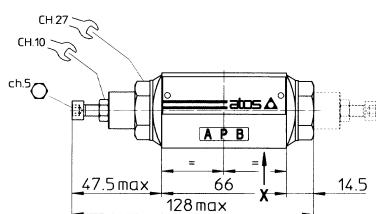
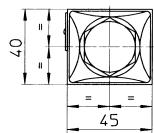
**8 INSTALLATION DIMENSIONS OF HQ-0 VALVES [mm]**

HQ-012  
HQ-022



Mass: 1,1 Kg

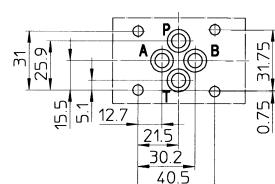
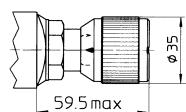
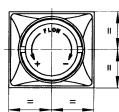
HQ-013  
HQ-014  
HQ-023  
HQ-024



In version -014 and -024 the regulating element is on side of port B (dotted line) instead of side of port A.

Mass: 1,2 Kg

**/G OPTION**



**ISO 4401: 2005**

**Mounting surface: 4401-03-02-0-05**

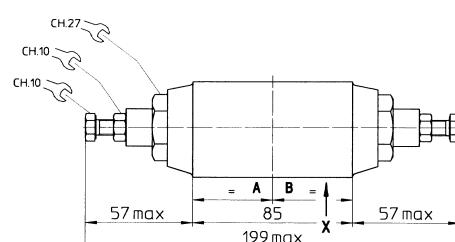
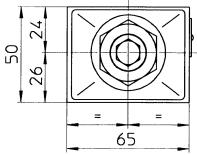
Diameter of ports A, B, P, T: Ø = 7,5 mm (max)

Seals: 4 OR 108

Fastening bolts: n° 4 socket head screws M5. The lenght depends on number and type of modular elements associated.

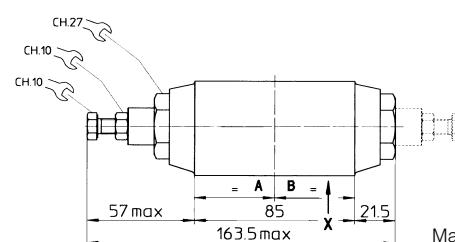
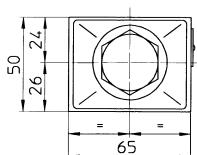
**9 INSTALLATION DIMENSIONS OF KQ-0 VALVES [mm]**

KQ-012  
KQ-022



Mass: 2 Kg

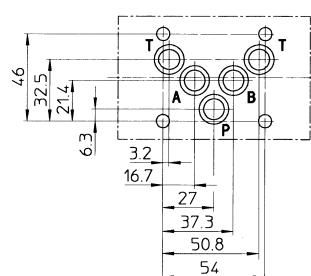
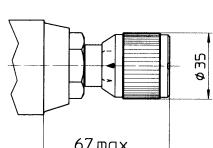
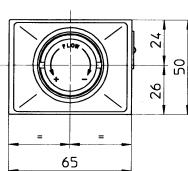
KQ-013  
KQ-014  
KQ-023  
KQ-024



In version -014 and -024 the regulating element is on side of port B (dotted line) instead of side of port A.

Mass: 2,2 Kg

**/G OPTION**



**ISO 4401: 2005**

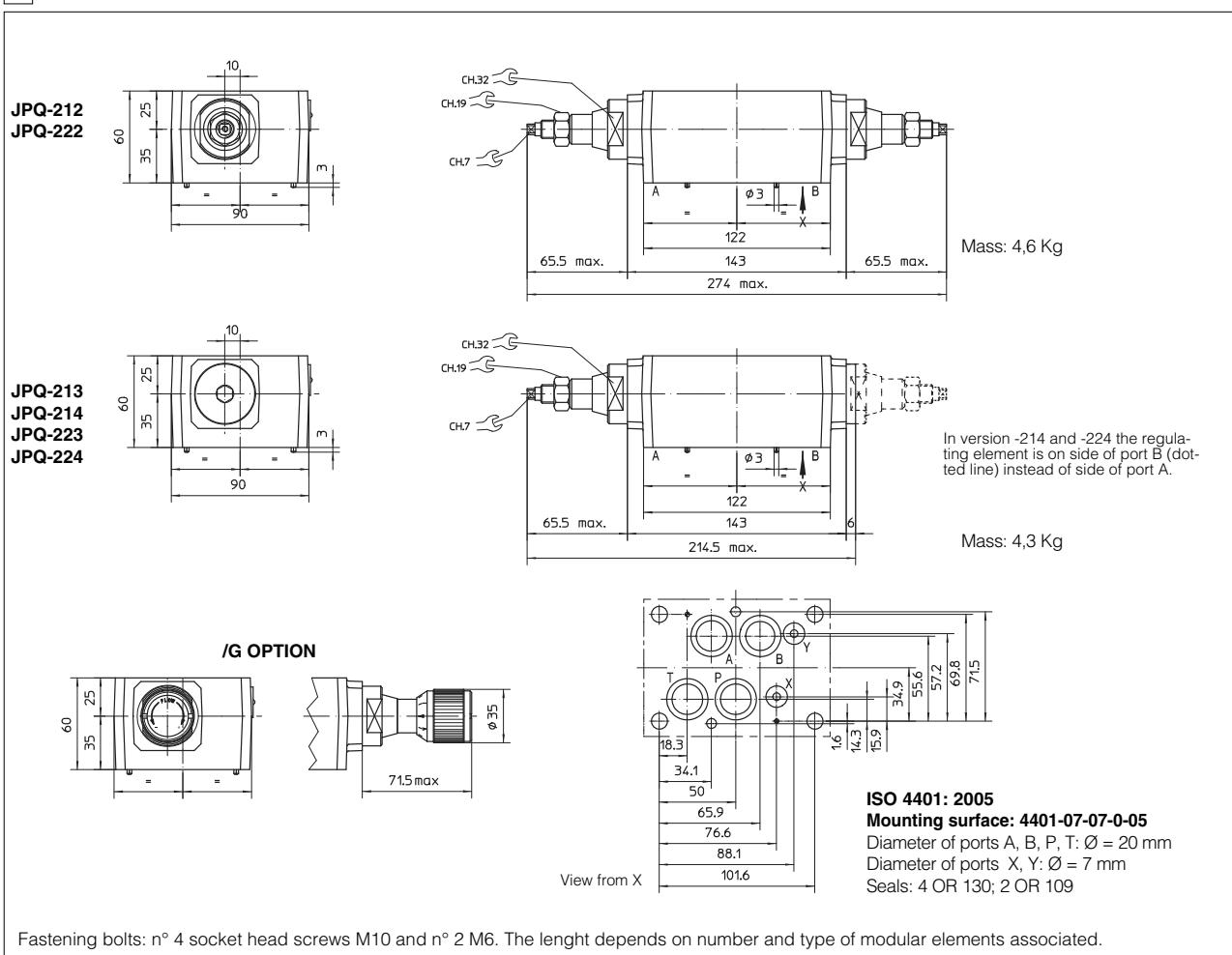
**Mounting surface: 4401-05-04-0-05**

Diameter of ports, A, B, P, T: Ø = 11,2 mm (max)

Seals: 5 OR 2050

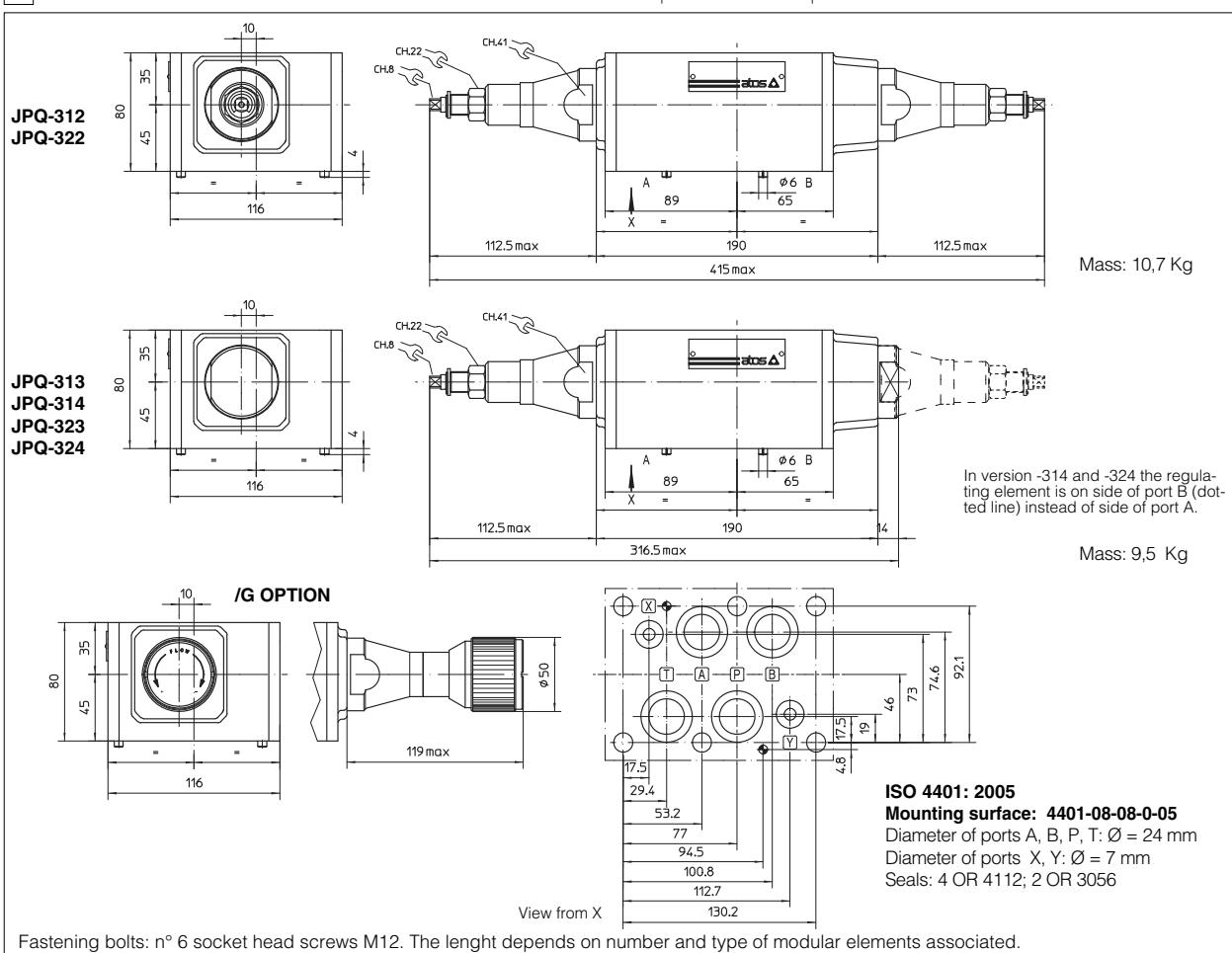
Fastening bolts: n° 4 socket head screws M6. The lenght depends on number and type of modular elements associated.

**10 INSTALLATION DIMENSIONS OF JPQ-2 VALVES [mm]**



Fastening bolts: n° 4 socket head screws M10 and n° 2 M6. The lenght depends on number and type of modular elements associated.

**11 INSTALLATION DIMENSIONS OF JPQ-3 VALVES [mm]**



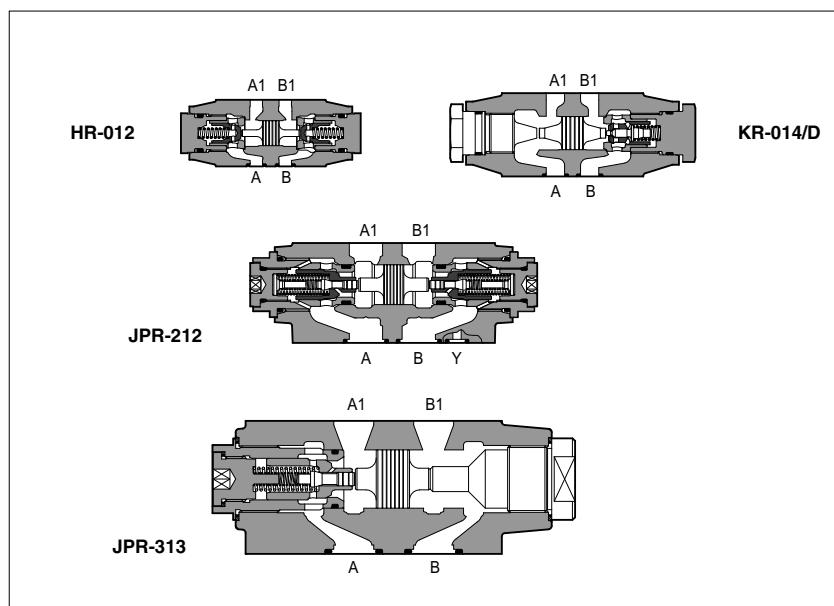
Fastening bolts: n° 6 socket head screws M12. The lenght depends on number and type of modular elements associated.

## REGULADOR DE CAUDAL NG-6 / NG-10

Nº	Descripción
ATO220001	REG. CAUDAL HQ-012
ATO220002	REG. CAUDAL HQ-013
ATO220003	REG. CAUDAL HQ-014
ATO220004	REG. CAUDAL HQ-022
ATO220005	REG. CAUDAL HQ-023
ATO220006	REG. CAUDAL HQ-024
ATO220007	REG. CAUDAL JPQ-212
ATO220008	REG. CAUDAL JPQ-213
ATO220009	REG. CAUDAL JPQ-214
ATO220010	REG. CAUDAL JPQ-312
ATO220011	REG. CAUDAL JPQ-313
ATO220012	REG. CAUDAL JPQ-314
ATO220019	REG. CAUDAL KQ-012
ATO220020	REG. CAUDAL KQ-013
ATO220021	REG. CAUDAL KQ-014
ATO220022	REG. CAUDAL KQ-022
ATO220023	REG. CAUDAL KQ-023
ATO220024	REG. CAUDAL KQ-024

## Modular check valves type HR, KR, JPR

direct or pilot operated, ISO 4401 sizes 06, 10, 16 and 25



HR, KR are check valves available as direct or pilot operated models.  
JPR are pilot operated check valves.

Optional versions with decompression are available on request for some models of KR.

HR-0 = ISO 4401 size 06 interface: flow up to 60 l/min, pressure up to 350 bar.

KR-0 = ISO 4401 size 10 interface: flow up to 120 l/min, pressure up to 315 bar.

JPR-2 = ISO 4401 size 16 interface: flow up to 200 l/min, pressure up to 350 bar.

JPR-3 = ISO 4401 size 25 interface: flow up to 300 l/min, pressure up to 350 bar.

Valves are designed to operate in hydraulic systems with hydraulic mineral oil or synthetic fluid having similar lubricating characteristics.

### 1 MODEL CODE

**HR-0**

Modular check valve, size:  
**HR-0** = 06  
**KR-0** = 10  
**JPR-2** = 16  
**JPR-3** = 25

Configuration, see section 2

direct operated (not available for JPR):

**02** = double, acting on port A and B

**03** = single, acting on port A

**04** = single, acting on port B

**11** = single, acting on port P

**16** = single, acting on port T

pilot operated:

**12** = double, acting on port A and B

**13** = single, acting on port A

**14** = single, acting on port B

**12**

**/4**

**\***

**\*\***

**/\***

Synthetic fluids:  
**WG** = water-glycol  
**PE** = phosphate ester

Series number

Options (only for KR-012, -013, -014):

**/D** = with decompression (only with cracking pressure standard = 1 bar)

Spring cracking pressure for HR and KR

= 0,5 bar (std.) **/4** = 4 bar

**/2** = 2 bar

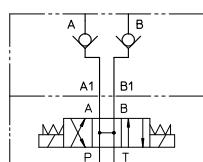
**/B** = 8 bar

for JPR

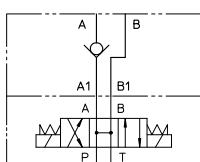
= 0,5 bar

### 2 VALVE CONFIGURATION

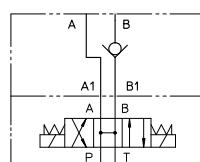
**HR-002**  
**KR-002**



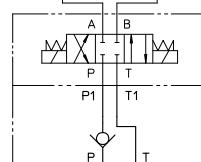
**HR-003**  
**KR-003**



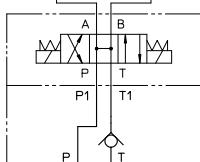
**HR-004**  
**KR-004**



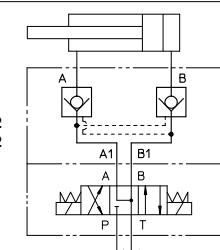
**HR-011**  
**KR-011**



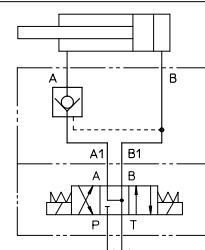
**HR-016**  
**KR-016**



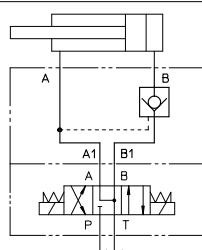
**HR-012**  
**KR-012**  
**JPR-212**  
**JPR-312**



**HR-013**  
**KR-013**  
**JPR-213**  
**JPR-313**



**HR-014**  
**KR-014**  
**JPR-214**  
**JPR-314**



The pilot pressure applied through ports A or B opens the valve acting on ports B and A, respectively.  
The minimum pilot pressure is a function of the area ratio, see the following table.

VALVE TYPE	AREA RATIO
HR	3,3:1
KR	3,3:1 (standard); 11:1 (option /D decompression system)
JPR-2	13,6:1 (standard version equipped with decompression system)
JPR-3	17:1 (standard version equipped with decompression system)

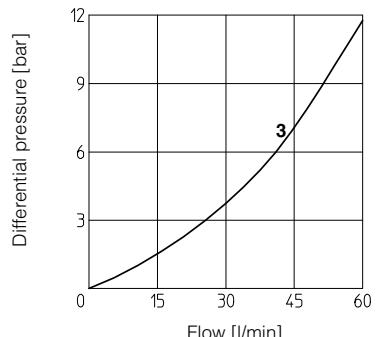
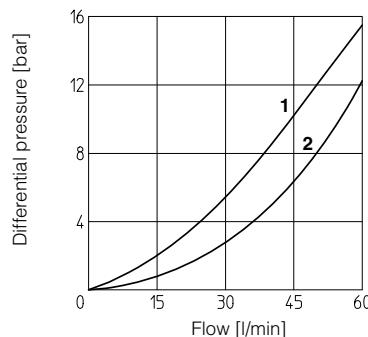
**3 MAIN CHARACTERISTICS OF MODULAR CHECK VALVES TYPE HR, KR, JPR**

Assembly position	Any position
Subplate surface finishing	Roughness index $\sqrt{0.4}$ , flatness ratio 0.01/100 (ISO 1101)
Ambient temperature	-20°C to + 70°C
Fluid	Hydraulic oil as per DIN 51524...535, for other fluids see section 1
Recommended viscosity	15 ÷ 100 mm²/s at 40°C (ISO VG 15 ÷ 100)
Fluid contamination class	ISO 19/16, achieved with in line filters at 25 µm value and $\beta_{25} \geq 75$ (recommended)
Fluid temperature	-20°C +60°C (standard and /WG seals) -20°C +80°C (/PE seals)

**4 DIAGRAMS OF HR-0** based on mineral oil ISO VG 46 at 50°C

Flow through check valve:

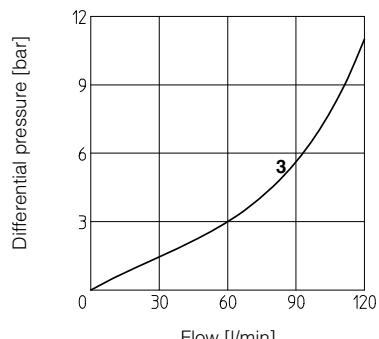
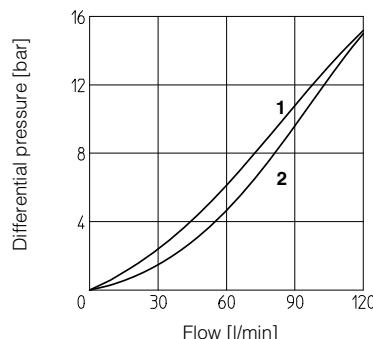
- 1 = A→A<sub>1</sub>; B→B<sub>1</sub> of  
HR-012, HR-013, HR-014
- 2 = A<sub>1</sub>→A; B<sub>1</sub>→B of  
HR-012, HR-013, HR-014
- 3 = HR-011, HR-016



**5 DIAGRAMS OF KR-0** based on mineral oil ISO VG 46 at 50°C

Flow through check valve:

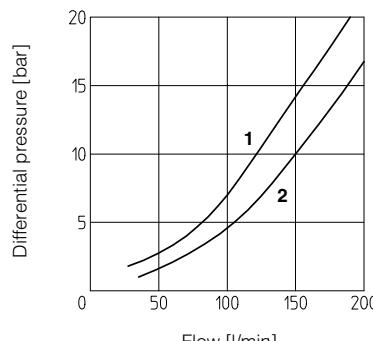
- 1 = A→A<sub>1</sub>; B→B<sub>1</sub> of  
KR-012, KR-013, KR-014
- 2 = A<sub>1</sub>→A; B<sub>1</sub>→B of  
KR-012, KR-013, KR-014
- 3 = KR-011, KR-016



**6 DIAGRAMS OF JPR-2** based on mineral oil ISO VG 46 at 50°C

Flow through check valve:

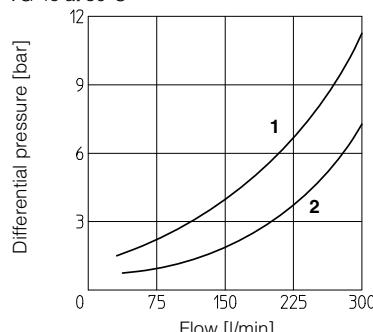
- 1 = A→A<sub>1</sub>; B→B<sub>1</sub> of  
JPR-212, JPR-213, JPR-214
- 2 = A<sub>1</sub>→A; B<sub>1</sub>→B of  
JPR-212, JPR-213, JPR-214



**7 DIAGRAMS OF JPR-3** based on mineral oil ISO VG 46 at 50°C

Flow through check valve:

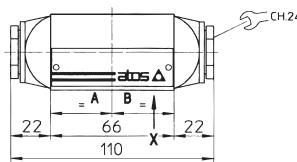
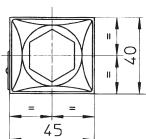
- 1 = A→A<sub>1</sub>; B→B<sub>1</sub> of  
JPR-312, JPR-313, JPR-314
- 2 = A<sub>1</sub>→A; B<sub>1</sub>→B of  
JPR-312, JPR-313, JPR-314



## 8 INSTALLATION DIMENSIONS OF HR-0 VALVES [mm]

HR-002  
HR-003  
HR-004  
HR-012  
HR-013  
HR-014

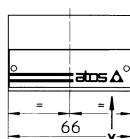
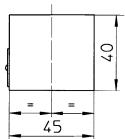
LATERAL VIEW



Mass: 1 Kg

HR-011  
HR-016

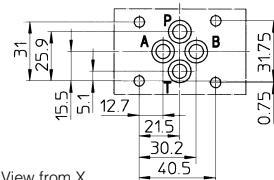
LATERAL VIEW



Mass: 0,7 Kg

**ISO 4401: 2005**

**Mounting surface: 4401-03-02-0-05**  
Diameter of ports A, B, P, T: Ø = 7,5 mm (max)  
Seals: 4 OR 108



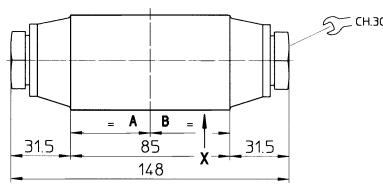
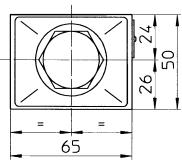
View from X

Fastening bolts: n° 4 socket head screws M5. The lenght depends on number and type of modular elements associated.

## 9 INSTALLATION DIMENSIONS OF KR-0 VALVES [mm]

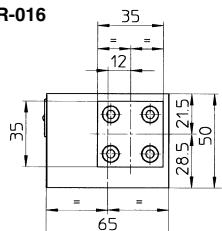
KR-012  
KR-002  
KR-003  
KR-004  
KR-013  
KR-014

LATERAL VIEW

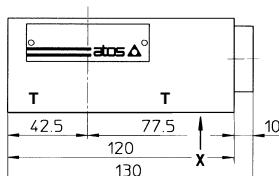


Massa: 2,3 Kg

KR-016



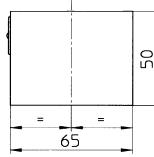
LATERAL VIEW



Mass: 2,5 Kg

KR-011

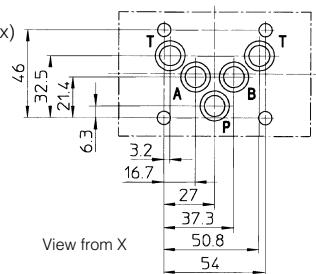
LATERAL VIEW



Mass: 1,7 Kg

**ISO 4401: 2005**

**Mounting surface: 4401-05-04-0-05**  
Diameter of ports, A, B, P, T: Ø = 11,2 mm (max)  
Seals: 5 OR 2050



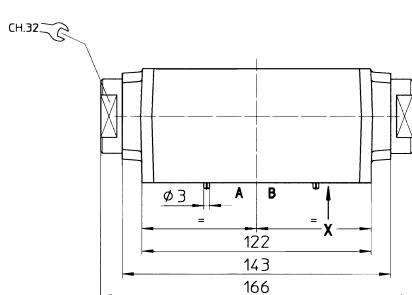
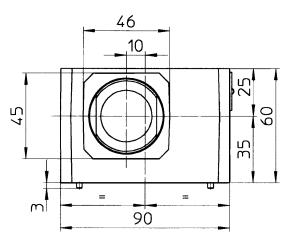
View from X

Fastening bolts: n° 4 socket head screws M6. The lenght depends on number and type of modular elements associated.

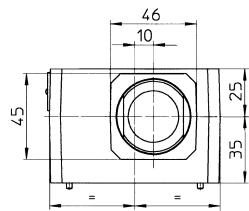
## 10 INSTALLATION DIMENSIONS OF JPR-2 VALVES [mm]

JPR-212  
JPR-213  
JPR-214

LATERAL VIEW



LATERAL VIEW



Mass: 4,4 Kg

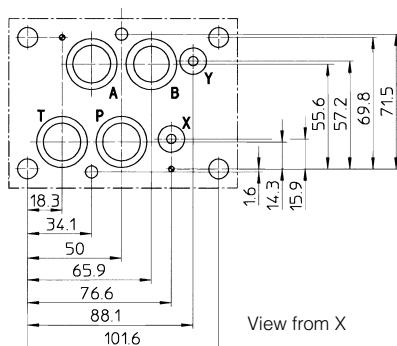
**ISO 4401: 2005**

**Mounting surface: 4401-07-07-0-05**

Diameter of ports A, B, P, T: Ø = 20 mm

Diameter of ports X, Y: Ø = 7 mm

Seals: 4 OR 130; 2 OR 109

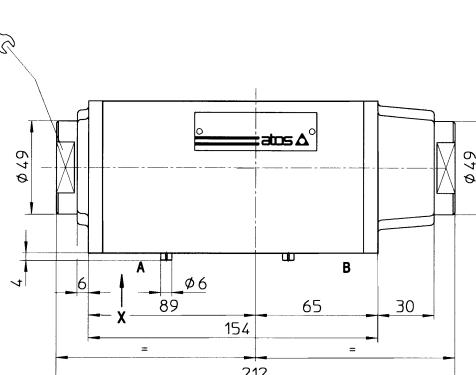
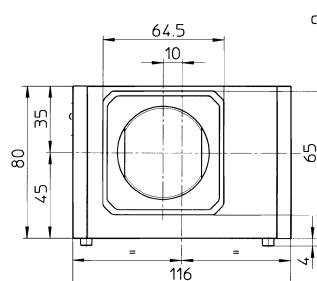


Fastening bolts: n° 4 socket head screws M10 and n° 2 M6. The lenght depends on number and type of modular elements associated.

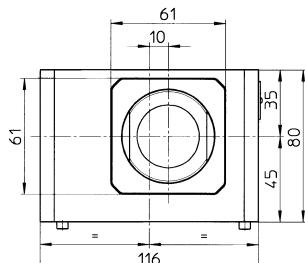
## 11 INSTALLATION DIMENSIONS OF JPR-3 VALVES [mm]

JPR-312  
JPR-313  
JPR-314

LATERAL VIEW B



LATERAL VIEW A



Mass: 9,9 Kg

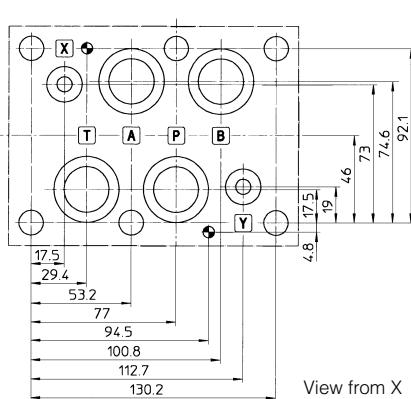
**ISO 4401: 2005**

**Mounting surface: 4401-08-08-0-05**

Diameter of ports A, B, P, T: Ø = 24 mm

Diameter of ports X, Y: Ø = 7 mm

Seals: 4 OR 4112; 2 OR 3056



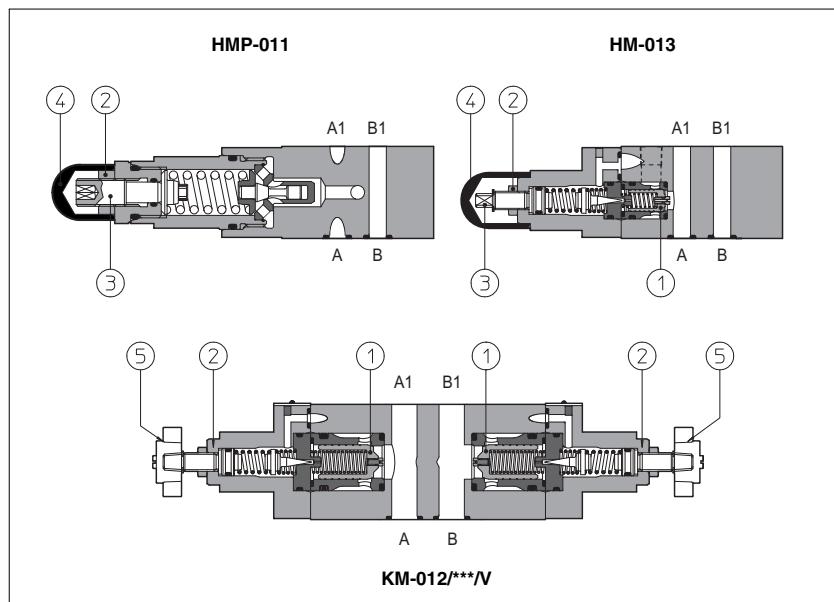
Fastening bolts: n° 6 socket head screws M12. The lenght depends on number and type of modular elements associated.

VALVULA RETENCION NG- 6 /NG-10

Nº	Descripción
ATO210010	VALV.RETENCION HR-002
ATO210010.1	VALV.RETENCION HR-003
ATO210010.2	VALV.RETENCION HR-004
ATO210011	VALV.RETENCION HR-011
ATO210012	VALV.RETENCION HR-012
ATO210013	VALV.RETENCION HR-013
ATO210014	VALV.RETENCION HR-014
ATO210015	VALV.RETENCION HR-016
ATO210016	VALV.RETENCION JPR-212
ATO210017	VALV.RETENCION JPR-213
ATO210018	VALV.RETENCION JPR-214
ATO210019	VALV. RETENCION JPR-312
ATO210019.1	VALV. RETENCION JPR-313
ATO210019.2	VALV. RETENCION JPR-314
ATO210021	VALV.RETENCION KR-002
ATO210021.1	VALV.RETENCION KR-003
ATO210021.2	VALV.RETENCION KR-004
ATO210022	VALV.RETENCION KR-011
ATO210023	VALV.RETENCION KR-012
ATO210024	VALV.RETENCION KR-013
ATO210025	VALV.RETENCION KR-014
ATO210027	VALV.RETENCION KR-016

# Modular relief valves type HMP, HM, KM

ISO 4401 sizes 06 and 10



HMP are direct operated pressure relief valves.  
HM and KM are double stage pressure relief valves with balanced poppet ①.

The pressure adjustment is operated by loosening the locking nut ② and turning the screw ③ protected by cap ④. Optional versions with setting adjustment by handwheel ⑤ instead of the screw are available on request. Clockwise rotation increases the pressure.

HMP = ISO 4401 size 06 interface; max flow: 35 l/min; max pressure up to 350 bar.

HM = ISO 4401 size 06 interface; max flow: 60 l/min; max pressure up to 350 bar.

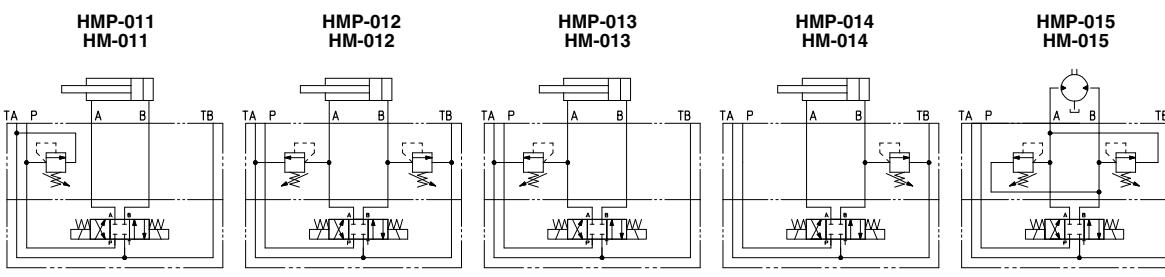
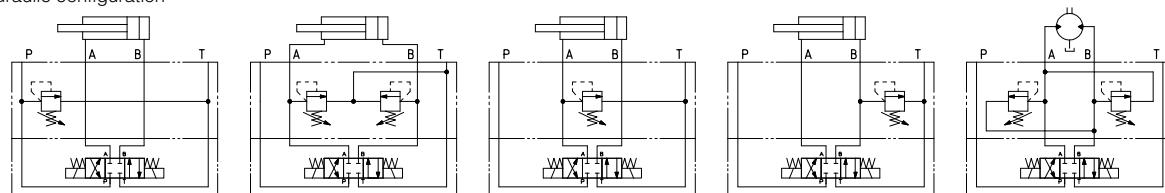
KM = ISO 4401 size 10 interface; max flow: 120 l/min; max pressure up to 350 bar.

Valves designed to operate in hydraulic systems with hydraulic mineral oil or synthetic fluid having similar lubricating characteristics.

1 MODEL CODE		HM		011 / 210		/V		**		/*	
Modular pressure relief valve size:											
HMP = 06											
HM = 06											
KM = 10											
Configuration, see section 2											
011 = single; acting on port P, discharge to port T											
012 = double, acting on ports A and B, discharge to port T											
013 = single, acting on port A, discharge to port T											
014 = single, acting on port B, discharge to port T											
015 = double, acting on ports A and B, with the relieved pressure cross-discharged											
Options: /V = setting adjustment by handwheel instead of a grub screw protected by cap Only for HMP: /R = reduced leakage for special applications /VF = regulating knob /VS = regulating knob with safety locking											
Pressure range for HMP: 50 = 2÷ 50 bar 100 = 3÷100 bar 210 = 10÷210 bar 350 = 15÷350 bar											
for HM and KM: 50 = 4÷ 50 bar 100 = 5÷100 bar 210 = 5÷210 bar 350 = 5÷350 bar											
Synthetic fluids: WG = water glycol PE = phosphate ester											
Series number											

## 2 HYDRAULIC CHARACTERISTICS

### Hydraulic configuration



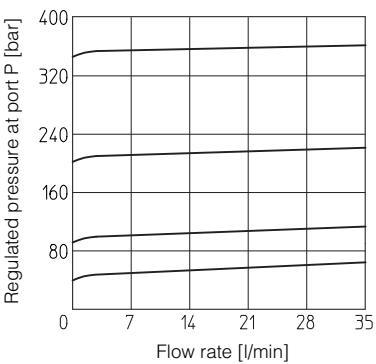
Valve model	HMP	HM	KM
Max flow [l/min]	35	60	120
Pressure range [bar]	2÷50; 3÷100; 10÷210; 15÷350	4÷50; 5÷100; 5÷210; 5÷350	

**3 MAIN CHARACTERISTICS OF MODULAR PRESSURE RELIEF VALVE TYPE HMP, HM, KM**

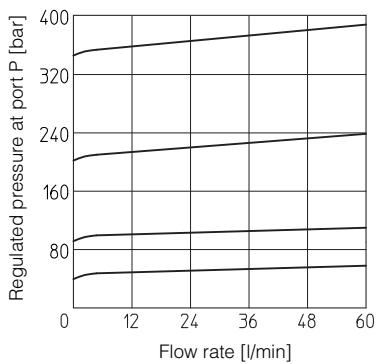
Assembly position / location	Any position
Subplate surface finishing	Roughness index $\sqrt{0.4}$ , flatness ratio 0,01/100 (ISO 1101)
Ambient temperature	-20°C to +70°
Fluid	Hydraulic oil as per DIN 51524 ... 535; for other fluids see section <b>1</b>
Recommended viscosity	15 ÷ 100 mm <sup>2</sup> /s at 40°C (ISO VG 15 ÷ 100)
Fluid contamination class	ISO 19/16, achieved with in line filters at 25 µm value and $\beta_{25} \geq 75$ (recommended)
Fluid temperature	-20°C +60°C (standard and /WG seals) -20°C +80°C (/PE seals)

**4 REGULATED PRESSURE VERSUS FLOW DIAGRAMS** (Based on mineral oil ISO VG 46 at 50°C)

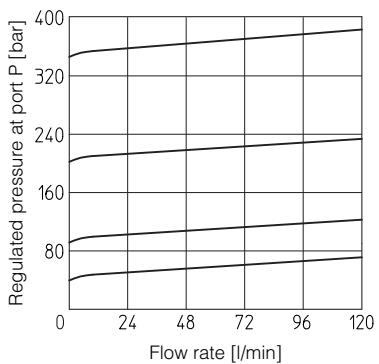
**HMP**



**HM**

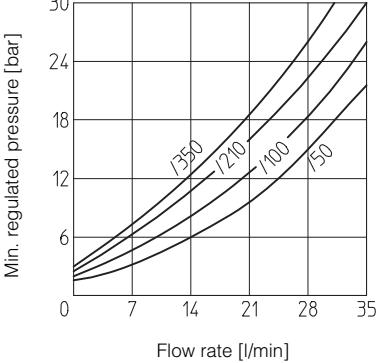


**KM**

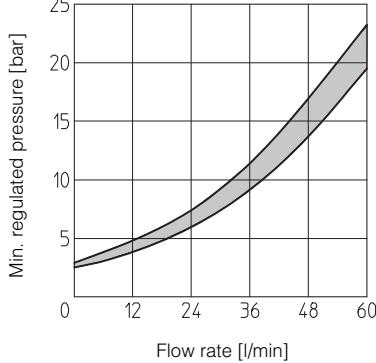


**5 MINIMUM PRESSURE VERSUS FLOW DIAGRAMS** (Based on fluid viscosity of 25 mm<sup>2</sup>/s at 40°C)

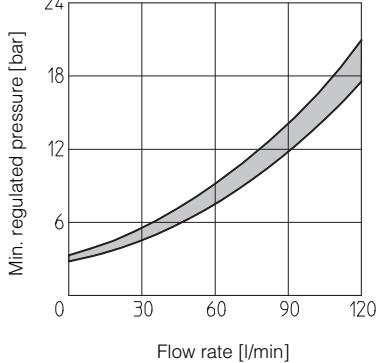
**HMP**



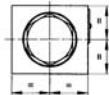
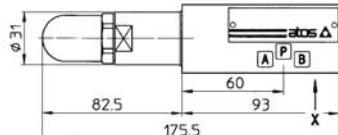
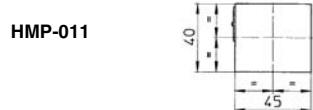
**HM**



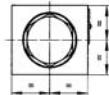
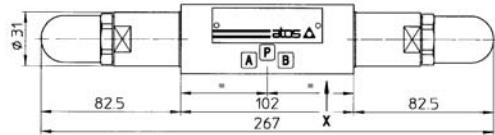
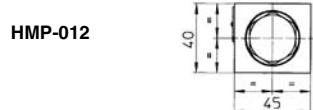
**KM**



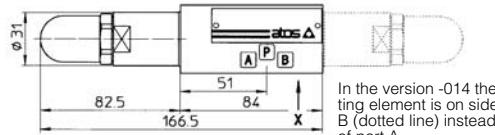
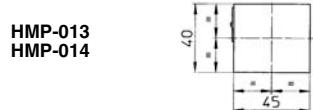
## 6 INSTALLATION DIMENSIONS OF HMP VALVES [mm]



Mass: 1,4 Kg

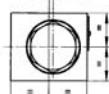
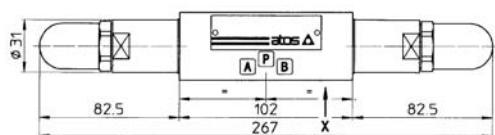
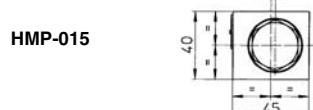


Mass: 1,7 Kg



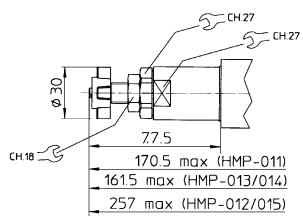
In the version -014 the regulating element is on side of port B (dotted line) instead of side of port A.

Mass: 1,2 Kg



Mass: 1,7 Kg

### Adjustment device for option /V

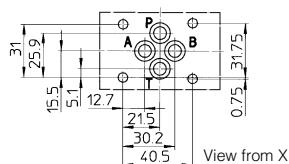


### ISO 4401: 2005

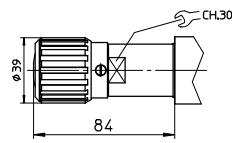
### Mounting surface: 4401-03-02-0-05

Diameter of ports A, B, P, T:  $\varnothing = 7,5$  mm

Seals: 4 OR 108

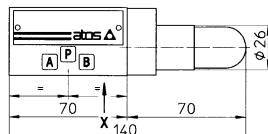
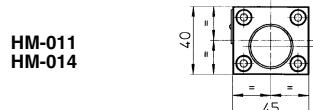


### Adjustment device for option /VF and /VS

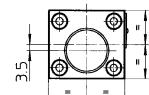
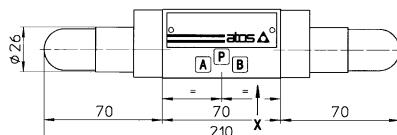
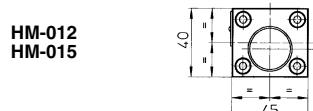


Fastening bolts: n° 4 socket head screws M5. The lenght depends on number and type of modular elements associated.

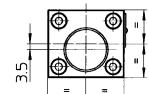
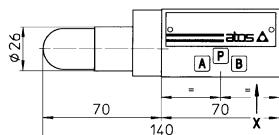
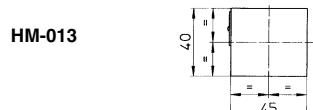
## 7 INSTALLATION DIMENSIONS OF HM VALVES [mm]



Mass: 1,1 Kg

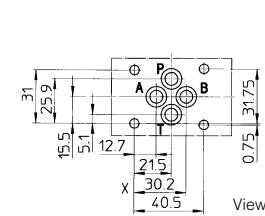
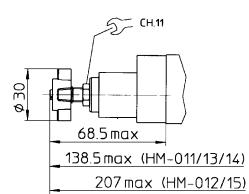


Mass: 1,3 Kg



Mass: 1,1 Kg

### Adjustment device for option /V



### ISO 4401: 2005

### Mounting surface: 4401-03-02-0-05

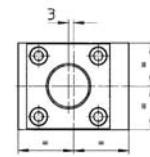
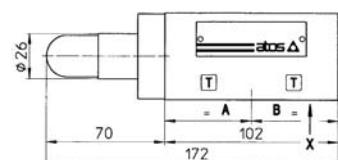
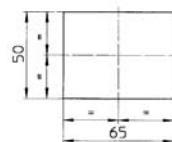
Diameter of ports A, B, P, T:  $\varnothing = 7,5$  mm

Seals: 4 OR 108

Fastening bolts: n° 4 socket head screws M5. The lenght depends on number and type of modular elements associated.

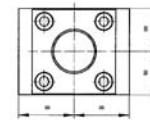
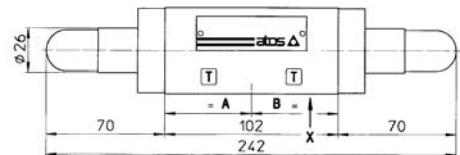
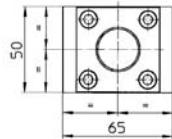
8 INSTALLATION DIMENSIONS OF KM VALVES [mm]

KM-011



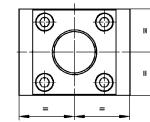
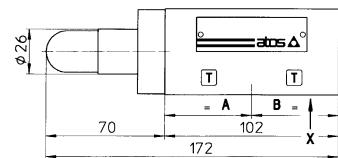
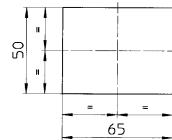
Mass: 2,5 Kg

KM-012



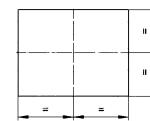
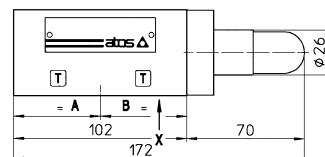
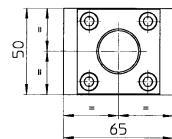
Mass: 2,8 Kg

KM-013



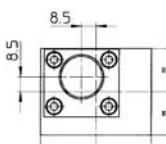
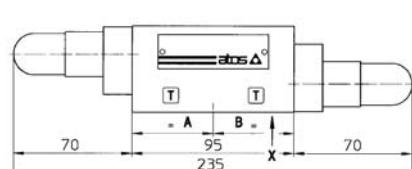
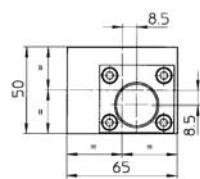
Mass: 2,5 Kg

KM-014



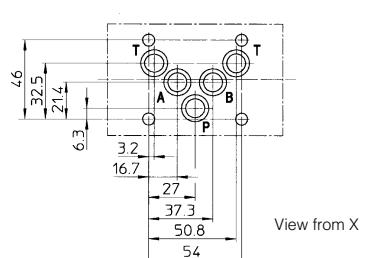
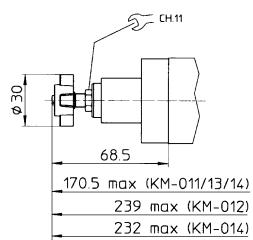
Mass: 2,5 Kg

KM-015



Mass: 2,5 Kg

**Adjustment device for option /V**



ISO 4401: 2005

Mounting surface: 4401-05-04-0-05

Diameter of ports A, B, P, T:  $\varnothing = 11,2$  mm  
Seals: 5 OR 2050

Fastening bolts: n° 4 socket head screws M6. The lenght depends on number and type of modular elements associated.

LIMITADORAS NG- 6 / NG-10

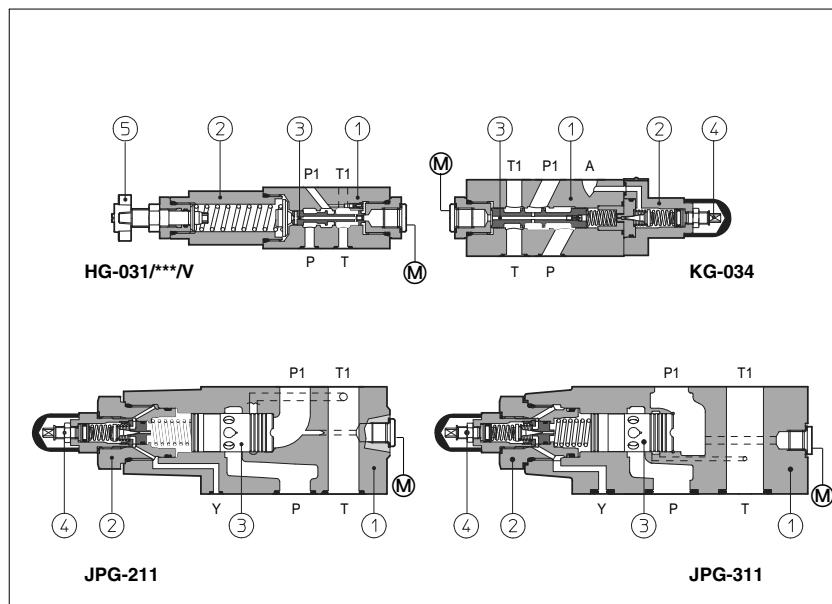
Nº	Descripción
ATO080016	VALV. MAX. PRES. HMP-011/100
ATO080017	VALV. MAX. PRES. HMP-011/210
ATO080018.1	VALV. MAX. PRES. HMP-011/350
ATO080019	VALV. MAX. PRES. HM-011/100
ATO080020	VALV. MAX. PRES. HM-011/210
ATO080021	VALV. MAX. PRES. HM-011/350
ATO080022	VALV. MAX. PRES. HMP-013/100
ATO080023	VALV. MAX. PRES. HMP-013/210
ATO080024	VALV. MAX. PRES. HMP-013/350
ATO080028	VALV. MAX. PRES. HMP-014/100
ATO080029	VALV. MAX. PRES. HMP-014/210
ATO080030	VALV. MAX. PRES. HMP-014/350
ATO080030.9	VALV. MAX. PRES. HMP-012/100
ATO080031	VALV. MAX. PRES. HMP-012/210
ATO080032	VALV. MAX. PRES. HMP-012/350
ATO080034	VALV. MAX. PRES. KM-011/100
ATO080035	VALV. MAX. PRES. KM-011/210
ATO080036	VALV. MAX. PRES. KM-011/350
ATO080037	VALV. MAX. PRES. KM-012/100
ATO080038	VALV. MAX. PRES. KM-012/210
ATO080039.1	VALV. MAX. PRES. KM-012/350
ATO080040	VALV. MAX. PRES. KM-013/100
ATO080041	VALV. MAX. PRES. KM-013/210
ATO080042	VALV. MAX. PRES. KM-013/350
ATO080043	VALV. MAX. PRES. KM-014/100
ATO080044	VALV. MAX. PRES. KM-014/210
ATO080045	VALV. MAX. PRES. KM-014/350
ATO080047	VALV. MAX. PRES. KM-015/210
ATO080049	VALV. MAX. PRES. HM-012/100
ATO080050	VALV. MAX. PRES. HM-012/210
ATO080051	VALV. MAX. PRES. HM-012/350
ATO080052	VALV. MAX. PRES. HM-013/100
ATO080053	VALV. MAX. PRES. HM-013/210
ATO080055	VALV. MAX. PRES. HM-014/100
ATO080057	VALV. MAX. PRES. HM-014/350
ATO080058	VALV. MAX. PRES. HM-015/100
ATO080059	VALV. MAX. PRES. HM-015/210
ATO080065	VALV. MAX. PRES. HM-014/210
ATO080066	VALV. MAX. PRES. HM-013/350
ATO080067	VALV. MAX. PRES. HM-012/100

LIMITADORAS NG- 6 / NG-10

Nº	Descripción
ATO080016	VALV. MAX. PRES. HMP-011/100
ATO080017	VALV. MAX. PRES. HMP-011/210
ATO080018.1	VALV. MAX. PRES. HMP-011/350
ATO080019	VALV. MAX. PRES. HM-011/100
ATO080020	VALV. MAX. PRES. HM-011/210
ATO080021	VALV. MAX. PRES. HM-011/350
ATO080022	VALV. MAX. PRES. HMP-013/100
ATO080023	VALV. MAX. PRES. HMP-013/210
ATO080024	VALV. MAX. PRES. HMP-013/350
ATO080028	VALV. MAX. PRES. HMP-014/100
ATO080029	VALV. MAX. PRES. HMP-014/210
ATO080030	VALV. MAX. PRES. HMP-014/350
ATO080030.9	VALV. MAX. PRES. HMP-012/100
ATO080031	VALV. MAX. PRES. HMP-012/210
ATO080032	VALV. MAX. PRES. HMP-012/350
ATO080034	VALV. MAX. PRES. KM-011/100
ATO080035	VALV. MAX. PRES. KM-011/210
ATO080036	VALV. MAX. PRES. KM-011/350
ATO080037	VALV. MAX. PRES. KM-012/100
ATO080038	VALV. MAX. PRES. KM-012/210
ATO080039.1	VALV. MAX. PRES. KM-012/350
ATO080040	VALV. MAX. PRES. KM-013/100
ATO080041	VALV. MAX. PRES. KM-013/210
ATO080042	VALV. MAX. PRES. KM-013/350
ATO080043	VALV. MAX. PRES. KM-014/100
ATO080044	VALV. MAX. PRES. KM-014/210
ATO080045	VALV. MAX. PRES. KM-014/350
ATO080047	VALV. MAX. PRES. KM-015/210
ATO080049	VALV. MAX. PRES. HM-012/100
ATO080050	VALV. MAX. PRES. HM-012/210
ATO080051	VALV. MAX. PRES. HM-012/350
ATO080052	VALV. MAX. PRES. HM-013/100
ATO080053	VALV. MAX. PRES. HM-013/210
ATO080055	VALV. MAX. PRES. HM-014/100
ATO080057	VALV. MAX. PRES. HM-014/350
ATO080058	VALV. MAX. PRES. HM-015/100
ATO080059	VALV. MAX. PRES. HM-015/210
ATO080065	VALV. MAX. PRES. HM-014/210
ATO080066	VALV. MAX. PRES. HM-013/350
ATO080067	VALV. MAX. PRES. HM-012/100

## Modular reducing valves type HG, KG, JPG-2 and JPG-3

spool type, ISO 4401 sizes 06, 10, 16 and 25



HG, KG, JPG are pressure reducing valves, spool type ③, designed to operate in oil hydraulic systems.

HG are direct, three way valves;  
KG are double stage ① ②, three way valves;  
JPG are double stage ① ②, two way valves.

Pressure adjustment is operated by loosening the locking nut and turning the setting screw ④ in the normal model.  
Optional versions with a handwheel ⑤ are available on request.

Clockwise rotation increases the pressure.  
HG = ISO 4401 size 06 interface: flow up to 50 l/min; pressure adjustment up to 210 bar.

KG = ISO 4401 size 10 interface: flow up to 100 l/min; pressure adjustment up to 210 bar.

JPG-2 = ISO 4401 size 16 interface: flow up to 250 l/min; pressure adjustment up to 210 bar.

JPG-3 = ISO 4401 size 25 interface: flow up to 300 l/min; pressure adjustment up to 210 bar.

Valves designed to operate in hydraulic systems with hydraulic mineral oil or synthetic fluid having similar lubricating characteristics.

### 1 MODEL CODE

**HG-0**

Modular pressure reducing valve,  
size:  
**HG-0** = 06  
**KG-0** = 10  
**JPG-2** = 16  
**JPG-3** = 25

**31**
**/ 210**
**/V**
**\*\***
**/\***

Synthetic fluids:  
**WG** = water glycol  
**PE** = phosphate ester

Series number

Options:

**N** = setting adjustment by handwheel instead of a grub screw protected by cap  
Only for HG:  
**NF** = regulating knob  
**NS** = regulating knob with safety locking

Pressure range for HG

**32** = 3 - 32 bar  
**50** = 2 - 50 bar  
**75** = 10 - 75 bar  
**100** = 20 - 100 bar  
**210** = 50 - 210 bar

Pressure range for KG  
**100** = 7 - 100 bar  
**210** = 8 - 210 bar

Pressure range for JPG  
**100** = 6 - 100 bar  
**210** = 70 - 210 bar

Configuration, see section 2

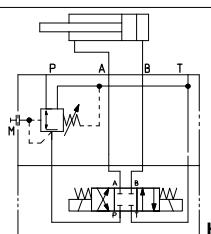
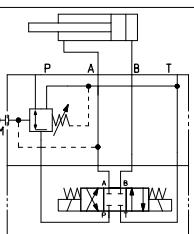
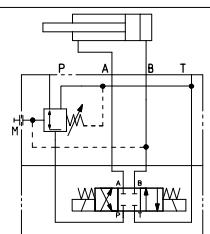
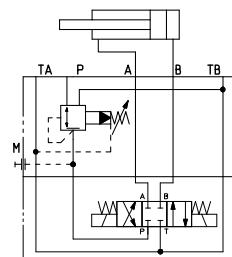
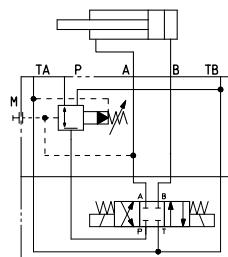
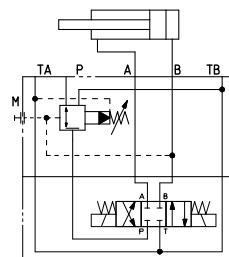
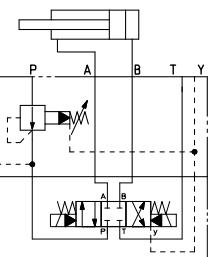
two way (only for JPG):  
**11** = reduced pressure on P port

three way (only for HG-0 and KG-0):  
**31** = reduced pressure on P port  
**33** = reduced pressure on A port  
**34** = reduced pressure on B port

Note: JPG is available only  
in configuration 11

### 2 HYDRAULIC CHARACTERISTICS

Hydraulic configuration


**HG-031**

**HG-033**

**HG-034**

**KG-031**

**KG-033**

**KG-034**

**JPG-11**

Valve model	HG-03*/32	HG-03*/50	HG-03*/75	HG-03*/100	HG-03*/210	KG-03*/100	KG-03*/210	JPG-211/100	JPG-211/210	JPG-311/100	JPG-311/210
Max flow [l/min]				50			100		250		300
Pressure range [bar]	3 ÷ 32	2 ÷ 50	10 ÷ 75	20 ÷ 100	50 ÷ 210	7 ÷ 100	8 ÷ 210	6 ÷ 100	70 ÷ 210	6 ÷ 100	70 ÷ 210
Max inlet pressure [bar]				350			315		315		315
Max pressure on port T [bar]				160			160		160		160

**3 MAIN CHARACTERISTICS OF MODULAR PRESSURE REDUCING VALVES TYPE HG, KG, JPG**

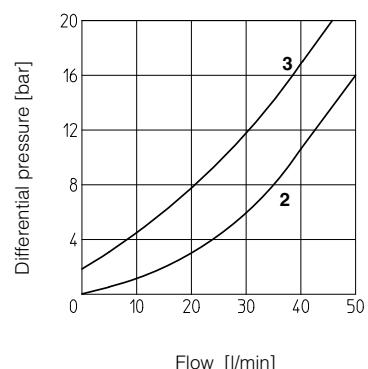
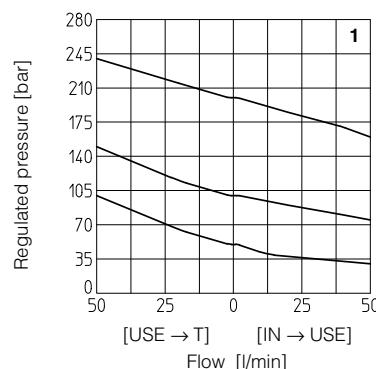
Assembly position	Any position. Note: JPG cannot be associated with directional valves having hydraulic centring device (/M) because JPG don't have L drain port.
Subplate surface finishing	Roughness index $\sqrt{0.4}$ , flatness ratio 0,01/100 (ISO 1101)
Ambient temperature	-20°C to +70°C
Fluid	Hydraulic oil as per DIN 51524 ... 535; for other fluids see section 1
Recommended viscosity	15 ÷ 100 mm²/s at 40°C (ISO VG 15 ÷ 100)
Fluid contamination class	ISO 19/16, achieved with in line filters at 25 µm value and $\beta_{25} \geq 75$ (recommended)
Fluid temperature	-20°C +60°C (standard and /WG seals) -20°C +80°C (/PE seals)

**4 DIAGRAMS OF HG-03\*** based on mineral oil ISO VG 46 at 50°C

**1** = regulated pressure variation versus flow:  
- between use port and discharge port  
- between inlet port and use port

**2** = differential pressure variation versus flow between inlet port and use port

**3** = differential pressure variation versus flow between use port and discharge port

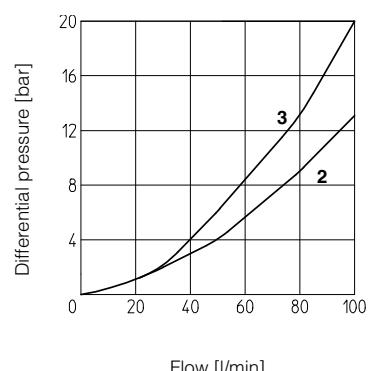
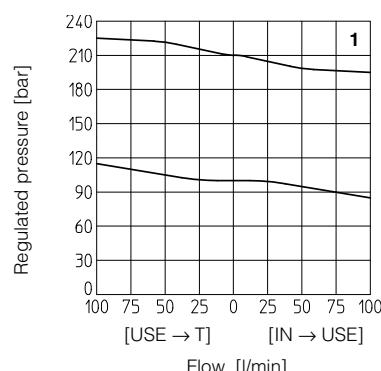


**5 DIAGRAMS OF KG-03\*** based on mineral oil ISO VG 46 at 50°C

**1** = regulated pressure variation versus flow:  
- between use port and discharge port  
- between inlet port and use port

**2** = differential pressure variation versus flow between inlet port and use port

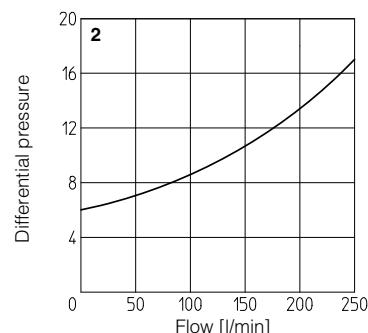
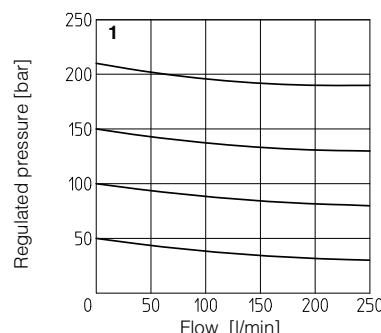
**3** = differential pressure variation versus flow between use port and discharge port



**6 DIAGRAMS OF JPG-211** based on mineral oil ISO VG 46 at 50°C

**1** = regulated pressure variation versus flow between inlet port and use port

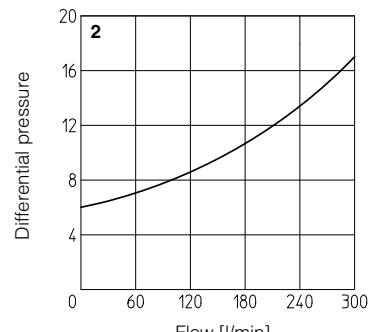
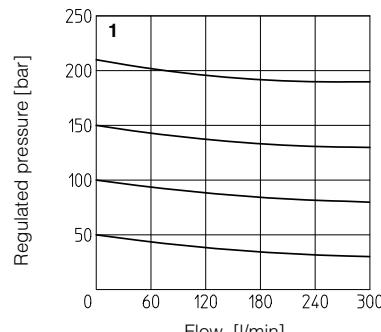
**2** = differential pressure variation versus flow between use port and discharge port



**7 DIAGRAMS OF JPG-311** based on mineral oil ISO VG 46 at 50°C

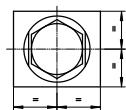
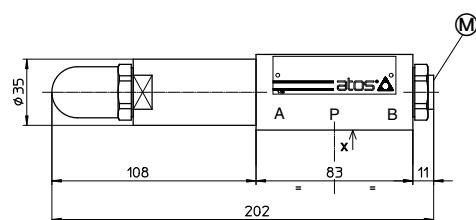
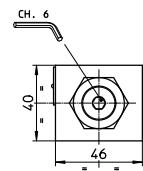
**1** = regulated pressure variation versus flow between inlet port and use port

**2** = differential pressure variation versus flow between use port and discharge port



## 8 INSTALLATION DIMENSIONS OF HG-0 VALVES [mm]

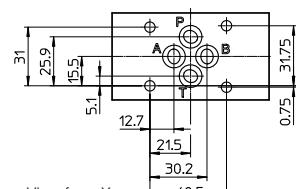
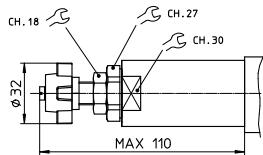
**HG-03\***



(M) = Pressure gauge port = G 1/4"

Mass: 2,3 Kg

**Adjustment device for option /V**

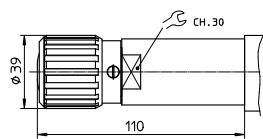


**ISO 4401: 2005**

**Mounting surface: 4401-03-02-0-05**

Diameter of ports A, B, P, T:  $\varnothing = 7,5$  mm  
Seals: 4 OR 108

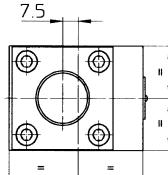
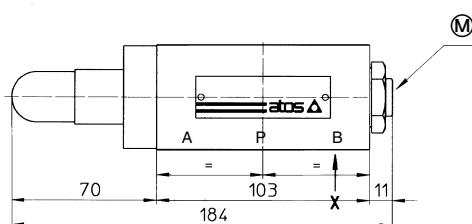
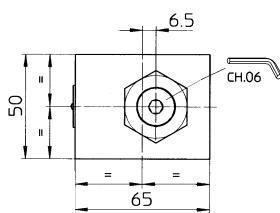
**Adjustment device for option /VF and /VS**



Fastening bolts: n° 4 socket head screws M5. The lenght depends on number and type of modular elements associated.

## 9 INSTALLATION DIMENSIONS OF KG-0 VALVES [mm]

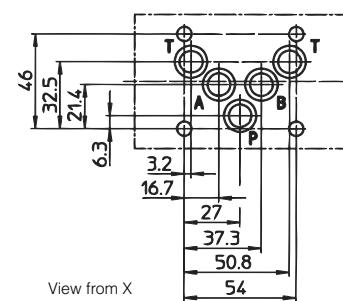
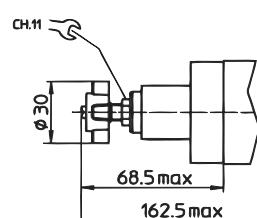
**KG-03\***



(M) = Pressure gauge port = G 1/4"

Mass: 3,8 Kg

**Adjustment device for option /V**



**ISO 4401: 2005**

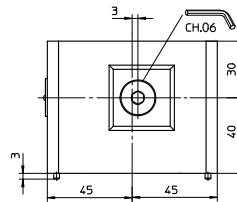
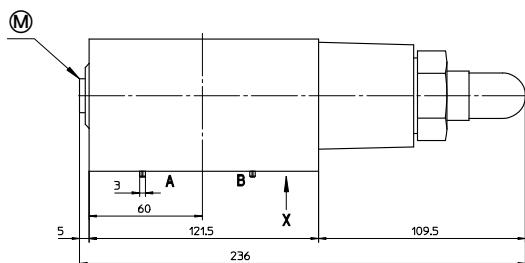
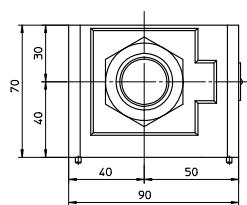
**Mounting surface: 4401-05-04-0-05**

Diameter of ports A, B, P, T:  $\varnothing = 11,2$  mm  
Seals: 5 OR 2050

Fastening bolts: n° 4 socket head screws M6. The lenght depends on number and type of modular elements associated.

## 10 INSTALLATION DIMENSIONS OF JPG-2 VALVES [mm]

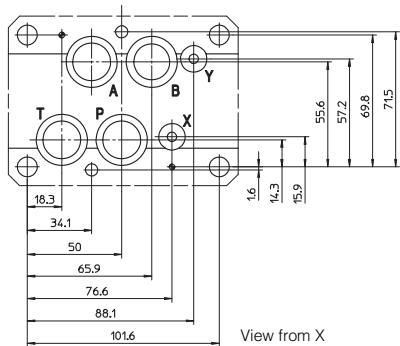
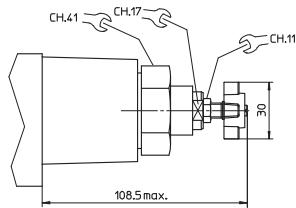
JPG-211



(M) = Pressure gauge port = G 1/4"

Mass: 9 Kg

Adjustment device for option /V



ISO 4401: 2005

Mounting surface: 4401-07-07-0-05

Diameter of ports A, B, P, T: Ø = 20 mm

Diameter of ports X, Y: Ø 7 mm

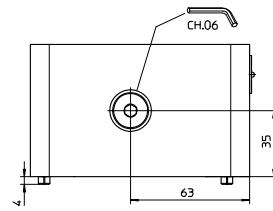
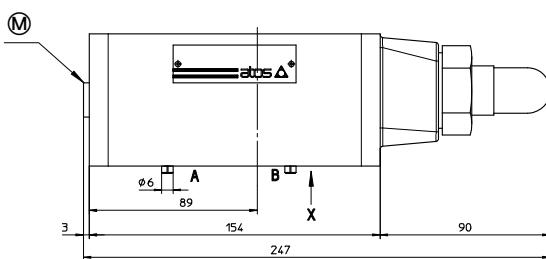
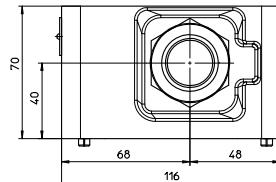
Seals: 4 OR 130: 2 OR 109

View from X

Fastening bolts: n° 4 socket head screws M10 and n° 2 M6. The lenght depends on number and type of modular elements associated.

## 11 INSTALLATION DIMENSIONS OF JPG-3 VALVES [mm]

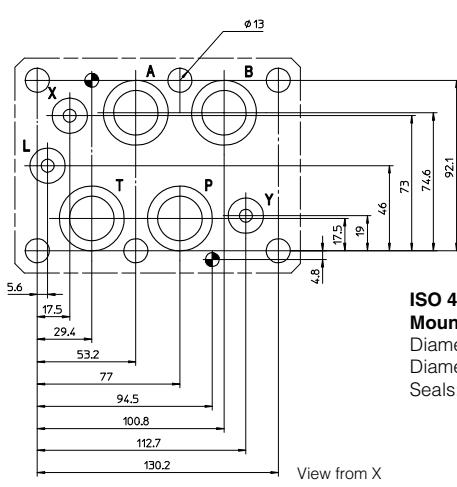
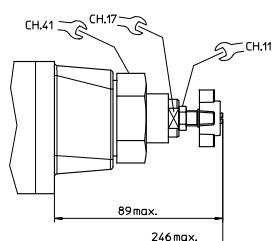
JPG-311



(M) = Pressure gauge port = G 1/4"

Mass: 9 Kg

Adjustment device for option /V



ISO 4401: 2005

Mounting surface: 4401-08-08-0-05

Diameter of ports A, B, P, T: Ø = 24 mm

Diameter of ports X, Y: Ø 7 mm

Seals: 4 OR 130: 2 OR 109

View from X

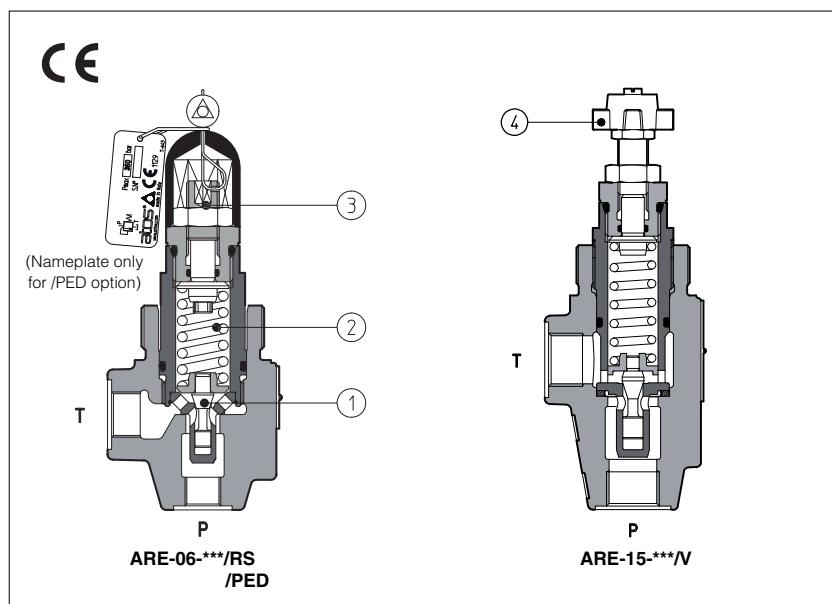
Fastening bolts: n° 6 socket head screws M12. The lenght depends on number and type of modular elements associated.

## REDUCTORAS NG- 6 / NG-10

Nº	Descripción
ATO120009	*VALV. REDUCT.PRES.HG-013 32
ATO120011	*VALV. REDUCT.PRES.HG-014 32
ATO120013	VALV. REDUCT.PRES.HG-031 32
ATO120013.1	VALV. REDUCT.PRES.HG-031 /50/V
ATO120014	VALV. REDUCT.PRES.HG-031/100
ATO120015	VALV. REDUCT.PRES.HG-031/210
ATO120016	VALV. REDUCT.PRES.HG-033/100
ATO120018	VALV. REDUCT.PRES.HG-033/210
ATO120018.1	VALV. REDUCT.PRES.HG-033/350
ATO120019	VALV. REDUCT.PRES.HG-034 32
ATO120020	VALV. REDUCT.PRES.HG-034/100
ATO120021	VALV. REDUCT.PRES.HG-034/210
ATO120023	VALV. REDUCT.PRES.JPG-211/210
ATO120030.9	VALV. REDUCT.PRES.KG-031/32
ATO120031	VALV. REDUCT.PRES.KG-031/100
ATO120032	VALV. REDUCT.PRES.KG-031/210
ATO120033	VALV. REDUCT.PRES.KG-033 32
ATO120034	VALV. REDUCT.PRES.KG-033/100
ATO120035	VALV. REDUCT.PRES.KG-033/210
ATO120036	VALV. REDUCT.PRES.KG-034 32
ATO120037	VALV. REDUCT.PRES.KG-034/100
ATO120038	VALV. REDUCT.PRES.KG-034/210
ATO120039	VALV. REDUCT.PRES.HG-033 32

## Pressure relief valves type ARE

direct operated, in line mounting - G 1/4" and G 1/2" threaded ports



ARE are poppet type, direct operated pressure relief valves, with threaded ports for in line mounting.

The flow P→T is permitted when pressure force acting on the poppet ① overcomes the force of the spring ②.

Regulation is operated by means of a screw ③ or optionally by means of a handwheel ④ acting on the spring. Clockwise rotation increases the pressure.

These valves are available in two sizes, with port P=G 1/4" or G 1/2".

Also available in safety options with sealed regulation:

**/RS** conforming to Machine Directive (2006/42/CE). The factory preset regulation required by the customer corresponds to the valve's cracking pressure.

**/PED** conforming to PED Directive (97/23/CE). The valves are factory set at the pressure level required by the customer with a flow through the valve as shown in section 5.

For this version, the P, Q limits are shown in section 7.

Max flow: 100 l/min:

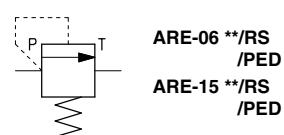
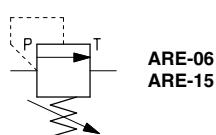
Max pressure: 500 bar.

### 1 MODEL CODE

ARE	-	06	/	350	/*	/*	**	/	*
ARE= pressure relief valve with thread connections Available also in cartridge execution, see tab. C010									
<hr/>									
Size: 06 = port P G 1/4"      15 = port P G 1/2"									
<hr/>									
Setting: for size 06: <b>50</b> = 2 → 50 bar      for size 15: <b>15</b> = 2 → 15 bar <b>100</b> = 3 → 100 bar <b>50</b> = 3 → 50 bar <b>210</b> = 10 → 210 bar <b>75</b> = 4 → 75 bar <b>350</b> = 15 → 350 bar <b>150</b> = 8 → 150 bar <b>500</b> = 30 → 500 bar <b>250</b> = 8 → 250 bar									
<hr/>									
(1) For handwheel and knob features and availability, see section 7 and technical table K150.									
(2) Possible combined options: <b>/RV</b> = reduced leakages and regulating handwheel <b>/RVF</b> = reduced leakages and regulating knob <b>/RVS</b> = reduced leakages and regulating knob with safety locking									
<hr/>									
Options (1)(2): <b>/R</b> = reduced leakage for special applications <b>/RS</b> = as /R, plus conforming to 2006/42/CE <b>/PED</b> = as /R, plus conforming to 97/23/CE Only for standard and /R option: <b>/V</b> = regulating handwheel <b>/VF</b> = regulating knob <b>/VS</b> = regulating knob with safety locking									
<hr/>									

### 2 HYDRAULIC SYMBOLS

Hydraulic symbol



### 3 HYDRAULIC CHARACTERISTICS

Valve model	ARE-06					ARE-15					
Setting	Standard, /R	/50	/100	/210	/350	/500	/15	/50	/75	/150	/250
	/RS		/220	/270	/320	/350		/150	/190	/230	
	/PED		/100	/210	/350			/75	/150	/250	
Pressure range [bar]	Standard, /R	2÷50	3÷100	10÷210	15÷350	30÷500	2÷15	3÷50	4÷75	8÷150	8÷250
	/RS	200÷250	250÷290	290÷350	310÷370		130÷170	170÷210	210÷250		
	/PED	25÷100	100÷210	210÷350			25÷75	75÷150	150÷250		
Max flow [l/min]	Standard, /R			40				75			
	/RS, /PED			60				100			

### 4 MAIN CHARACTERISTICS OF PRESSURE RELIEF VALVES TYPE ARE

Assembly position	Any position
Subplate surface finishing	Roughness index $\sqrt{0.4}$ , flatness ratio 0,01/100 (ISO 1101)
Ambient temperature	-20°C + 70°C
Fluid	Hydraulic oil as per DIN 51524...535; for other fluids see section 1
Recommended viscosity	15÷100 mm²/s at 40°C (ISO VG 15÷100)
Fluid contamination class	ISO 19/16, achieved with in line filters at 25 µm value and $\beta_{25} \geq 75$ (recommended)
Fluid temperature	-20°C +60°C (standard and /WG seals) -20°C +80°C (/PE seals)

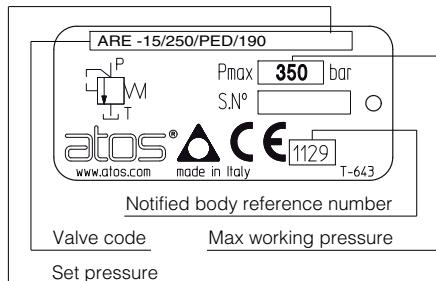
### 5 SETTING OF VALVES WITH /PED OPTION

The /PED valves are factory set at the pressure level required by the costumer (every 1 bar) at the following flow shown in the table.

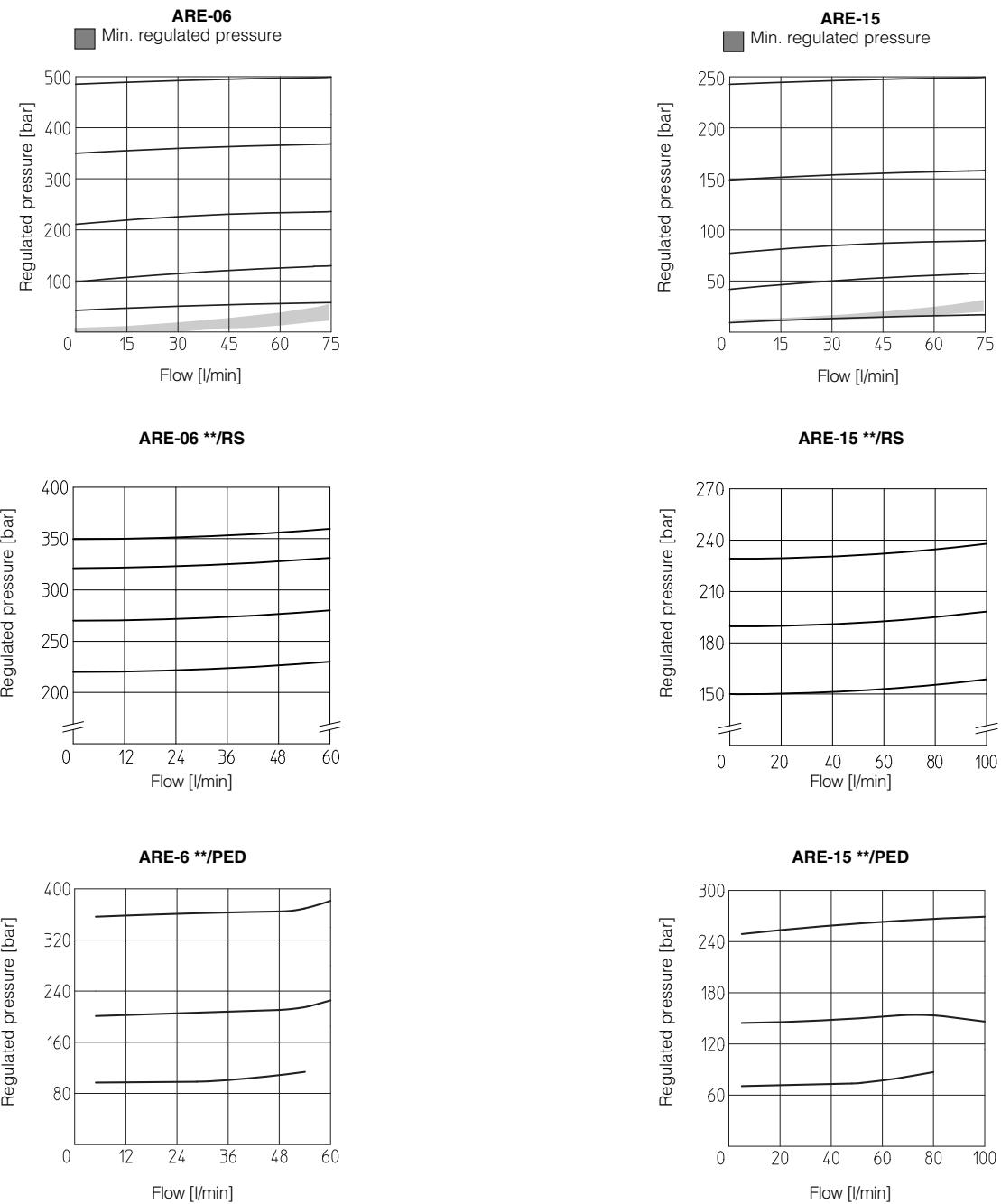
The set pressure is marked on the valve nameplate, see section 5.1

VALVE MODEL	FLOW FOR FACTORY PRESSURE SETTING (l/min)
ARE-06	30
ARE-15	50

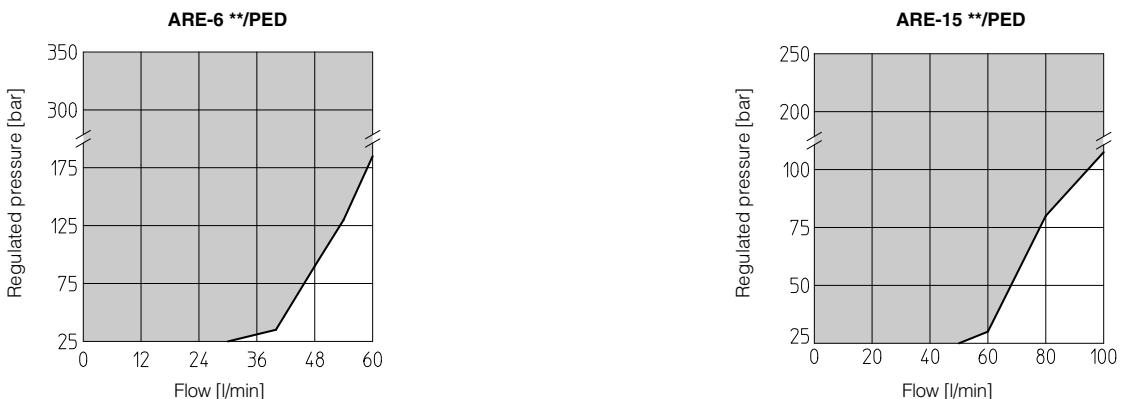
#### 5.1 EXAMPLE OF NAMEPLATE FOR /PED OPTION



**6 REGULATED PRESSURE VERSUS FLOW DIAGRAMS** based on mineral oil ISO VG 46 at 50°C



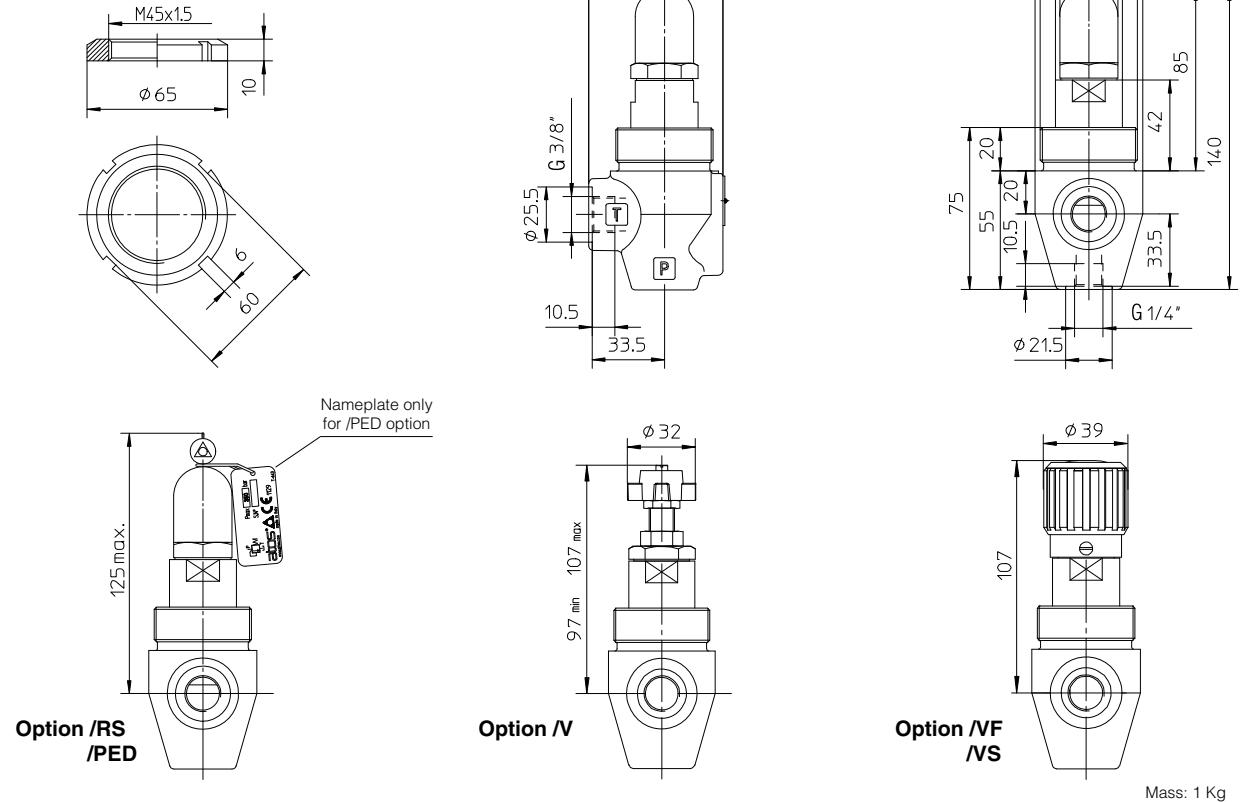
**7 PERMISSIBLE RANGES** (shaded area)  
based on mineral oil ISO VG 46 at 50°C



## 8 DIMENSIONS [mm]

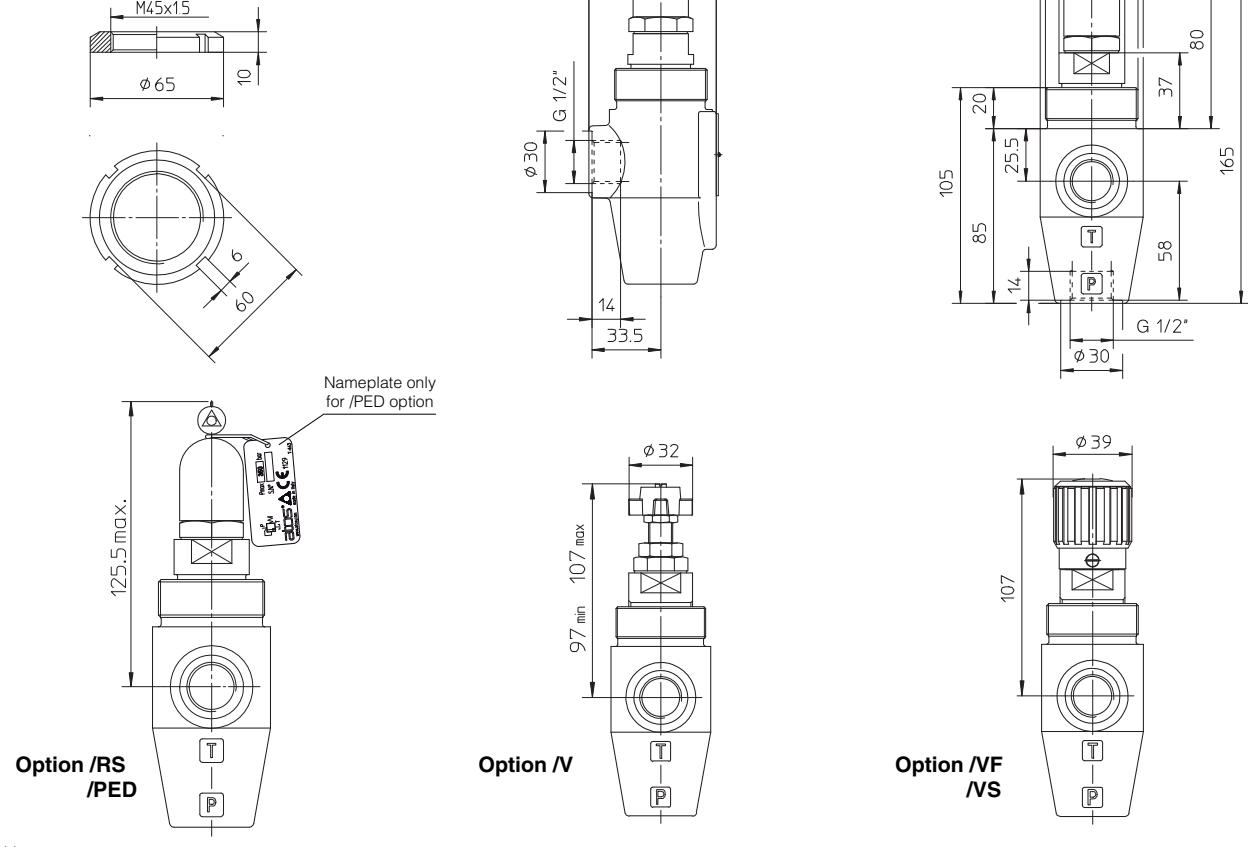
### ARE-06

P = INLET PORT G 1/4"  
 T = OUTLET PORT G 3/8"  
 Locking ring for fastening the valve.  
 Model code: SP-6-RE-310030



### ARE-15

P = INLET PORT G 1/2"  
 T = OUTLET PORT G 1/2"  
 Locking ring for fastening the valve.  
 Model code: SP-6-RE-310030



Note:

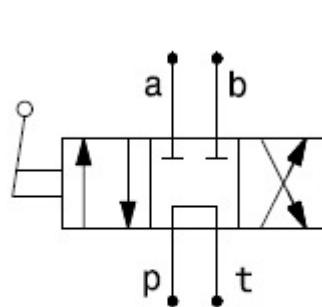
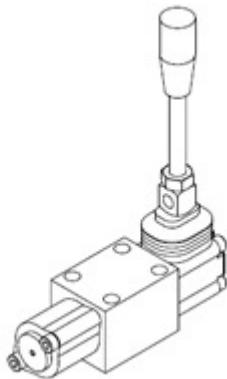
For handwheel features, see technical table K150.

Mass: 1,3 Kg

## LIMITADORAS EN LINEA ATOS

Nº	Descripción
ATO080000.1	VALV. MAX. PRES. ARE-6/100
ATO080000.2	VALV. MAX. PRES. ARE-6/210
ATO080001	VALV. MAX. PRES. ARE-6/350
ATO080002	VALV. MAX. PRES. ARE-6/500
ATO080003	VALV. MAX. PRES. ARE-15/15
ATO080003.1	VALV. MAX. PRES. ARE-15/50
ATO080004	VALV. MAX. PRES. ARE-15/150
ATO080005	VALV. MAX. PRES. ARE-15/250
ATO080006	VALV. MAX. PRES. ARE-15/75
ATO410001	TUERCA FIJ. ARE SP-GH-45x1,5
ATO490105	ESPARRAGO ROSCADO NEW
ATO490106	VOLANTE NEW
ATO490107	ARANDELA NEW
ATO490108	TUERCA NEW
ATO490109	TORNILLO NEW

## Valvola con comando a leva - luce 6 mod. DC3



Modello	Portata massima	Pressione massima P, A, B	Pressione massima T
<b>DC-3</b>	30 l/min	350 bar	150 bar
<b>DC-3-M *</b>	30 l/min	350 bar	150 bar

\* con predisposizione microinterruttore

Per maggiori informazioni sui circuiti consultare la scheda tecnica.

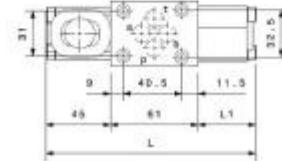
Dati e tarature ottenuti usando olio con viscosità 30 cSt a 50 °C

Viscosità consigliate 10 ÷ 420 cSt

Temperature di lavoro -20 ÷ +90 °C

Filtrazione assoluta 25 µm

Cliccare per ingrandire



codice	descrizione (sigla di ordinazione)	portata max l/min	portata max gpm	pressione max bar	pressione max psi	filettature
DM000001	DC3A1	30	7.9	350	5075	CETOP3-NG6
DM000002	DC3A2	30	7.9	350	5075	CETOP3-NG6
DM000003	DC3A3	30	7.9	350	5075	CETOP3-NG6
DM000004	DC3A10	30	7.9	350	5075	CETOP3-NG6
DM000005	DC3B1	30	7.9	350	5075	CETOP3-NG6
DM000006	DC3B2	30	7.9	350	5075	CETOP3-NG6
DM000007	DC3B3	30	7.9	350	5075	CETOP3-NG6
DM000008	DC3B10	30	7.9	350	5075	CETOP3-NG6
DM000009	DC3C1	30	7.9	350	5075	CETOP3-NG6
DM000010	DC3C2	30	7.9	350	5075	CETOP3-NG6
DM000011	DC3C3	30	7.9	350	5075	CETOP3-NG6
DM000012	DC3C10	30	7.9	350	5075	CETOP3-NG6
DM000013	DC3D1	30	7.9	350	5075	CETOP3-NG6
DM000014	DC3D2	30	7.9	350	5075	CETOP3-NG6
DM000015	DC3D3	30	7.9	350	5075	CETOP3-NG6
DM000016	DC3D10	30	7.9	350	5075	CETOP3-NG6
DM000017	DC3E1	30	7.9	350	5075	CETOP3-NG6
DM000018	DC3E2	30	7.9	350	5075	CETOP3-NG6

DM000019	DC3E3	30	7.9	350	5075	CETOP3-NG6
DM000020	DC3E10	30	7.9	350	5075	CETOP3-NG6
DM000021	DC3F1	30	7.9	350	5075	CETOP3-NG6
DM000022	DC3F2	30	7.9	350	5075	CETOP3-NG6
DM000023	DC3F3	30	7.9	350	5075	CETOP3-NG6
DM000024	DC3F10	30	7.9	350	5075	CETOP3-NG6
DM000025	DC3H1	30	7.9	350	5075	CETOP3-NG6
DM000026	DC3H2	30	7.9	350	5075	CETOP3-NG6
DM000027	DC3H3	30	7.9	350	5075	CETOP3-NG6
DM000028	DC3H10	30	7.9	350	5075	CETOP3-NG6
DM000029	DC3L1	30	7.9	350	5075	CETOP3-NG6
DM000030	DC3L2	30	7.9	350	5075	CETOP3-NG6
DM000031	DC3L3	30	7.9	350	5075	CETOP3-NG6
DM000032	DC3L10	30	7.9	350	5075	CETOP3-NG6
DM000033	DC3Q1	30	7.9	350	5075	CETOP3-NG6
DM000034	DC3Q2	30	7.9	350	5075	CETOP3-NG6
DM000035	DC3Q3	30	7.9	350	5075	CETOP3-NG6
DM000036	DC3Q10	30	7.9	350	5075	CETOP3-NG6
DM000037	DC3R1	30	7.9	350	5075	CETOP3-NG6
DM000038	DC3R2	30	7.9	350	5075	CETOP3-NG6
DM000039	DC3R3	30	7.9	350	5075	CETOP3-NG6
DM000040	DC3R10	30	7.9	350	5075	CETOP3-NG6
DM000041	DC3S1	30	7.9	350	5075	CETOP3-NG6
DM000042	DC3S2	30	7.9	350	5075	CETOP3-NG6
DM000043	DC3S3	30	7.9	350	5075	CETOP3-NG6
DM000044	DC3S10	30	7.9	350	5075	CETOP3-NG6
DM000045	DC3MA1	30	7.9	350	5075	CETOP3-NG6
DM000046	DC3MA2	30	7.9	350	5075	CETOP3-NG6
DM000047	DC3MA3	30	7.9	350	5075	CETOP3-NG6
DM000048	DC3MA10	30	7.9	350	5075	CETOP3-NG6
DM000049	DC3MB1	30	7.9	350	5075	CETOP3-NG6
DM000050	DC3MB2	30	7.9	350	5075	CETOP3-NG6
DM000051	DC3MB3	30	7.9	350	5075	CETOP3-NG6
DM000052	DC3MB10	30	7.9	350	5075	CETOP3-NG6
DM000053	DC3MC1	30	7.9	350	5075	CETOP3-NG6
DM000054	DC3MC2	30	7.9	350	5075	CETOP3-NG6
DM000055	DC3MC3	30	7.9	350	5075	CETOP3-NG6
DM000056	DC3MC10	30	7.9	350	5075	CETOP3-NG6
DM000057	DC3MD1	30	7.9	350	5075	CETOP3-NG6
DM000058	DC3MD2	30	7.9	350	5075	CETOP3-NG6
DM000059	DC3MD3	30	7.9	350	5075	CETOP3-NG6
DM000060	DC3MD10	30	7.9	350	5075	CETOP3-NG6
DM000061	DC3ME1	30	7.9	350	5075	CETOP3-NG6
DM000062	DC3ME2	30	7.9	350	5075	CETOP3-NG6
DM000063	DC3ME3	30	7.9	350	5075	CETOP3-NG6
DM000064	DC3ME10	30	7.9	350	5075	CETOP3-NG6
DM000065	DC3MF1	30	7.9	350	5075	CETOP3-NG6
DM000066	DC3MF2	30	7.9	350	5075	CETOP3-NG6
DM000067	DC3MF3	30	7.9	350	5075	CETOP3-NG6
DM000068	DC3MF10	30	7.9	350	5075	CETOP3-NG6
DM000069	DC3MH1	30	7.9	350	5075	CETOP3-NG6

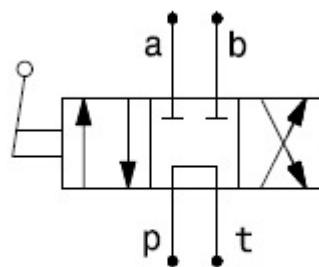
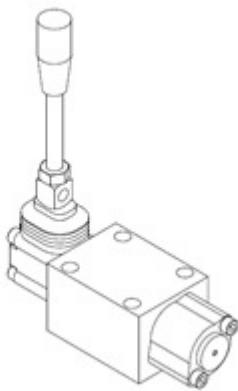
DM000070	DC3MH2	30	7.9	350	5075	CETOP3-NG6
DM000071	DC3MH3	30	7.9	350	5075	CETOP3-NG6
DM000072	DC3MH10	30	7.9	350	5075	CETOP3-NG6
DM000073	DC3ML1	30	7.9	350	5075	CETOP3-NG6
DM000074	DC3ML2	30	7.9	350	5075	CETOP3-NG6
DM000075	DC3ML3	30	7.9	350	5075	CETOP3-NG6
DM000076	DC3ML10	30	7.9	350	5075	CETOP3-NG6
DM000077	DC3MQ1	30	7.9	350	5075	CETOP3-NG6
DM000078	DC3MQ2	30	7.9	350	5075	CETOP3-NG6
DM000079	DC3MQ3	30	7.9	350	5075	CETOP3-NG6
DM000080	DC3MQ10	30	7.9	350	5075	CETOP3-NG6
DM000081	DC3MR1	30	7.9	350	5075	CETOP3-NG6
DM000082	DC3MR2	30	7.9	350	5075	CETOP3-NG6
DM000083	DC3MR3	30	7.9	350	5075	CETOP3-NG6
DM000084	DC3MR10	30	7.9	350	5075	CETOP3-NG6
DM000085	DC3MS1	30	7.9	350	5075	CETOP3-NG6
DM000086	DC3MS2	30	7.9	350	5075	CETOP3-NG6
DM000087	DC3MS3	30	7.9	350	5075	CETOP3-NG6
DM000088	DC3MS10	30	7.9	350	5075	CETOP3-NG6
DM000360	DC3L10 OR VITON	30	7.9	350	5075	CETOP3-NG6
DM000369	DC3D7	30	7.9	350	5075	CETOP3-NG6

Effettua il login per maggiori informazioni e materiali scaricabili su questo prodotto.

## DISTRIBUIDORES NG-6 CBF

Nº	Descripción
HOR600001	DIST.MANUAL NG6 DC-3-A-1
HOR600001.H	DIST.MANUAL NG6 DC-3-A-1
HOR600002	DIST.MANUAL NG6 DC3A2
HOR600002.H	DIST.MANUAL NG6 DC3A2
HOR600003	DIST.MANUAL NG6 DC3A3
HOR600003.H	DIST.MANUAL NG6 DC3A3
HOR600004	DIST.MANUAL NG6 DC3A10
HOR600004.H	DIST.MANUAL NG6 DC3A10
HOR600005	DIST.MANUAL NG6 DC3D1
HOR600005.H	DIST.MANUAL NG6 DC3D1
HOR600006	DIST.MANUAL NG6 DC3D2
HOR600006.H	DIST.MANUAL NG6 DC3D2
HOR600007	DIST.MANUAL NG6 DC3D3
HOR600007.H	DIST.MANUAL NG6 DC3D3
HOR600008	DIST.MANUAL NG6 DC3D10
HOR600008.H	DIST.MANUAL NG6 DC3D10
HOR600009	DIST. MANUAL DC3-R-2
HOR600009.H	DIST. MANUAL DC3-R-2

## Valvola con comando a leva - luce 10 mod. DC5



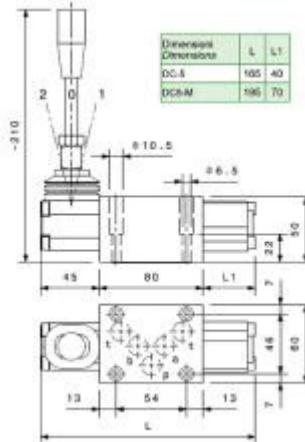
Modello	Portata massima	Pressione massima P, A, B	Pressione massima T
<b>DC-5</b>	70 l/min	350 bar	150 bar
<b>DC-5-M *</b>	70 l/min	350 bar	150 bar

\* con predisposizione microinterruttore

Per maggiori informazioni sui circuiti consultare la scheda tecnica.

Dati e tarature ottenuti usando olio con viscosità 30 cSt a 50 °C  
Viscosità consigliate 10 ÷ 420 cSt  
Temperature di lavoro -20 ÷ +90 °C  
Filtrazione assoluta 25 µm

[Cliccare per ingrandire](#)



codice	descrizione (sigla di ordinazione)	portata max l/min	portata max gpm	pressione max bar	pressione max psi	filettature
DM000089	DC5A1	70	18.5	350	5075	CETOP5-NG10
DM000090	DC5A2	70	18.5	350	5075	CETOP5-NG10
DM000091	DC5A3	70	18.5	350	5075	CETOP5-NG10
DM000092	DC5A10	70	18.5	350	5075	CETOP5-NG10
DM000093	DC5B1	70	18.5	350	5075	CETOP5-NG10
DM000094	DC5B2	70	18.5	350	5075	CETOP5-NG10
DM000095	DC5B3	70	18.5	350	5075	CETOP5-NG10
DM000096	DC5B10	70	18.5	350	5075	CETOP5-NG10
DM000097	DC5C1	70	18.5	350	5075	CETOP5-NG10
DM000098	DC5C2	70	18.5	350	5075	CETOP5-NG10
DM000099	DC5C3	70	18.5	350	5075	CETOP5-NG10
DM000100	DC5C10	70	18.5	350	5075	CETOP5-NG10
DM000101	DC5D1	70	18.5	350	5075	CETOP5-NG10
DM000102	DC5D2	70	18.5	350	5075	CETOP5-NG10
DM000103	DC5D3	70	18.5	350	5075	CETOP5-NG10
DM000104	DC5D10	70	18.5	350	5075	CETOP5-NG10
DM000105	DC5E1	70	18.5	350	5075	CETOP5-NG10
DM000106	DC5E2	70	18.5	350	5075	CETOP5-NG10

DM000107	DC5E3	70	18.5	350	5075	CETOP5-NG10
DM000108	DC5E10	70	18.5	350	5075	CETOP5-NG10
DM000109	DC5F1	70	18.5	350	5075	CETOP5-NG10
DM000110	DC5F2	70	18.5	350	5075	CETOP5-NG10
DM000111	DC5F3	70	18.5	350	5075	CETOP5-NG10
DM000112	DC5F10	70	18.5	350	5075	CETOP5-NG10
DM000113	DC5H1	70	18.5	350	5075	CETOP5-NG10
DM000114	DC5H2	70	18.5	350	5075	CETOP5-NG10
DM000115	DC5H3	70	18.5	350	5075	CETOP5-NG10
DM000116	DC5H10	70	18.5	350	5075	CETOP5-NG10
DM000117	DC5L1	70	18.5	350	5075	CETOP5-NG10
DM000118	DC5L2	70	18.5	350	5075	CETOP5-NG10
DM000119	DC5L3	70	18.5	350	5075	CETOP5-NG10
DM000120	DC5L10	70	18.5	350	5075	CETOP5-NG10
DM000121	DC5Q1	70	18.5	350	5075	CETOP5-NG10
DM000122	DC5Q2	70	18.5	350	5075	CETOP5-NG10
DM000123	DC5Q3	70	18.5	350	5075	CETOP5-NG10
DM000124	DC5Q10	70	18.5	350	5075	CETOP5-NG10
DM000125	DC5R1	70	18.5	350	5075	CETOP5-NG10
DM000126	DC5R2	70	18.5	350	5075	CETOP5-NG10
DM000127	DC5R3	70	18.5	350	5075	CETOP5-NG10
DM000128	DC5R10	70	18.5	350	5075	CETOP5-NG10
DM000129	DC5S1	70	18.5	350	5075	CETOP5-NG10
DM000130	DC5S2	70	18.5	350	5075	CETOP5-NG10
DM000131	DC5S3	70	18.5	350	5075	CETOP5-NG10
DM000132	DC5S10	70	18.5	350	5075	CETOP5-NG10
DM000133	DC5MA1	70	18.5	350	5075	CETOP5-NG10
DM000134	DC5MA2	70	18.5	350	5075	CETOP5-NG10
DM000135	DC5MA3	70	18.5	350	5075	CETOP5-NG10
DM000136	DC5MA10	70	18.5	350	5075	CETOP5-NG10
DM000137	DC5MB1	70	18.5	350	5075	CETOP5-NG10
DM000138	DC5MB2	70	18.5	350	5075	CETOP5-NG10
DM000139	DC5MB3	70	18.5	350	5075	CETOP5-NG10
DM000140	DC5MB10	70	18.5	350	5075	CETOP5-NG10
DM000141	DC5MC1	70	18.5	350	5075	CETOP5-NG10
DM000142	DC5MC2	70	18.5	350	5075	CETOP5-NG10
DM000143	DC5MC3	70	18.5	350	5075	CETOP5-NG10
DM000144	DC5MC10	70	18.5	350	5075	CETOP5-NG10
DM000145	DC5MD1	70	18.5	350	5075	CETOP5-NG10
DM000146	DC5MD2	70	18.5	350	5075	CETOP5-NG10
DM000147	DC5MD3	70	18.5	350	5075	CETOP5-NG10
DM000148	DC5MD10	70	18.5	350	5075	CETOP5-NG10
DM000149	DC5ME1	70	18.5	350	5075	CETOP5-NG10
DM000150	DC5ME2	70	18.5	350	5075	CETOP5-NG10
DM000151	DC5ME3	70	18.5	350	5075	CETOP5-NG10
DM000152	DC5ME10	70	18.5	350	5075	CETOP5-NG10
DM000153	DC5MF1	70	18.5	350	5075	CETOP5-NG10
DM000154	DC5MF2	70	18.5	350	5075	CETOP5-NG10
DM000155	DC5MF3	70	18.5	350	5075	CETOP5-NG10
DM000156	DC5MF10	70	18.5	350	5075	CETOP5-NG10
DM000157	DC5MH1	70	18.5	350	5075	CETOP5-NG10

DM000158	DC5MH2	70	18.5	350	5075	CETOP5-NG10
DM000159	DC5MH3	70	18.5	350	5075	CETOP5-NG10
DM000160	DC5MH10	70	18.5	350	5075	CETOP5-NG10
DM000161	DC5ML1	70	18.5	350	5075	CETOP5-NG10
DM000162	DC5ML2	70	18.5	350	5075	CETOP5-NG10
DM000163	DC5ML3	70	18.5	350	5075	CETOP5-NG10
DM000164	DC5ML10	70	18.5	350	5075	CETOP5-NG10
DM000165	DC5MQ1	70	18.5	350	5075	CETOP5-NG10
DM000166	DC5MQ2	70	18.5	350	5075	CETOP5-NG10
DM000167	DC5MQ3	70	18.5	350	5075	CETOP5-NG10
DM000168	DC5MQ10	70	18.5	350	5075	CETOP5-NG10
DM000169	DC5MR1	70	18.5	350	5075	CETOP5-NG10
DM000170	DC5MR2	70	18.5	350	5075	CETOP5-NG10
DM000171	DC5MR3	70	18.5	350	5075	CETOP5-NG10
DM000172	DC5MR10	70	18.5	350	5075	CETOP5-NG10
DM000173	DC5MS1	70	18.5	350	5075	CETOP5-NG10
DM000174	DC5MS2	70	18.5	350	5075	CETOP5-NG10
DM000175	DC5MS3	70	18.5	350	5075	CETOP5-NG10
DM000176	DC5MS10	70	18.5	350	5075	CETOP5-NG10
DM000359	DC5A10 OR VITON	70	18.5	350	5075	CETOP5-NG10

[Effettua il login per maggiori informazioni e materiali scaricabili su questo prodotto.](#)

# VALVOLE REGOLATORI DI FLUSSO

# FLOW REGULATOR VALVES





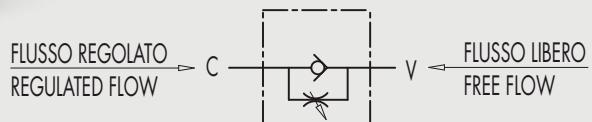
## 7.1 - VALVOLE DI REGOLAZIONE FLUSSO UNIDIREZIONALI A MANICOTTO

### 7.1 - BARREL FLOW CONTROL VALVES WITH CHECK

TIPO / TYPE  
VRF



SCHEMA IDRAULICO  
HYDRAULIC DIAGRAM



#### IMPIEGO:

Valvole che permettono di regolare la velocità di un attuatore in una direzione e consentono il flusso libero nell'altra. Non essendo compensate alla pressione, la regolazione del fluido dipenderà dalla pressione e dalla viscosità dell'olio.

#### MATERIALI E CARATTERISTICHE:

**Corpo e camicia:** acciaio zincato

**Componenti interni:** acciaio temprato termicamente e rettificato

**Guarnizioni:** BUNA N standard

**Tenuta:** per accoppiamento. Trafilamento trascurabile a valvola chiusa

#### MONTAGGIO:

Collegare V all'alimentazione e C all'attuatore da regolare. Il flusso è regolato da C a V e libero nel senso opposto. In caso di impiego su attuatori con valvola di blocco, la VRF va montata tra attuatore e valvola di blocco.

La regolazione del flusso si effettua tramite la rotazione del manicotto esterno: ruotando in senso orario si aumenta il flusso e viceversa. Una volta regolata la portata, riportare la ghiera di fermo in posizione in modo da mantenere i valori impostati anche in presenza di vibrazioni.

#### PERDITE DI CARICO PRESSURE DROPS CURVE

#### USE AND OPERATION

This valve is used to adjust flow speed of actuators in one direction; flow is free in the reverse one. As pressure compensation is not provided, flow adjustment depends on pressure and oil viscosity.

#### MATERIALS AND FEATURES:

**Body:** zinc-plated steel

**Internal parts:** hardened and ground steel

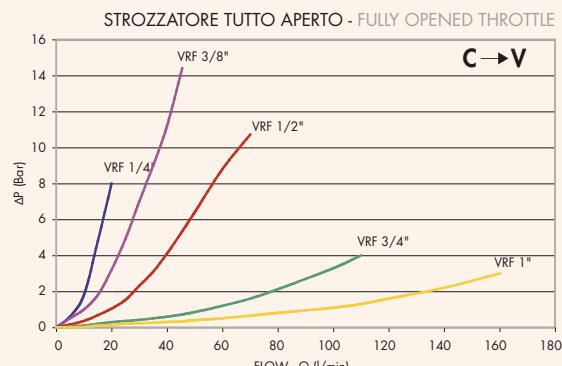
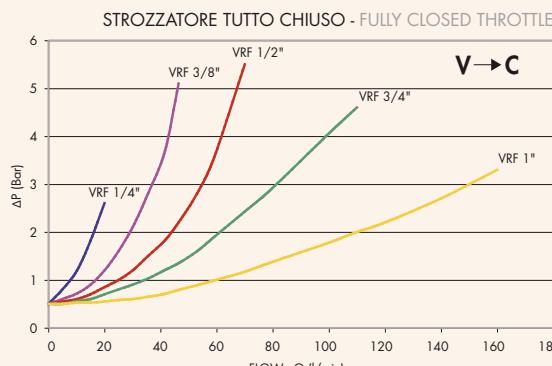
**Seal:** BUNA N standard

**Tightness:** by diameter combination. Minor leakage with closed valve

#### APPLICATIONS:

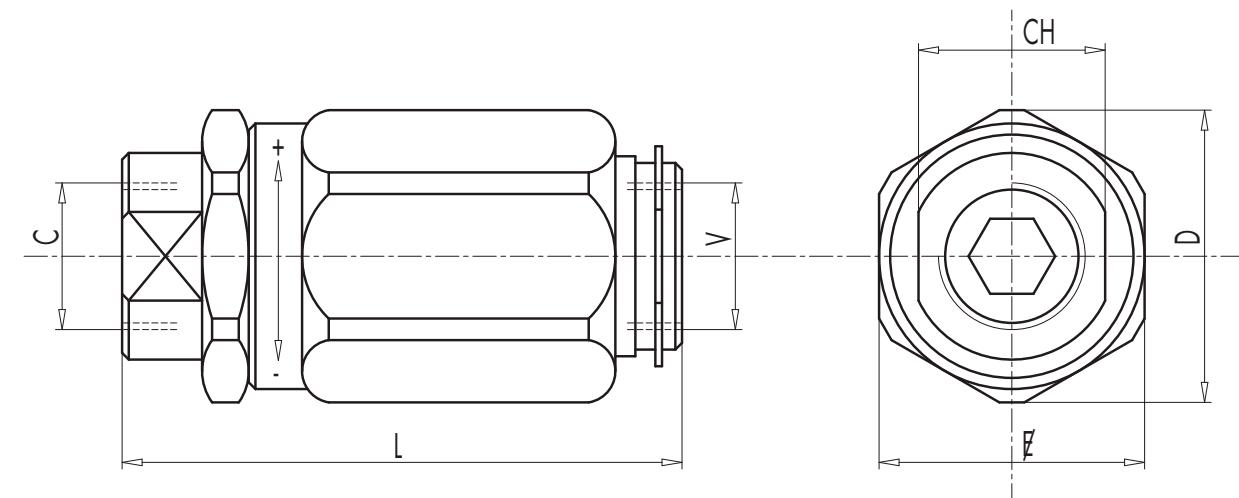
Connect V to the pressure flow and C to the actuator to set. The flow is adjusted from C to V and free in the reverse direction. When used on actuator with double pilot check valve, VRF has to be mounted between the actuator and the double pilot check valve. Flow adjustment is made by rotating the coupling: by clockwise rotation flow increases and vice versa. Once the flow has been set, lock the nut in order to keep the desired settings even in case of vibrations.

Temperatura olio: 50°C - Viscosità olio: 30 cSt  
Oil temperature: 50°C - Oil viscosity: 30 cSt





CODICE CODE	SIGLA TYPE	PORTATA MAX MAX FLOW Lt./min	PRESSIONE MAX MAX PRESSURE Bar	PRESSIONE APERTURA CRACKING PRESSURE Bar
<b>V0540</b>	VRF 1/4"	20	300	0,5
<b>V0550</b>	VRF 3/8"	45	300	0,5
<b>V0560</b>	VRF 1/2"	70	300	0,5
<b>V0570</b>	VRF 3/4"	110	250	0,5
<b>V0580</b>	VRF 1"	160	250	0,5



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CODICE CODE	SIGLA TYPE	V - C GAS	L mm	E mm	CH mm	D mm	PESO WEIGHT Kg
<b>V0540</b>	VRF 1/4"	G 1/4"	66,5	30	19	34	0,274
<b>V0550</b>	VRF 3/8"	G 3/8"	73	32	24	36	0,330
<b>V0560</b>	VRF 1/2"	G 1/2"	80	38	27	42	0,484
<b>V0570</b>	VRF 3/4"	G 3/4"	95	46	32	51	0,824
<b>V0580</b>	VRF 1"	G 1"	109	55	41	60	1,314



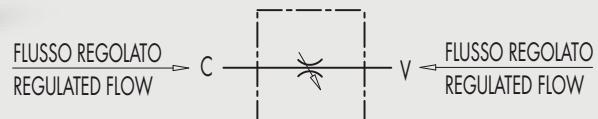
## 7.2 - VALVOLE DI REGOLAZIONE FLUSSO BIDIREZIONALI A MANICOTTO

## 7.2 - BARREL FLOW CONTROL VALVES NO CHECK

TIPO / TYPE  
VRB



SCHEMA IDRAULICO  
HYDRAULIC DIAGRAM



### IMPIEGO:

Valvole che permettono di regolare la velocità di un attuatore in entrambe le direzioni. Non essendo compensate alla pressione, la regolazione del fluido dipenderà dalla pressione e dalla viscosità dell'olio.

### MATERIALI E CARATTERISTICHE:

**Corpo e camicia:** acciaio zincato

**Componenti interni:** acciaio temprato termicamente e rettificato

**Guarnizioni:** BUNA N standard

**Tenuta:** per accoppiamento. Trafilamento trascurabile a valvola chiusa

### MONTAGGIO:

Collegare V all'alimentazione e C all'attuatore da regolare. In caso di impiego su cilindri con valvola di blocco, la VRB va montata tra cilindro e valvola di blocco.

La regolazione del flusso si effettua tramite la rotazione del manicotto esterno: ruotando in senso orario si aumenta il flusso e viceversa. Una volta regolata la portata, riportare la ghiera di fermo in posizione in modo da mantenere i valori impostati anche in presenza di vibrazioni.

### USE AND OPERATION

This valve is used to adjust flow speed of actuators in both directions. As pressure compensation is not provided, flow adjustment depends on pressure and oil viscosity.

### MATERIALS AND FEATURES:

**Body:** zinc-plated steel

**Internal parts:** hardened and ground steel

**Seal:** BUNA N standard

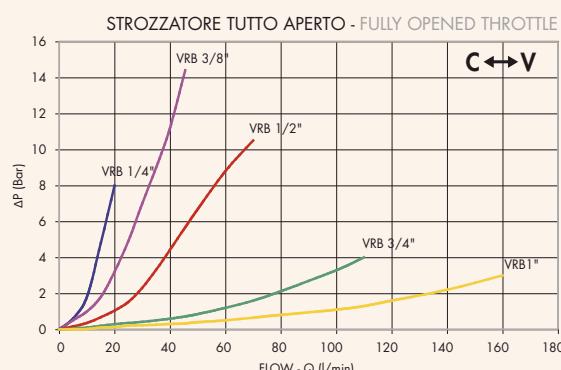
**Tightness:** by diameter combination. Minor leakage with closed valve

### APPLICATIONS:

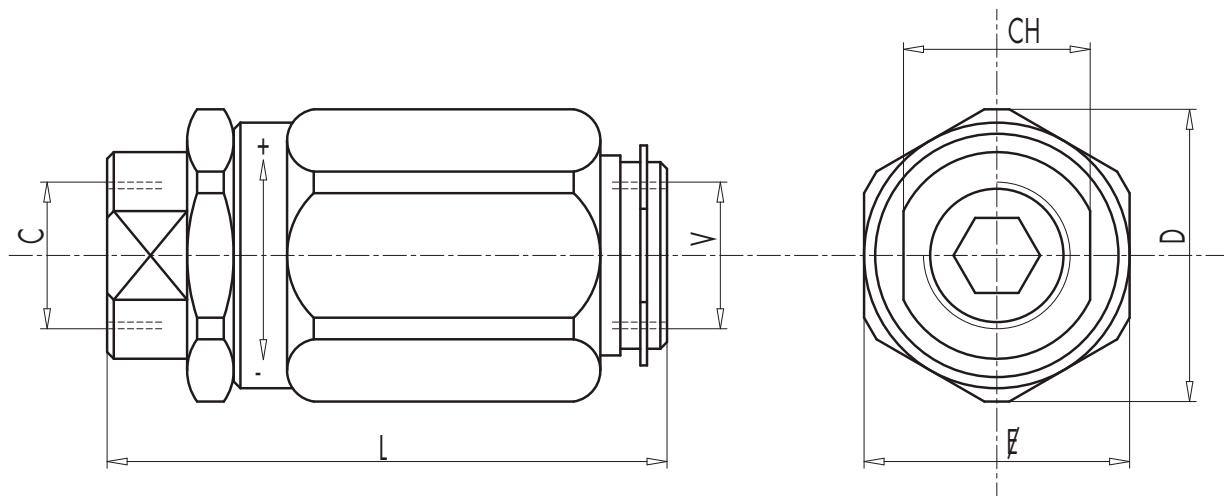
Connect V to the pressure flow and C to the actuator to set; when used on actuator with double pilot check valve, VRB has to be mounted between the actuator and the double pilot check valve. Flow adjustment is made by rotating the coupling: by clockwise rotation flow increases and vice versa. Once the flow has been set, lock the nut in order to keep the desired settings even in case of vibrations.

### PERDITE DI CARICO PRESSURE DROPS CURVE

Temperatura olio: 50°C - Viscosità olio: 30 cSt  
Oil temperature: 50°C - Oil viscosity: 30 cSt



CODICE CODE	SIGLA TYPE	PORTATA MAX MAX FLOW Lt./min	PRESSIONE MAX MAX PRESSURE Bar
<b>V0545</b>	VRB 1/4"	20	300
<b>V0555</b>	VRB 3/8"	45	300
<b>V0565</b>	VRB 1/2"	70	300
<b>V0575</b>	VRB 3/4"	110	250
<b>V0585</b>	VRB 1"	160	250



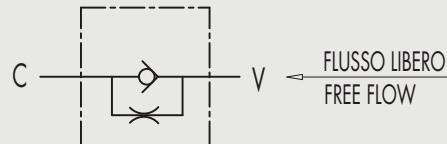
7

CODICE CODE	SIGLA TYPE	V - C GAS	L mm	E mm	CH mm	D mm	PESO WEIGHT Kg
<b>V0545</b>	VRB 1/4"	G 1/4"	66,5	30	19	34	0,266
<b>V0555</b>	VRB 3/8"	G 3/8"	73	32	24	36	0,312
<b>V0565</b>	VRB 1/2"	G 1/2 "	80	38	27	42	0,456
<b>V0575</b>	VRB 3/4"	G 3/4"	95	46	32	51	0,784
<b>V0585</b>	VRB 1"	G 1"	109	55	41	60	1,222



## 7.3 - VALVOLE UNIDIREZIONALI DI STROZZAMENTO FISSE

### 7.3 - FIXED SETTING THROTTLE CHECK VALVES

TIPO / TYPE  
**VUSF**SCHEMA IDRAULICO  
HYDRAULIC DIAGRAM**IMPIEGO:**

Valvole regolatrici di flusso che permettono il flusso libero in una direzione e lo controllano in quella opposta. La portata è regolata dal diametro del foro di strozzamento ed è pertanto fissa.

**MATERIALI E CARATTERISTICHE:****Corpo:** acciaio zincato**Componenti interni:** acciaio temprato termicamente e rettificato**Guarnizioni:** BUNA N standard**Tenuta:** a cono guidato**MONTAGGIO:**

Collegare V all'alimentazione e C all'attuatore. Il flusso passa libero da V a C ed è controllato nel senso opposto. Lo strozzamento è ottenuto mediante uno o due fori calibrati, il cui diametro dovrà essere specificato in fase d'ordine.

**A RICHIESTA:**

- Pressione d'apertura diversa da quella standard: 1-3-5-8 Bar (specificare nella descrizione il valore di pressione desiderato)

**USE AND OPERATION**

Flow is free in one direction and fixed in the reverse one. Flow is fixed as flow adjustment depends on the throttling hole diameter.

**MATERIALS AND FEATURES:****Body:** zinc-plated steel**Internal parts:** hardened and ground steel**Seal:** BUNA N standard**Poppet type:** standard**APPLICATIONS:**

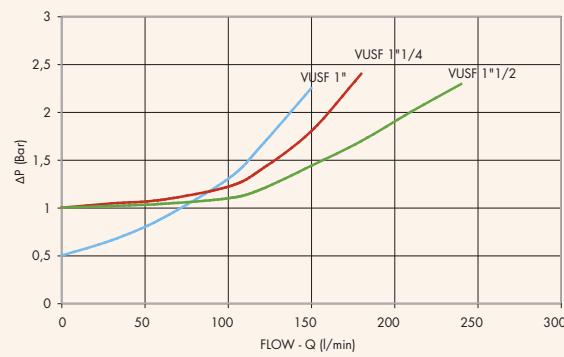
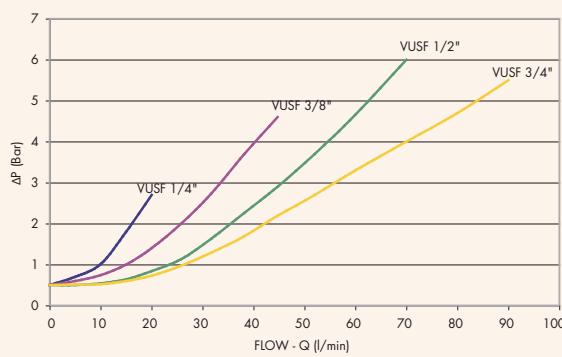
Connect V to the pressure flow and C to the actuator. Flow is free from V to C and fixed in the reverse one. Throttling is obtained through one or two calibrated holes, the diameter of which has to be specified in the order.

**ON REQUEST**

- other settings available: 1-3-5-8 Bar (please specify in the description the desired setting)

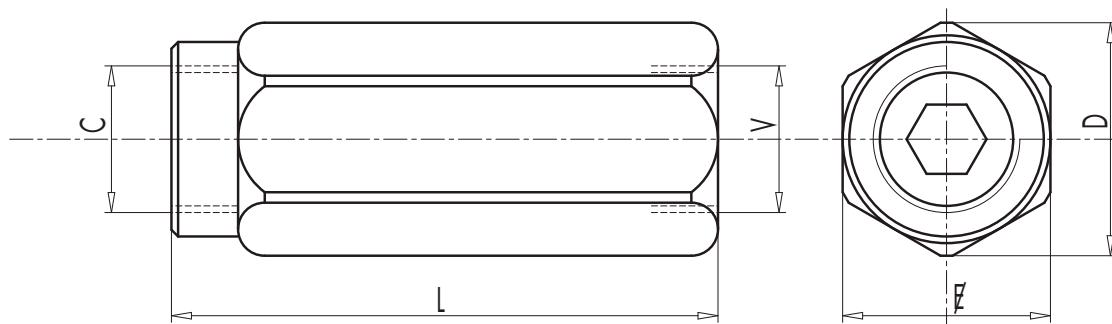
#### PERDITE DI CARICO PRESSURE DROPS CURVE

Temperatura olio: 50°C - Viscosità olio: 30 cSt  
Oil temperature: 50°C - Oil viscosity: 30 cSt





CODICE CODE	SIGLA TYPE	PORTATA MAX MAX FLOW Lt./min	PRESIONE MAX MAX PRESSURE Bar	PRESIONE APERTURA CRACKING PRESSURE Bar
<b>V0590/*</b>	VUSF 1/4"	20	350	±0,4/0,7
<b>V0600/*</b>	VUSF 3/8"	45	350	±0,4/0,7
<b>V0610/*</b>	VUSF 1/2"	70	350	±0,4/0,7
<b>V0620/*</b>	VUSF 3/4"	110	350	±0,4/0,7
<b>V0630/*</b>	VUSF 1"	160	350	±0,4/0,7
<b>V0631/*</b>	VUSF 1 1/4	200	350	1
<b>V0632/*</b>	VUSF 1 1/2	300	350	1



7

CODICE CODE	SIGLA TYPE	V - C	L	E	D	PESO WEIGHT
		GAS	mm	mm	mm	Kg
<b>V0590/*</b>	VUSF 1/4"	G 1/4"	62	19	21	0,104
<b>V0600/*</b>	VUSF 3/8"	G 3/8"	68	24	26,5	0,184
<b>V0610/*</b>	VUSF 1/2"	G 1/2"	77	30	34	0,322
<b>V0620/*</b>	VUSF 3/4"	G 3/4"	88	36	40	0,492
<b>V0630/*</b>	VUSF 1"	G 1"	105	41	46	0,676
<b>V0631/*</b>	VUSF 1 1/4	G 1 1/4	135	55	63	1,646
<b>V0632/*</b>	VUSF 1 1/2	G 1 1/2	145	60	69	1,950

\*: CODICE/1F: valvola dotata di un foro calibrato. Specificare le dimensioni del foro. Es. VUSF 1/4" 1 FORO DIAM. 2 mm • Codice = **V0590/1F**

\*: CODE/1F: valve with calibrated hole, please specify hole's dimension. Ordering example: VUSF 1/4" 1 HOLE DIAM. 2 mm • PART NR = **V0590/1F**

\*: CODICE/2F: valvola dotata di due fori calibrati. Specificare le dimensioni del foro. Es. VUSF 1/2" 2 FORI DIAM. 1 mm • Codice = **V0610/2F**

\*: CODE/2F: valve with 2 calibrated holes, please specify holes dimension. Ordering example: VUSF 1/2" 2 HOLES DIAM. 1 mm • PART NR = **V0610/2F**



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## 7.4 - VALVOLE DI REGOLAZIONE FLUSSO UNIDIREZIONALI A 90°

### 7.4 - 90° FLOW REGULATOR VALVES

TIPO / TYPE  
VRFU 90°



SCHEMA IDRAULICO  
HYDRAULIC DIAGRAM



#### IMPIEGO:

Valvole che permettono di regolare la velocità di un attuatore in una direzione e consentono il flusso libero nell'altra. Non essendo compensate alla pressione, la regolazione del fluido dipenderà dalla pressione e dalla viscosità dell'olio. Sono caratterizzate da un'elevata sensibilità di regolazione.

#### MATERIALI E CARATTERISTICHE:

**Corpo:** acciaio zincato

**Componenti interni:** acciaio temprato termicamente e rettificato

**Garnizioni:** BUNA N standard

**Tenuta:** a spillo. Trafilamento nullo a valvola chiusa

#### MONTAGGIO:

Collegare V all'alimentazione e C all'attuatore da regolare. Il flusso è regolato da C a V ed è libero nel senso opposto. In caso di impiego su attuatori con valvola di blocco, la VRFU 90° va montata tra attuatore e valvola di blocco.

La regolazione avviene mediante rotazione del pomolo in alluminio, previo allentamento del grano di fermo posto sul lato. Con questa particolare configurazione si può ottenere una regolazione precisa e sensibile.

#### PERDITE DI CARICO PRESSURE DROPS CURVE

#### USE AND OPERATION

This valve is used to adjust flow speed of actuators in one direction; flow is free in the reverse one. As pressure compensation is not provided, flow adjustment depends on pressure and fluid viscosity. High adjustment sensitivity.

#### MATERIALS AND FEATURES:

**Body:** zinc-plated steel

**Internal parts:** hardened and ground steel

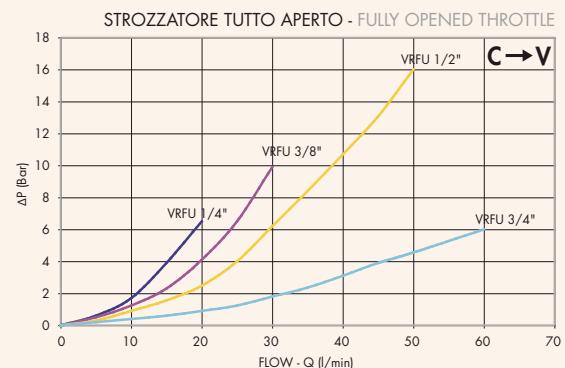
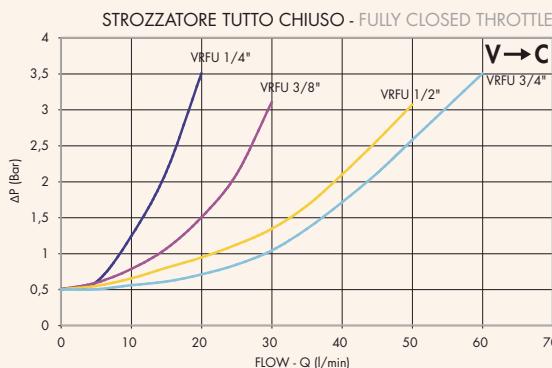
**Seal:** BUNA N standard

**Tightness:** needle type. Minor leakage with closed valve.

#### APPLICATIONS:

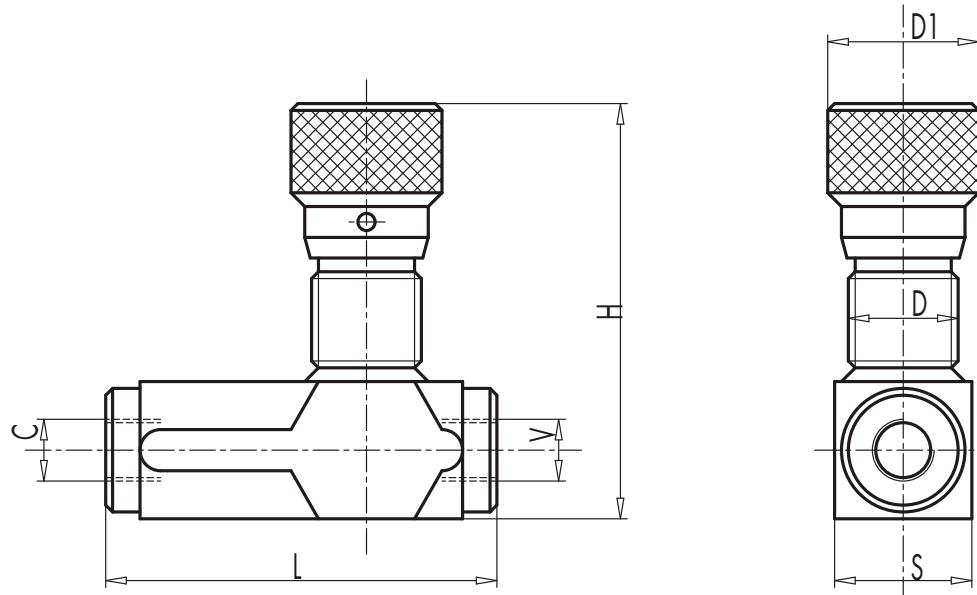
Connect V to the pressure flow and C to the actuator to set; flow is adjust from C to V and is free in the reverse direction. When used on actuator with double pilot check valve, VRFU 90° has to be mounted between the actuator and the double pilot check valve. Flow adjustment is made by rotating the aluminium hand knob after loosening the side locking screw. This particular configuration allows an accurate and sensitive adjustment.

Temperatura olio: 50°C - Viscosità olio: 30 cSt  
Oil temperature: 50°C - Oil viscosity: 30 cSt





CODICE CODE	SIGLA TYPE	PORTATA MAX MAX FLOW Lt./min	PRESIONE MAX MAX PRESSURE Bar	PRESIONE APERTURA CRACKING PRESSURE Bar
<b>V0581</b>	VRFU 90° 1/4"	15	350	0,5
<b>V0582</b>	VRFU 90° 3/8"	30	350	0,5
<b>V0583</b>	VRFU 90° 1/2"	50	350	0,5
<b>V0588</b>	VRFU 90° 3/4"	60	280	0,5



7

CODICE CODE	SIGLA TYPE	V - C	L	D	D1	H	S	PESO WEIGHT
		GAS	mm	mm	mm	mm	mm	Kg
<b>V0581</b>	VRFU 90° 1/4"	G 1/4"	73	M22x1,5	32	82	25	0,416
<b>V0582</b>	VRFU 90° 3/8"	G 3/8"	83	M22x1,5	32	82	25	0,420
<b>V0583</b>	VRFU 90° 1/2"	G 1/2"	94	M22x1,5	32	87	30	0,582
<b>V0588</b>	VRFU 90° 3/4"	G 3/4"	118	M35x1,5	42	108,5	40	1,360



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## 7.5 - VALVOLE DI REGOLAZIONE FLUSSO BIDIREZIONALI A 90°

## 7.5 - 90° FLOW REGULATOR VALVES

TIPO / TYPE  
VRFB 90°SCHEMA IDRAULICO  
HYDRAULIC DIAGRAM

### IMPIEGO:

Valvole che permettono di regolare la velocità di un attuatore in entrambe le direzioni. Non essendo compensate alla pressione, la regolazione del fluido dipenderà dalla pressione e dalla viscosità dell'olio. Sono caratterizzate da un'elevata sensibilità di regolazione.

### MATERIALI E CARATTERISTICHE:

**Corpo:** acciaio zincato

**Componenti interni:** acciaio temprato termicamente e rettificato

**Guarnizioni:** BUNA N standard

**Tenuta:** a spillo. Trafilamento nullo a valvola chiusa

### MONTAGGIO:

Collegare uno o l'altro attacco all'alimentazione. Il flusso sarà regolato sul restante attacco. La regolazione avviene mediante rotazione del pomolo in alluminio, previo allentamento del grano di fermo posto sul lato. Con questa particolare configurazione si può ottenere una regolazione precisa e sensibile.

### USE AND OPERATION

This valve is used to adjust flow speed of actuators in both directions. As pressure compensation is not provided, flow adjustment depends on pressure and fluid viscosity. High adjustment sensitivity.

### MATERIALS AND FEATURES:

**Body:** zinc-plated steel

**Internal parts:** hardened and ground steel

**Seal:** BUNA N standard

**Tightness:** needle type. Minor leakage with closed valve.

### APPLICATIONS:

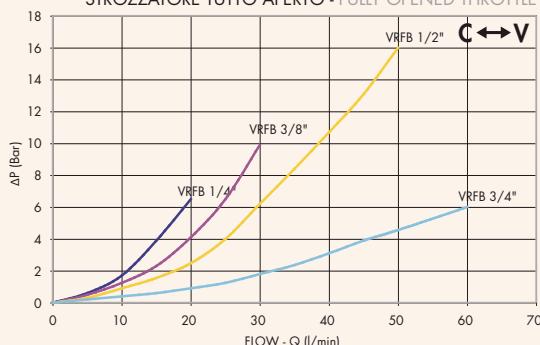
Connect a port to the pressure. Flow will be adjusted in the other one. When used on actuator with double pilot check valve, VRFB 90° has to be mounted between the actuator and the double pilot check valve.

Flow adjustment is made by rotating the aluminium hand knob after loosening the side locking screw. This particular configuration allows an accurate and sensitive adjustment.

### PERDITE DI CARICO PRESSURE DROPS CURVE

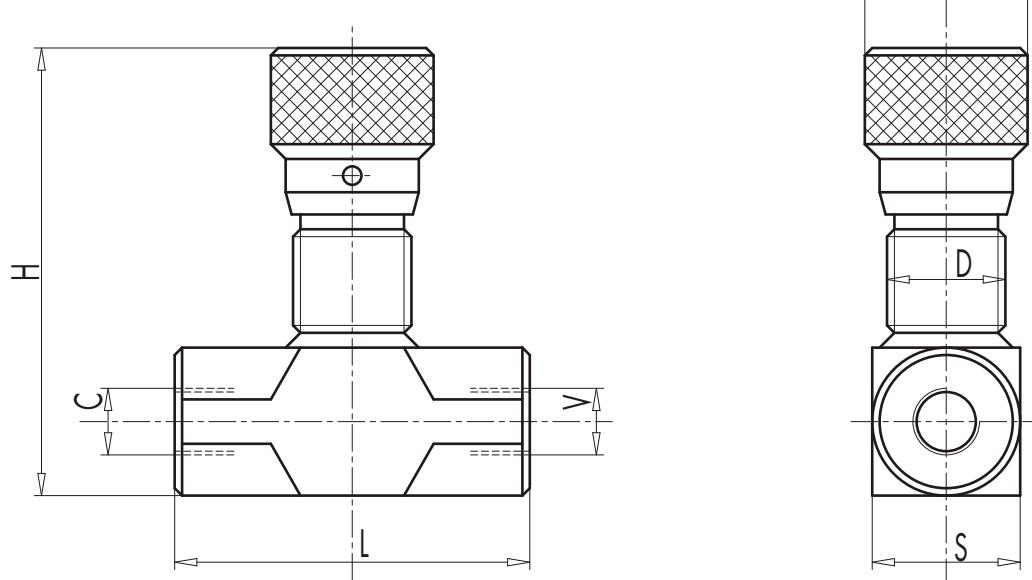
Temperatura olio: 50°C - Viscosità olio: 30 cSt  
Oil temperature: 50°C - Oil viscosity: 30 cSt

STROZZATORE TUTTO APERTO - FULLY OPENED THROTTLE





CODICE CODE	SIGLA TYPE	PORTATA MAX MAX FLOW Ltr./min	PRESIONE MAX MAX PRESSURE Bar
<b>V0584</b>	VRFB 90° 1/4"	15	350
<b>V0586</b>	VRFB 90° 3/8"	30	350
<b>V0587</b>	VRFB 90° 1/2"	50	350
<b>V0589</b>	VRFB 90° 3/4"	80	280



7

CODICE CODE	SIGLA TYPE	V - C	L mm	D mm	D1 mm	H mm	S mm	PESO WEIGHT Kg
		GAS						
<b>V0584</b>	VRFB 90° 1/4"	G 1/4"	60	M22x1,5	32	82	25	0,366
<b>V0586</b>	VRFB 90° 3/8"	G 3/8"	61	M22x1,5	32	82	25	0,352
<b>V0587</b>	VRFB 90° 1/2"	G 1/2"	70	M22x1,5	32	87	30	0,468
<b>V0589</b>	VRFB 90° 3/4"	G 3/4"	89	M35x1,5	42	108,5	40	1,100



**OLEODINAMICA MARCHESINI**

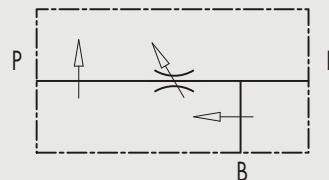
## 7.6 - VALVOLA PRIORITARIA A 3 VIE

### 7.6 - 3 PORT FLOW CONTROL VALVE ONGOING PRESSURE LINE

TIPO / TYPE  
**VPR3**



SCHEMA IDRAULICO  
HYDRAULIC DIAGRAM



#### IMPIEGO:

Valvola che consente di mantenere costante la portata in "P" ad un valore stabilito, indipendentemente dalla pressione richiesta e dalla portata in entrata alla valvola. La portata in eccesso viene scaricata in "B" ed è disponibile per un secondo utilizzo. Anche la bocca "B" è insensibile alle variazioni di pressione ma non alle variazioni di portata.

#### MATERIALI E CARATTERISTICHE:

**Corpo:** acciaio zincato

**Componenti interni:** acciaio temprato termicamente e rettificato

**Guarnizioni:** BUNA N standard

**Tenuta:** per accoppiamento. Trafilamento minimo (poche gocce al minuto)

#### MONTAGGIO:

Collegare E all'alimentazione e P all'attuatore o alla linea di un impianto idraulico in cui si necessita la regolazione della portata. Collegare B al serbatoio o ad un secondo attuatore. Per regolare la portata in entrata al ramo P avvitare o svitare il volantino previo allentamento della ghiera di fermo.

#### USE AND OPERATION

This valve enables to keep "P" flow constant to a certain setting, independently of the required pressure or the inlet flow of the valve. Exceeded flow is drained in "B" and it is available for a second use. Also port "B" is insensitive to pressure changes but not to flow changes.

#### MATERIALS AND FEATURES:

**Body:** zinc-plated steel

**Internal parts:** hardened and ground steel

**Seal:** BUNA N standard

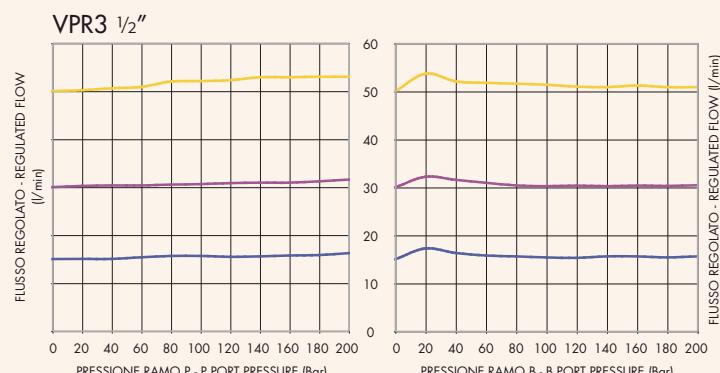
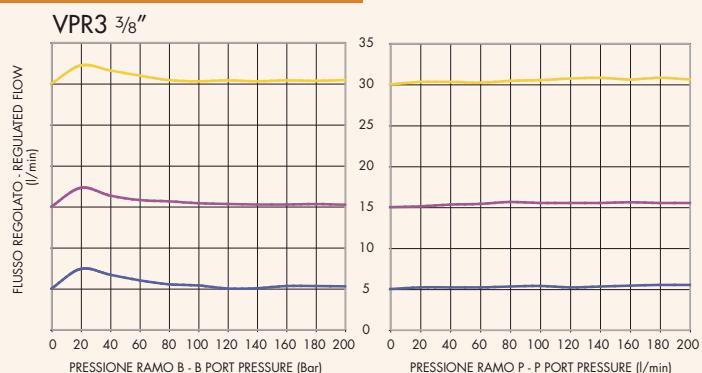
**Tightness:** by diameter combination. Minor leakage (few drops per minute)

#### APPLICATIONS:

Connect E to the pressure flow and P to the actuator or to a line of an hydraulic circuit where flow adjustment is needed. Connect B to the tank or to a second actuator. To adjust inlet pressure in P screw in or off hand wheel after loosening the locknut.

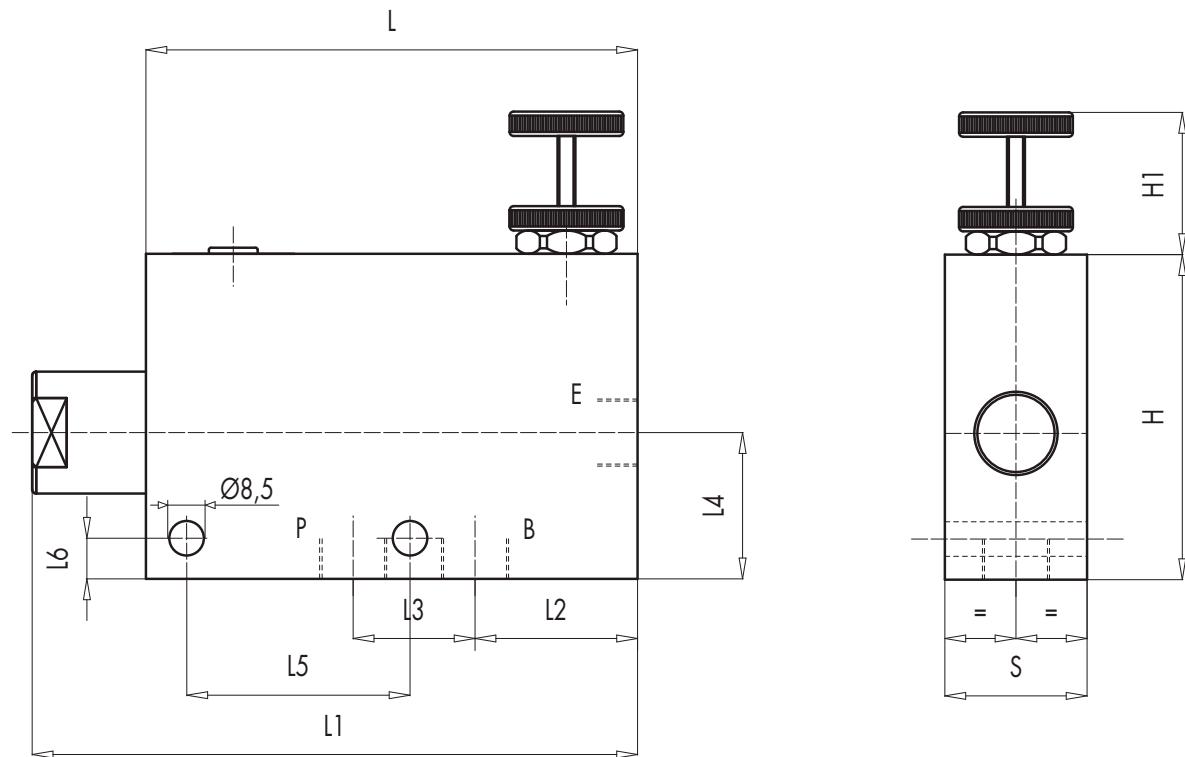
#### DIAGRAMMA COMPENSAZIONE COMPENSATION CURVE

Temperatura olio: 50°C - Viscosità olio: 30 cSt  
Oil temperature: 50°C - Oil viscosity: 30 cSt





CODICE CODE	SIGLA TYPE	PORATA MAX ENTRANTE MAX INLET FLOW Lt./min	PORATA MAX REGOLATA MAX ADJUSTED FLOW Lt./min	PRESSIONE MAX MAX PRESSURE Bar
<b>V1060</b>	VPR3 3/8"	50	40	250
<b>V1070</b>	VRP3 1/2"	85	60	250



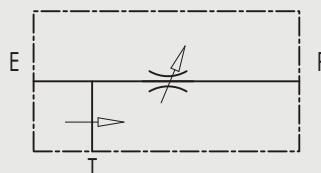
7

CODICE CODE	SIGLA TYPE	E - P - S	L	L1	L2	L3	L4	L5	L6	H	H1	S	PESO WEIGHT
		GAS	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Kg
<b>V1060</b>	VPR3 3/8"	G 3/8"	121	147	40	32	36	55	12	80	35	35	2,200
<b>V1070</b>	VRP3 1/2"	G 1/2"	121	147	37	36	36	55	12	80	35	35	2,150



## 7.7 - REGOLATORE DI FLUSSO PRIORITARIO A 3 VIE

### 7.7 - 3 PORT FLOW CONTROL VALVE EXCESS TO TANK

TIPO / TYPE  
RFP3SCHEMA IDRAULICO  
HYDRAULIC DIAGRAM

#### IMPIEGO:

Valvola che consente di mantenere costante la portata in P ad un valore stabilito, indipendentemente dalla pressione richiesta e dalla portata in entrata alla valvola. La portata in eccesso viene mandata direttamente allo scarico T (serbatoio).

#### MATERIALI E CARATTERISTICHE:

**Corpo:** acciaio zincato

**Componenti interni:** acciaio temprato termicamente e rettificato

**Guarnizioni:** BUNA N standard

**Tenuta:** per accoppiamento. Trafilamento minimo (poche gocce al minuto)

#### MONTAGGIO:

Collegare E all'alimentazione e P alla rete in cui si necessita la regolazione della portata. Collegare T al serbatoio. Per regolare la portata in entrata avvitare o svitare il volantino previo allentamento della ghiera di fermo.

#### USE AND OPERATION

This valve enables to keep "P" flow constant to a certain setting, independently of the required pressure or the inlet flow of the valve. Exceeded flow is drained directly in T (tank).

#### MATERIALS AND FEATURES:

**Body:** zinc-plated steel

**Internal parts:** hardened and ground steel

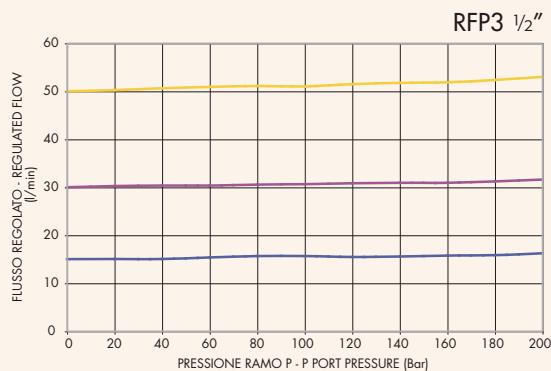
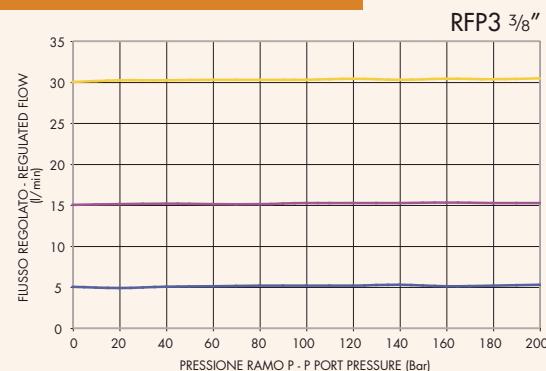
**Seal:** BUNA N standard

**Tightness:** by diameter combination. Minor leakage (few drops per minute)

#### APPLICATIONS:

Connect E to the pressure flow and P to the net where flow adjustment is needed. Connect T to the tank. To adjust inlet pressure in P screw in or off hand wheel after loosening the locknut.

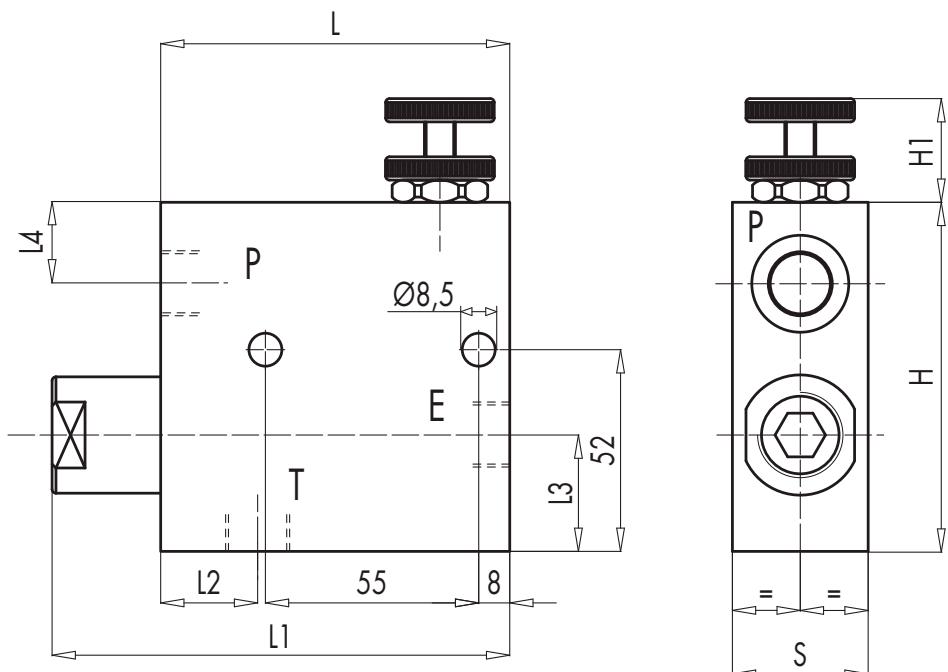
#### DIAGRAMMA COMPENSAZIONE COMPENSATION CURVE



Temperatura olio: 50°C - Viscosità olio: 30 cSt  
Oil temperature: 50°C - Oil viscosity: 30 cSt



CODICE CODE	SIGLA TYPE	PORTATA MAX ENTRANTE MAX INLET FLOW Lt./min	PORTATA MAX REGOLATA MAX ADJUSTED FLOW Lt./min	PRESSIONE MAX MAX PRESSURE Bar
<b>V1110</b>	RFP3 3/8"	50	30	250
<b>V1120</b>	RFP3 1/2"	85	50	250

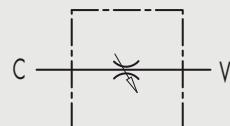


7

CODICE CODE	SIGLA TYPE	E - P - S	L	L1	L2	L3	L4	H	H1	S	PESO WEIGHT
		GAS	mm	mm	mm	mm	mm	mm	mm	mm	Kg
<b>V1110</b>	RFP3 3/8"	G 3/8"	90	116	25	32	20	90	35	35	1,980
<b>V1120</b>	RFP3 1/2"	G 1/2"	90	116	25	32	20	90	35	35	1,950



## 7.8 - VITE STROZZATRICE 7.8 - THROTTLE SCREW

SCHEMA IDRAULICO  
HYDRAULIC DIAGRAM

### IMPIEGO:

Vite utilizzata sugli attuatori come strozzatore bidirezionale nei casi in cui si necessiti di una regolazione "grossolana" o quando le dimensioni di ingombro non consentono il montaggio di uno strozzatore in linea. Caratterizzato dal prezzo economico, non offre tuttavia la sicurezza di una valvola di regolazione flusso.

### MATERIALI E CARATTERISTICHE:

**Corpo:** acciaio zincato

### MONTAGGIO:

Avvitare la vite direttamente sulle bocche dell'attuatore.

### USE AND OPERATION

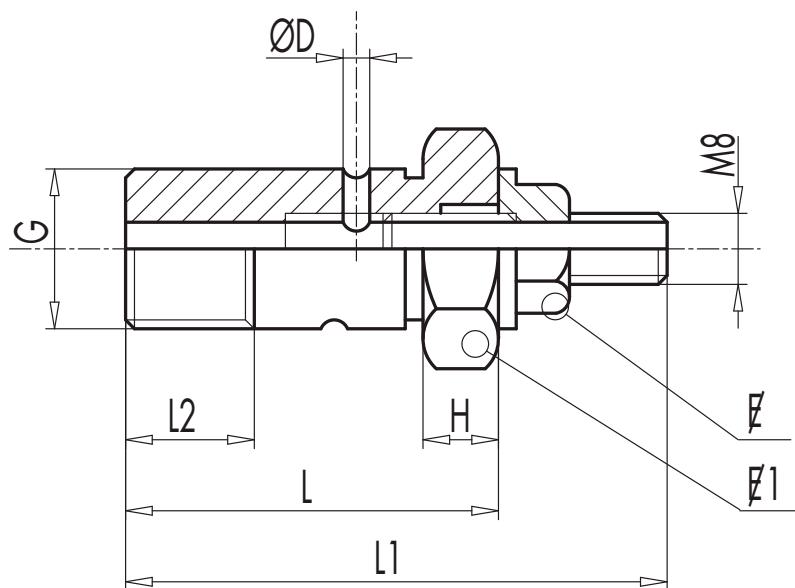
This screw is used on actuators as bi-directional restrictor when adjustment can be a little imprecise or when small dimensions don't allow mounting of an in-line restrictor. It's a very cheap solution, but it doesn't guarantee the same security of a restrictor valves.

### MATERIALS AND FEATURES:

**Body:** zinc-plated steel

### APPLICATIONS:

Screw in the screw directly on actuator's ports



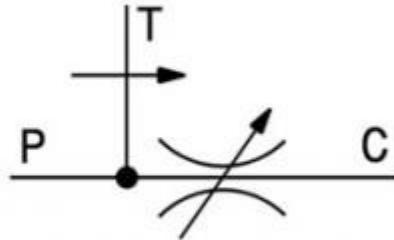
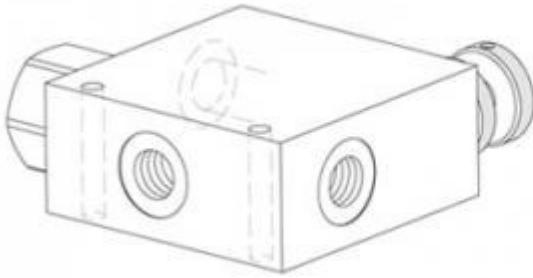
7

CODICE CODE	SIGLA TYPE	G	L	L1	L2	H	D	E	E1	PESO WEIGHT
		GAS	mm	mm	mm	mm	mm	mm	mm	Kg
R1351	VITE STROZZATRICE 1/4"	G 1/4"	36	53	15	7	2,5	13	19	0,046
R1361	VITE STROZZATRICE 3/8"	G 3/8"	39	58	15	8	3	13	22	0,074

## REGULADORES DE CAUDAL EN LINEA

Nº	Descripción
HOR070001	VALV. REG. CAUDAL VSR 1/4 12 L/M
HOR070002	VALV. REG. CAUDAL VSR 3/8 30 L/M
HOR070003	VALV. REG. CAUDAL VSR 1/2 45 L/M
HOR070004	VALV. REG. CAUDAL VSR 3/4 85 L/M
HOR0801001	REG. CAUD. BID. VBRF-1/4
HOR0801002	REG. CAUD. BID. VBRF-3/8
HOR0801003	REG. CAUD. BID. VBRF-1/2
HOR0801004	REG. CAUD. BID. VBRF-3/4
HOR0901001	REG. CAUD. UNID. COMP. VRC-1/4
HOR0901002	REG. CAUD. UNID. COMP. VRC-3/8
HOR0901003	REG. CAUD. UNID. COMP. VRC-1/2
HOR100001	VALV. REG. CAUDAL STUF140 1/4 (PANELABLE)
HOR100002	VALV. REG. CAUDAL STUF380 3/8 (PANELABLE)
HOR100003	VALV. REG. CAUDAL STUF120 1/2 (PANELABLE)
HOR100004	VALV. REG. CAUDAL STUF340 3/4 (PANELABLE)
HOR100005	VALV. REG. CAUDAL STUF100 1' (PANELABLE)
HOR100006	REG.CAUDAL 3 VIAS RFA38A
HOR100007	REG.CAUDAL 3 VIAS RFA34A
HOR100008	REG.CAUDAL 3 VIAS RFA12A
HOR100009	REG.CAUDAL 3 VIAS RFA10A
HOR100010	REG.CAUDAL 3 VIAS PRIOR. RFPA38A
HOR100011	REG.CAUDAL 3 VIAS PRIOR. RFPA34A
HOR100012	REG.CAUDAL 3 VIAS PRIOR. RFPA10A
HOR100013	REG. CAUDAL 3 VIAS PRIOR. RFPA12A
HOR10001302	REG. CAUDAL 3 VIAS PRIOR. RF-G
HOR10001305	REG.CAUDAL 3 VIAS NG-6 RFP50FC301B
HOR10001306	REG.C. 3 V.COM. RFAFMD121A OMS 0-60 LT.
HOR10001307	REG.C. 3 V.COM. RFAFMD12A OMP/R 0-60 LT.
HOR100016	REGULADOR CAUDAL 3 VIAS RFAVU12A
HOR100022	REGULADOR CAUDAL 2 VIAS RFA2VU38A
HOR100023	REGULADOR CAUDAL 2 VIAS RFA2VU12A
HOR100024	REGULADOR CAUDAL 2 VIAS RFA2VU34A
HOR100025	REGULADOR CAUDAL 2 VIAS RFA2VU10A
HOR100104	STBF090-1/4 REG.CAUDAL BIDIREC.
HOR100106	STBF0600-3/8 REG.CAUDAL BIDIREC.
HOR100108	STBF0800-1/2 REG.CAUDAL BIDIREC.
HOR100112	STBF1200-3/4 REG.CAUDAL BIDIREC.
HOR110001	TUERCA KM4 M20x1
HOR110002	TUERCA KM5 M25x1,5
HOR110003	TUERCA KM6 M30x1,5
HOR110004	TUERCA KM7 M35x1,5
HOR110005	TUERCA KM8 M40x1,5

## Valvola regolatrice di flusso compensata, tre vie mod. RF-A



Modello	P, C, T	Portata massima in ingresso [l/min]	Portata massima regolata [l/min]	Pressione massima [bar]
RF-A-38	3/8"GAS	60	35	270
RF-A-12	1/2"GAS	100	65	270

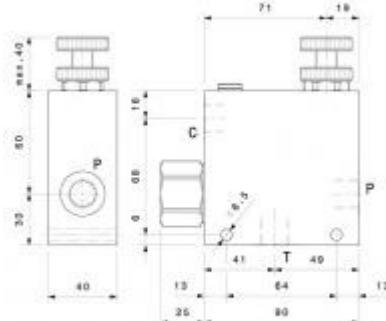
**Regolazioni**

A  
Volantino

B  
Vite esterna esagono incassato

C  
Manopola

[Cliccare per ingrandire](#)



Dati e tarature ottenuti usando olio con viscosità 30 cSt a 50 °C

Viscosità consigliate 10 ÷ 420 cSt

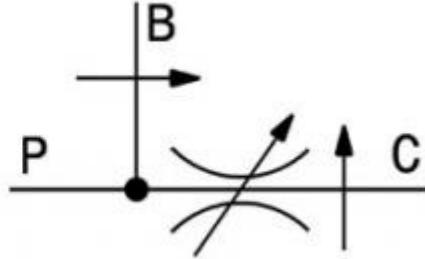
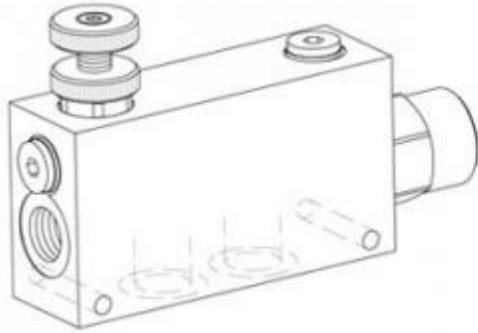
Temperature di lavoro -20 ÷ +90 °C

Filtrazione assoluta 25 µm

codice	descrizione (sigla di ordinazione)	portata max l/min	portata max gpm	pressione max bar	pressione max psi	filettature
RF000104	RFA38A	60	15.8	270	3915	3/8"G
RF000105	RFA38B	60	15.8	270	3915	3/8"G
RF000106	RFA38C	60	15.8	270	3915	3/8"G
RF000107	RFA12A	100	26.4	270	3915	1/2"G
RF000108	RFA12B	100	26.4	270	3915	1/2"G
RF000109	RFA12C	100	26.4	270	3915	1/2"G
RF000324	RFA38C M12X4,5 (1 GIRO)	60	15.8	270	3915	3/8"G
RF000553	RFA3038A	60	15.8	270	3915	G 3/8

[Effettua il login per maggiori informazioni e materiali scaricabili su questo prodotto.](#)

## Valvola regolatrice di flusso compensata, tre vie mod. RFP-A



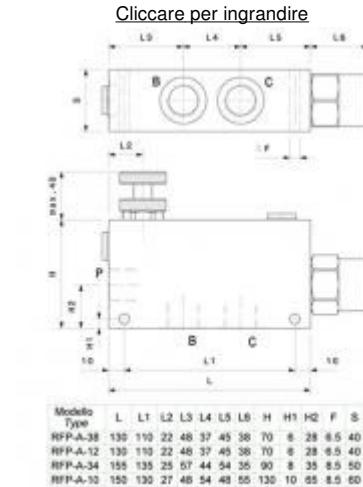
Modello	P, B, C	Portata massima in ingresso [l/min]	Portata massima regolata [l/min]	Pressione massima [bar]
RFP-A-38	3/8"GAS	60	35	270
RFP-A-12	1/2"GAS	100	65	270
RFP-A-34	3/4"GAS	150	90	270
RFP-A-10	1"GAS	280	190	270

**Regolazioni**

A  
Volantino

B  
Vite esterna esagono incassato

C  
Manopola



Dati e tarature ottenuti usando olio con viscosità 30 cSt a 50 °C

Viscosità consigliate 10 ÷ 420 cSt

Temperature di lavoro -20 ÷ +90 °C

Filtrazione assoluta 25 µm

codice	descrizione (sigla di ordinazione)	portata max		pressione max		filettature
		l/min	gpm	bar	psi	
RF000209	RFP-A38A	60	15.8	270	3915	3/8"G
RF000210	RFP-A38B	60	15.8	270	3915	3/8"G
RF000211	RFP-A38C	60	15.8	270	3915	3/8"G
RF000212	RFP-A12A	100	26.4	270	3915	1/2"G
RF000213	RFP-A12B	100	26.4	270	3915	1/2"G
RF000214	RFP-A12C	100	26.4	270	3915	1/2"G
RF000215	RFP-A34A	150	39.6	270	3915	3/4"G
RF000216	RFP-A34B	150	39.6	270	3915	3/4"G
RF000217	RFP-A34C	150	39.6	270	3915	3/4"G
RF000312	RFP-A10A	380	100.3	270	3915	1"G
RF000313	RFP-A10B	380	100.3	270	3915	1"G
RF000314	RFP-A10C	380	100.3	270	3915	1"G
RF000347	RFP-A10AA (ACCIAIO)	380	100.3	270	3915	1"G
RF000380	RFP-A34C M12X4,5 (1 GIRO)	150	39.6	270	3915	3/4"G

RF000507	RFPA34CA (ACCIAIO)	150	39.6	270	3915	3/4"G
RF000508	RFPA34AA (ACCIAIO)	150	39.6	270	3915	3/4"G
RF000510	RFPA10SA	100	26.4	270	3915	10 SAE
RF000511	RFPA12SA	100	26.4	270	3915	12 SAE
RF000512	RFPA16SA	150	39.6	270	3915	16 SAE
RF000550	RFPA38C 0-5	60	15.8	270	3915	G 3/8
RF000551	RFPA10CA (ACCIAIO)	100	26.4	270	3915	G 1

[Effettua il login per maggiori informazioni e materiali scaricabili su questo prodotto.](#)

## **Valvole elettriche**

## **Electric valves**

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<i>Two ways pilot operated electric valve - cartridge style mod. EV25-C .....</i>	<i>pag. 4</i>
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<i>Two ways pilot operated electric valve mod. EV25, EV25VE .....</i>	<i>pag. 5</i>
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<i>Two ways pilot operated electric valve mod. EV40, EV40VE .....</i>	<i>pag. 8</i>
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<i>Two ways pilot operated electric valve mod. EV70, EV70VE .....</i>	<i>pag. 11</i>
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Valvola elettrica 2 vie unidirezionale pilotata mod. EV150, EV150VE .....	pag. 14
<i>Two ways pilot operated electric valve mod. EV150, EV150VE .....</i>	<i>pag. 14</i>

## Ordinazioni

Gli ordini devono essere inviati alla:

**CBF S.r.l.**  
Via Caboto, 1  
36075 Montecchio Maggiore (VI)  
Tel. 0444 499141-3  
Fax 0444 499145

Per posta o telefax. Si prega di evitare, ove possibile, di effettuare ordini per telefono dato che questi dovranno essere in ogni caso confermati per lettera o fax.

### Gli ordini devono chiaramente indicare:

- Esatta ragione sociale o indirizzo completo del richiedente.
- Numero d'ordine.
- Data d'ordine.
- Numero d'offerta **CBF** (qualora esista).
- Denominazione valvola.
- Data consegna richiesta.
- Destinazione merce.
- Vettore.

## Garanzia

- La **CBF S.r.l.** garantisce che i suoi prodotti sono esenti da difetti di materiali o di costruzione per un periodo di 12 mesi a partire dalla data di spedizione dai propri magazzini in Montecchio Maggiore (VI) - Italia.
- La garanzia è esclusivamente limitata alla riparazione o sostituzione, a giudizio della **CBF S.r.l.**, d'ogni parte o parti difettose in materiale o costruzione, previo esame dei pezzi che devono essere ritornati alla **CBF**, franco destino, corredati di descrizione dettagliata del malfunzionamento.
- **CBF** declina ogni responsabilità ed esclude l'applicazione della garanzia per quei prodotti che, a proprio insindacabile giudizio, siano stati contaminati, impiegati erroneamente o manomessi in circostanze al di fuori del proprio controllo o senza autorizzazione. La garanzia decade qualora siano apportate modifiche a circuiti o impianti tali da influenzare negativamente il funzionamento del prodotto **CBF**.
- In nessun caso una rivalsa in garanzia potrà comportare revoche contrattuali, sospensioni anche parziali di pagamenti, compensi per danni o rimborsi spese, ivi compresa la spesa di manodopera per la sostituzione del pezzo.
- Questa garanzia riconosciuta dalla **CBF S.r.l.** attraverso la propria organizzazione assistenziale esclude e sostituisce ogni altra garanzia di qualsiasi genere.
- **CBF S.r.l.** non è responsabile per danni diretti o indiretti, ivi comprese eventuali perdite economiche conseguenti a fermo macchina, o ritardate consegne di qualsiasi genere.

## Responsabilità d'uso.

Tutti i prodotti **CBF** sono sottoposti a rigorosi collaudi funzionali, conformemente alle caratteristiche riportate sulla documentazione tecnica **CBF**.

Dal momento che le reali condizioni di funzionamento delle apparecchiature del Compratore non sono riproducibili integralmente nei laboratori della **CBF**, la responsabilità della scelta e l'idoneità dei prodotti sono a carico del Compratore stesso.

## Giurisdizione

In caso di contestazione in cui la **CBF S.r.l.** sia convenuta è esclusivamente competente il Foro di Vicenza. Le tratte, le accettazioni di regolamenti, le spedizioni senza o contrassegno, le esazioni per mezzo d'incaricati, non costituiscono deroga a questa clausola anche nel caso in cui la **CBF S.r.l.** fosse ricercata per connivenza o continenza di causa.

Quando la **CBF S.r.l.** sia attrice potrà ricorrere sia al Foro di Vicenza, sia a quello di residenza del convenuto.

## Order entry procedure.

Orders are received by:

**CBF S.r.l.**

Via Caboto, 1  
36075 Montecchio Maggiore (VI)  
Tel. ++39-0444-499141/3  
Fax ++39-0444-499145

By mail or telefax. When possible, please avoid sending orders by telephone since you must later confirm them by letter.

### Orders must clearly show:

- The corporate name and the full address of the applicant.
- Order number.
- Order date.
- **CBF's** offer number (when existing).
- Valve denomination.
- Required delivery date.
- Goods destination.
- Carrier.

### Warranty

- **CBF S.r.l.** warrants that its products are free from defects in material and workmanship for a period of 12 months from the date of shipment from the factory in Montecchio Maggiore (VI) - Italy.
- The warranty is strictly limited to the repair or replacement (at **CBF S.r.l.** option) of any part or parts defective in material or workmanship, subject to **CBF's** examination of the part which must be returned to **CBF S.r.l.**, carriage pre-paid by the Customer, with a detailed description of the malfunction.
- **CBF S.r.l.** shall not be responsible for circumstances beyond its control and this warranty shall not apply to products which, in the sole judgement of **CBF** have been subjected to contamination, tampering, negligent handling, misapplication or other misuse. Changes in circuit or changes in other components which may adversely affect the products of **CBF S.r.l.** void this warranty.
- In none of the cases quoted in the above paragraphs can the customer claim the cancellation of the contract compensation for damages or reimbursement of any expenses as, for example, labor required to replace the defective parts.
- This warranty recognized by **CBF S.r.l.** through its service organization is expressly in lieu of and excludes and supersedes any warranty of merchantability or fitness.
- **CBF S.r.l.** makes no other warranties, expressed or implied, and is not responsible for any consequential damages resulting from use by any buyer or user, its liability being limited to the value of product sold or to the obligation to replace a defective part. In no event shall **CBF S.r.l.** be liable for loss of anticipated profits, consequential damages, or loss of any equipment, installation, system operation or service into which the products of **CBF S.r.l.** may be fitted. **CBF S.r.l.** shall not be liable for any default, claimed breach of warranty, failure to deliver or otherwise, except as herein specifically indicated.

### Responsibility for use.

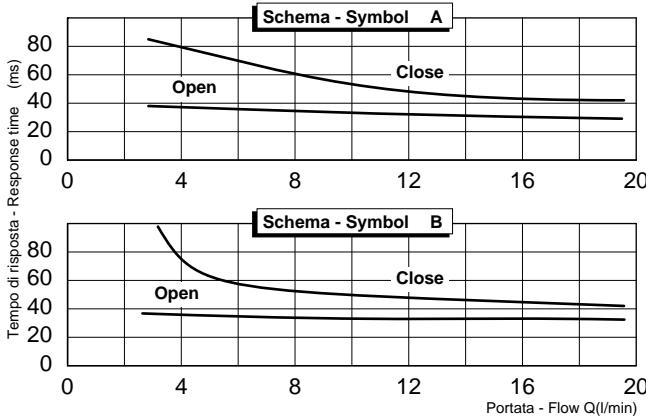
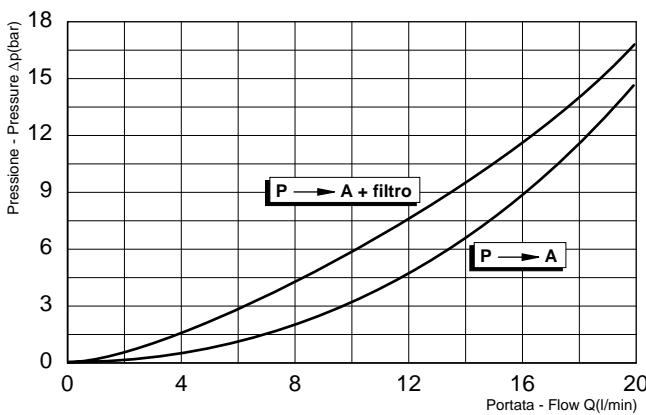
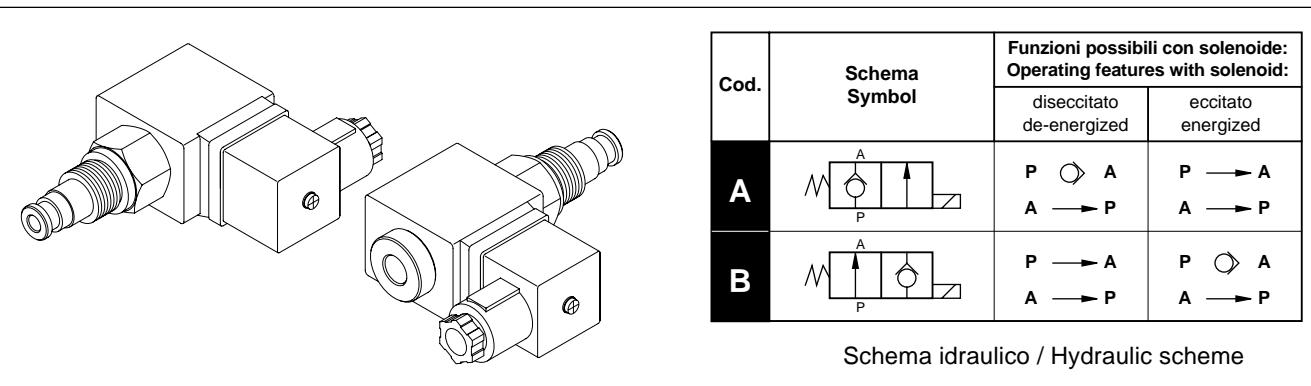
All **CBF** products are checked and tested, in accordance with the specifications indicated in the relevant technical documents. Since the actual installation and performance of the Customer's equipment cannot be exactly reproduced in the **CBF** testing laboratories, the assurance of suitability of all **CBF's** products in the Customer application is the responsibility of the Customer himself.

### Jurisdiction

In case of a dispute where **CBF S.r.l.** is summoned before court, the Court in Law in Vicenza (Italy) is exclusively competent: drafts, acceptance of settlements, dispstches without or with C.O.D. do not constitute a derogation from this clause of jurisdiction even in case **CBF S.r.l.** should be pursued for concession or continence of cause.

When **CBF S.r.l.** is the plaintiff, it will be able to recur both to Court of Law in Vicenza and to that where the other party resides.

**Valvola elettrica 2 vie unidirezionale pilotata - a cartuccia**  
**Two ways pilot operated electric valve - cartridge style**  
**mod. EV25 - C**

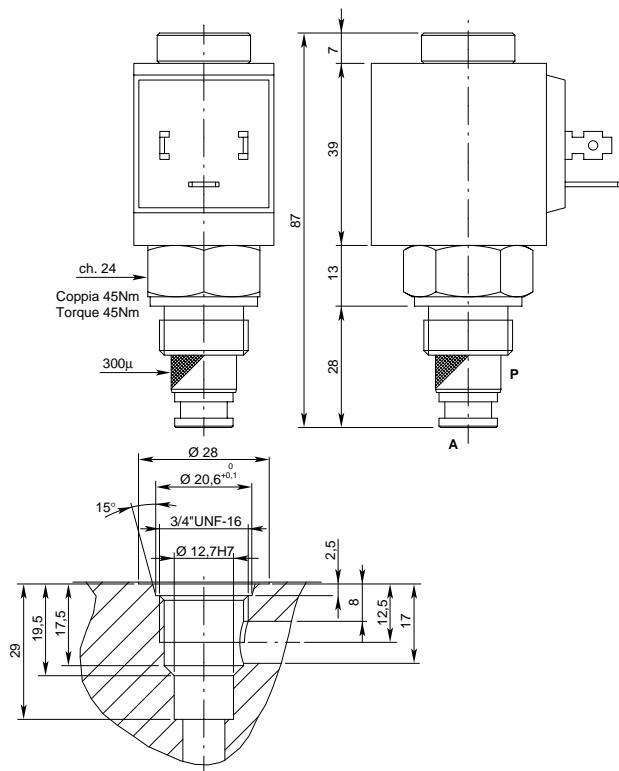


Tutti i dati forniti sono stati ottenuti usando olio con viscosità di circa 30 cSt a 50 °C. Campo di temperatura ammesso: -20 °C, +90 °C. Filtrazione assoluta: 25μ.

I dati non sono impegnativi, CBF si riserva di apportare modifiche senza preavviso.

All performances and calibrations are carried out by using hydraulic oil with viscosity approx. 30 cSt at 50°C. Temperature range: -20°C, +90°C. Filtration absolute: 25μ.

The specifications are not binding, CBF reserves the right to introduce modifications without notice.



Modello EV25-C Type EV25-C	Pressione massima Max pressure bar	Portata max Max flow l / min
Schema - Symbol A	250	25
Schema - Symbol B	210	

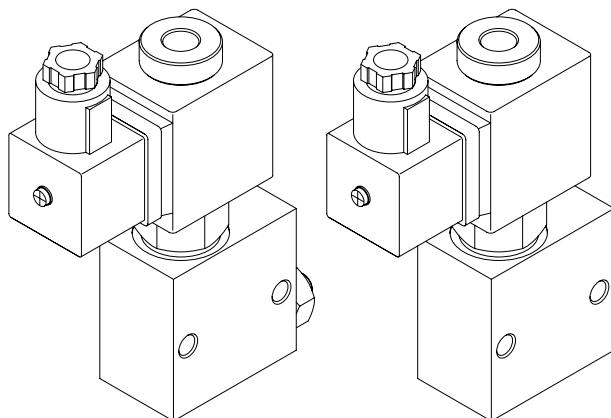
**Sigla di ordinazione / Ordering code**

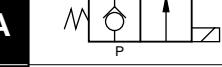
**EV25-C - A**

Modello / Type

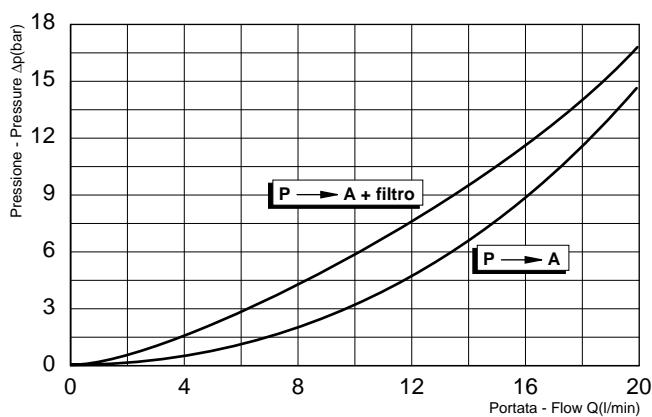
Schema: **A, B**  
Symbol: **A, B**

**Valvola elettrica 2 vie unidirezionale pilotata con o senza vite di emergenza**  
**Two ways pilot operated electric valve with or without emergency screw**  
**mod. EV25 / EV25VE**



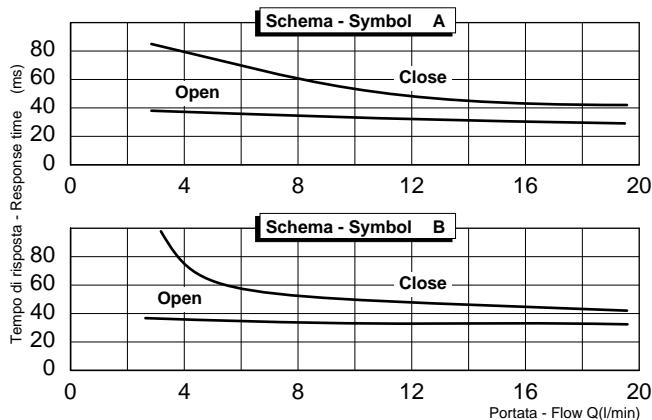
Cod.	Schema Symbol	Funzioni possibili con solenoide: Operating features with solenoid:	
		diseccitato de-energized	eccitato energized
A		P → A A → P	P → A A → P
B		P → A A → P	P → A A → P

Schema idraulico / Hydraulic scheme

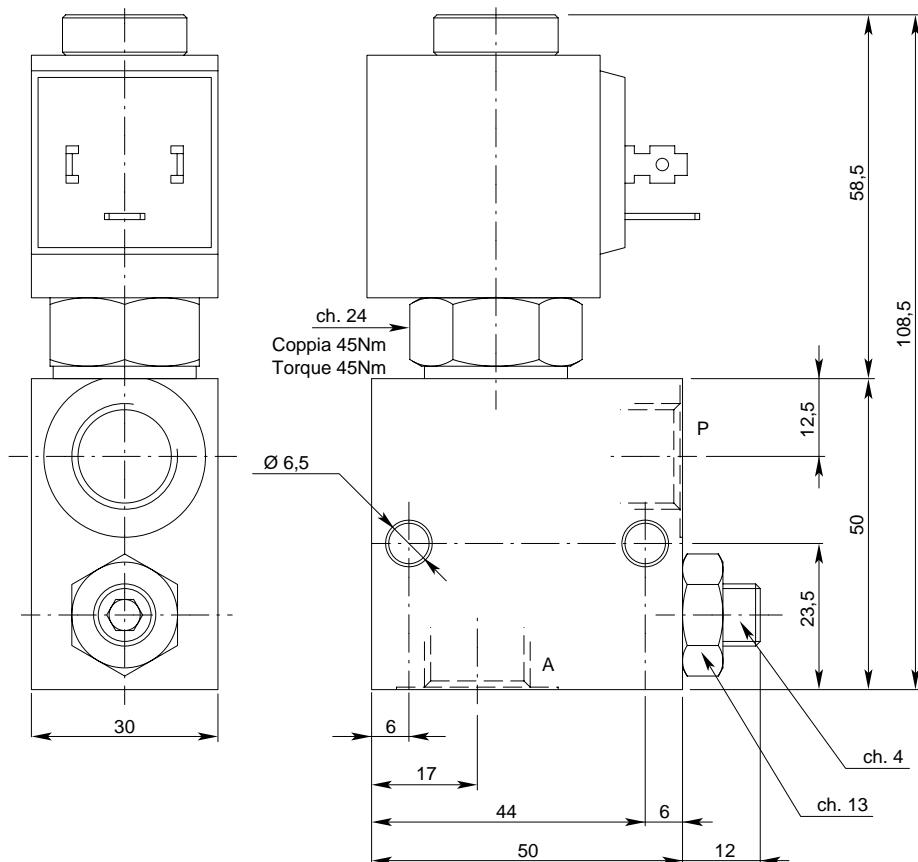


Tutti i dati forniti sono stati ottenuti usando olio con viscosità di circa 30 cSt a 50 °C. Campo di temperatura ammesso: -20 °C, +90 °C. Filtrazione assoluta: 25µ.

All performances and calibrations are carried out by using hydraulic oil with viscosity approx. 30 cSt at 50 °C. Temperature range: -20 °C, +90 °C. Filtration absolute: 25µ.



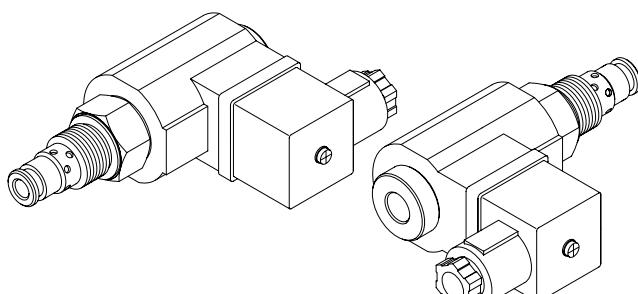
Modello Type	P A	Pressione massima Max pressure bar	Portata max Max flow l / min
EV25 - 14 / EV25 - 14 - VE	1/4" gas	250	25
EV25 - 38 / EV25 - 38 - VE	3/8" gas		

**Disegni / Drawings****Sigla di ordinazione / Ordering code**EV25 - 14 - A - VE

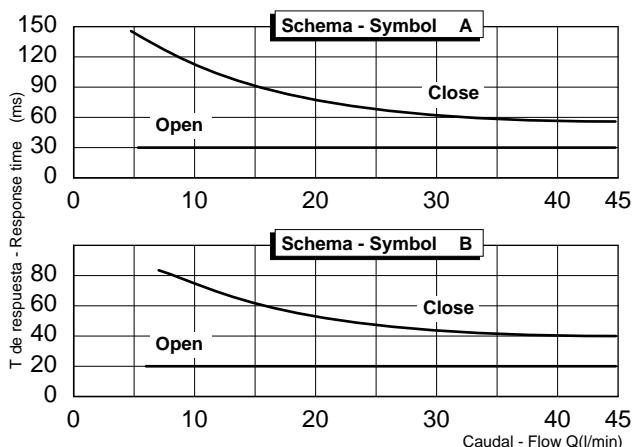
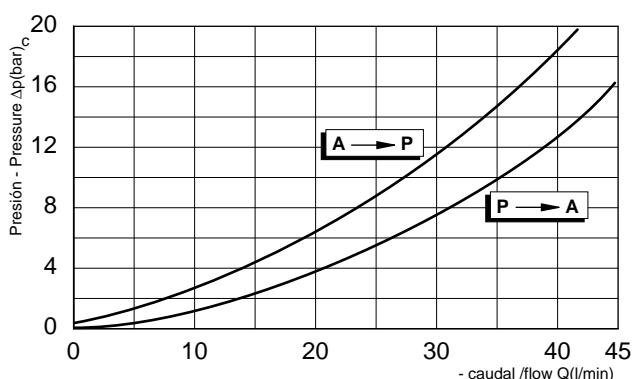
Modello / Type

I dati non sono impegnativi, CBF si riserva di apportare modifiche senza preavviso.  
The specifications are not binding, CBF reserves the right to introduce modifications without notice.

Válvula eléctrica 2 vias unidireccional pilotada - a cartucho  
 Two ways pilot operated electric valve - cartridge style  
 mod. EV40 - C



Cod.	Esquema Symbol	Función posible con solenoide: Operating features with solenoid:	
		desescitado de-energized	escitado energized
A		P → A A → P	P → A A → P
B		P → A A → P	P → A A → P
M		P → A A → P	P → A A → P



Modello EV40-C Type EV40-C	Presión máxima Max pressure bar	Caudal max Max flow l / min
Esquema- Symbol A		
Esquema - Symbol B	300	45
Esquema - Symbol C		

Codificación pedido / Ordering code

EV40-C - A

Modelo / Type

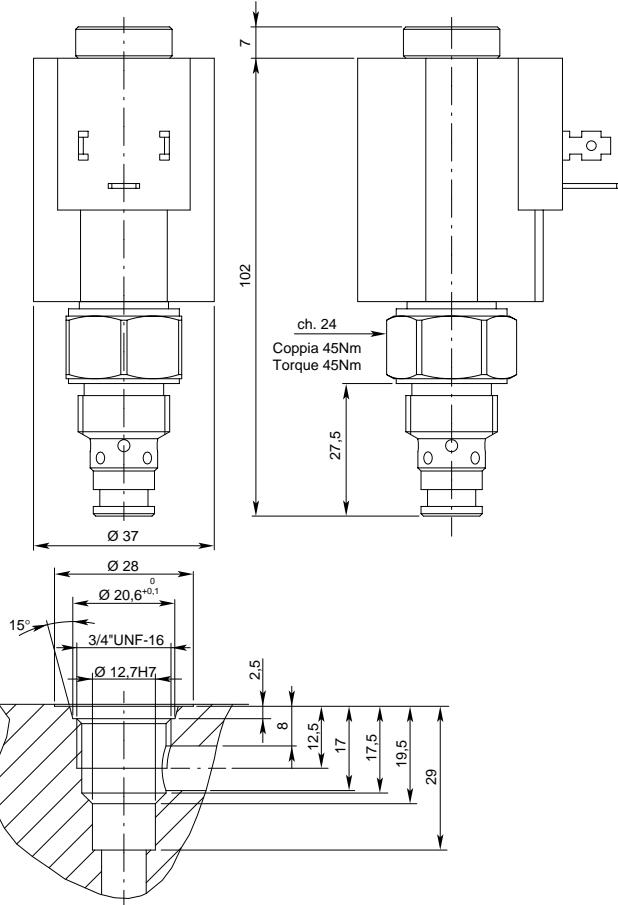
Esquema: A, B, M  
Symbol: A, B, M

Todos los datos y calibraciones han sido obtenidos con aceite 30 cSt a 50 °C. Campo de temperatura admisible: -20 °C, +90 °C. Filtración absoluta: 25μ.

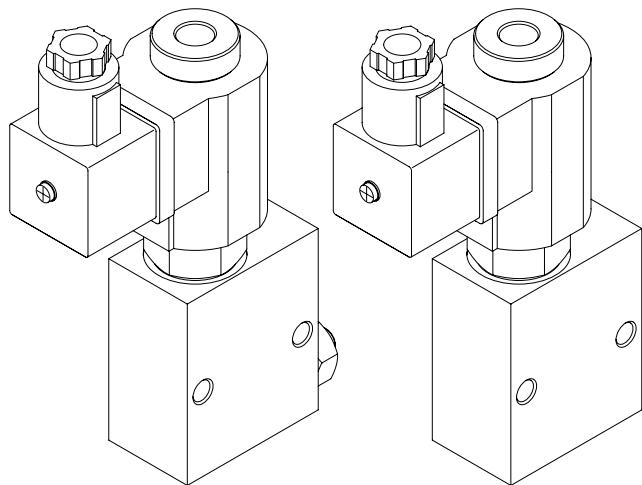
los datos no son imperativos, CBF se reserva el derecho a modificaciones sin previo aviso.

All performances and calibrations are carried out by using hydraulic oil with viscosity approx. 30 cSt at 50°C. Temperature range: -20°C, +90°C. Filtration absolute: 25μ.

The specifications are not binding, CBF reserves the right to introduce modifications without notice.

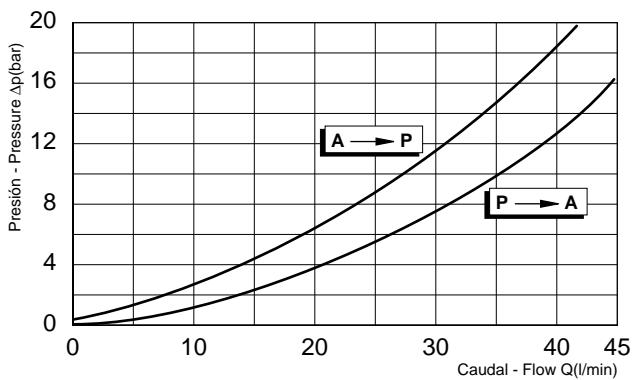


Válvula eléctrica 2 vías unidireccional pilotada con o sin accionamiento de emergencia  
 Two ways pilot operated electric valve with or without emergency screw  
 mod. EV40 / EV40VE



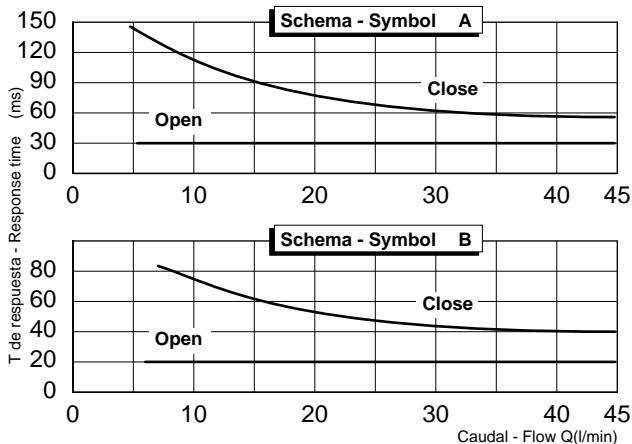
Cod.	Esquema Symbol	Función posible con solenoide: Operating features with solenoid:	
		desexcitado de-energized	excitado energized
A		P → A A → P	P → A A → P
B		P → A A → P	P → A A → P

Esquema hidráulico / Hydraulic scheme



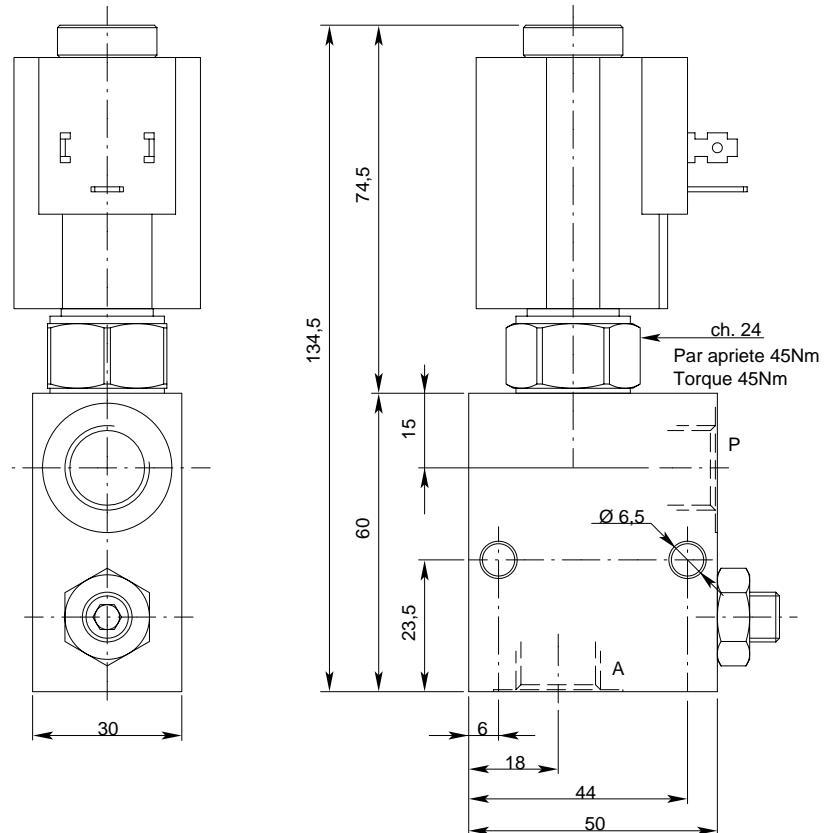
Todos los datos y calibraciones han sido obtenidos con aceite de 30 cSt a 50 °C. Campo de temperatura admisible: -20 °C, +90 °C. Filtración absoluta: 25μ.

All performances and calibrations are carried out by using hydraulic oil with viscosity approx. 30 cSt at 50°C. Temperature range: -20°C, +90 °C. Filtration absolute: 25μ.



Modello Type	P A	Pressione massima Max pressure bar	Portata max Max flow l / min
EV40 - 38 / EV40 - 38 - VE	3/8" gas	300	45
EV40 - 12 / EV40 - 12 - VE	1/2" gas		

## Diseño / Drawings



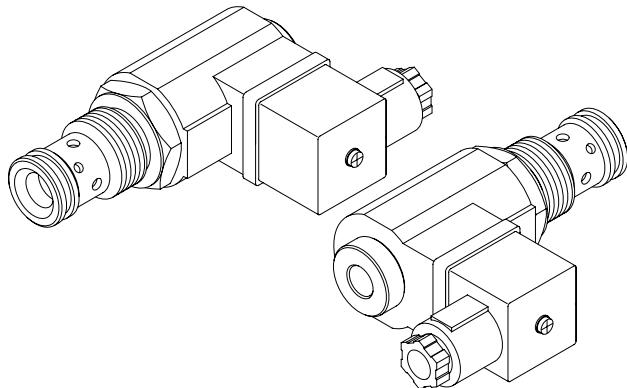
## Codificación de pedido / Ordering code

EV40 - 12 - B - VE

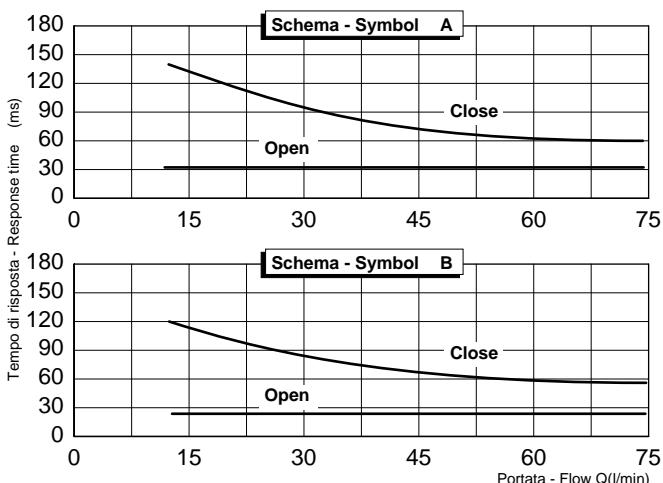
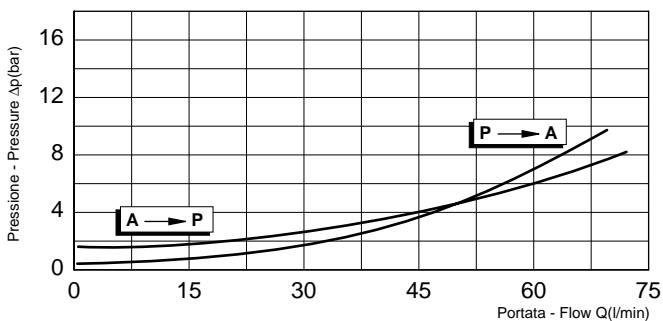
Modelo / Type

,Los datos no son imperativos, CBF se reserva el derecho de modificar sin previo aviso.  
 The specifications are not binding, CBF reserves the right to introduce modifications without notice.

**Valvola elettrica 2 vie unidirezionale pilotata - a cartuccia**  
**Two ways pilot operated electric valve - cartridge style**  
**mod. EV70 - C**



Cod.	Schema Symbol	Funzioni possibili con solenoide: Operating features with solenoid:	
		diseccitato de-energized	eccitato energized
A		P → A A → P	P → A A → P
B		P → A A → P	P → A A → P
M		P → A A → P	P → A A → P



Modello EV70-C Type EV70-C	Pressione massima Max pressure bar	Portata max Max flow l / min
Schema - Symbol A	300	70
Schema - Symbol B		

**Sigla di ordinazione / Ordering code**
**EV70-C - A**

Modello / Type

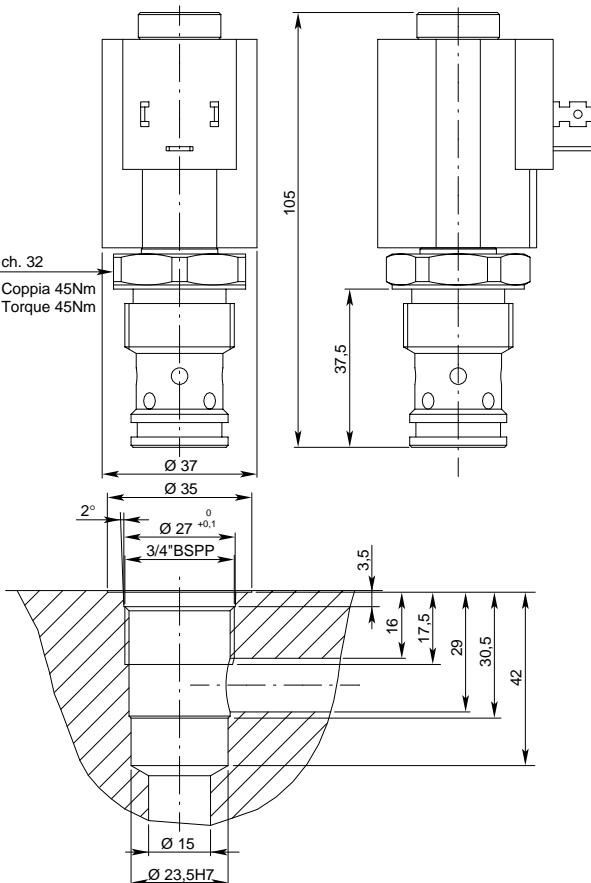
 Schema: A, B, M  
 Symbol: A, B, M

Tutti i dati forniti sono stati ottenuti usando olio con viscosità di circa 30 cSt a 50 °C. Campo di temperatura ammesso: -20 °C, +90 °C. Filtrazione assoluta: 25μ.

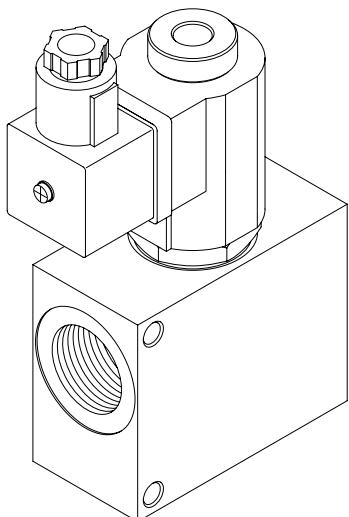
I dati non sono impegnativi, CBF si riserva di apportare modifiche senza preavviso.

All performances and calibrations are carried out by using hydraulic oil with viscosity approx. 30 cSt at 50°C. Temperature range: -20°C, +90°C. Filtration absolute: 25μ.

The specifications are not binding, CBF reserves the right to introduce modifications without notice.

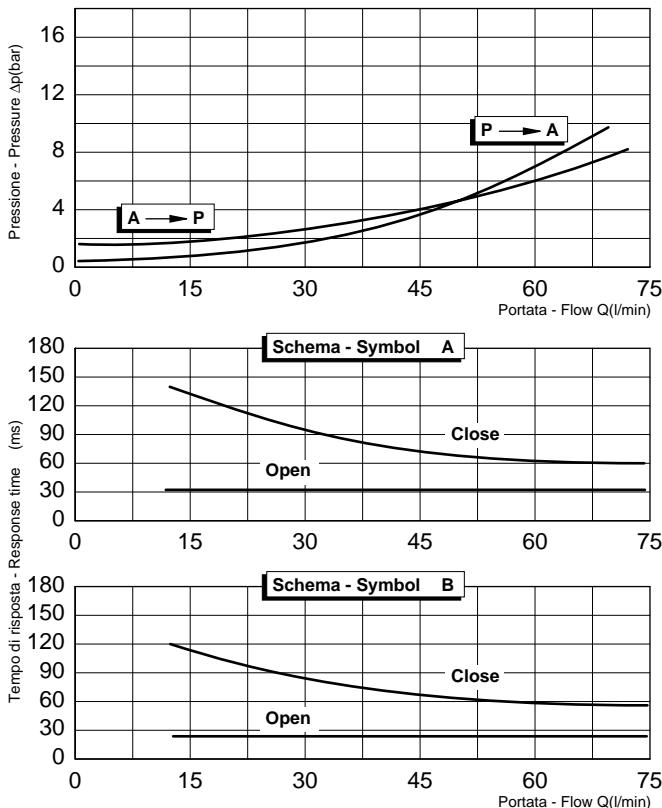


**Valvola elettrica 2 vie unidirezionale pilotata con o senza vite di emergenza**  
**Two ways pilot operated electric valve with or without emergency screw**  
**mod. EV70 / EV70VE**



Cod.	Schema Symbol	Funzioni possibili con solenoide: Operating features with solenoid:	
		disaccitato de-energized	eccitato energized
A		P → A A → P	P → A A → P
B		P → A A → P	P → A A → P

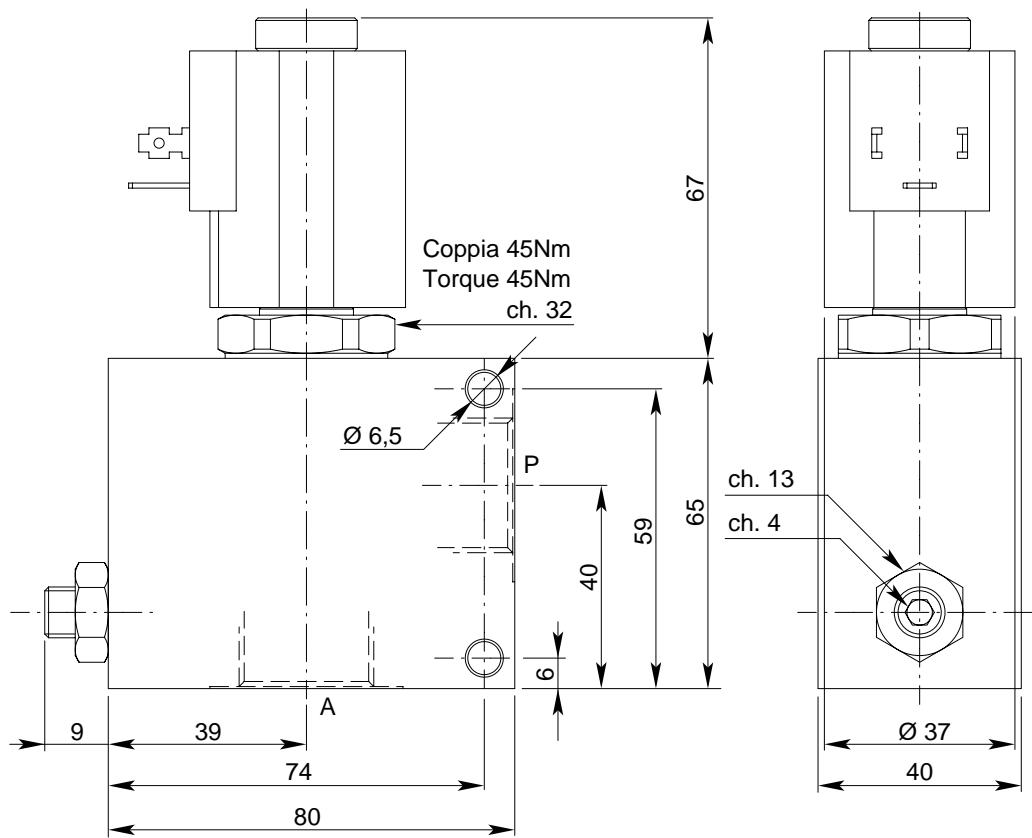
Schema idraulico / Hydraulic scheme



Tutti i dati forniti sono stati ottenuti usando olio con viscosità di circa 30 cSt a 50 °C. Campo di temperatura ammesso: -20 °C, +90 °C. Filtrazione assoluta: 25µ.

All performances and calibrations are carried out by using hydraulic oil with viscosity approx. 30 cSt at 50 °C. Temperature range: -20 °C, +90 °C. Filtration absolute: 25µ.

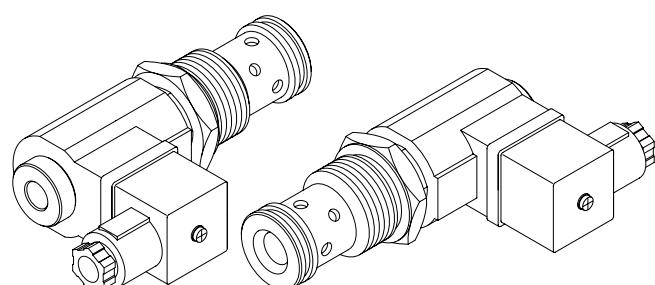
Modello Type	P A	Pressione massima Max pressure bar	Portata max Max flow l / min
EV70 - 12 / EV70 - 12 - VE	1/2" gas	300	70
EV70 - 34 / EV70 - 34 - VE	3/4" gas		

**Disegni / Drawings****Sigla di ordinazione / Ordering code****EV70 - 12 - A - VE**

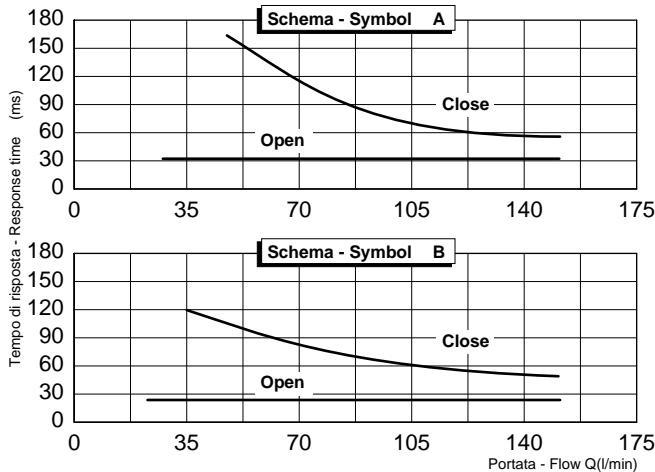
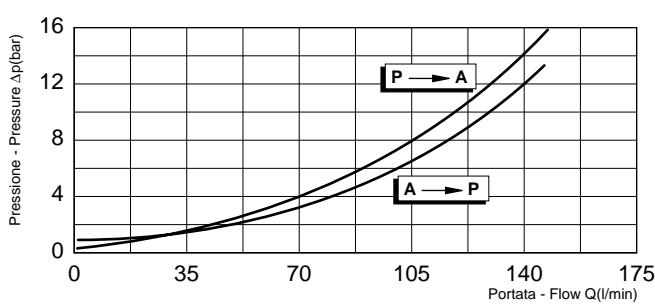
Modello / Type

I dati non sono impegnativi, CBF si riserva di apportare modifiche senza preavviso.  
The specifications are not binding, CBF reserves the right to introduce modifications without notice.

**Valvola elettrica 2 vie unidirezionale pilotata - a cartuccia**  
**Two ways pilot operated electric valve - cartridge style**  
**mod. EV150 - C**



Cod.	Schema Symbol	Funzioni possibili con solenoide: Operating features with solenoid:	
		diseccitato de-energized	eccitato energized
A		P → A A → P	P → A A → P
B		P → A A → P	P → A A → P
M		P → A A → P	P → A A → P



Modello EV150-C Type EV150-C	Pressione massima Max pressure bar	Portata max Max flow l / min
Schema - Symbol A		
Schema - Symbol B	300	150
Schema - Symbol M		

**Sigla di ordinazione / Ordering code**
**EV150-C - A**

Modello / Type

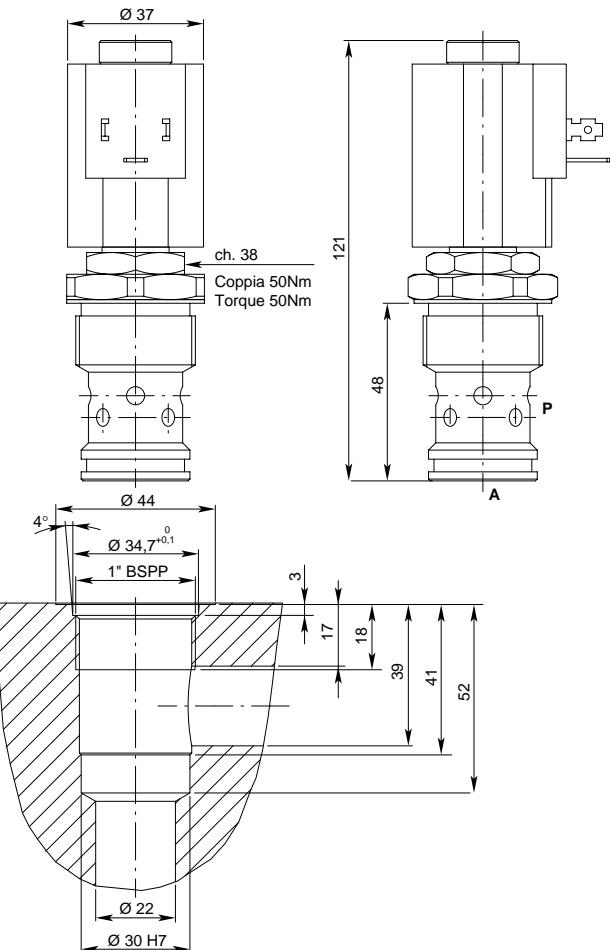
 Schema: A, B, M  
 Symbol: A, B, M

Tutti i dati forniti sono stati ottenuti usando olio con viscosità di circa 30 cSt a 50 °C. Campo di temperatura ammesso: -20 °C, +90 °C. Filtrazione assoluta: 25µ.

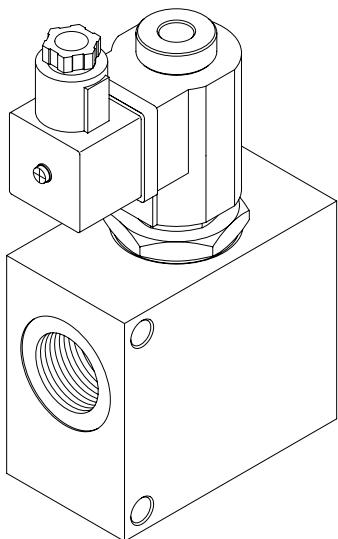
I dati non sono impegnativi, CBF si riserva di apportare modifiche senza preavviso.

All performances and calibrations are carried out by using hydraulic oil with viscosity approx. 30 cSt at 50°C. Temperature range: -20°C, +90°C. Filtration absolute: 25µ.

The specifications are not binding, CBF reserves the right to introduce modifications without notice.

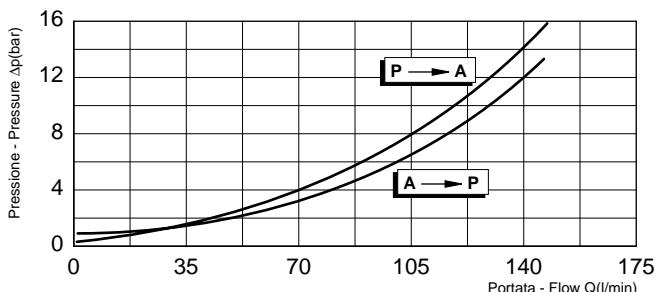


**Valvola elettrica 2 vie unidirezionale pilotata con o senza vite di emergenza**  
**Two ways pilot operated electric valve with or without emergency screw**  
**mod. EV150 / EV150VE**



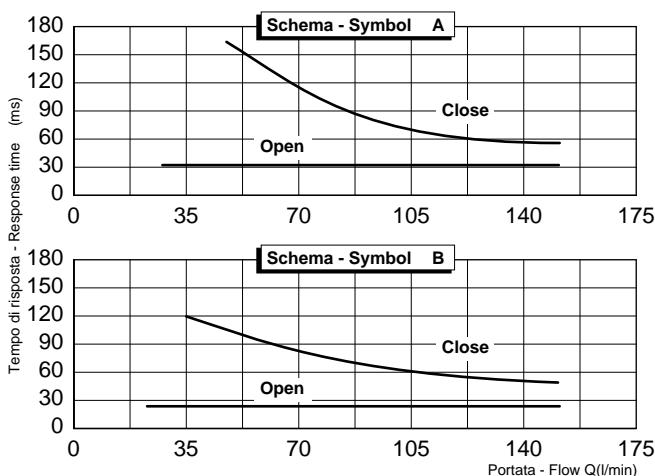
Cod.	Schema Symbol	Funzioni possibili con solenoide: Operating features with solenoid:	
		diseccitato de-energized	eccitato energized
A		P → A A → P	P → A A → P
B		P → A A → P	P → A A → P

Schema idraulico / Hydraulic scheme

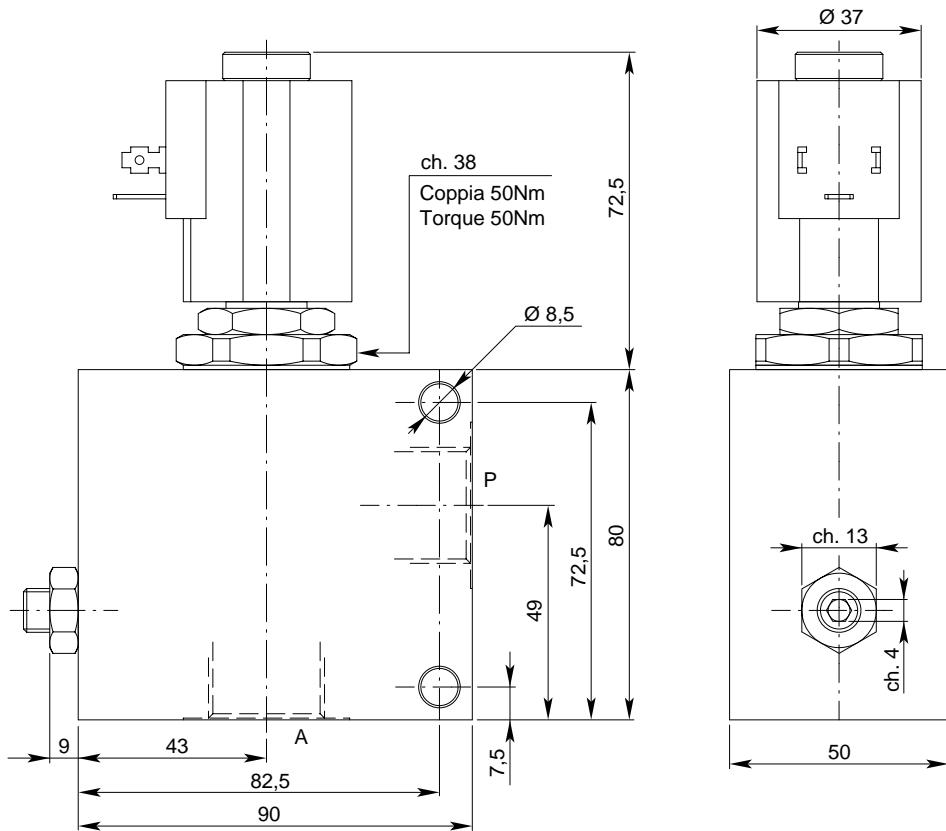


Tutti i dati forniti sono stati ottenuti usando olio con viscosità di circa 30 cSt a 50 °C. Campo di temperatura ammesso: -20 °C, +90 °C. Filtrazione assoluta: 25µ.

All performances and calibrations are carried out by using hydraulic oil with viscosity approx. 30 cSt at 50 °C. Temperature range: -20 °C, +90 °C. Filtration absolute: 25µ.



Modello Type	P A	Pressione massima Max pressure bar	Portata max Max flow l/min
EV150 - 34 / EV150 - 34 - VE	3/4" gas	300	150
EV150 - 10 / EV150 - 10 - VE	1" gas		

**Disegni / Drawings**

**Sigla di ordinazione / Ordering code**
EV150 - 34 - B - VE

Modello / Type

I dati non sono impegnativi, **CBF** si riserva di apportare modifiche senza preavviso.  
 The specifications are not binding, **CBF** reserves the right to introduce modifications without notice.

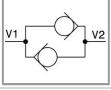
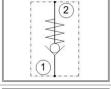
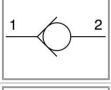
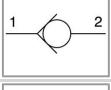
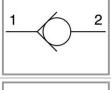
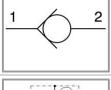
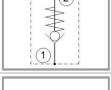
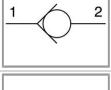
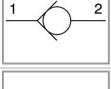
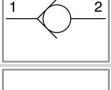
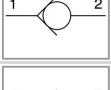
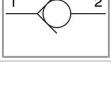


E/V. EN LINEA

Nº	Descripción
HOR570101	E/V 2/2 EV2514A
HOR570102	E/V EV25-14-B-VE
HOR570102.0	E/V EV25-C-A
HOR570102.1	E/V EV25-C-B
HOR570102.11	E/V CARTUCHO EV40-C-A-12DC
HOR570102.2	E/V CARTUCHO EV40-C-A-24DC
HOR570102.21	E/V CARTUCHO EV40-C-A-110AC
HOR570102.2N	E/V CARTUCHO EV40-C-A-24DC
HOR570102.3	E/V CARTUCHO EV40-C-A-220AC
HOR570102.31	E/V CARTUCHO EV70-C-A-12DC
HOR570102.4	E/V CARTUCHO EV70-C-A-24DC
HOR570102.41	E/V CARTUCHO EV70-C-A-110AC
HOR570102.5	E/V CARTUCHO EV70-C-A-220AC
HOR570102.51	E/V CARTUCHO EV150-C-A-12DC
HOR570102.6	E/V CARTUCHO EV150-C-A-24DC
HOR570102.61	E/V CARTUCHO EV150-C-A-110AC
HOR570102.7	E/V CARTUCHO EV150-C-A-220AC
HOR570102.81	E/V CARTUCHO EV40-C-B-12DC
HOR570102.82	E/V CARTUCHO EV40-C-B-24DC
HOR570102.83	E/V CARTUCHO EV40-C-B-110AC
HOR570102.84	E/V CARTUCHO EV40-C-B-220AC
HOR570102.85	E/V CARTUCHO EV70-C-B-12DC
HOR570102.86	E/V CARTUCHO EV70-C-B-24DC
HOR570102.87	E/V CARTUCHO EV70-C-B-110AC
HOR570102.88	E/V CARTUCHO EV70-C-B-220AC
HOR570102.89	E/V CARTUCHO EV150-C-B-12DC
HOR570102.90	E/V CARTUCHO EV150-C-B-24DC
HOR570102.91	E/V CARTUCHO EV150-C-B-110AC
HOR570102.92	E/V CARTUCHO EV150-C-B-220AC
HOR570103	E/V EV40-38-A-VE 24VDC
HOR570104	E/V EV40-38-A-VE 12VDC
HOR570105	E/V EV40-38-A-VE 220AC
HOR570110	E/V EV70-12-A-VE 220AC
HOR570111	E/V EV70-34-A-VE 24VDC
HOR570115	E/V EV150-10-A-VE 24VDC
HOR570119	E/V EV40-38-B-VE 24VDC
HOR570120.4	E/V EV40-12B-VE 110VAC
HOR570121	E/V EV70-34-B-VE 24VDC
HOR570122	E/V EV70-34-B-VE 220AC
HOR570123	E/V EV150-10-B-VE 24VDC
HOR570123.1	E/V EV150-10-B-VE 12VDC
HOR570201	E/V CART. DOB. ANT. EV40DT-CM-C-A 12DC
HOR570202	E/V CART. DOB. ANT. EV40DT-CM-C-A 24DC
HOR570203	E/V CART. DOB. ANT. EV40DT-CM-C-A 110/50Hz
HOR570204	E/V CART. DOB. ANT. EV40DT-CM-C-A 220/50Hz
HOR570208	E/V WS08W-01-M-C-24VDC
HOR570209	E/V WS08W-01-M-C-220RAC

HOR570300	CUERPO EV25-14
HOR570301	CUERPO EV40-38-VE
HOR570302	CUERPO EV40-12-VE
HOR570303	CUERPO EV70-12-VE
HOR570304	CUERPO EV70-34-VE
HOR570304.1	CUERPO EV70-34-VE 3/4" GAS
HOR570305	CUERPO EV150-10-VE
HOR580001	BOBINA EV25 12VDC
HOR580002	BOBINA EV25 24VDC
HOR580002.1	BOBINA EV25 110AC
HOR580003	BOBINA EV25 220VAC
HOR580005	BOBINA EV70-EV40 12VDC
HOR580006	BOBINA EV70-EV40 24VDC
HOR580007	BOBINA EV70-EV40 220VAC
HOR580101	BOBINA EV70-EV40 12VDC (METALICA)
HOR580102	BOBINA EV70-EV40 24VDC (METALICA)
HOR580103	BOBINA EV70-EV40 110VAC (METALICA)
HOR580104	BOBINA EV70-EV40 220AC (METALICA)
HOR580105	BOBINA EV70-EV40 48V DC (METALICA)

## Valvole unidirezionali

Modello	Descrizione+	
VBD-E	Valvola bidirezionale	
VNR-10-C	Valvola unidirezionale a cartuccia	
VNR40-C	Valvola unidirezionale a cartuccia	
VNR80-C	Valvola unidirezionale a cartuccia	
VNR60-C	Valvola unidirezionale a cartuccia	
VNR200-C	Valvola unidirezionale a cartuccia	
VNR-22-C	Valvola unidirezionale a cartuccia	
VNR4008-C	Valvola unidirezionale a cartuccia	
VNR130-C	Valvola unidirezionale a cartuccia	
VU-MM	Valvola unidirezionale in linea	
VU-SP	Valvola unidirezionale in linea a sfera e a spillo	
VU-SF	Valvola unidirezionale in linea a sfera e a spillo	

Visualizzati i prodotti da **1** a **12** (su un totale di **12** prodotti) Pagine : 1



VALVOLE UNIDIREZIONALI

CHECK VALVES



**OLEODINAMICA MARCHESINI**

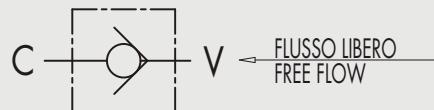
## 6.1 - VALVOLE UNIDIREZIONALI

### 6.1 - CHECK VALVES

TIPO / TYPE  
**VU**



SCHEMA IDRAULICO  
HYDRAULIC DIAGRAM



#### IMPIEGO:

Valvole che consentono il flusso libero in un senso e lo bloccano nel senso opposto.

#### MATERIALI E CARATTERISTICHE:

**Corpo:** acciaio zincato

**Componenti interni:** acciaio temprato termicamente e rettificato

**Tenuta:** a cono guidato. Non ammette trafileamenti

#### MONTAGGIO:

Collegare V all'alimentazione e C all'utilizzo. Il flusso passa libero da V a C ed è bloccato nel senso opposto.

#### A RICHIESTA:

- Pressione d'apertura diversa da quella standard: 1-3-5-8 Bar (specificare nella descrizione il valore della pressione d'apertura desiderata). La valvola tarata viene utilizzata per mantenere sottopressione un impianto idraulico.

#### USE AND OPERATION:

In the check valves flow is free in one direction and blocked in the reverse one.

#### MATERIALS AND FEATURES:

**Body:** zinc-plated steel

**Internal parts:** hardened and ground steel

**Poppet type:** any leakage.

#### APPLICATIONS:

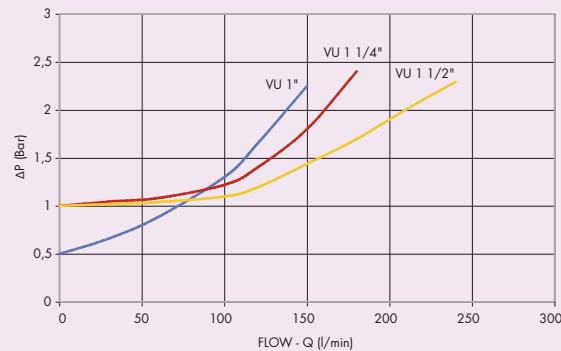
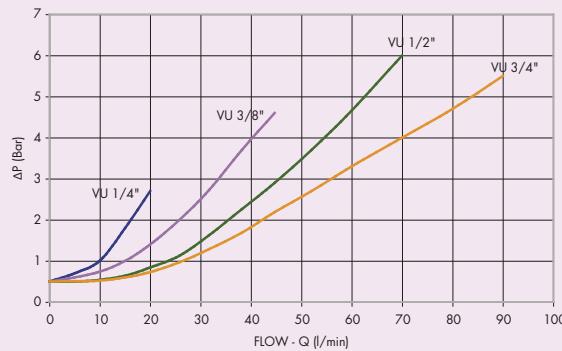
Connect V to the pressure flow and C to the actuator. Flow is free from V to C and blocked in the reverse direction.

#### ON REQUEST

- different cracking pressures: 1-3-5-8 bar (please specify the desired cracking pressure in the product description). Set valve is used to keep a hydraulic system under pressure.

#### PERDITE DI CARICO

#### PRESSURE DROPS CURVE

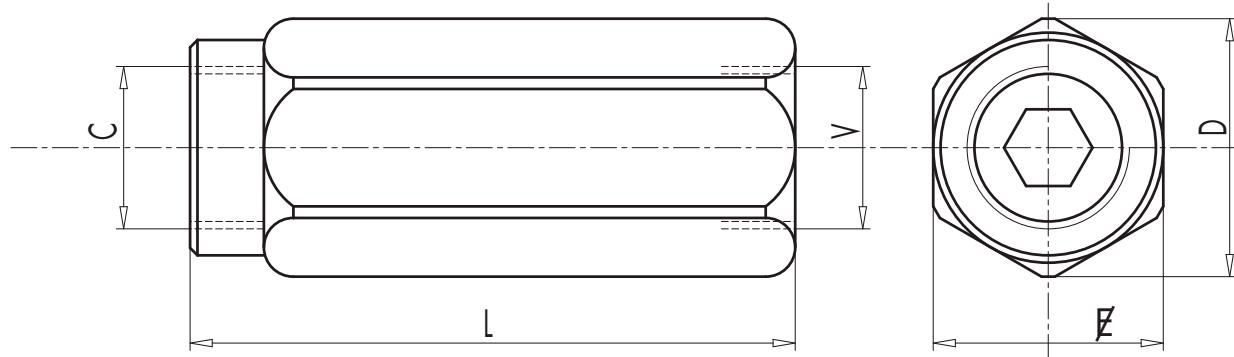


Temperatura olio: 50°C - Viscosità olio: 30 cSt  
Oil temperature: 50°C - Oil viscosity: 30 cSt

CODICE CODE	SIGLA TYPE	PORTATA MAX MAX FLOW Lt./min	PRESIONE MAX MAX PRESSURE Bar	PRESIONE APERTURA CRACKING PRESSURE Bar
<b>V0592</b>	VU 1/8"	3	350	±0,4/0,7
<b>V0590</b>	VU 1/4"	20	350	±0,4/0,7
<b>V0600</b>	VU 3/8"	45	350	±0,4/0,7
<b>V0610</b>	VU 1/2"	70	350	±0,4/0,7
<b>V0620</b>	VU 3/4"	110	350	±0,4/0,7
<b>V0630</b>	VU 1"	160	350	±0,4/0,7
<b>V0631</b>	VU 1 1/4"	200	350	1
<b>V0632</b>	VU 1 1/2"	300	350	1



6



CODICE CODE	SIGLA TYPE	V - C	L	E	D	PESO WEIGHT
		GAS	mm	mm	mm	Kg
<b>V0592</b>	VU 1/8"	G 1/8"	44	14	16	0,038
<b>V0590</b>	VU 1/4"	G 1/4"	62	19	21	0,104
<b>V0600</b>	VU 3/8"	G 3/8"	68	24	26,5	0,184
<b>V0610</b>	VU 1/2"	G 1/2"	77	30	34	0,322
<b>V0620</b>	VU 3/4"	G 3/4"	88	36	40	0,492
<b>V0630</b>	VU 1"	G 1"	105	41	46	0,676
<b>V0631</b>	VU 1 1/4"	G 1 1/4"	135	55	63	1,646
<b>V0632</b>	VU 1 1/2"	G 1 1/2"	145	60	69	1,950



## 6.2 - VALVOLE UNIDIREZIONALI INTEGRATE 6.2 - INTEGRATED CHECK VALVES

TIPO / TYPE  
VUISCHEMA IDRAULICO  
HYDRAULIC DIAGRAM

### IMPIEGO:

Valvole che consentono il flusso libero in un senso e lo bloccano nel senso opposto. Il limitato ingombro e la configurazione a inserto le rendono particolarmente adatte per l'installazione in circuiti integrati.

### MATERIALI E CARATTERISTICHE:

**Corpo:** acciaio zincato

**Tenuta:** esterna, tramite OR

### MONTAGGIO:

Avvitare la valvola nella apposita cavità tenendo in considerazione che il fluido è libero da V a C.

### USE AND OPERATION:

In the check valves flow is free in one direction and blocked in the reverse one. Small dimensions and their insert configuration make these valves ideal for installation into custom designed hydraulic integrated circuit.

### MATERIALS AND FEATURES:

**Body:** zinc-plated steel

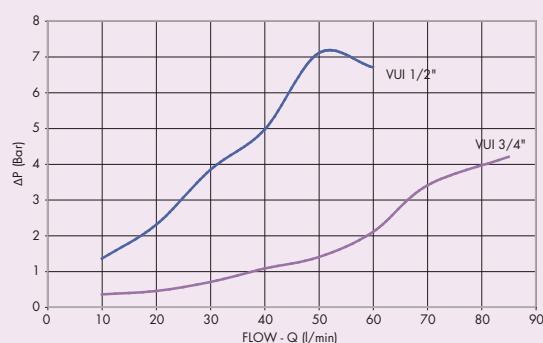
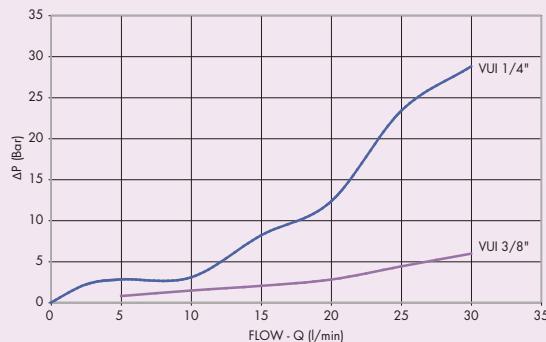
**Exterior Tightness:** through O-Ring seal

### APPLICATIONS:

Screw the valve keeping into consideration that flow is free from V to C.

### PERDITE DI CARICO PRESSURE DROPS CURVE

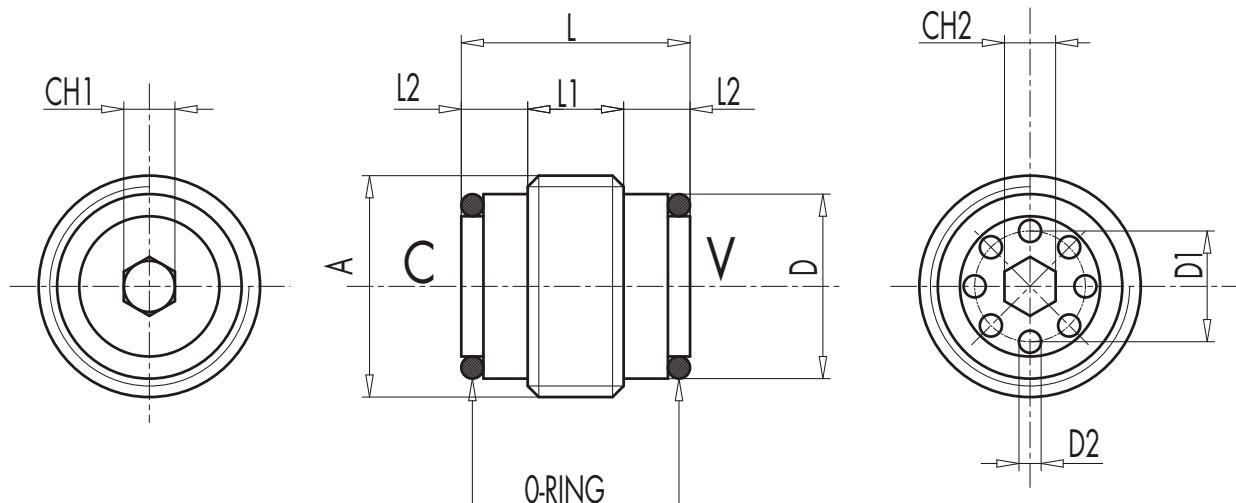
Temperatura olio: 50°C - Viscosità olio: 30 cSt  
Oil temperature: 50°C - Oil viscosity: 30 cSt



CODICE CODE	SIGLA TYPE	PORTATA MAX MAX FLOW Lt./min	PRESIONE MAX MAX PRESSURE Bar	PRESIONE APERTURA CRACKING PRESSURE Bar
<b>V0591</b>	VUI 1/4"	20	350	0,5
<b>V0601</b>	VUI 3/8"	30	350	0,5
<b>V0611</b>	VUI 1/2"	50	350	0,5
<b>V0621</b>	VUI 3/4"	80	350	0,5



6



CODICE CODE	SIGLA TYPE	A	ØD	ØD1	ØD2	CH1	CH2	L	L1	L2	O-ring	PESO WEIGHT
		GAS	mm	mm	mm	mm	mm	mm	mm	mm	mm	Kg
<b>V0591</b>	VUI 1/4"	G 1/4"	11,3	6,5	1,25	3	3	17	6	5,5	9x1	0,104
<b>V0601</b>	VUI 3/8"	G 3/8"	14,8	8	2	4	3	18,5	7,5	5,5	10,8x1,78	0,184
<b>V0611</b>	VUI 1/2"	G 1/2"	18,5	10,5	2,25	6	5	22,5	8,5	7	14x1,78	0,322
<b>V0621</b>	VUI 3/4"	G 3/4"	24	14	3	8	8	28,5	13,5	7,5	18,7x2,6	0,492



OLEODINAMICA MARCHESINI

## 6.3 - VALVOLE UNIDIREZIONALI CON BLOCCO AUTOMATICO (PARACADUTE)

### 6.3 - HOSE BURST VALVES CARTRIDGE

TIPO / TYPE  
VUBASCHEMA IDRAULICO  
HYDRAULIC DIAGRAM**IMPIEGO:**

Valvole utilizzate per prevenire la discesa incontrollata dell'attuatore in caso di rottura della tubazione. All'improvviso aumentare della portata (flusso di reazione) la valvola entra in funzione chiudendo il flusso.

**MATERIALI E CARATTERISTICHE:**

**Corpo:** acciaio, brunito.

**MONTAGGIO:**

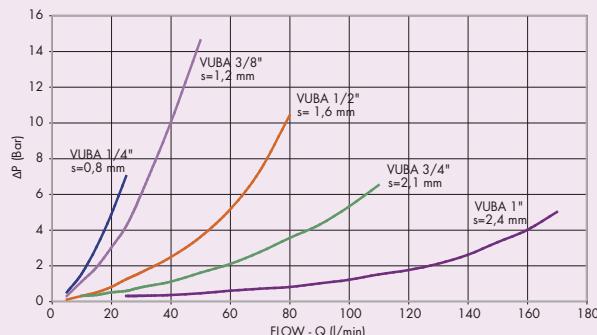
Avvitare la valvole nell'apposita cavità collegando V all'alimentazione e C all'attuatore. Se ne consiglia l'uso con una valvola di regolazione flusso.

**A RICHIESTA:**

- Regolazioni personalizzate (è consigliata una taratura tale che il flusso corrispondente sia almeno 1,5 volte superiore al flusso dell'impianto); specificare la portata (l/min) o la distanza S (mm) tra piattello e valvola.
- Con foro sul piattello (CODICE/F, specificando la dimensione del foro) per la discesa lenta del carico a valvola chiusa
- Valvole complete di manicotto maschio-femmina o femmina-femmina per il montaggio in linea vicino all'attuatore.

**PERDITE DI CARICO**  
**PRESSURE DROPS CURVE**

Temperatura olio: 50°C - Viscosità olio: 30 cSt  
Oil temperature: 50°C - Oil viscosity: 30 cSt

**USE AND OPERATION:**

These valves are used to prevent uncontrolled descent of a load in case of hose failure. When it exceeds the valve setting (reaction flow), the valve blocks the flow.

**MATERIALS AND FEATURES:**

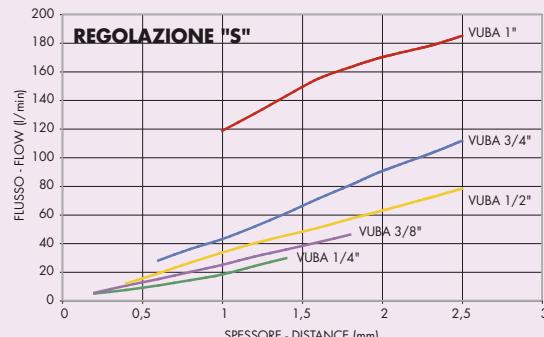
**Body:** steel, burnished

**APPLICATIONS:**

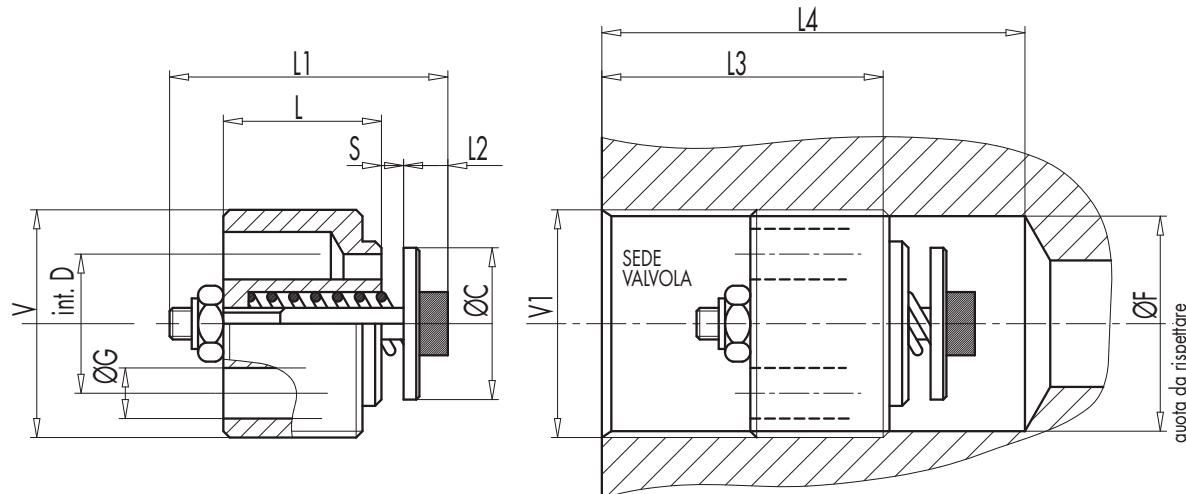
Screw in the valve connecting V to the pressure flow and C to the actuator. The use together with a flow control valve is recommended.

**ON REQUEST**

- Preset hose bursts available (the reaction flow should be set 1,5 times more than the rate flow of the system). Please specify flow (l/min) or distance S (mm) from the flat to the valve
- Hole on the flat (CODE/F, please specify hole dimension) for a slow load descent with closed valve
- Valve completes with male-female or female-female thread body for in line mounting by the actuator

**FLUSSO / SPESSORE**  
**FLOW / DISTANCE**

CODICE CODE	SIGLA TYPE	PORTATA MAX MAX FLOW Lt./min	PRESSIONE MAX MAX PRESSURE Bar
<b>V0770</b>	VUBA 1/4"	25	350
<b>V0780</b>	VUBA 3/8"	50	350
<b>V0790</b>	VUBA 1/2"	80	350
<b>V0800</b>	VUBA 3/4"	140	350
<b>V0810</b>	VUBA 1"	180	350



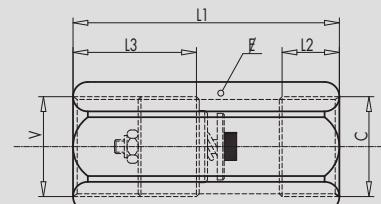
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CODICE CODE	SIGLA TYPE	V - V1	L	L1	L2	L3	L4	ØC	ØG	ØF	ØD(i)	S	PESO WEIGHT
		GAS	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Kg
<b>V0770</b>	VUBA 1/4"	G 1/4"	8	18	5	28	35	9,5	2,5	11,75	8	0,8	0,006
<b>V0780</b>	VUBA 3/8"	G 3/8"	10,5	23	5	31	40	12,5	3,5	15,2	10,5	1,2	0,012
<b>V0790</b>	VUBA 1/2"	G 1/2"	13	29	5	33	43	15	4,5	19	12,5	1,6	0,024
<b>V0800</b>	VUBA 3/4"	G 3/4"	18	34	7	40	53	18,5	6	24,5	16	2,1	0,048
<b>V0810</b>	VUBA 1"	G 1"	20	40	8	43	66	25	7	30,5	19	2,8	0,098

### TIPO / TYPE MFF



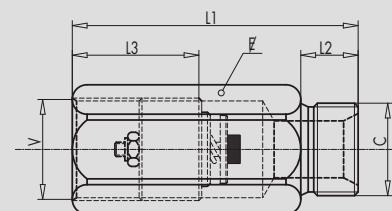
CODICE CODE	SIGLA TYPE	V - C	L1	L2	L3	F	PESO
		GAS	mm	mm	mm	mm	Kg
<b>V0771</b>	VUBA 1/4" + MFF	G 1/4"	50	16	28	19	0,072
<b>V0781</b>	VUBA 3/8" + MFF	G 3/8"	58	17	31	24	0,132
<b>V0791</b>	VUBA 1/2" + MFF	G 1/2"	62	18	33	27	0,146
<b>V0801</b>	VUBA 3/4" + MFF	G 3/4"	75	21	40	32	0,220
<b>V0811</b>	VUBA 1" + MFF	G 1"	85	26	43	41	0,452



### TIPO / TYPE MMF



CODICE CODE	SIGLA TYPE	V - C	L1	L2	L3	F	PESO
		GAS	mm	mm	mm	mm	Kg
<b>V0772</b>	VUBA 1/4" + MMF	G 1/4"	50	12	28	19	0,064
<b>V0782</b>	VUBA 3/8" + MMF	G 3/8"	58	13	31	24	0,120
<b>V0792</b>	VUBA 1/2" + MMF	G 1/2"	62	14	33	27	0,140
<b>V0802</b>	VUBA 3/4" + MMF	G 3/4"	75	16	40	32	0,228
<b>V0812</b>	VUBA 1" + MMF	G 1"	85	19	43	41	0,456

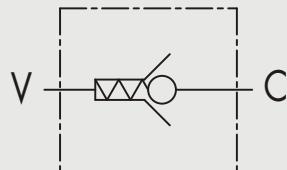




OLEODINAMICA MARCHESINI

## 6.4 - VALVOLE UNIDIREZIONALI CON BLOCCO AUTOMATICO E REGOLAZIONE ESTERNA

### 6.4 - HOSE BURST VALVES WITH EXTERNAL ADJUSTMENT

TIPO / TYPE  
VUBRSCHEMA IDRAULICO  
HYDRAULIC DIAGRAM

#### IMPIEGO:

Valvole utilizzate per prevenire la discesa incontrollata dell'attuatore in caso di rottura della tubazione. All'improvviso aumentare della portata (flusso di reazione) la valvola entra in funzione chiudendo il flusso. Rispetto alle tradizionali valvole paracadute permette la regolazione esterna della portata tramite grano.

#### MATERIALI E CARATTERISTICHE:

**Corpo:** acciaio zincato

**Componenti interni:** acciaio temprato termicamente e rettificato

**Tenuta:** a sfera

#### MONTAGGIO:

Collegare V all'alimentazione e C all'attuatore. Per regolare la portata (1 giro ≈ 15 l) tenere il dado ermetico appoggiato alla valvola in modo da evitare perdite di olio.

#### USE AND OPERATION:

These valves are used to prevent uncontrolled descent of a load in case of hose failure. When it exceeds the valve setting (reaction flow), the valve blocks the flow. Unlike the standard hose burst valve, it enables external flow adjustment through the knob.

#### MATERIALS AND FEATURES:

**Body:** zinc-plated steel

**Internal components:** hardened and ground steel

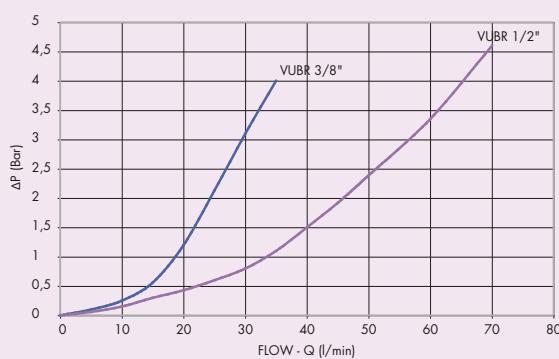
**Tightness:** ball type

#### APPLICATIONS:

Connect V to the pressure flow and C to the actuator. To adjust flow (1 turn ≈ 15 l), keep the nut on the valve in order to prevent oil leakage.

#### PERDITE DI CARICO PRESSURE DROPS CURVE

Temperatura olio: 50°C - Viscosità olio: 30 cSt  
Oil temperature: 50°C - Oil viscosity: 30 cSt



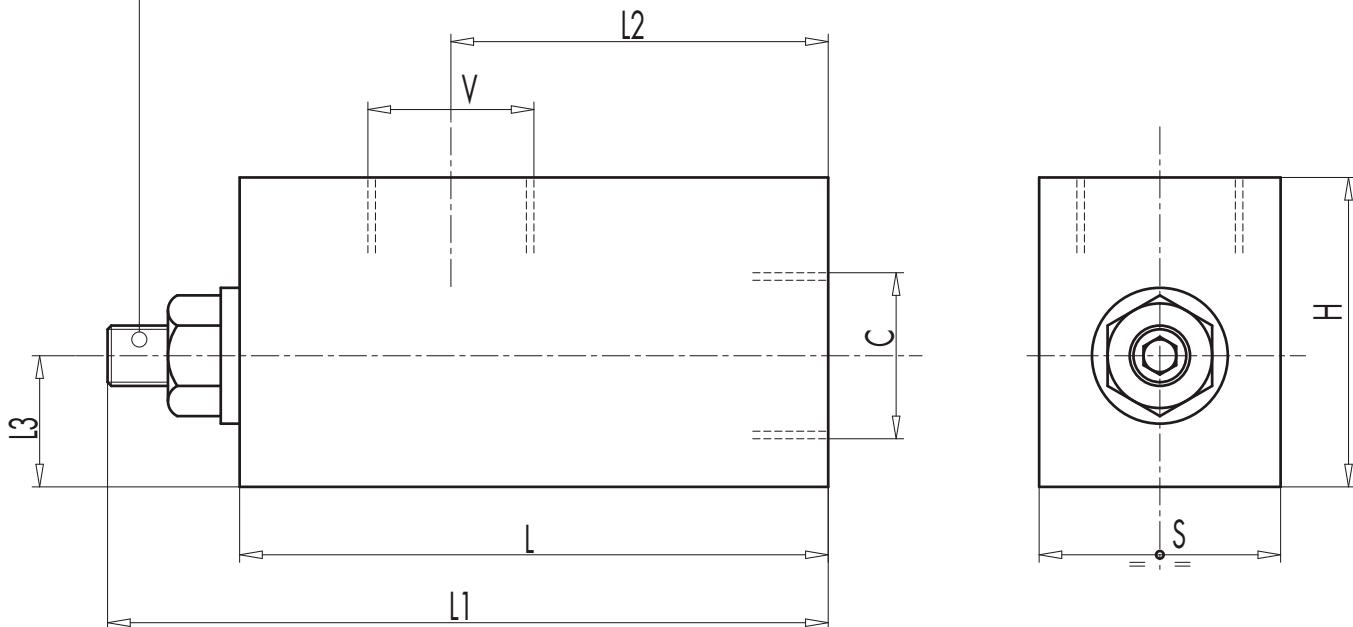


CODICE CODE	SIGLA TYPE	PORTATA MAX MAX FLOW Lt./min	PRESSIONE MAX MAX PRESSURE Bar
<b>V0785</b>	VUBR 3/8"	40	300
<b>V0795</b>	VUBR 1/2"	70	300

### REGOLATORE DI FLUSSO

FLOW REGULATOR

6



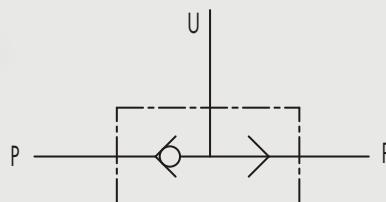
CODICE CODE	SIGLA TYPE	V - C	L	L1	L2	L3	H	S	PESO WEIGHT
		GAS	mm	mm	mm	mm	mm	mm	Kg
<b>V0785</b>	VUBR 3/8"	G 3/8"	76	93	47	16	40	30	0,634
<b>V0795</b>	VUBR 1/2"	G 1/2"	76	93	47	16	40	30	0,586



OLEODINAMICA MARCHESINI

## 6.5 - VALVOLE COMMUTATORI PER L'UTILIZZO DI DUE POMPE ALTERNATE

### 6.5 - SHUTTLE VALVES

TIPO / TYPE  
VU2PSCHEMA IDRAULICO  
HYDRAULIC DIAGRAM

#### IMPIEGO:

Valvola utilizzata per selezionare, tra due segnali indipendenti di pressione, quello con valore maggiore ed escludere l'altro.

#### MATERIALI E CARATTERISTICHE:

**Corpo:** acciaio zincato  
**Guarnizioni:** BUNA N standard  
**Tenuta:** a sfera

#### MONTAGGIO:

Collegare gli attacchi P alle linee da selezionare e U alla linea da alimentare.

#### USE AND OPERATION:

This valve is used to select higher pressure between two pressure lines.

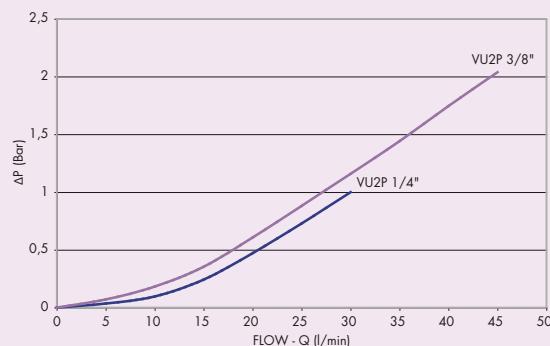
#### MATERIALS AND FEATURES:

**Body:** zinc-plated steel  
**Seal:** BUNA N standard  
**Tightness:** ball type

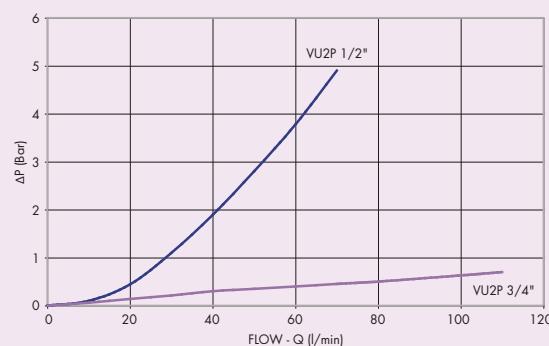
#### APPLICATIONS:

Connect ports P to the 2 lines to select and U to the line to feed .

#### PERDITE DI CARICO PRESSURE DROPS CURVE



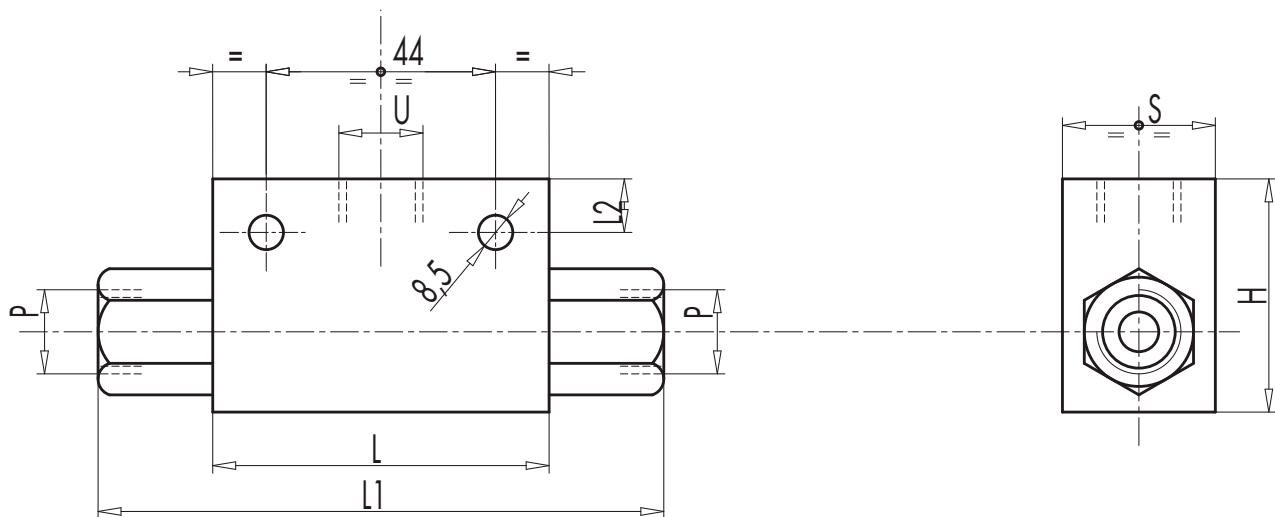
Temperatura olio: 50°C - Viscosità olio: 30 cSt  
Oil temperature: 50°C - Oil viscosity: 30 cSt





CODICE CODE	SIGLA TYPE	PORTATA MAX MAX FLOW Lt./min	PRESSEIONE MAX MAX PRESSURE Bar
<b>V0666</b>	VU2P 1/4"	30	250
<b>V0668</b>	VU2P 3/8"	45	250
<b>V0670</b>	VU2P 1/2"	70	250
<b>V0680</b>	VU2P 3/4"	110	250

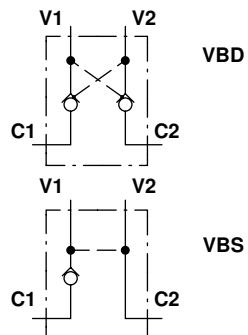
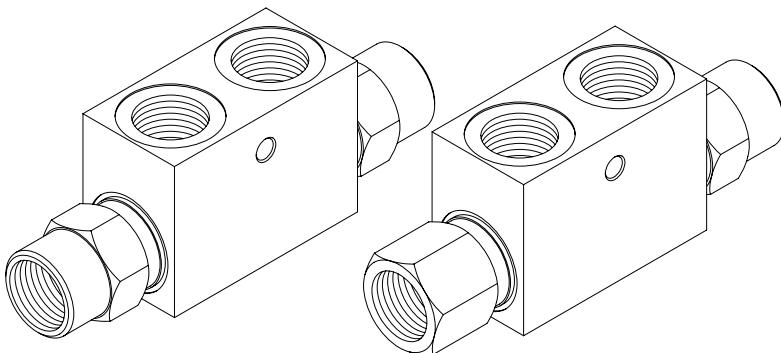
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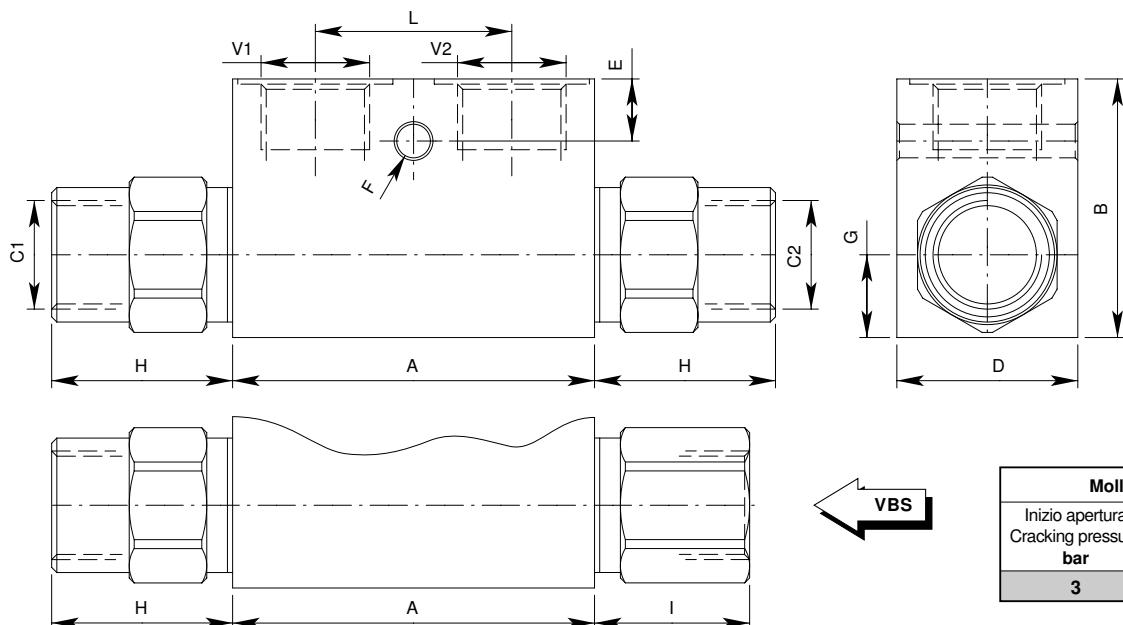
CODICE CODE	SIGLA TYPE	U - P	L	L1	L2	H	S	PESO WEIGHT Kg
		GAS	mm	mm	mm	mm	mm	
<b>V0666</b>	VU2P 1/4"	G 1/4"	60	104	9	40	30	0,560
<b>V0668</b>	VU2P 3/8"	G 3/8"	60	104	9	40	30	0,530
<b>V0670</b>	VU2P 1/2"	G 1/2"	60	104	12	50	30	0,652
<b>V0680</b>	VU2P 3/4"	G 3/4"	80	130	12	58	35	1,086

**Valvola di blocco pilotata a doppio o semplice effetto**  
*Dual or single pilot operated check valve*

mod. VBD / VBS


 Disponibile versione con corpo in alluminio ed in acciaio.  
 Available version with steel and aluminium body.

Schema idraulico / Hydraulic scheme



Modello Type	V1	V2	C1	C2	A	B	D	E	F	G	H	I	L	Rapporto di pilotaggio Pilot ratio	Portata max Max flow l / min	Pressione massima Max pressure bar
<b>VBD-VBS-14</b>	1/4" gas	58	40	25	12	6,5	14	28	22	35				4/1	20	
<b>VBD-VBS-38</b>	3/8" gas	58	50	30	12	6,5	15	28	22	30				4/1	35	350
<b>VBD-VBS-12</b>	1/2" gas	70	50	35	12	6,5	16	36	27	35				3/1	50	
<b>VBD-VBS-34</b>	3/4" gas	100	60	40	20	8,5	21	40	40	50				4/1	80	250

A richiesta guarnizione OR sul pistone di pilotaggio - OR gasket on pilot piston on request.

**Sigla di ordinazione / Ordering code**
**VBD-38 - SF**

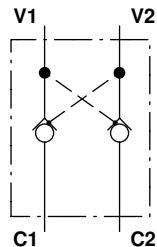
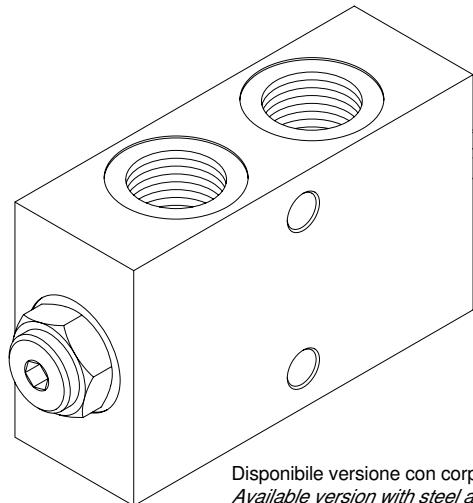
Modello / Type

 Tenuta a sfera / type ball: **SF**  
 Tenuta a cono / type poppet: **SP**

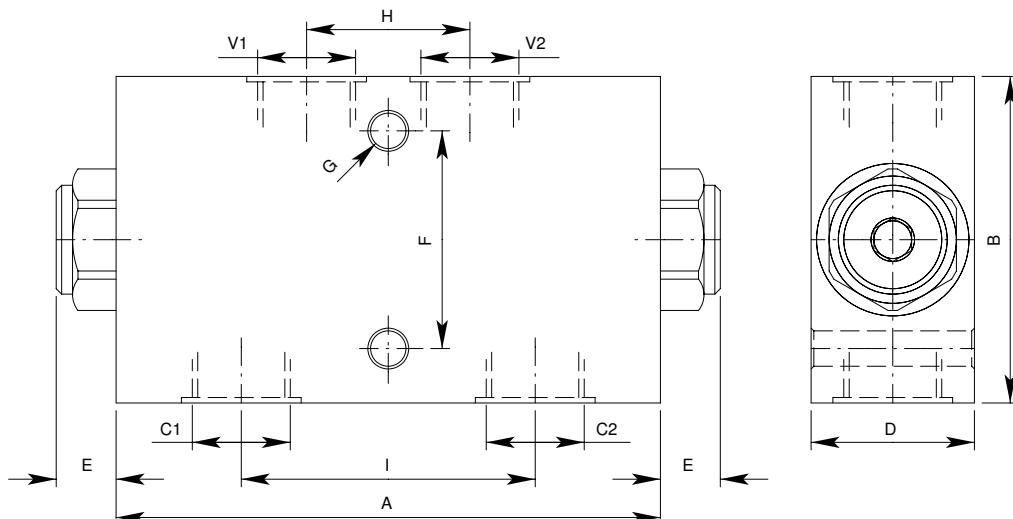
Tutti i dati forniti sono stati ottenuti usando olio con viscosità di circa 30 cSt a 50 °C. Campo di temperatura ammesso: -20 °C, +90 °C. Filtrazione assoluta: 25µ. I dati non sono impegnativi, CBF si riserva di apportare modifiche senza preavviso.

All performances and calibrations are carried out by using hydraulic oil with viscosity approx. 30 cSt at 50 °C. Temperature range: -20 °C, +90 °C. Filtration absolute: 25µ. The specifications are not binding, CBF reserves the right to introduce modifications without notice.

**Valvola di blocco pilotata doppio effetto in linea**  
**In line dual pilot operated check valve**  
**mod. VBD - L**



Schema idraulico / Hydraulic scheme

 Disponibile versione con corpo in alluminio ed in acciaio.  
 Available version with steel and aluminium body.


Modello Type	V1	V2	C1	C2	A	B	D	E	F	G	H	I	Rapporto di pilotaggio Pilot ratio	Portata max Max flow l/min	Pressione massima Max pressure bar
<b>VBD-L-14</b>	1/4" gas	100	60	30	11	40	6,5	30	60		4/1	25	350		
<b>VBD-L-38</b>	3/8" gas	100	60	30	11	40	6,5	30	54		4/1	35			
<b>VBD-L-12</b>	1/2" gas	100	60	35	11	40	8,5	40	60		4/1	50			
<b>VBD-L-34</b>	3/4" gas	110	70	40	21	50	8,5	45	64		4/1	80			250

A richiesta guarnizione OR sul pistone di pilotaggio - OR gasket on pilot piston on request.

Tutti i dati forniti sono stati ottenuti usando olio con viscosità di circa 30 cSt a 50 °C. Campo di temperatura ammesso: -20 °C, +90 °C. Filtrazione assoluta: 25µ. I dati non sono impegnativi, CBF si riserva di apportare modifiche senza preavviso.  
 All performances and calibrations are carried out by using hydraulic oil with viscosity approx. 30 cSt at 50 °C. Temperature range: -20 °C, +90 °C.  
 Filtration absolute: 25µ. The specifications are not binding, CBF reserves the right to introduce modifications without notice.

**Sigla di ordinazione / Ordering code**
VBD-L-38

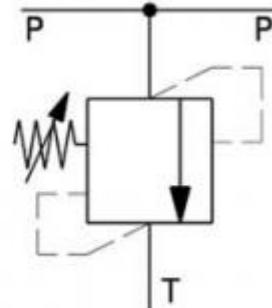
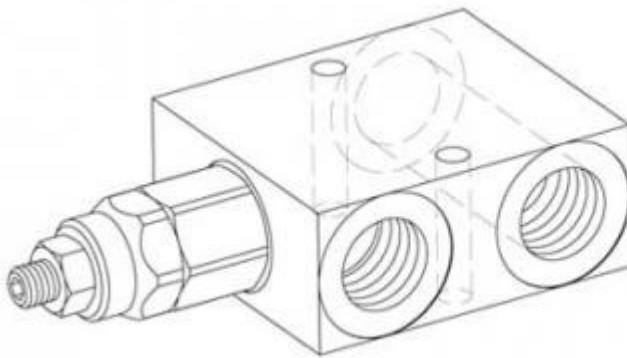
Modello / Type

Molle - Springs	
Inizio apertura Cracking pressure bar	Colore Colour
3	Nero / Black

## CODIGOS ANTIRRETORNOS EN LINEA

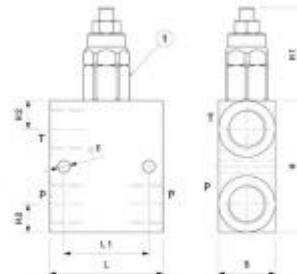
Nº	Descripción
STU17002	ANTIRRET. VUZ 18BSP 5 PSI 1/8
STU17004	ANTIRRET. VUZ 14BSP 5 PSI 1/4
STU17006	ANTIRRET. VUZ 38BSP 5 PSI 3/8
STU17008	ANTIRRET. VUZ 12BSP 5 PSI 1/2
STU17012	ANTIRRET. VUZ 34BSP 5 PSI 3/4
STU17016	ANTIRRET. VUZ 100BSP 5 PSI 1'
STU17020	ANTIRRET. VUZ 114BSP 5 PSI 1'1/4
STU17024	ANTIRRET. VUZ 112BSP 5 PSI 1'1/2
STU17032	ANTIRRET. VUZ 200BSP 5 PSI 2'
STU17102	ANTIRRET. VUZ 18BSP 65 PSI 1/8
STU17104	ANTIRRET. VUZ 14BSP 65 PSI 1/4
STU17106	ANTIRRET. VUZ 38BSP 65 PSI 3/8
STU17108	ANTIRRET. VUZ 12BSP 65 PSI 1/2
STU17112	ANTIRRET. VUZ 34BSP 65 PSI 3/4
STU17116	ANTIRRET. VUZ 100BSP 65 PSI 1'
STU17120	ANTIRRET. VUZ 114BSP 65 PSI 1'1/4
STU17124	ANTIRRET. VUZ 112BSP 65 PSI 1'1/2
STU17132	ANTIRRET. VUZ 200BSP 65 PSI 2'
STU17208	ANTIRRET. VUZ 12BSP 115PSI 1/2
STU17212	ANTIRRET. VUZ 34BSP 115PSI 3/4
STU17216	ANTIRRET. VUZ 100BSP 145PSI 1'
HOR050002	VALV. ANTIR. PIL. SIMPLE VRPS 3/8 30L/M
HOR050003	VALV. ANTIR. PIL. SIMPLE VRPS 1/2 45L/M
HOR050004	VALV. ANTIR. PIL. SIMPLE VRPS 3/4 85L/M
HOR050101	VALV. ANTIR. PIL. DOBLE VBPDA 1/4 20 L/M
HOR050102	VALV. ANTIR. PIL. DOBLE VBPDA 3/8 25 L/M
HOR050103	VALV. ANTIR. PIL. DOBLE VBPDA 1/2 45 L/M
HOR050104	VALV. ANTIR. PIL. DOBLE VBPDA 3/4 85 L/M
HOR050201	ANTIR.PILOT. SIMPLE VRSE-1/4
HOR050202	ANTIR.PILOT. SIMPLE VRSE-3/8
HOR510001	VALV. RETENC.BIDIRECC. 3/8 VBDE38
HOR510002	VALV. RETENC. PILOT.DOBLE 1/4 VBD14SF
HOR510003	VALV. RETENC. PILOT. DOBLE 3/8 VBD38SF
HOR510004	VALV. RETENC. PILOT. DOBLE 1/2 VBD12SF
HOR510005	VALV. RETENC. PILOT. DOBLE 3/4 VBD34SP
HOR510011	VALV. RETENC. PILOT.SIMPLE 1/4 VBS14SF
HOR510012	VALV. RETENC. PILOT.SIMPLE 3/8 VBS38SF
HOR510013	VALV. RETENC. PILOT.SIMPLE 1/2 VBS12SF
HOR510014	VALV. RETENC. PILOT.SIMPLE 3/4 VBS34SF
HOR510103	VALV. RETENC. PILOT. VBS-F-R-D38
HOR510104	VALV. RETENC. PILOT. VBS-F-R-S38
HOR510202	VAL.RETEN. S.E. PIL.MAN. VBS-R-S-38-SP
HOR510222	VAL.RETEN. S.E. PIL.MAN. VBS-R-D-38-SP

## Valvola limitatrice di pressione mod. VLP



Modello	P, T	Pressione massima [bar]	Portata massima [l/min]
<b>VLP5-18</b>	1/8" GAS	350	5
<b>VLP40-14</b>	1/4" GAS	350	25
<b>VLP40-38</b>	3/8"GAS	350	35
<b>VLP40-12</b>	1/2"GAS	350	40
<b>VLP80-12</b>	1/2"GAS	300	80
<b>VLP80-34</b>	3/4"GAS	300	80
<b>VLP130-34</b>	3/4"GAS	300	130
<b>VLP130-10</b>	1"GAS	300	130

Cliccare per ingrandire

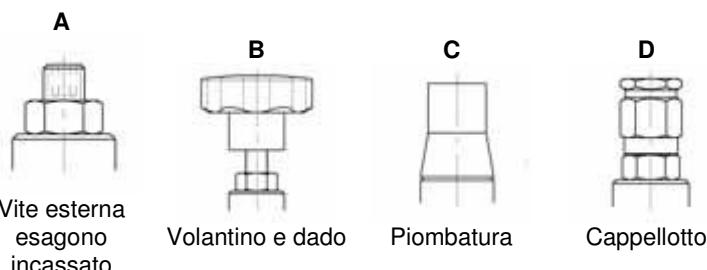


Dimensione	T	L	L1	W	H1	H2	F	S
VLP5-18	VLP5GC	38	24	32	32	16	5.6	28
VLP40-14	VLP40GC	56	35	58	52	13	5.6	36
VLP40-38	VLP40GC	68	45	66	50	15	6.5	36
VLP40-12	VLP40C	68	45	70	50	15	6.5	36
VLP80-12	VLP80C	88	45	70	62	18	6.5	36
VLP80-34	VLP80CC	76	48	86	62	26	8.8	46
VLP130-34	VLP130CC	76	60	95	62	23	9.5	56
VLP130-10	VLP130CD	76	60	130	62	23	9.5	56

### Taratura

Codice	Taratura standard bar (Q= 5l/min)	Campo di taratura bar
00	40	5÷40
01	80	20÷100
02	180	40÷250
03	250	60÷350

### Opzioni



Corpo: Alluminio (standard) o acciaio (su richiesta)

Dati e tarature ottenuti usando olio con viscosità 30 cSt a 50 °C

Viscosità consigliate 10 ÷ 420 cSt

Temperatura di lavoro -20 ÷ +90 °C

Filtrazione assoluta 25 µm

codice	descrizione (sigla di ordinazione)	portata max		pressione max		filettature
		l/min	gpm	bar	psi	
VLP00144	VLP51802A	5	1.3	350	5075	1/8"G
VLP00145	VLP51802B	5	1.3	350	5075	1/8"G
VLP00146	VLP51803A	5	1.3	350	5075	1/8"G

VLP00147	VLP51803B	5	1.3	350	5075	1/8"G
VLP00214	VLP401401A	25	6.6	350	5075	1/4"G
VLP00215	VLP401401B	25	6.6	350	5075	1/4"G
VLP00216	VLP401401C	25	6.6	350	5075	1/4"G
VLP00217	VLP401401D	25	6.6	350	5075	1/4"G
VLP00218	VLP401402A	25	6.6	350	5075	1/4"G
VLP00219	VLP401402B	25	6.6	350	5075	1/4"G
VLP00220	VLP401402C	25	6.6	350	5075	1/4"G
VLP00221	VLP401402D	25	6.6	350	5075	1/4"G
VLP00222	VLP401403A	25	6.6	350	5075	1/4"G
VLP00223	VLP401403B	25	6.6	350	5075	1/4"G
VLP00224	VLP401403C	25	6.6	350	5075	1/4"G
VLP00225	VLP401403D	25	6.6	350	5075	1/4"G
VLP00226	VLP403801A	35	9.2	350	5075	3/8"G
VLP00227	VLP403801B	35	9.2	350	5075	3/8"G
VLP00228	VLP403801C	35	9.2	350	5075	3/8"G
VLP00229	VLP403801D	35	9.2	350	5075	3/8"G
VLP00230	VLP403802A	35	9.2	350	5075	3/8"G
VLP00231	VLP403802B	35	9.2	350	5075	3/8"G
VLP00232	VLP403802C	35	9.2	350	5075	3/8"G
VLP00233	VLP403802D	35	9.2	350	5075	3/8"G
VLP00234	VLP403803A	35	9.2	350	5075	3/8"G
VLP00235	VLP403803B	35	9.2	350	5075	3/8"G
VLP00236	VLP403803C	35	9.2	350	5075	3/8"G
VLP00237	VLP403803D	35	9.2	350	5075	3/8"G
VLP00238	VLP401201A	40	10.6	350	5075	1/2"G
VLP00239	VLP401201B	40	10.6	350	5075	1/2"G
VLP00240	VLP401201C	40	10.6	350	5075	1/2"G
VLP00241	VLP401201D	40	10.6	350	5075	1/2"G
VLP00242	VLP401202A	40	10.6	350	5075	1/2"G
VLP00243	VLP401202B	40	10.6	350	5075	1/2"G
VLP00244	VLP401202C	40	10.6	350	5075	1/2"G
VLP00245	VLP401202D	40	10.6	350	5075	1/2"G
VLP00246	VLP401203A	40	10.6	350	5075	1/2"G
VLP00247	VLP401203B	40	10.6	350	5075	1/2"G
VLP00248	VLP401203C	40	10.6	350	5075	1/2"G
VLP00249	VLP401203D	40	10.6	350	5075	1/2"G
VLP00250	VLP801201A	80	21.1	300	4350	1/2"G
VLP00251	VLP801201B	80	21.1	300	4350	1/2"G
VLP00252	VLP801201C	80	21.1	300	4350	1/2"G
VLP00253	VLP801201D	80	21.1	300	4350	1/2"G
VLP00254	VLP801202A	80	21.1	300	4350	1/2"G
VLP00255	VLP801202B	80	21.1	300	4350	1/2"G
VLP00256	VLP801202C	80	21.1	300	4350	1/2"G
VLP00257	VLP801202D	80	21.1	300	4350	1/2"G
VLP00258	VLP801203A	80	21.1	300	4350	1/2"G
VLP00259	VLP801203B	80	21.1	300	4350	1/2"G
VLP00260	VLP801203C	80	21.1	300	4350	1/2"G
VLP00261	VLP801203D	80	21.1	300	4350	1/2"G
VLP00262	VLP803401A	80	21.1	300	4350	3/4"G
VLP00263	VLP803401B	80	21.1	300	4350	3/4"G

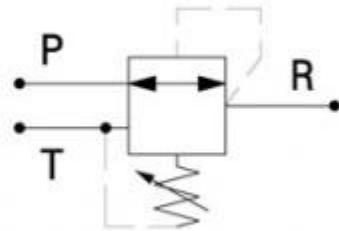
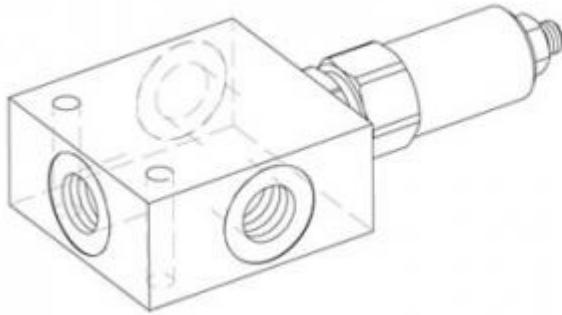
VLP00264	VLP803401C	80	21.1	300	4350	3/4"G
VLP00265	VLP803401D	80	21.1	300	4350	3/4"G
VLP00266	VLP803402A	80	21.1	300	4350	3/4"G
VLP00267	VLP803402B	80	21.1	300	4350	3/4"G
VLP00268	VLP803402C	80	21.1	300	4350	3/4"G
VLP00269	VLP803402D	80	21.1	300	4350	3/4"G
VLP00270	VLP803403A	80	21.1	300	4350	3/4"G
VLP00271	VLP803403B	80	21.1	300	4350	3/4"G
VLP00272	VLP803403C	80	21.1	300	4350	3/4"G
VLP00273	VLP803403D	80	21.1	300	4350	3/4"G
VLP00274	VLP1303401A	80	21.1	300	4350	3/4"G
VLP00275	VLP1303401B	130	34.3	300	4350	3/4"G
VLP00276	VLP1303401C	130	34.3	300	4350	3/4"G
VLP00277	VLP1303401D	130	34.3	300	4350	3/4"G
VLP00278	VLP1303402A	130	34.3	300	4350	3/4"G
VLP00279	VLP1303402B	130	34.3	300	4350	3/4"G
VLP00280	VLP1303402C	130	34.3	300	4350	3/4"G
VLP00281	VLP1303402D	130	34.3	300	4350	3/4"G
VLP00282	VLP1303403A	130	34.3	300	4350	3/4"G
VLP00283	VLP1303403B	130	34.3	300	4350	3/4"G
VLP00284	VLP1303403C	130	34.3	300	4350	3/4"G
VLP00285	VLP1303403D	130	34.3	300	4350	3/4"G
VLP00286	VLP1301001A	130	34.3	300	4350	1"G
VLP00287	VLP1301001B	130	34.3	300	4350	1"G
VLP00288	VLP1301001C	130	34.3	300	4350	1"G
VLP00289	VLP1301001D	130	34.3	300	4350	1"G
VLP00290	VLP1301002A	130	34.3	300	4350	1"G
VLP00291	VLP1301002B	130	34.3	300	4350	1"G
VLP00292	VLP1301002C	130	34.3	300	4350	1"G
VLP00293	VLP1301002D	130	34.3	300	4350	1"G
VLP00294	VLP1301003A	130	34.3	300	4350	1"G
VLP00295	VLP1301003B	130	34.3	300	4350	1"G
VLP00296	VLP1301003C	130	34.3	300	4350	1"G
VLP00297	VLP1301003D	130	34.3	300	4350	1"G
VLP00919	VLP801201C 40 BAR	80	21.1	300	4350	1/2"G
VLP00920	VLP801202C 120 BAR	80	21.1	300	4350	1/2"G
VLP00922	VLP51801A	5	1.3	350	5075	1/8"G
VLP00923	VLP51801B	5	1.3	350	5075	1/8"G
VLP00936	VLP403803A 230 BAR	35	9.2	350	5075	3/8"G
VLP00937	VLP801203A 230 BAR	80	21.1	300	4350	1/2"G
VLP00938	VLP1303403A 230 BAR	130	34.3	300	4350	3/4"G
VLP00974	VLP401202A 150 BAR	40	10.6	350	5075	1/2"G
VLP00998	VLP1303401C TAR. 100 BAR	130	34.3	300	4350	3/4"G
VLP00999	VLP403802A 120 BAR	35	9.2	350	5075	3/8"G
VLP01005	VLP403802A 150 BAR	35	9.2	350	5075	3/8"G
VLP01010	VLP403800D	35	9.2	350	5075	3/8"G
VLP01021	VLP1301000D	130	34.3	300	4350	1"G
VLP01029	VLP401402D 230 BAR	25	6.6	350	5075	1/4"G
VLP01030	VLP403801D 20 BAR	35	9.2	350	5075	3/8"G
VLP01031	VLP401401A 100 BAR	25	6.6	350	5075	1/4"G
VLP01082	VLP401200D	40	10.6	350	5075	1/2"G

VLP01087	VLP401201A 70 BAR	40	10.6	350	5075	1/2"G
VLP01130	VLP803400D	80	21.1	300	4350	3/4"G
VLP01146	VLP401203AA ACCIAIO	40	10.6	350	5075	1/2"G
VLP01147	VLP803403AA ACCIAIO	80	21.1	300	4350	3/4"G
VLP01148	VLP1301003AA ACCIAIO	130	34.3	300	4350	1"G
VLP01157	VLP51803A 315 BAR	5	1.3	350	5075	1/8"G
VLP01158	VLP401202A 65 BAR	40	10.6	350	5075	1/2"G
VLP01168	VLP1303401AA ACCIAIO	130	34.3	350	5075	3/4"G
VLP01169	VLP1303402AA ACCIAIO	130	34.3	350	5075	3/4"G
VLP01170	VLP1303403AA ACCIAIO	130	34.3	350	5075	3/4"G
VLP01248	VLP401402AA (ACCIAIO)	25	6.6	350	5075	1/4"G
VLP01249	VLP403802AA (ACCIAIO)	35	9.2	350	5075	3/8"G
VLP01250	VLP401202AA (ACCIAIO)	40	10.6	350	5075	1/2"G
VLP01251	VLP801202AA (ACCIAIO)	80	21.1	350	5075	1/2"G
VLP01252	VLP803402AA (ACCIAIO)	80	21.1	350	5075	3/4"G
VLP01253	VLP4038A (ACCIAIO)	40	10.6	350	5075	G 3/8
VLP01255	VLP8012A (ACCIAIO)	80	21.1	350	5075	G 1/2
VLP01257	VLP13034A (ACCIAIO)	130	34.3	350	5075	G 3/4
VLP01259	VLP13010A (ACCIAIO)	130	34.3	350	5075	G 1
VLP01265	VLP1301002A 150 BAR	130	34.3	350	5075	G 1
VLP01289	VLP401402DA (ACCIAIO)	20	5.3	350	5075	G 1/4
VLP01290	VLP401403DA (ACCIAIO)	20	5.3	350	5075	G 1/4
VLP01292	VLP1303403A 220 BAR	130	34.3	350	5075	G 3/4

[Effettua il login per maggiori informazioni e materiali scaricabili su questo prodotto.](#)

## LIMITADORAS EN LINEA

Nº	Descripción
HOR500001	VALV. MAX. 1/4-40L. VLP40L1402A
HOR500001.1	VALV. MAX. 1/4-40L. VLP40L1400A
HOR500001.2	VALV. MAX. 1/4-40L. VLP40L1401A
HOR500001.3	VALV. MAX. 1/4-40L. VLP40L1403A
HOR500002	VALV. MAX. 3/8-40L. VLP40L3802A
HOR500002.1	VALV. MAX. 3/8-40L. VLP40L3800A
HOR500002.2	VALV. MAX. 3/8-40L. VLP40L3801A
HOR500002.3	VALV. MAX. 3/8-40L. VLP40L3803A
HOR500003	VALV. MAX. 1/2-40L. VLP40L1202A
HOR500003.1	VALV. MAX. 1/2-40L. VLP40L1200A
HOR500003.2	VALV. MAX. 1/2-40L. VLP40L1201A
HOR500003.3	VALV. MAX. 1/2-40L. VLP40L1203A
HOR500004	VALV. MAX 1/2-80L. VLP80L1202A
HOR500004.1	VALV. MAX 1/2-80L. VLP80L1201A
HOR500004.2	VALV. MAX 1/2-80L. VLP80L1203A
HOR500005	VALV. MAX. 3/4-80L. VLP80L3402A
HOR500005.1	VALV. MAX. 3/4-80L. VLP80L3401A
HOR500005.2	VALV. MAX. 3/4-80L. VLP80L3403A
HOR500005.3	VALV. MAX. 3/4-130L. VLP130L3401A
HOR500005.4	VALV. MAX. 3/4-130L. VLP130L3403A
HOR500006	VALV. MAX. 1'-130L VLP130L1002A
HOR500006.1	VALV. MAX. 1'-130L VLP130L1001A
HOR500006.2	VALV. MAX. 1'-130L VLP130L1003A
HOR50000602	VALV.MAX.DOBLE 3/8-40L. VLP40DIL3802A
HOR50000603	VALV.MAX.DOBLE 1/2-40L. VLP40DIL1202A

**Valvola riduttrice di pressione****mod. RP25**

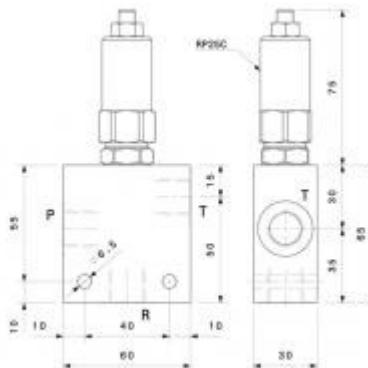
Modello	P, T, R	Pressione massima in ingresso [bar]	Pressione massima regolata [bar]	Portata massima [l/min]
<b>RP25-38</b>	3/8"GAS	300	130	25
<b>RP25-12</b>	1/2"GAS	300	130	25

Taratura			
Codice	Taratura standard bar (Q= 5l/min)	Campo di taratura bar	
01	80	20÷100	
02	120	40÷130	

Opzioni	A	B	C	D
Vite esterna esagono incassato				
		Volantino e dado	Piombatura	Cappellotto

Cliccare per ingrandire

Dati e tarature ottenuti usando olio con viscosità 30 cSt a 50 °C

Viscosità consigliate 10 ÷ 420 cSt

Temperature di lavoro -20 ÷ +90 °C

Filtrazione assoluta 25 µm

codice	descrizione (sigla di ordinazione)	portata max		pressione max		filettature
		l/min	gpm	bar	psi	
VLP00856	RP253801A	25	6.6	300	4350	3/8"G
VLP00857	RP253801B	25	6.6	300	4350	3/8"G
VLP00858	RP253801C	25	6.6	300	4350	3/8"G
VLP00859	RP253801D	25	6.6	300	4350	3/8"G
VLP00860	RP253802A	25	6.6	300	4350	3/8"G
VLP00861	RP253802B	25	6.6	300	4350	3/8"G
VLP00862	RP253802C	25	6.6	300	4350	3/8"G
VLP00863	RP253802D	25	6.6	300	4350	3/8"G
VLP00868	RP251201A	25	6.6	300	4350	1/2"G
VLP00869	RP251201B	25	6.6	300	4350	1/2"G

VLP00870	RP251201C	25	6.6	300	4350	1/2"G
VLP00871	RP251201D	25	6.6	300	4350	1/2"G
VLP00872	RP251202A	25	6.6	300	4350	1/2"G
VLP00873	RP251202B	25	6.6	300	4350	1/2"G
VLP00874	RP251202C	25	6.6	300	4350	1/2"G
VLP00875	RP251202D	25	6.6	300	4350	1/2"G
VLP00928	RP253801D 6 BAR	25	6.6	300	4350	3/8"G
VLP01009	RP253800D	25	6.6	300	4350	3/8"G
VLP01207	RP253803B	25	6.6	300	4350	3/8"G

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## REDUCTORAS DE PRESION EN LINEA

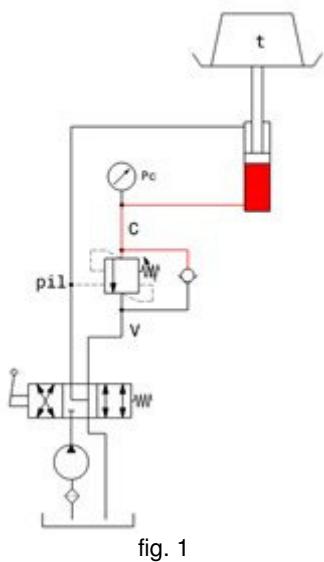
Nº	Descripción
HOR500007	REDUCTORA 3/8 RP25VU3802A
HOR500008	REDUCTORA 1/2 RP25VU1202A
HOR500010	REDUCTORA 3/8 RP25VU3801A
HOR500011	REDUCTORA 1/2 RP25VU1201A

## Valvole overcentre



### Come funziona una valvola overcentre:

#### 1. SOSTENTAMENTO DI UN CARICO



Gli accoppiamenti tra i componenti interni della valvola overcentre consentono di ridurre al minimo le trafilie di olio; in questo modo la valvola, essendo chiusa, non consente la discesa del carico (vedi figura 1).

La valvola è tarata ad una certa pressione  $P_t$ , qualora la pressione del carico si avvicinasse troppo alla pressione  $P_t$  la valvola inizierebbe ad aprirsi facendo scendere il carico (il funzionamento è analogo a quello di una valvola imitatrice di pressione).

Per questo motivo è importante conoscere il valore della massima pressione indotta dal carico ( $P_c$ ) in modo da scegliere accuratamente la pressione di taratura.

La pressione di taratura deve essere almeno 1.3 volte la pressione indotta dal carico per evitare che un'eccessiva pressione possa far scendere il carico.

$$P_t > 1.3 P_c$$

La pressione di taratura è regolata da una molla, ciascuna molla è caratterizzata da un proprio campo di taratura.

CBF ha a catalogo due molle, denominate 01 e 02, con campi di taratura rispettivamente

Molla 01: 20-200 bar (taratura standard 100 bar)

Molla 02: 50-350 bar (taratura standard 280 bar)

#### 2. SOLLEVAMENTO DI UN CARICO

La pressione necessaria per alzare il carico è fornita dalla pompa, la valvola di non ritorno si apre e permette il passaggio del olio che riempie la camera del cilindro in pressione; il ritorno dell'olio è libero (vedi figura 2).

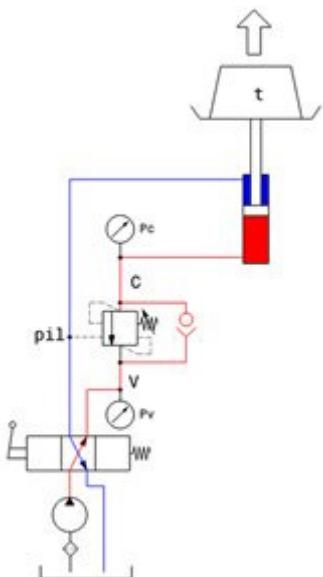


fig. 2

La pressione a monte della valvola overcentre ( $P_v$ ), cioè la pressione fornita dalla pompa, è data dalla somma tra la pressione indotta dal carico e la caduta di pressione ( $\Delta P_v$ ) attraverso la valvola (che dipende dalla portata dell'impianto).

$$P_v = P_c + \Delta P_v$$

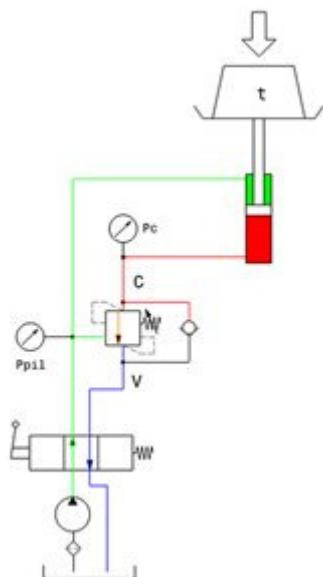


fig. 3

Il controllo della discesa avviene tramite la pressione di pilotaggio che regola l'apertura della valvola (vedi figura 3).

Si definiscono:

$R_p$ = rapporto di pilotaggio della valvola

$P_c$ = pressione indotta dal carico

$P_{pil}$ = pressione di pilotaggio

$P_t$ = pressione di taratura

$\phi$ = rapporto tra le aree del cilindro = area lato fondello / area lato stelo

Nella camera del cilindro sottoposta alla pressione  $P_c$  (pressione indotta dal carico) si va ad aggiungere la pressione di pilotaggio (tenendo conto del rapporto tra le aree del cilindro).

Formule per il calcolo della pressione di pilotaggio:

1. Nel caso rappresentato in figura 3 (pressione del carico sull'area lato fondello):

$$P_{pil} = (P_t - P_c) / (R_p + 1/\phi)$$

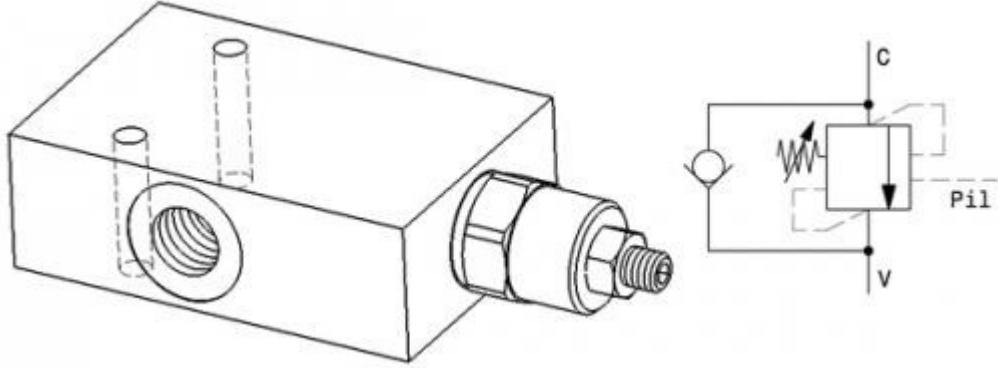
2. Nel caso in cui la pressione indotta dal carico agisca sul lato dello stelo:

$$P_{pil} = (P_t - P_c) / (R_p + \phi)$$

3. Nel caso di motori idraulici o di cilindri con aree uguali (es. stelo bilaterale):

$$P_{pil} = (P_t - P_c) / (R_p + 1)$$

## Valvola overcentre semplice effetto con pilotaggio esterno mod. OVC-SE



Pressione massima  
Rapporto di pilotaggio standard  
Rapporti di pilotaggio a richiesta

350 bar

4,25:1

3:1 8:1 10:1

Modello	V,C	Pil	Portata massima [l/min]
OVC-SE-38	3/8" GAS	1/4" GAS	40
OVC-SE-12	1/2" GAS	1/4" GAS	60
OVC-SE-34	3/4" GAS	1/4" GAS	100
OVC-SE-10	1" GAS	1/4" GAS	120

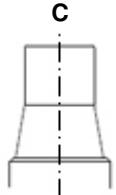
Taratura La valvola deve essere tarata almeno 1,3 volte la massima pressione indotta dal carico

Codice	Taratura standard bar (Q= 5l/min)	Campo di taratura bar	Colore molla
01	100	20÷200	Bianco
02	280	50÷350	Nero

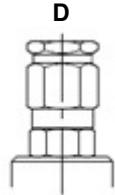
## Opzioni



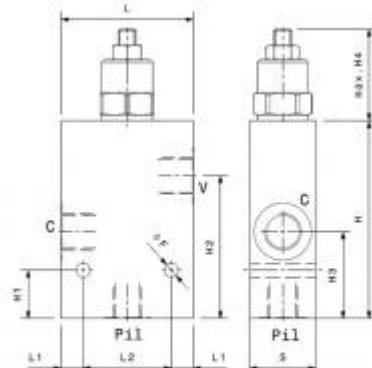
Vite esterna esagono incassato



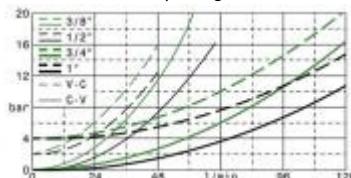
Piombatura



Cappellotto

[Cliccare per ingrandire](#)

Dimensions	L	H	S	L1	L2	H1	H2	H3	H4	F
OVC-SE-38	60	96	30	10	40	22	68	39,5	42	0,5
OVC-SE-12	60	96	30	10	40	22	68	39,5	42	0,5
OVC-SE-34	70	110	45	10	50	27,5	65	50	46	0,5
OVC-SE-10	70	110	50	10	50	20	81	47	46	0,5

[Cliccare per ingrandire](#)

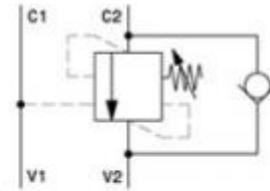
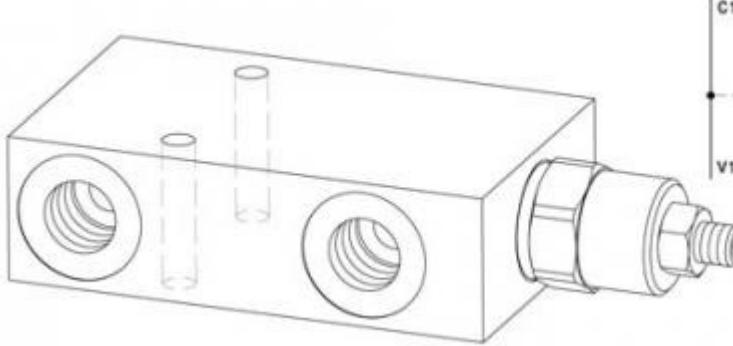
Dati e tarature ottenuti usando olio con viscosità 30 cSt a 50 °C  
Viscosità consigliate 10 ÷ 420 cSt  
Temperature di lavoro -20 ÷ +90 °C  
Filtrazione assoluta 25 µm

Esempi di ordinazione: OVCSE3802, OVCSE1001D

codice	descrizione (sigla di ordinazione)	portata max		pressione max		filettature
		l/min	gpm	bar	psi	
OVC00003	OVCSE3801	40	10.6	350	5075	3/8"G
OVC00004	OVCSE3802	40	10.6	350	5075	3/8"G
OVC00005	OVCSE1201	60	15.8	350	5075	1/2"G

OVC00006	OVCSE1202	60	15.8	350	5075	1/2"G
OVC00007	OVCSE3401	100	26.4	350	5075	3/4"G
OVC00008	OVCSE3402	100	26.4	350	5075	3/4"G
OVC00009	OVCSE1001	120	31.7	350	5075	1"G
OVC00010	OVCSE1002	120	31.7	350	5075	1"G
OVC00057	OVCSE38F01	40	10.6	350	5075	3/8"G
OVC00058	OVCSE38F02	40	10.6	350	5075	3/8"G
OVC00059	OVCSE12F01	60	15.8	350	5075	1/2"G
OVC00060	OVCSE12F02	60	15.8	350	5075	1/2"G
OVC00061	OVCSE34F01	100	26.4	350	5075	3/4"G
OVC00062	OVCSE34F02	100	26.4	350	5075	3/4"G
OVC00063	OVCSE10F01	120	31.7	350	5075	1"G
OVC00064	OVCSE10F02	120	31.7	350	5075	1"G
OVC00442	OVCSE3802 R.P. 10:1	40	10.6	350	5075	3/8"G
OVC00444	OVCSE3802 R.P. 3:1	40	10.6	350	5075	3/8"G
OVC00528	OVCSE3402A (ACCIAIO)	100	26.4	350	5075	3/4"G
OVC00529	OVCSE1002A (ACCIAIO)	120	31.7	350	5075	1"G
OVC00531	OVCSE1002 R.P.3:1	120	31.7	350	5075	1"G
OVC00559	OVCSE3802A (ACCIAIO)	40	10.6	350	5075	3/8"G
OVC00560	OVCSE1202A (ACCIAIO)	60	15.8	350	5075	1/2"G
OVC00572	OVCSE08S01A	60	15.8	350	5075	08 SAE
OVC00574	OVCSE38N01	60	15.8	350	5075	3/8 NPT
OVC00575	OVCSE38N02	60	15.8	350	5075	3/8 NPT

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**Valvola overcentre semplice effetto in linea****mod. OVC-SE-L**

Pressione massima

350 bar

Rapporto di pilotaggio standard

4,25:1

Rapporti di pilotaggio a richiesta

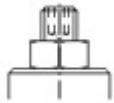
3:1 8:1 10:1

Modello	V1, V2, C1, C2	Portata massima [l/min]
OVC-SE-L-38	3/8" GAS	40
OVC-SE-L-12	1/2" GAS	60
OVC-SE-L-34	3/4" GAS	100
OVC-SE-L-10	1" GAS	120

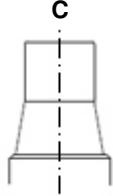
Taratura La valvola deve essere tarata almeno 1,3 volte la massima pressione indotta dal carico

Codice	Taratura standard bar (Q= 5l/min)	Campo di taratura bar	Colore molla
01	100	20÷200	Bianco
02	280	50÷350	Nero

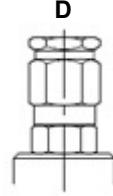
## Opzioni



Vite esterna esagono incassato

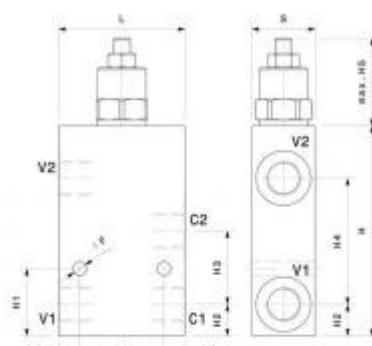


Piombatura

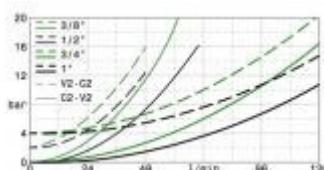


Cappellotto

Disponibile con corpo in alluminio (standard) o acciaio (aggiungere A alla fine della sigla di ordinazione)

Cliccare per ingrandire

Dimensione	L	H	B	L1	L2	H1	H2	H3	H4	H5	F
OVC-SE-L-38	65	160	30	16	40	32	15	35	60	42	6,5
OVC-SE-L-12	65	160	30	10	40	32	15	35	60	42	6,5
OVC-SE-L-34	75	125	40	10	60	42,5	20	45	60	49	8,5
OVC-SE-L-10	75	160	60	10	90	61,5	25	62	90	49	8,5

Cliccare per ingrandire

Dati e tarature ottenuti usando olio con viscosità 30 cSt a 50 °C

Viscosità consigliate 10 ÷ 420 cSt

Temperature di lavoro -20 ÷ +90 °C

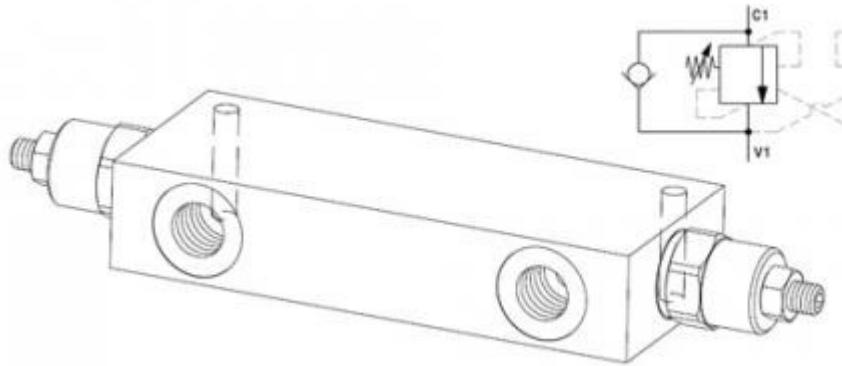
Filtrazione assoluta 25 µm

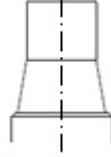
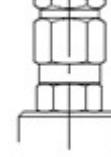
Esempi di ordinazione: OVCSEL3802, OVCSEL1001D, OVCSEL1202A  
(ACCIAIO)

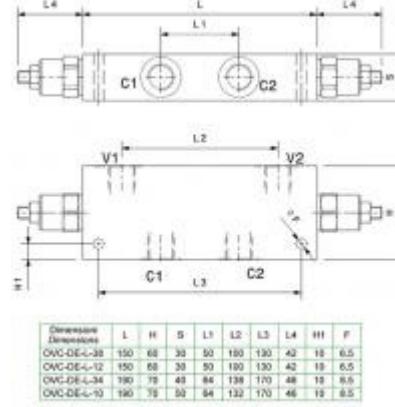
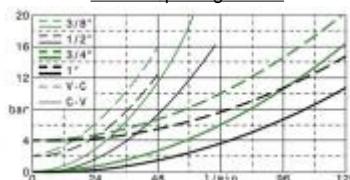
codice	descrizione (sigla di ordinazione)	portata max l/min	portata max gpm	pressione max bar	pressione max psi	filettature
OVC00043	OVCSEL3801	40	10.6	350	5075	3/8"G

OVC00044	OVCSEL3802	40	10.6	350	5075	3/8"G
OVC00045	OVCSEL1201	60	15.8	350	5075	1/2"G
OVC00046	OVCSEL1202	60	15.8	350	5075	1/2"G
OVC00047	OVCSEL3401	100	26.4	350	5075	3/4"G
OVC00048	OVCSEL3402	100	26.4	350	5075	3/4"G
OVC00049	OVCSEL1001	120	31.7	350	5075	1"G
OVC00050	OVCSEL1002	120	31.7	350	5075	1"G
OVC00097	OVCSEL38F01	40	10.6	350	5075	3/8"G
OVC00098	OVCSEL38F02	40	10.6	350	5075	3/8"G
OVC00099	OVCSEL12F01	60	15.8	350	5075	1/2"G
OVC00100	OVCSEL12F02	60	15.8	350	5075	1/2"G
OVC00101	OVCSEL34F01	100	26.4	350	5075	3/4"G
OVC00102	OVCSEL34F02	100	26.4	350	5075	3/4"G
OVC00103	OVCSEL10F01	120	31.7	350	5075	1"G
OVC00104	OVCSEL10F02	120	31.7	350	5075	1"G
OVC00259	OVCSEL3801A (ACCIAIO)	40	10.6	350	5075	3/8"G
OVC00260	OVCSEL3802A (ACCIAIO)	40	10.6	350	5075	3/8"G
OVC00261	OVCSEL1201A (ACCIAIO)	60	15.8	350	5075	1/2"G
OVC00262	OVCSEL1202A (ACCIAIO)	60	15.8	350	5075	1/2"G
OVC00263	OVCSEL3401A (ACCIAIO)	100	26.4	350	5075	3/4"G
OVC00264	OVCSEL3402A (ACCIAIO)	100	26.4	350	5075	3/4"G
OVC00265	OVCSEL1001A (ACCIAIO)	120	31.7	350	5075	1"G
OVC00266	OVCSEL1002A (ACCIAIO)	120	31.7	350	5075	1"G
OVC00267	OVCDEL3801A	40	10.6	350	5075	3/8"G
OVC00279	OVCSEL38F01A (ACCIAIO)	40	10.6	350	5075	3/8"G
OVC00280	OVCSEL38F02A (ACCIAIO)	40	10.6	350	5075	3/8"G
OVC00281	OVCSEL12F01A (ACCIAIO)	60	15.8	350	5075	1/2"G
OVC00282	OVCSEL12F02A (ACCIAIO)	60	15.8	350	5075	1/2"G
OVC00283	OVCSEL34F01A (ACCIAIO)	100	26.4	350	5075	3/4"G
OVC00284	OVCSEL34F02A (ACCIAIO)	100	26.4	350	5075	3/4"G
OVC00285	OVCSEL10F01A (ACCIAIO)	120	31.7	350	5075	1"G
OVC00286	OVCSEL10F02A (ACCIAIO)	120	31.7	350	5075	1"G
OVC00322	OVCSEL3402D	100	26.4	350	5075	3/4"G
OVC00324	OVCSEL1202D	60	15.8	350	5075	1/2"G
OVC00332	OVCSEL3802D	40	10.6	350	5075	3/8"G
OVC00343	OVCSEL1401	20	5.3	350	5075	1/4"G
OVC00344	OVCSEL1402	20	5.3	350	5075	1/4"G
OVC00378	OVCSEL3802 ANODIZZATO-INOX	40	10.6	350	5075	3/8"G
OVC00381	OVCSEL3401 130 BAR	100	26.4	350	5075	3/4"G
OVC00388	OVCSEL3801D	40	10.6	350	5075	3/8"G
OVC00413	OVCSEL3801 35 BAR	40	10.6	350	5075	3/8"G
OVC00422	OVCSEL3802 R.P. 10:1	40	10.6	350	5075	3/8"G
OVC00438	OVCSEL1202 R.P. 10:1	60	15.8	350	5075	1/2"G
OVC00439	OVCSEL3801 R.P. 3:1	40	10.6	350	5075	3/8"G
OVC00446	OVCSEL1202A (ACCIAIO) OR VITON	60	15.8	350	5075	1/2"G
OVC00453	OVCSEL1402 ANODIZZATO INOX	20	5.3	350	5075	1/4"G
OVC00461	OVCSEL12F01 R.P.8:1	60	15.8	350	5075	1/2"G
OVC00489	OVCSEL38F02 R.P. 10:1	40	10.6	350	5075	3/8"G
OVC00534	OVCSEL3801 R.P.8:1	40	10.6	350	5075	3/8"G
OVC00536	OVCSEL3802 R.P.8:1	40	10.6	350	5075	3/8"G

Effettua il login per maggiori informazioni e materiali scaricabili su questo prodotto.

**Valvola overcentre doppio effetto in linea****mod. OVC-DE-L**

Pressione massima	350 bar		
Rapporto di pilotaggio standard	4,25:1		
Rapporti di pilotaggio a richiesta	3:1 8:1 10:1		
Modello	V1, V2, C1,C2	Portata massima [l/min]	
OVC-DE-L-38	3/8" GAS	40	
OVC-DE-L-12	1/2" GAS	60	
OVC-DE-L-34	3/4" GAS	100	
OVC-DE-L-10	1" GAS	120	
Taratura	La valvola deve essere tarata almeno 1,3 volte la massima pressione indotta dal carico		
Codice	Taratura standard bar (Q= 5l/min)	Campo di taratura bar	Colore molla
01	100	20÷200	Bianco
02	280	50÷350	Nero
Opzioni	  		
Disponibile con corpo in alluminio (standard) o acciaio (aggiungere A alla fine della sigla di ordinazione)			

[Cliccare per ingrandire](#)[Cliccare per ingrandire](#)

Dati e tarature ottenuti usando olio con viscosità 30 cSt a 50 °C  
 Viscosità consigliate 10 ÷ 420 cSt  
 Temperature di lavoro -20 ÷ +90 °C  
 Filtrazione assoluta 25 µm

Esempi di ordinazione: OVCDEL3802, OVCDEL1001D, OVCDEL3802A  
 (=corpo in acciaio)

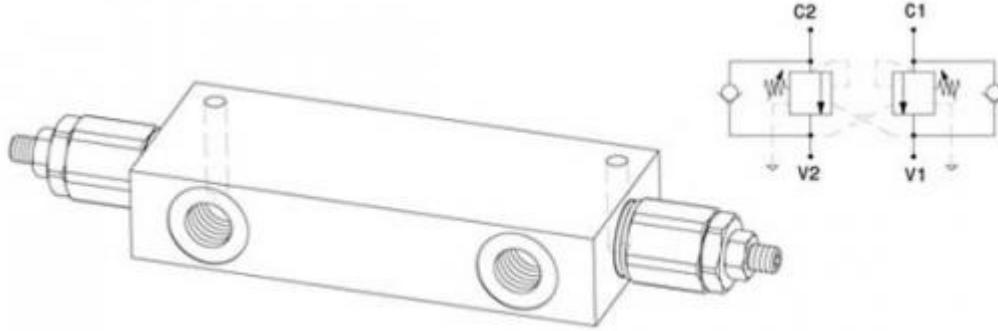
codice	descrizione (sigla di ordinazione)	portata max		pressione max		filettature
		l/min	gpm	bar	psi	
OVC00171	OVCDEL3801	40	10.6	350	5075	3/8"G
OVC00172	OVCDEL3802	40	10.6	350	5075	3/8"G
OVC00173	OVCDEL1201	60	15.8	350	5075	1/2"G

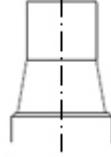
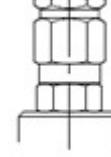
OVC00174	OVCDEL1202	60	15.8	350	5075	1/2"G
OVC00175	OVCDEL3401	100	26.4	350	5075	3/4"G
OVC00176	OVCDEL3402	100	26.4	350	5075	3/4"G
OVC00177	OVCDEL1001	120	31.7	350	5075	1"G
OVC00178	OVCDEL1002	120	31.7	350	5075	1"G
OVC00207	OVCDEL38F01	40	10.6	350	5075	3/8"G
OVC00208	OVCDEL38F02	40	10.6	350	5075	3/8"G
OVC00209	OVCDEL12F01	60	15.8	350	5075	1/2"G
OVC00210	OVCDEL12F02	60	15.8	350	5075	1/2"G
OVC00211	OVCDEL34F01	100	26.4	350	5075	3/4"G
OVC00212	OVCDEL34F02	100	26.4	350	5075	3/4"G
OVC00213	OVCDEL10F01	120	31.7	350	5075	1"G
OVC00214	OVCDEL10F02	120	31.7	350	5075	1"G
OVC00268	OVCDEL3802A	40	10.6	350	5075	3/8"G
OVC00269	OVCDEL1201A	60	15.8	350	5075	1/2"G
OVC00270	OVCDEL1202A	60	15.8	350	5075	1/2"G
OVC00271	OVCDEL3401A	100	26.4	350	5075	3/4"G
OVC00272	OVCDEL3402A	100	26.4	350	5075	3/4"G
OVC00273	OVCDEL1001A	120	31.7	350	5075	1"G
OVC00274	OVCDEL1002A	120	31.7	350	5075	1"G
OVC00287	OVCDEL38F01A	40	10.6	350	5075	3/8"G
OVC00288	OVCDEL38F02A	40	10.6	350	5075	3/8"G
OVC00289	OVCDEL12F01A	60	15.8	350	5075	1/2"G
OVC00290	OVCDEL12F02A	60	15.8	350	5075	1/2"G
OVC00291	OVCDEL34F01A	100	26.4	350	5075	3/4"G
OVC00292	OVCDEL34F02A	100	26.4	350	5075	3/4"G
OVC00293	OVCDEL10F01A	120	31.7	350	5075	1"G
OVC00294	OVCDEL10F02A	120	31.7	350	5075	1"G
OVC00315	OVCDEL3801 R.P. 3:1	40	10.6	350	5075	3/8"G
OVC00317	OVCDEL1202 R.P. 10:1	60	15.8	350	5075	1/2"G
OVC00323	OVCDEL3402D	100	26.4	350	5075	3/4"G
OVC00333	OVCDEL3802D	40	10.6	350	5075	3/8"G
OVC00379	OVCDEL1202D	60	15.8	350	5075	1/2"G
OVC00385	OVCDEL1201 50 BAR	60	15.8	350	5075	1/2"G
OVC00386	OVCDEL3802 170 BAR	40	10.6	350	5075	3/8"G
OVC00389	OVCDEL3802 ANODIZZATO	40	10.6	350	5075	3/8"G
OVC00393	OVCDEL1402	20	5.3	350	5075	1/4"G
OVC00403	OVCDEL1201 40 BAR	60	15.8	350	5075	1/2"G
OVC00411	OVCDEL1201 35 BAR	60	15.8	350	5075	1/2"G
OVC00414	OVCDEL3802 200 BAR	40	10.6	350	5075	3/8"G
OVC00419	OVCDEL1201 R.P. 8:1	60	15.8	350	5075	1/2"G
OVC00431	OVCDEL38F02 R.P. 8:1	40	10.6	350	5075	3/8"G
OVC00433	OVCDEL3802 R.P. 10:1 TAR. 180 BAR	40	10.6	350	5075	3/8"G
OVC00434	OVCDEL3402 R.P. 10:1	100	26.4	350	5075	3/4"G
OVC00435	OVCDEL3801 R.P. 8:1	40	10.6	350	5075	3/8"G
OVC00447	OVCDEL3802 R.P. 10:1	40	10.6	350	5075	3/8"G
OVC00464	OVCDEL1202 R.P. 8:1	60	15.8	350	5075	1/2"G
OVC00465	OVCDEL14F02	20	5.3	350	5075	1/4"G
OVC00470	OVCDEL3402 170 BAR	100	26.4	350	5075	3/4"G
OVC00471	OVCDEL3802C C1/130BAR-C2/180BAR	40	10.6	350	5075	3/8"G
OVC00476	OVCDEL1202 170 BAR	60	15.8	350	5075	1/2"G

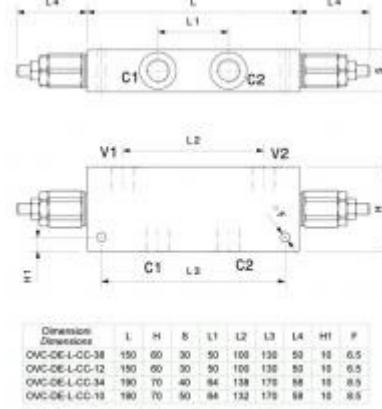
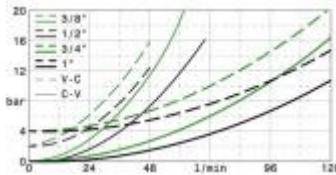
OVC00488	OVCDEL38F02 R.P. 10:1	40	10.6	350	5075	3/8"G
OVC00532	OVCDEL1201 35 BAR OR VITON	60	15.8	350	5075	1/2"G

Effettua il login per maggiori informazioni e materiali scaricabili su questo prodotto.

## Valvola overcentre doppio effetto in linea - centro chiuso mod. OVC-DE-L-CC



Pressione massima	350 bar		
Rapporto di pilotaggio standard	4,25:1		
Rapporti di pilotaggio a richiesta	3:1 8:1 10:1		
Modello	V1, V2, C1,C2	Portata massima [l/min]	
OVC-DE-L-CC-38	3/8" GAS	40	
OVC-DE-L-CC-12	1/2" GAS	60	
OVC-DE-L-CC-34	3/4" GAS	100	
OVC-DE-L-CC-10	1" GAS	120	
Taratura	La valvola deve essere tarata almeno 1,3 volte la massima pressione indotta dal carico		
Codice	Taratura standard bar (Q= 5l/min)	Campo di taratura bar	Colore molla
01	100	20÷200	Bianco
02	280	50÷350	Nero
Opzioni	  		
Disponibile con corpo in alluminio (standard) o acciaio (aggiungere A alla fine della sigla di ordinazione)			

[Cliccare per ingrandire](#)[Cliccare per ingrandire](#)

Dati e tarature ottenuti usando olio con viscosità 30 cSt a 50 °C  
Viscosità consigliate 10 ÷ 420 cSt  
Temperature di lavoro -20 ÷ +90 °C  
Filtrazione assoluta 25 µm

Esempi di ordinazione: OVCDELCC3802, OVCDELCC1001D,  
OVCDELCC3802A (=corpo in acciaio)

codice	descrizione (sigla di ordinazione)	portata max		pressione max		filettature
		l/min	gpm	bar	psi	
OVC00235	OVCDELCC3801	40	10.6	350	5075	3/8"G
OVC00236	OVCDELCC3802	40	10.6	350	5075	3/8"G
OVC00237	OVCDELCC1201	60	15.8	350	5075	1/2"G

OVC00238	OVCDELCC1202	60	15.8	350	5075	1/2"G
OVC00239	OVCDELCC3401	100	26.4	350	5075	3/4"G
OVC00240	OVCDELCC3402	100	26.4	350	5075	3/4"G
OVC00241	OVCDELCC1001	120	31.7	350	5075	1"G
OVC00242	OVCDELCC1002	120	31.7	350	5075	1"G
OVC00307	OVCDELCC3801A (ACCIAIO)	40	10.6	350	5075	3/8"G
OVC00308	OVCDELCC3802A (ACCIAIO)	40	10.6	350	5075	3/8"G
OVC00309	OVCDELCC1201A (ACCIAIO)	60	15.8	350	5075	1/2"G
OVC00310	OVCDELCC1202A (ACCIAIO)	60	15.8	350	5075	1/2"G
OVC00311	OVCDELCC3401A (ACCIAIO)	100	26.4	350	5075	3/4"G
OVC00312	OVCDELCC3402A (ACCIAIO)	100	26.4	350	5075	3/4"G
OVC00313	OVCDELCC1001A (ACCIAIO)	120	31.7	350	5075	1"G
OVC00314	OVCDELCC1002A (ACCIAIO)	120	31.7	350	5075	1"G

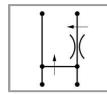
[Effettua il login per maggiori informazioni e materiali scaricabili su questo prodotto.](#)

## Valvole flangiabili su motori DANFOSS

Modello	Descrizione+	
RTD-FMD-VC-VLP40-ST-12	Rotodeviatore con valvola limitatrice di pressione e strozzatore flangiabile su motori DANFOSS OMP-OMPL-OMR	
RTD-FMD-VC-VLP40-12	Rotodeviatore con valvola limitatrice di pressione flangiabile su motori DANFOSS OMP-OMPL-OMR	
RTD-FMD-VLP40-121	Rotodeviatore con valvola limitatrice di pressione flangiabile su motori DANFOSS OMS OMSW OMSS	
RTD-FMD-VC-12	Rotodeviatore flangiabile su motori DANFOSS OMP-OMPL-OMR	
VLP40-D-FMD-VC	Valvola antiurto doppio effetto flangiabile con vite cava su motori DANFOSS OMP-OMR	
VLP40-D-FMD-SF-VC	Valvola antiurto doppio effetto flangiabile con vite cava su motori DANFOSS OMP-OMR con sblocco freno	
VLP40-D-FMD-VC1	Valvola antiurto doppio effetto flangiabile con vite cava su motori DANFOSS OMS-OMSW-OMSS	
VLP40-D-FMD	Valvola antiurto doppio effetto flangiabile su motori DANFOSS OMP-OMR	
VLP40-D-FMD1	Valvola antiurto doppio effetto flangiabile su motori DANFOSS OMS-OMSW-OMSS	
VLP40-S-FMD-VC	Valvola antiurto semplice effetto flangiabile con vite cava su motori DANFOSS OMP-OMR	
VLP40-S-FMD-VC1	Valvola antiurto semplice effetto flangiabile con vite cava su motori DANFOSS OMS-OMSW-OMSS	
VLP40-S-FMD	Valvola antiurto semplice effetto flangiabile su motori DANFOSS OMP-OMR	
VLP40-S-FMD1	Valvola antiurto semplice effetto flangiabile su motori DANFOSS OMS-OMSW-OMSS	
OVC-DE-FMD-SF-C-12	Valvola overcentre doppio effetto a cartuccia con sblocco freno flangiabile su motori DANFOSS OMP-OMPL-OMR	
OVC-DE-FMD-SF-12	Valvola overcentre doppio effetto con sblocco freno flangiabile su motori DANFOSS OMP-OMPL-OMR	
OVC-DE-FMD-SF-121	Valvola overcentre doppio effetto con sblocco freno flangiabile su motori DANFOSS OMS-OMSW-OMSS	
OVC-SE-FMD-SF-12	Valvola overcentre semplice effetto con sblocco freno flangiabile su motori DANFOSS OMP-OMPL-OMR	
OVC-SE-FMD-SF-C-12	Valvola overcentre semplice effetto con sblocco freno flangiabile su motori DANFOSS OMS-OMSW-OMSS	
OVC-SE-FMD-SF-121	Valvola overcentre semplice effetto con sblocco freno flangiabile su motori DANFOSS OMS-OMSW-OMSS	

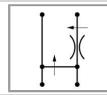
RFP50-FMD-VC-12

Valvola regolatrice di flusso a tre vie prioritaria flangiabile su motori DANFOSS  
OMP-OMPL-OMR



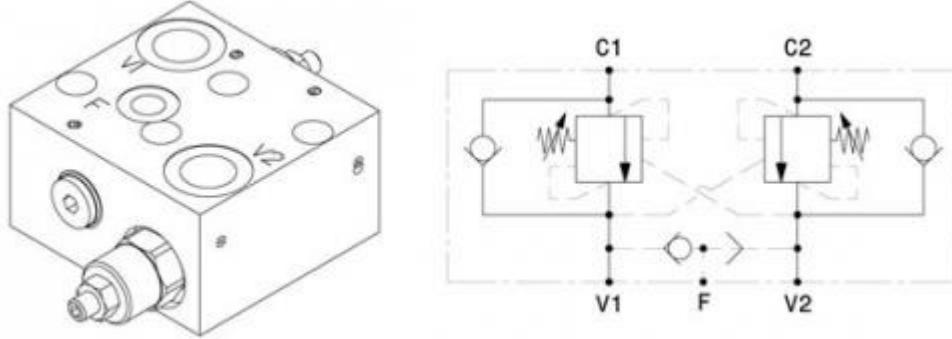
RFP50-FMD-VC-121

Valvola regolatrice di flusso a tre vie prioritaria flangiabile su motori DANFOSS  
OMS-OMSW-OMSS



**Valvola overcentre doppio effetto con sblocco freno flangiabile su motori DANFOSS  
OMP-OMPL-OMR**

**mod. OVC-DE-FMD-SF-12**



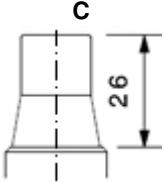
Portata massima	60 l/min
Pressione massima	350 bar
Rapporto di pilotaggio standard	4,25:1
Rapporti di pilotaggio a richiesta	3:1 8:1 10:1

Taratura	La valvola deve essere tarata almeno 1,3 volte la massima pressione indotta dal carico		
<b>Codice</b>	Taratura standard <i>bar (Q= 5l/min)</i>	Campo di taratura <i>bar</i>	Colore molla
<b>01</b>	100	20-200	Bianco
<b>02</b>	280	50-350	Nero

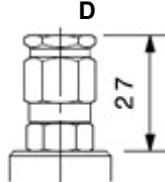
## Opzioni



Vite esterna con  
esagono incassato

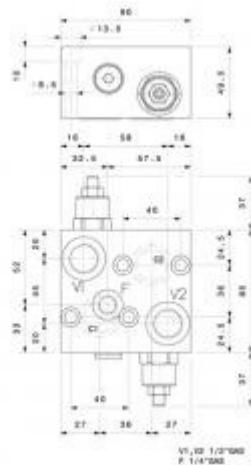


## Piombatura



Cappelotto

Cliccare per ingrandire



Dati e tarature ottenuti usando olio con viscosità 30 cSt a 50 °C

Viscosità consigliate 10 ÷ 420 cSt

Temperatura di lavoro -20 ÷ +90 °C

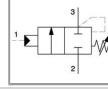
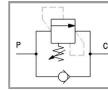
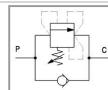
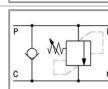
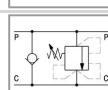
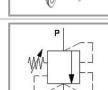
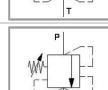
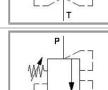
Filtrazione assoluta 25 µm

## Esempi di ordinazione: OVC60C02

codice	descrizione (sigla di ordinazione)	portata max		pressione max		filettature
		l/min	gpm	bar	psi	
OVC00163	OVCDEFMDSF1201 OMP	60	15.8	350	5075	1/2"G 1/4"G
OVC00164	OVCDEFMDSF1202 OMP	60	15.8	350	5075	1/2"G 1/4"G
OVC00199	OVCDEFMDSF12F01 OMP	60	15.8	350	5075	1/2"G 1/4"G
OVC00200	OVCDEFMDSF12F02 OMP	60	15.8	350	5075	1/2"G 1/4"G
OVC00331	OVCDEFMDSF1201 OMP 90 BAR	60	15.8	350	5075	1/2"G 1/4"G
OVC00391	OVCDEFMDSF1202 OMP 210 BAR	60	15.8	350	5075	1/2"G 1/4"G
OVC00479	OVCDEFMDSF1202 OMP R.P.10:1	35	9.2	350	5075	1/2"G 1/4"G

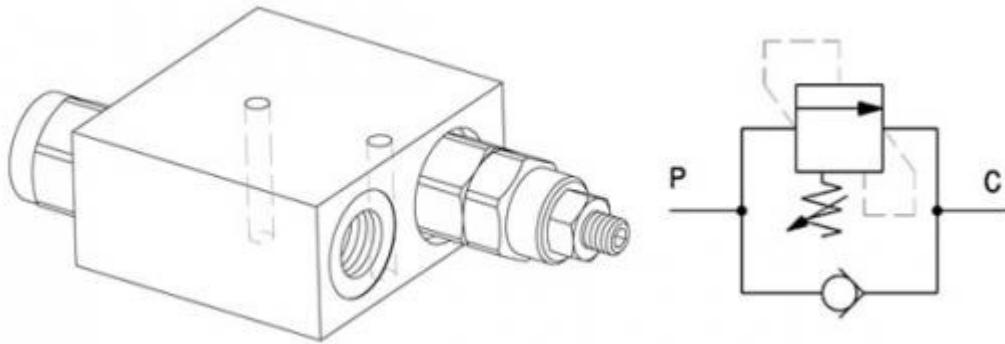
Effettua il login per maggiori informazioni e materiali scaricabili su questo prodotto.

## Valvole di sequenza

Modello	Descrizione+	
VP-C	Valvola di sequenza 3 vie normalmente chiusa a cartuccia	
VSQ	Valvola di sequenza ad azione diretta	
VSQ-CC	Valvola di sequenza ad azione diretta con esclusione della pressione primaria	
VSQ-L	Valvola di sequenza ad azione diretta in linea	
VSQ-L-CC	Valvola di sequenza ad azione diretta in linea con esclusione della pressione primaria	
VSQP-20-C	Valvola di sequenza pilotata a cartuccia	
VLP130-CC	Valvola limitatrice di pressione diretta a cartuccia compensata in pressione	
VLP80-CC	Valvola limitatrice di pressione diretta a cartuccia compensata in pressione	
VLP40-CC	Valvola limitatrice di pressione diretta a cartuccia compensata in pressione	

Visualizzati i prodotti da **1** a **9** (su un totale di **9** prodotti) Pagine : **1**

## Valvola di sequenza ad azione diretta mod. VSQ

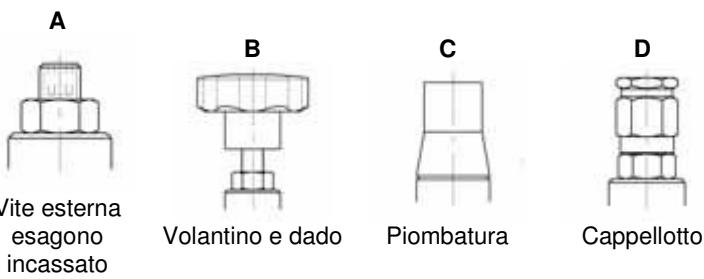
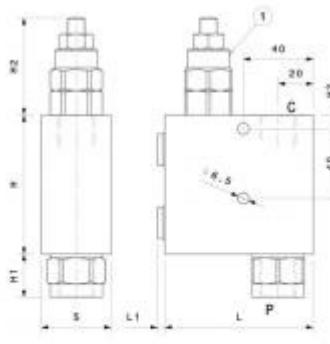


Modello	P, C	Pressione massima [bar]	Portata massima [l/min]
<b>VSQ40-38</b>	3/8"GAS	300	40
<b>VSQ40-12</b>	1/2"GAS	300	40
<b>VSQ80-12</b>	1/2"GAS	300	80
<b>VSQ80-34</b>	3/4"GAS	300	80

## Taratura

Codice	Taratura standard bar (Q= 5l/min)	Campo di taratura bar
00	40	5÷40
01	80	20÷100
02	180	40÷250
03	250	60÷350

## Opzioni

Cliccare per ingrandire

Dimensioni	1	L	L1	H	H1	H2	H3	S
VSQ40-38	VLP40C	89	0	70	28	50	8	38
VSQ40-12	VLP40C	89	0	70	28	50	8	38
VSQ80-12	VLP80C	89	4	66	28	55	8	40
VSQ80-34	VLP80C	89	4	66	38	56	8	48

Dati e tarature ottenuti usando olio con viscosità 30 cSt a 50 °C

Viscosità consigliate 10 ÷ 420 cSt

Temperatura di lavoro -20 ÷ +90 °C

Filtrazione assoluta 25 µm

codice	descrizione (sigla di ordinazione)	portata max		pressione max		filettature
		l/min	gpm	bar	psi	
VSQ00001	VSQ403801A	40	10.6	300	4350	3/8"G
VSQ00002	VSQ403801B	40	10.6	300	4350	3/8"G
VSQ00003	VSQ403801C	40	10.6	300	4350	3/8"G
VSQ00004	VSQ403801D	40	10.6	300	4350	3/8"G
VSQ00005	VSQ403802A	40	10.6	300	4350	3/8"G
VSQ00006	VSQ403802B	40	10.6	300	4350	3/8"G
VSQ00007	VSQ403802C	40	10.6	300	4350	3/8"G

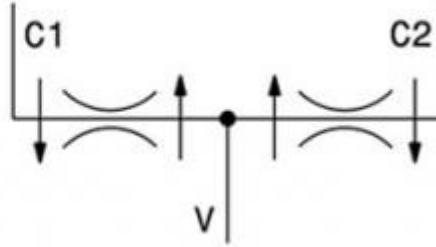
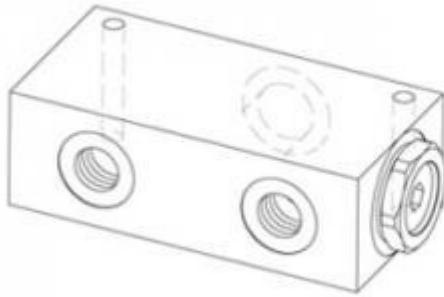
VSQ00008	VSQ403802D	40	10.6	300	4350	3/8"G
VSQ00009	VSQ403803A	40	10.6	300	4350	3/8"G
VSQ00010	VSQ403803B	40	10.6	300	4350	3/8"G
VSQ00011	VSQ403803C	40	10.6	300	4350	3/8"G
VSQ00012	VSQ403803D	40	10.6	300	4350	3/8"G
VSQ00013	VSQ401201A	40	10.6	300	4350	1/2"G
VSQ00014	VSQ401201B	40	10.6	300	4350	1/2"G
VSQ00015	VSQ401201C	40	10.6	300	4350	1/2"G
VSQ00016	VSQ401201D	40	10.6	300	4350	1/2"G
VSQ00017	VSQ401202A	40	10.6	300	4350	1/2"G
VSQ00018	VSQ401202B	40	10.6	300	4350	1/2"G
VSQ00019	VSQ401202C	40	10.6	300	4350	1/2"G
VSQ00020	VSQ401202D	40	10.6	300	4350	1/2"G
VSQ00021	VSQ401203A	40	10.6	300	4350	1/2"G
VSQ00022	VSQ401203B	40	10.6	300	4350	1/2"G
VSQ00023	VSQ401203C	40	10.6	300	4350	1/2"G
VSQ00024	VSQ401203D	40	10.6	300	4350	1/2"G
VSQ00146	VSQ401201A 70 BAR	40	10.6	300	4350	1/2"G
VSQ00151	VSQ403802D 18 BAR	40	10.6	300	4350	3/8"G
VSQ00153	VSQ403802A 65 BAR	40	10.6	300	4350	3/8"G
VSQ00154	VSQ801203A	80	21.1	300	4350	1/2"G
VSQ00155	VSQ803403A	80	21.1	300	4350	3/4"G
VSQ00159	VSQ403802A 200 BAR	40	10.6	300	4350	3/8"G
VSQ00160	VSQ403802A 250 BAR	40	10.6	300	4350	3/8"G
VSQ00163	VSQ401200D	40	10.6	300	4350	1/2"G
VSQ00164	VSQ403802A 230 BAR	40	10.6	300	4350	3/8"G
VSQ00169	VSQ801201A	80	21.1	300	4350	1/2"G
VSQ00170	VSQ801202A	80	21.1	300	4350	1/2"G
VSQ00171	VSQ803401A	80	21.1	300	4350	3/4"G
VSQ00172	VSQ803402A	80	21.1	300	4350	3/4"G

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## VALVULAS DE SEGUENCIA EN LINEA

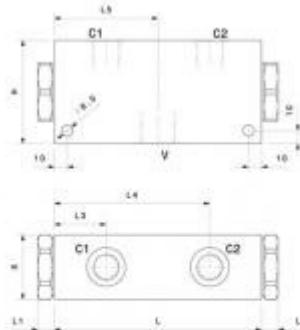
Nº	Descripción
HOR530001	VALV. SECUENCIA 3/8 VSQ403802A P=200 BAR
HOR530001.0	VALV. SECUENCIA 3/8 VSQ403802A P=250
HOR530001.1	VALV. SECUENCIA 3/8 VSQ40L3800D
HOR530001.2	VALV. SECUENCIA 3/8 VSQ40L3801A
HOR530001.21	VALV. SECUENCIA 3/8 VSQ40L3802A
HOR530001.3	VALV. SECUENCIA 3/8 VSQ40L3803A
HOR530002	VALV. SECUENCIA 1/2" VSQ401202A
HOR530002.1	VALV. SECUENCIA 1/22 VSQ401200A
HOR530002.2	VALV. SECUENCIA 1/22 VSQ401201A
HOR530002.3	VALV. SECUENCIA 1/22 VSQ401203A
HOR530005	VALV. SECUENCIA 1/2 VSQ80L1202A
HOR530005.1	VALV. SECUENCIA 1/2 VSQ80L1201A
HOR530005.2	VALV. SECUENCIA 1/2 VSQ80L1203A

## Divisore - riunificatore di flusso mod. DFR



Codice	<b>DFR-38</b> Q (l/min)	<b>DFR-12</b> Q (l/min)	<b>DFR-34</b> Q (l/min)	<b>DFR-10</b> Q (l/min)
<b>01</b>	3÷6	-	-	-
<b>02</b>	7÷12	-	-	-
<b>03</b>	13÷25	-	-	-
<b>04</b>	-	26÷40	-	-
<b>05</b>	-	40÷70	-	-
<b>06</b>	-	-	60÷95	60÷95
<b>07</b>	-	-	90÷150	90÷150
Codice	<b>DFR-38</b>	<b>DFR-12</b>	<b>DFR-34</b>	<b>DFR-10</b>
Pressione massima	300 bar	300 bar	250 bar	250 bar

Cliccare per ingrandire



Type	L	L1	L2	L3	L4	L5	H	W	V	C1/C2	Pressione massima bar	Min.pressione bar
DFR-38	120	8	0	27	86	93	90	40	3/8" GAB	3/8" GAB	300	300
DFR-12	120	8	0	21	86	94	80	40	1/2" GAB	3/8" GAB	300	300
DFR-34	160	15	13	40	126	86	89	50	3/4" GAB	1/2" GAB	250	250
DFR-10	160	15	13	40	126	86	88	60	1" GAB	3/4" GAB	250	250

Dati e tarature ottenuti usando olio con viscosità 30 cSt a 50 °C

Viscosità consigliate 10 ÷ 420 cSt

Temperature di lavoro -20 ÷ +90 °C

Filtrazione assoluta 25 µm

codice	descrizione (sigla di ordinazione)	portata max		pressione max		filettature
		l/min	gpm	bar	psi	
RF000066	DFR3801	6	1.6	300	4350	3/8"G
RF000067	DFR3802	12	3.2	300	4350	3/8"G
RF000068	DFR3803	25	6.6	300	4350	3/8"G
RF000069	DFR3804	40	10.6	300	4350	3/8"G
RF000070	DFR1204	40	10.6	300	4350	1/2"G
RF000071	DFR1205	70	18.5	300	4350	1/2"G
RF000276	DFR1205A ACCIAIO	70	18.5	300	4350	1/2"G
RF000315	DFR3406	95	25.1	250	3625	3/4"G
RF000316	DFR3407	150	39.6	250	3625	3/4"G
RF000317	DFR1006	95	25.1	250	3625	1"G
RF000318	DFR1007	150	39.6	250	3625	1"G
RF000343	DFR1203	25	6.6	300	4350	1/2"G
RF000535	DFR12S-06	95	25.1	250	3625	12 SAE
RF000536	DFR12S-07	150	39.6	250	3625	12 SAE
RF000537	DFR16S-06	95	25.1	250	3625	16 SAE
RF000538	DFR16S-07	150	39.6	250	3625	16 SAE

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## DIVISORES DE CAUDAL EN LINEA

Nº	Descripción
HOR550001	DIVISOR CAUDAL 3/8 (3-6L) DFR3801
HOR550002	DIVISOR CAUDAL 3/8 (7-12L) DFR3802
HOR550003	DIVISOR DE CAUDAL 3/8 (13-25L) DFR3803
HOR550004	DIVISOR CAUDAL 1/2 (26-40L) DFR1204
HOR5500045	DIVISOR CAUDAL 1/2 (40-70L) DFR1205
HOR550005	DIVISOR CAUDAL 3/4 (60-95L) DFR3406
HOR5500052	DIVISOR CAUDAL 3/4 (90-150L) DFR3407
HOR5500055	DIVISOR CAUDAL 1' (60-95L) DFR1006
HOR550006	DIVISOR CAUDAL 1' (90-150L) DFR1007