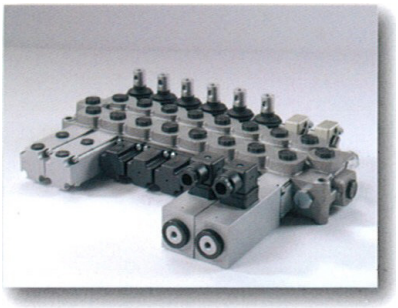
HANSA-TMP

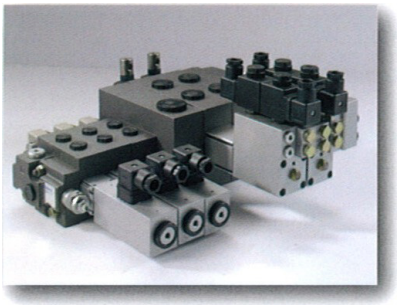
MANUFACTURING YOUR SUCCESS

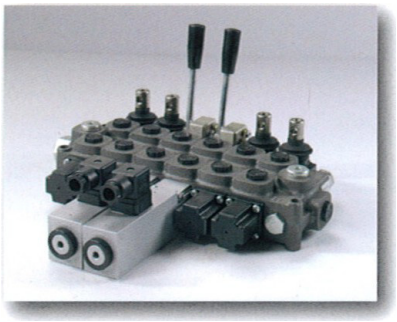
HT 24 / F / 103 / 0621 / IE

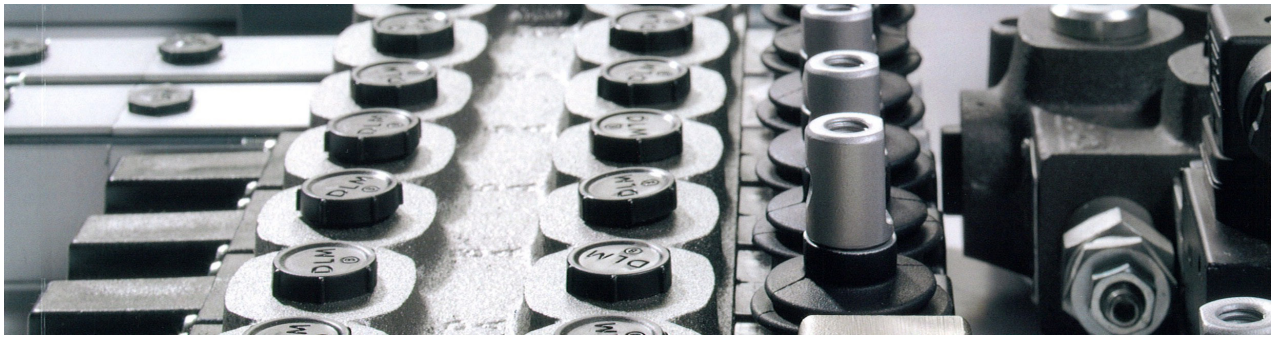
DISTRIBUTORI OLEODINAMICI

DIRECTIONAL CONTROL VALVES







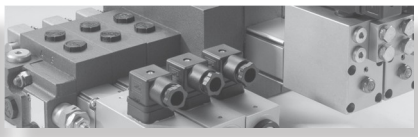


CATALOGO TECNICO
TECHNICAL CATALOGUE

DISTRIBUTORI MONOBLOCCO
MONOBLOCK DIRECTIONAL CONTROL VALVES

F

DISTRIBUTORI COMPONIBILI
SECTIONAL DIRECTIONAL CONTROL VALVES

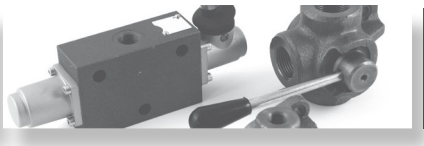


G

DISTRIBUTORI A COMANDO ELETTRICO DIRETTO CON FIANCATA PROPORZIONALE
DIRECTIONAL CONTROL VALVE WITH DIRECT ELECTRICAL CONTROL AND PROPORTIONAL SECTION

H

DEVIATORI DI FLUSSO
FLOW DIVERTERS



I

VALVOLE AUSILIARIE
AUXILIARIES VALVES

L

Quality System in accordance UNI EN ISO 9001 cert. ICIM N° 0292

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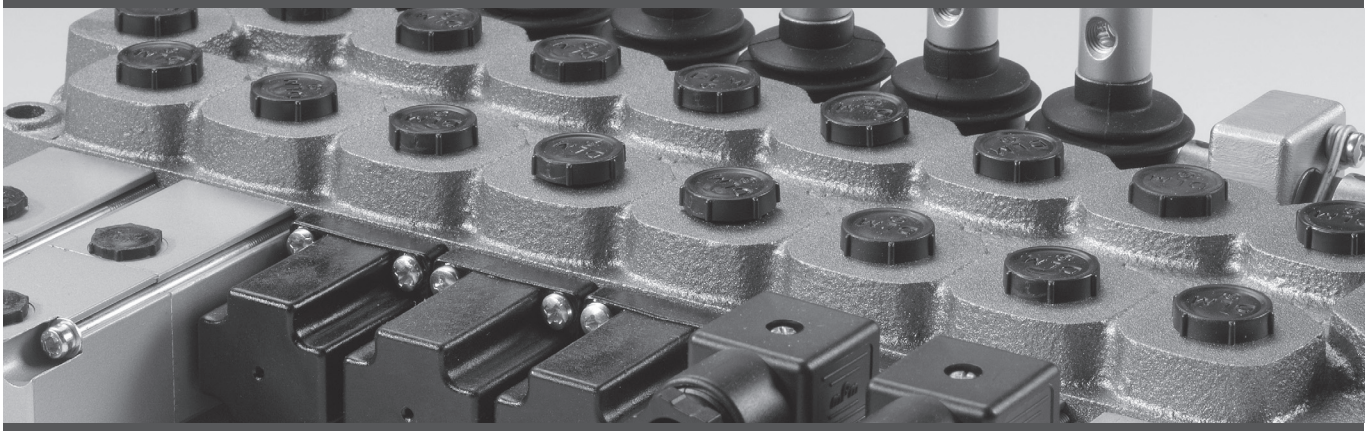
DISTRIBUTORI MONOBLOCCO
MONOBLOCK DIRECTIONAL CONTROL VALVES

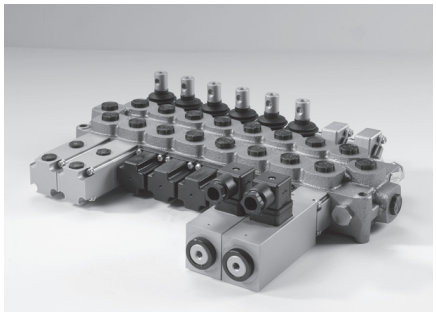


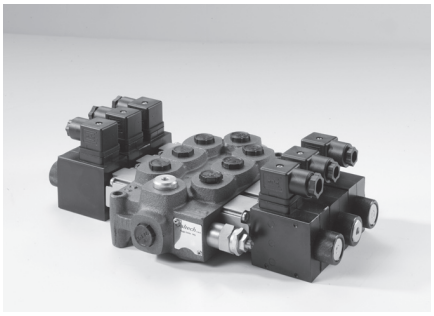
CARATTERISTICHE

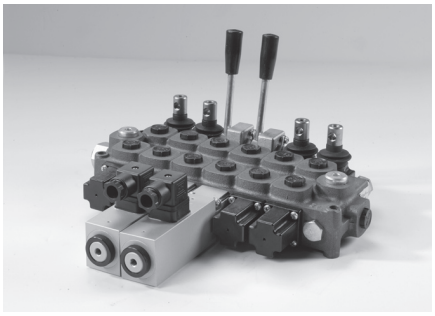
- Elevate prestazioni tecniche che consentono una vasta applicazione.
- Corpo in ghisa speciale ad alta resistenza per essere adatto alle alte pressioni di lavoro.
- Cursori nichelati ad alto scorrimento che permettono di poter lavorare ad alte pressioni con lunga durata di vita.
- Il circuito standard in parallelo offre manovre simultanee e, grazie a ricoprimenti negativi e metering dedicati, si ottengono movimenti proporzionali agli utilizzi.
- Trafilamenti di valore ridottissimo.
- Intercambiabilità dei cursori, anche con quelli dei distributori componibili aventi schema “parallelo” o “singolo”.
- Possibilità di inversione del lato di comando ruotando il cursore di 180°, consentendo così unificazione, versatilità, bassi valori di particolari a magazzino.
- Il tipo di libera circolazione a “Y” permette alte portate con basse perdite di carico, in rapporto alle ridotte dimensioni del distributore.
- Fa eccezione Q35 che ha ricoprimento positivo e una gamma di cursori apposita, sempre intercambiabili tra loro.

CHARACTERISTICS

- *High technical performances granting larger application range.*
- *Special high resistance cast-iron body, suitable for high working pressures.*
- *Nickel-plated offering granting long working life under high pressure conditions (see attached scheme).*
- *Standard circuit in parallel grants simultaneous operations, and due to negative overlaps and dedicate metering, there is proportional movement at the working ports.*
- *Minimal internal leackages.*
- *Interchangebility of the spools also with the ones of the sectional valves with “parallel” or “single” scheme*
- *Possibility to reverse the control side, turning the spool of 180° permits unification, versatility and low value of some parts in stock.*
- *Free movement version “Y shape” allows high oil flow with low pressure drops, in relation with the small dimensions of the control valves.*
- *Above features not valid for Q35 having positive overlap. The Q35 spools are interchangeable.*







AVVERTENZA PER L’INSTALLAZIONE DEI DISTRIBUTORI

- I tre piedini dei distributori devono sempre appoggiare su una superficie perfettamente piana
- Non utilizzare raccordi conici su filetti cilindrici.
- Per pulire il distributore, prima della verniciatura, non utilizzare diluenti/solventi o qualsiasi prodotto che possa intaccare le parti in gomma.

NOTES FOR DIRECTIONAL CONTROL VALVES ASSEMBLY

- *The three feet of the valve must always and perfectly rest on a 180° degree flat surface.*
- *No conical nipples with JIC thread must be used.*
- *Before painting the control valve, do not use diluents or any products that cauld damage rubber parts.*

CARATTERISTICHE TECNICHE — *TECHNICAL CHARACTERISTICS*

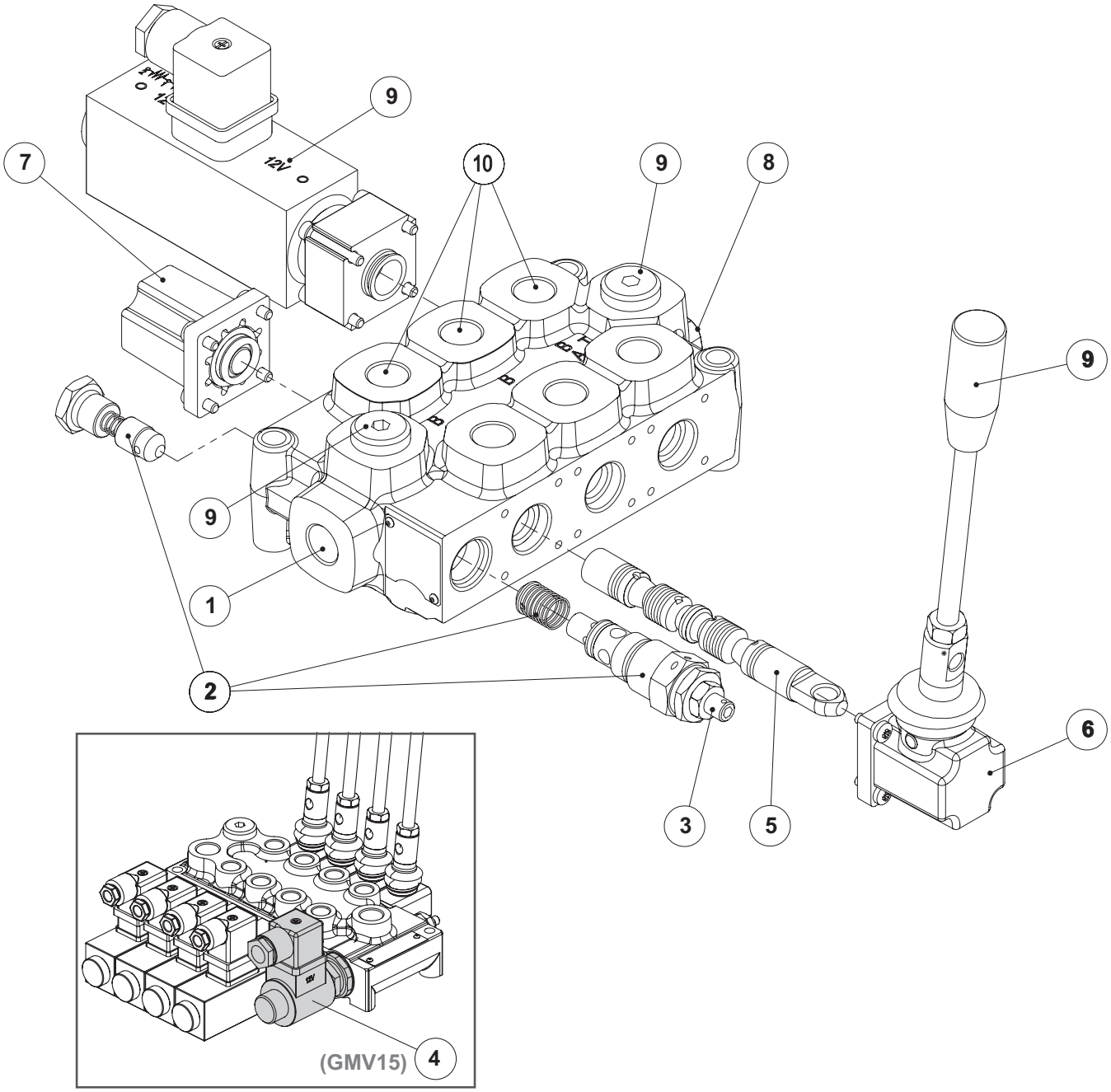
	Q35	Q15	GMV15	Q25	Q45	Q65	Q75	Q95
Numero massimo di sezioni di lavoro ***Working sections maximum***	1	1	4	8		1	6	6
Limiti temperatura olio ***Oil temperature range***	-30 ÷ 80 °C							
Temperatura olio consigliata ***Recommended oil temperature***	30° ÷ 60 °C							
Filtraggio consigliato ***Recommended filtration***	26/23µm ISO DIS 4406							
Fluido ***Hidraulic fluid***	Olio minerale *Mineral oil*							
Viscosità ***Viscosity***	10 ÷ 400 mm^2/s							

Massa [Kg] ***Weight*** *(lbs)*	**1**	Sezione di lavoro *Working section*	1.85 *(4.1)*	1.20 *(2.6)*	—	3.00 *(6.6)*	3.40 *(7.5)*	5.70 *(12.6)*	5.70 *(12.6)*
	2	Sezioni di lavoro *Working sections*	—	—	2.50 *(5.5)*	4.50 *(9.9)*	—	7.60 *(16.8)*	7.60 *(16.8)*
	3	Sezioni di lavoro *Working sections*	—	—	3.15 *(6.9)*	5.60 *(12.3)*	—	10.40 *(22.9)*	10.40 *(22.9)*
	4	Sezioni di lavoro *Working sections*	—	—	3.80 *(8.4)*	7.30 *(16.1)*	—	12.40 *(27.3)*	12.40 *(27.3)*
	5	Sezioni di lavoro *Working sections*	—	—	—	8.90 *(19.6)*	—	14.50 *(32.0)*	14.8 *(32.6)*
	6	Sezioni di lavoro *Working sections*	—	—	—	*10.1* *(22.3)*	—	*16.60* *(36.6)*	*18.3* *(40.4)*
	7	Sezioni di lavoro *Working sections*	—	—	—	*11.0* *(24.3)*	—	—	—
	8	Sezioni di lavoro *Working sections*	—	—	—	13.6 *(30.0)*	—	—	—

Pressioni massime di lavoro [bar] ***Max working pressure*** *(PSI)*	**1** o **2** sezioni di lavoro *from **1** up to **2** sections*	300 *(4350)*	250 *(3625)*	280 *(4060)*	350 *(5075)*	350 *(5075)*	350 *(5075)*	350 *(5075)*
	3 sezioni ***3*** sections	—	—	280 *(4060)*	320 *(4640)*	—	300 *(4350)*	300 *(4350)*
	da **4** a **8** sezioni from ***4*** up to ***8*** sections	—	—	280 *(4060)*	300 *(4350)*	—	270 *(3915)*	270 *(3915)*
Pressione massima sullo scarico [bar] ***Max back pressure*** *(PSI)*	25 *(363)*							
A richiesta, solo su monoblocco 1 o 2 sezioni, contropressione sullo scarico 180 bar (indicare la lettera "S" al termine del codice) On request, 1 or 2 section monoblock valve only, max back pressure allowable is 2610 PSI (indicate the letter "S" at the end of code)	•	—	—	•	•	—	—	—

ESEMPIO DI ORDINAZIONE IN CODICE
ORDERING CODE EXAMPLE

Tipo *Type*	Fiancata d'ingresso *Inlet section*			Sezione di lavoro *Working section*				Fiancata di scarico *Outlet section*	Note aggiuntive *Additional notes*		
Q25	F7S	R250	MSE	2x	103	A1	M1	F3D	12V	—	2E
1	2	3	4		5	6	7	8	9		10



ESEMPIO DI ORDINAZIONE IN CODICE
ORDERING CODE EXAMPLE

Tipo

1 - Tipo
Q35, Q15, GMV15, Q25, Q45, Q65, Q75, Q95

Indica il tipo di distributore; le caratteristiche dimensionali sono riportate da pag. F6 a pag. F21.

Fiancata d'ingresso

2 - Tipo fiancata d'ingresso (pag. F-22)

3 - Tipo molla e taratura valvola (pag. F-22)

Dove è presente la valvola VLP (fiancate F1S e F7S), deve essere specificato il tipo di molla (**B, N o R**) e la sua pressione di taratura; se quest'ultima viene omessa verrà montata la molla N tarata a **150** bar.

4 - Valvole aggiuntive alla fiancata di ingresso (pag. F-23).

Sezione di lavoro

I campi da 4 a 6 sono da ripetere per ogni sezione. Nel caso in cui due sezioni contigue siano identiche, è sufficiente descriverne solo una anteponendo **2x** al campo 4.

N.B. Il numero massimo complessivo di sezioni di lavoro sono indicate a pag. F3.

5 - Tipo cursore (pag. F-24)

6 - Tipo di comando (pag. F-28, F-32)

7 - Tipo posizionatore (pag. F-35)

Fiancata di scarico

8 - Tipo fiancata di scarico (pag. F-60)

Note aggiuntive

9 - Note aggiuntive (pag. F-61)

10 - Numero elementi (pag. F-61)

Specificare il numero delle sezioni di lavoro (es. 2E) previste.

Type

1 - Type
Q35, Q15, GMV15, Q25, Q45, Q65, Q75, Q95

Indicates model valve, characteristics and dimensions found on pages F6 to page F21.

Inlet section

2 - Inlet section type *(page F-22)*

3 - Type of spring and valve setting *(page F-22)*

*If valve VLP is installed (inlet section F1S and F7S), specify the type of spring (**B, N or R**) and its pressure setting. If ommited, spring N with a **150** bar setting will be installed.*

4 - Additional valves on the inlet section *(page F-23)*

Working section

*Fields 4 to 6 must be repeated for each section. If two adjacent sections are identical, just describe one and put **2x** before field 4.*

NOTE. The maximum overall number of working sections is indicated on page F3.

4 - Spool type *(page F-24)*

5 - Control type *(page F-28, F-32)*

6 - Positioner type *(page F-35)*

Outlet section

7 - Outlet section type *(page F-60)*

Additional notes

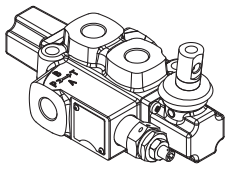
8 - Additional notes *(page F-61)*

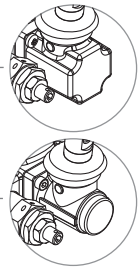
9 - Number of sections *(page F-61)*

Specify the number of working sections needed (e.g. 2E).

Q35

DISTRIBUTORI MONOBLOCCO
MONOBLOCK DIRECTIONAL CONTROL VALVES

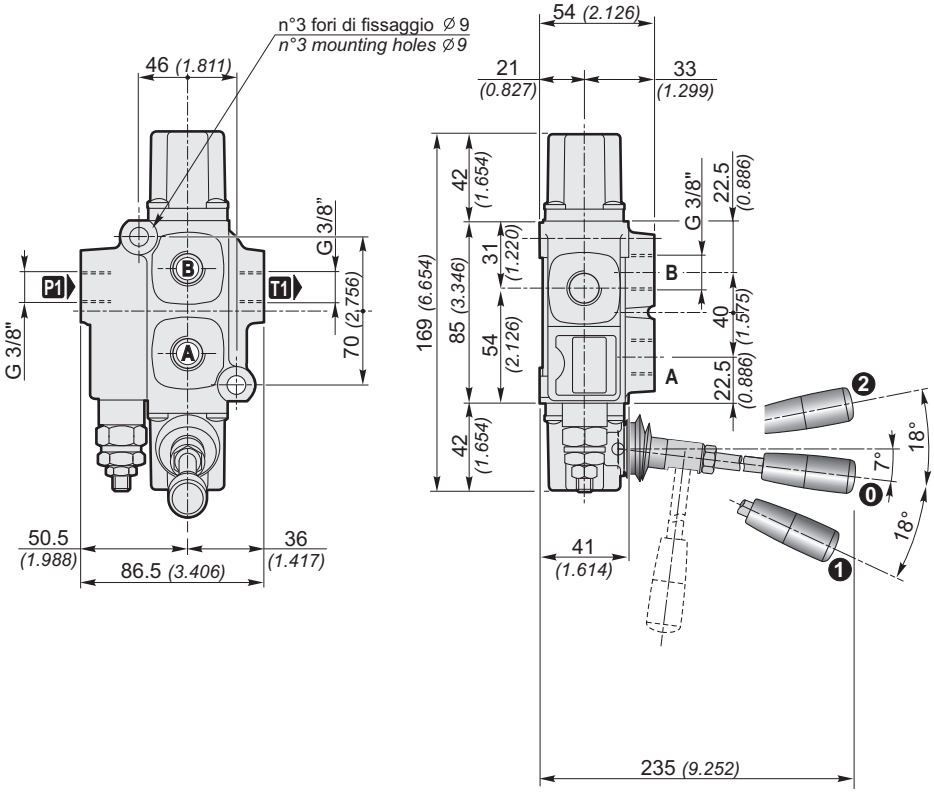




(Standard)
Comando e posizionatore in plastica
Control and positionner plastic

S
Comando e posizionatore in Alluminio
Control and positionner Aluminium

Q35	F7S	R250		103	A1	M1	F3D	S	1E
1	2	3		4	5	6	7	8	9



Q35	F7S	R250		103	A1	M1	F3D	12V	2E
1	2	3		5	6	7	8	9	10

Filettature disponibili / *Available ports*

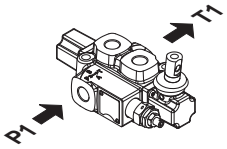
Bocche *Ports*	**BSP** (standard)	**SAE**	**BSP G 1/2"**
P1	G 3/8"	3/4" - 16 UNF (SAE8)	BSP G 1/2"
A-B	G 3/8"	3/4" - 16 UNF (SAE8)	BSP G 1/2"
T1	G 3/8"	3/4" - 16 UNF (SAE8)	BSP G 1/2"

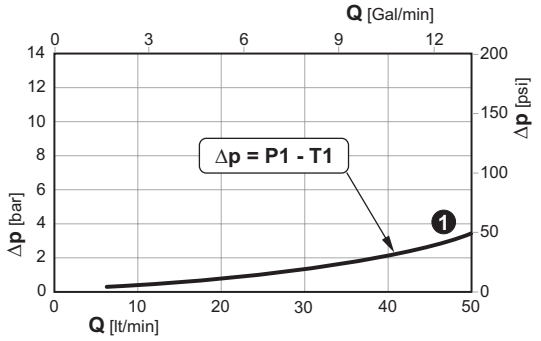
Dimensioni in / *Dimensions in:* mm *(inch)*

Q35

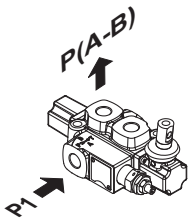
DISTRIBUTORI MONOBLOCCO
MONOBLOCK DIRECTIONAL CONTROL VALVES

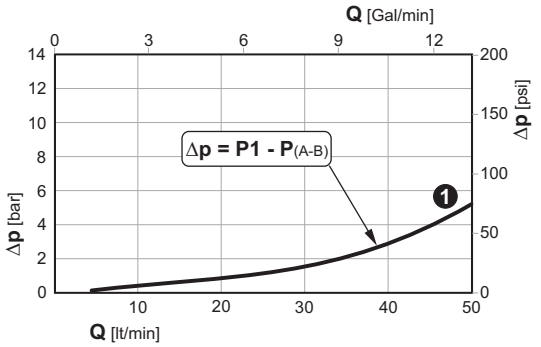
Perdite di carico con il cursore in posizione neutra
Pressure drop with spool in neutral position



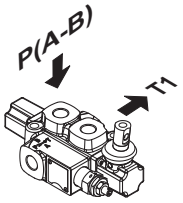


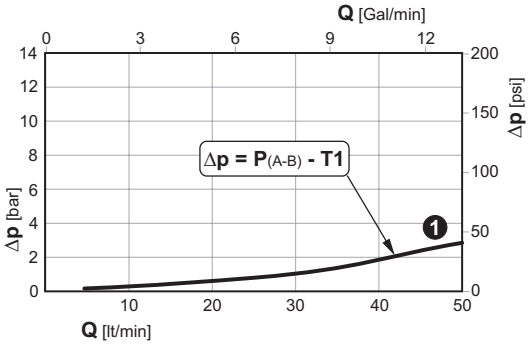
Perdite di carico con il cursore in posizione di lavoro
Pressure drop with spool in working position





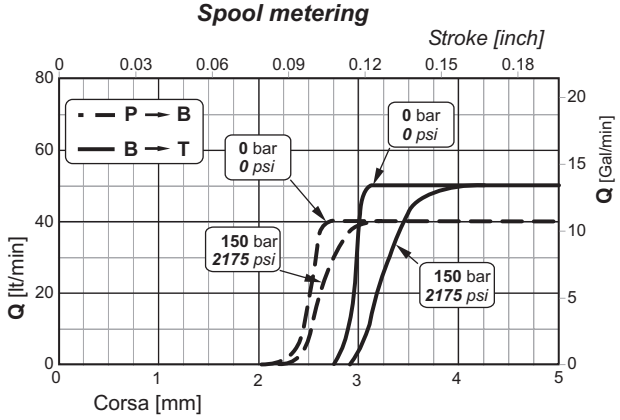
Perdite di carico con il cursore in posizione di lavoro
Pressure drop with spool in working position



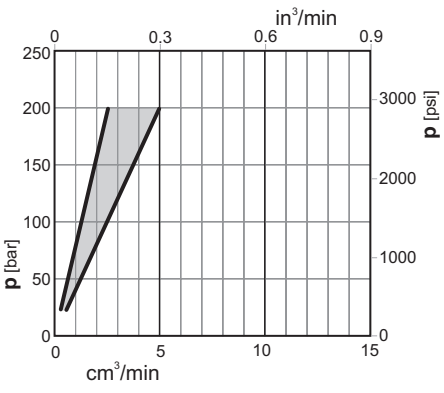


1 Sezioni / *Sections*

Curve di progressività
Spool metering



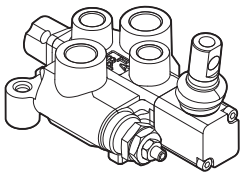
Trafilamenti sul cursore
Spool leakage

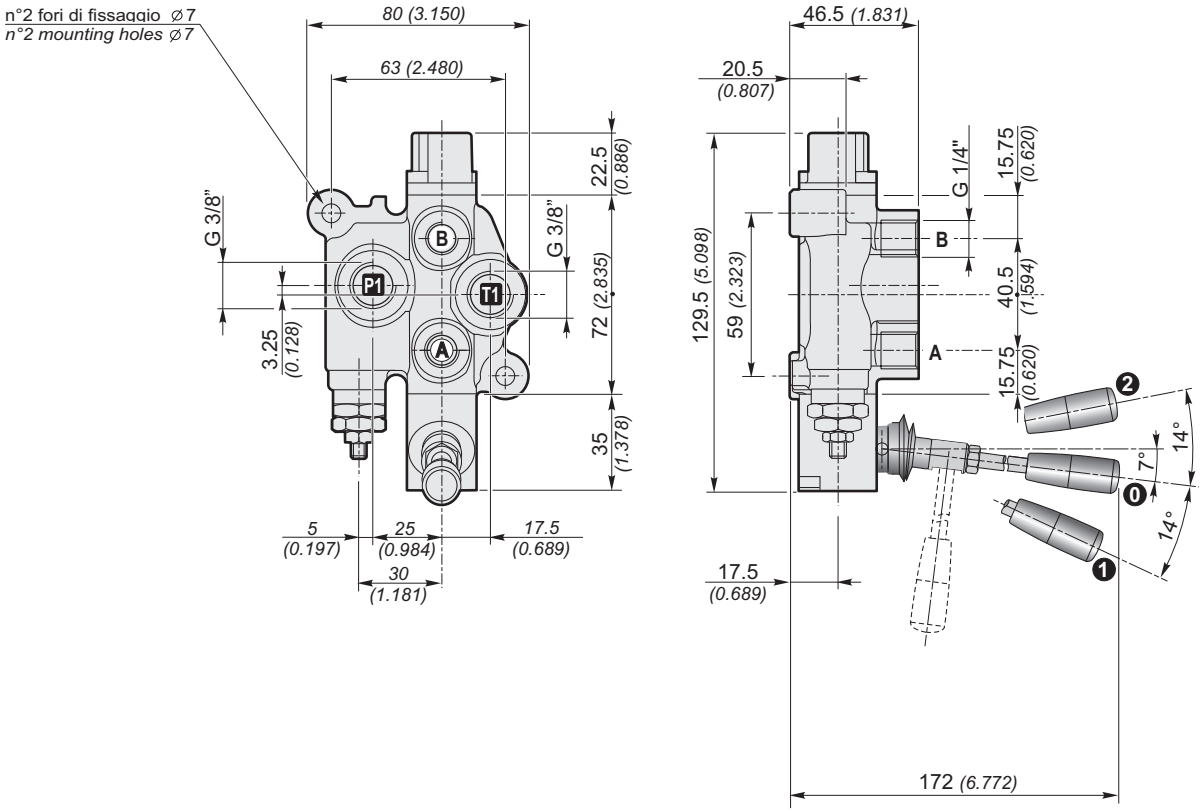


N.B. Le curve sono ricavate con cursore 103 / *NOTE. Performance curves measured using spool 103 type.*

Q15

DISTRIBUTORI MONOBLOCCO
MONOBLOCK DIRECTIONAL CONTROL VALVES





Q15	—	F7S	N250	—	103	A1	M1	—	F3D
1		2	3		5	6	7		8

Filettature disponibili / *Available ports*

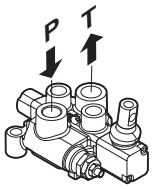
Bocche *Ports*	**BSP** (standard)	**SAE**
P - T	G 3/8"	3/4" - 16UNF (SAE 8)
A - B	G 1/4"	9/16" - 18UNF (SAE 6)

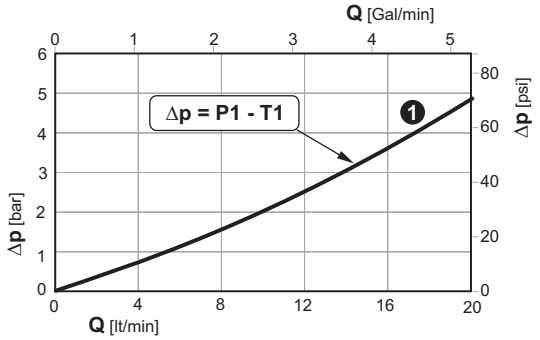
Dimensioni in / *Dimensions in:* mm *(inch)*

Q15

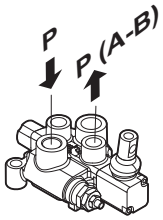
DISTRIBUTORI MONOBLOCCO
MONOBLOCK DIRECTIONAL CONTROL VALVES

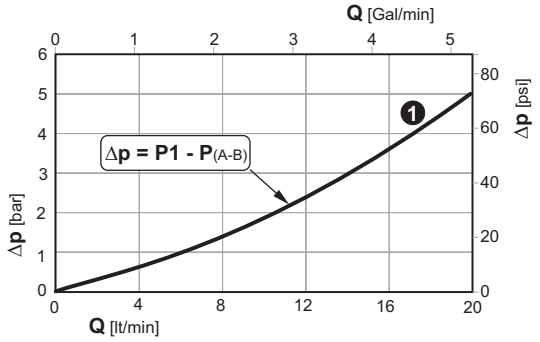
Perdite di carico con il cursore in posizione neutra
Pressure drop with spool in neutral position



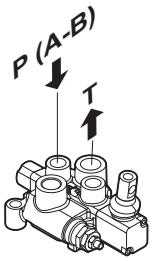


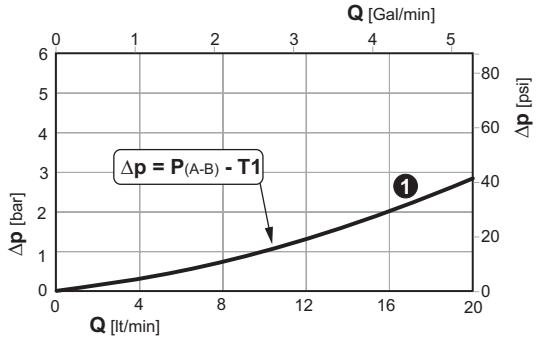
Perdite di carico con il cursore in posizione di lavoro
Pressure drop with spool in working position



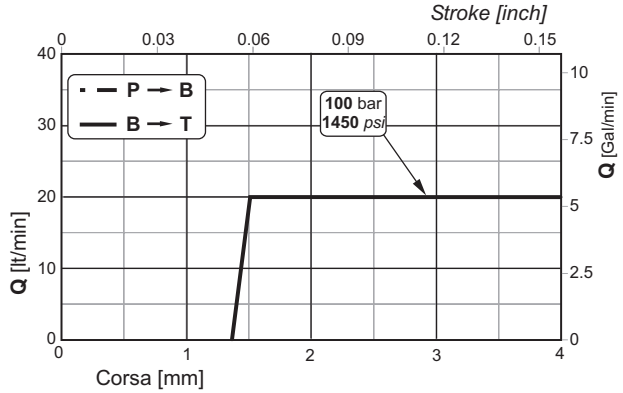


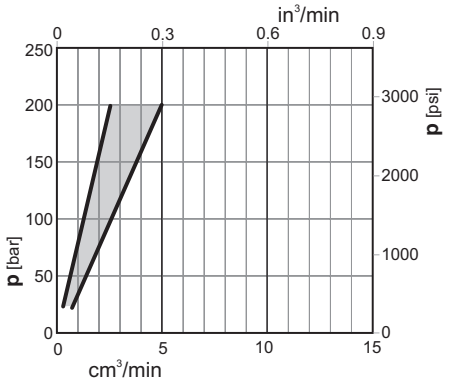
Perdite di carico con il cursore in posizione di lavoro
Pressure drop with spool in working position





1 Sezioni / *Sections*

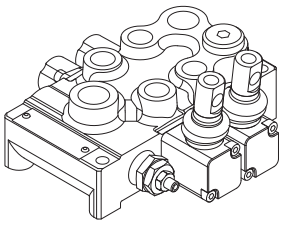


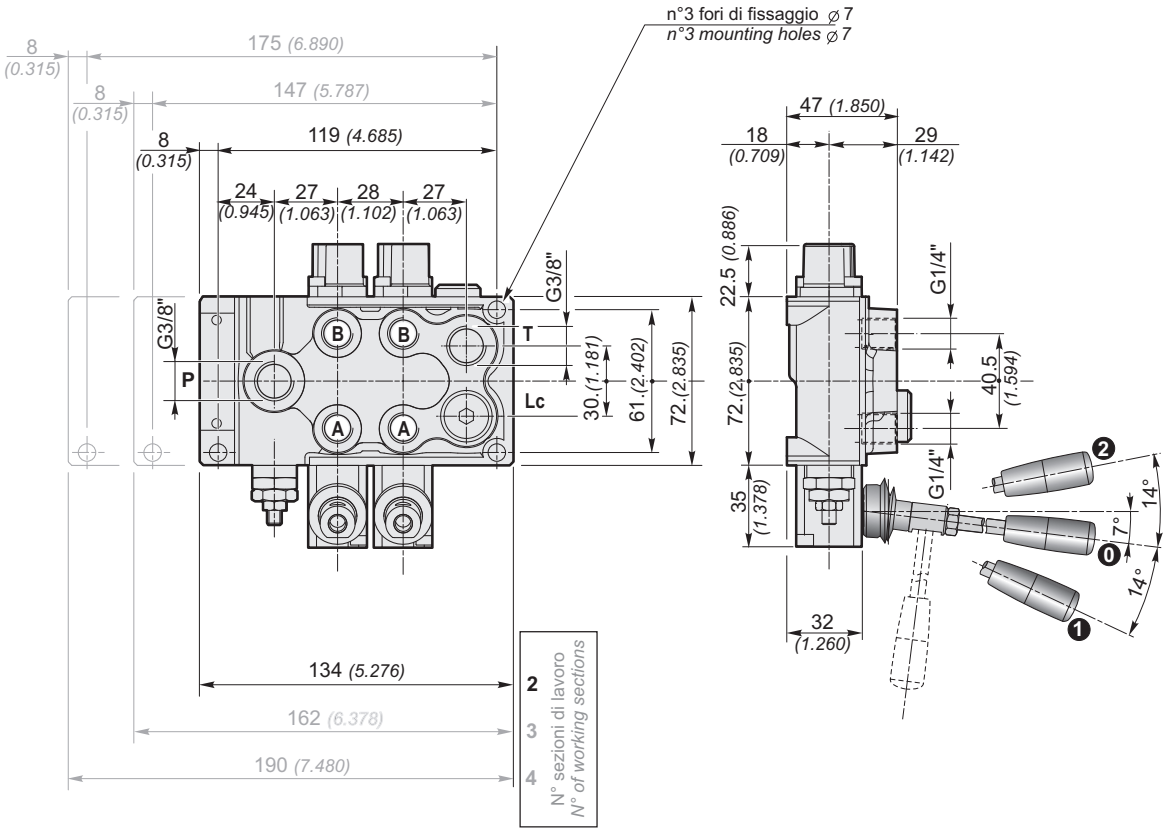


N.B. Le curve sono ricavate con cursore 103 / *NOTE. Performance curves measured using spool 103 type.*

GMV15

DISTRIBUTORI MONOBLOCCO
MONOBLOCK DIRECTIONAL CONTROL VALVES

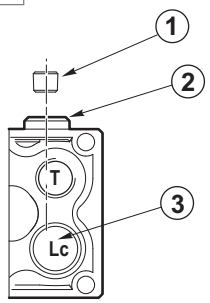




GMV15	—	F7S	N250	—	2x	103	A1	M1	—	F3D
1		2	3			5	6	7		8

Filettature disponibili / *Available ports*

Bocche *Ports*	**BSP** (standard)	**SAE**
P	G 3/8"	3/4" - 16UNF (SAE 8)
A - B	G 1/4"	9/16" - 18UNF (SAE 6)
T	G 3/8"	3/4" - 16UNF (SAE 8)
Lc	G 3/8"	3/4" - 16UNF (SAE 8)



Come fare la funzione carry-over
Togliere il tappo ② montare il tappo conico G1/8" ① e rimontare il tappo ②.
Togliere il tappo della libera circolazione ③.

Come fare la funzione centro chiuso
Togliere il tappo ② montare il tappo conico G1/8" ① e rimontare il tappo ②.
Montare il tappo della libera circolazione ③.

How to make the carry-over function
Remove the plug ② mount a conical plug G1/8" ① and reassemble the plug ②.
Remove the plug on the carry-over port ③.

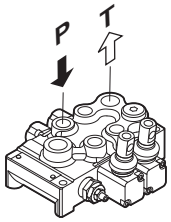
How to make the closed center function
Remove the plug ② mount a conical plug G1/8" ① and reassemble the plug ②.
Mounting the plug on the carry-over port ③.

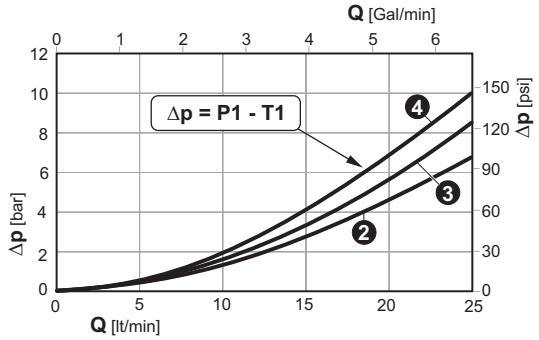
Dimensioni in / *Dimensions in:* mm *(inch)*

GMV15

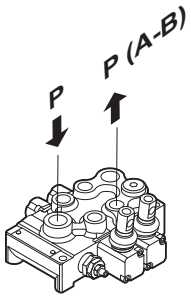
DISTRIBUTORI MONOBLOCCO
MONOBLOCK DIRECTIONAL CONTROL VALVES

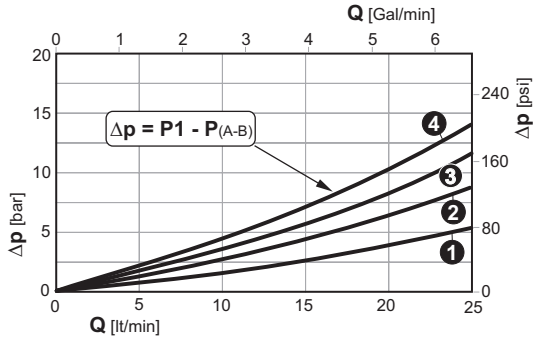
Perdite di carico con il cursore in posizione neutra
Pressure drop with spool in neutral position



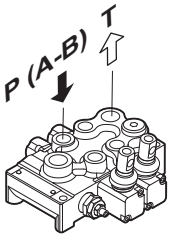


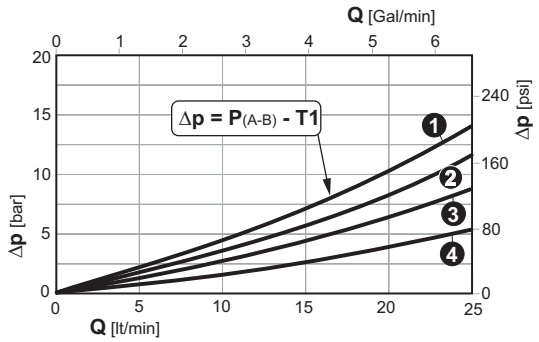
Perdite di carico con il cursore in posizione di lavoro
Pressure drop with spool in working position



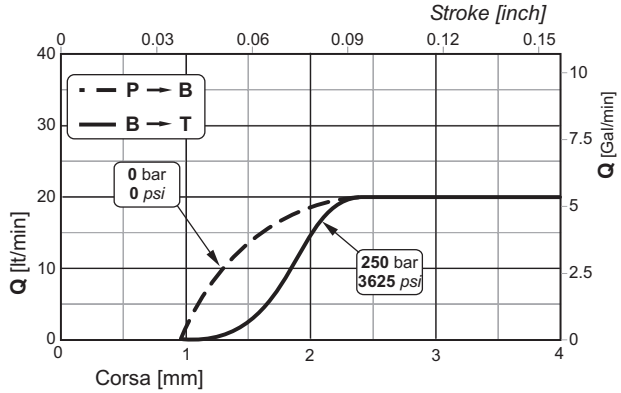


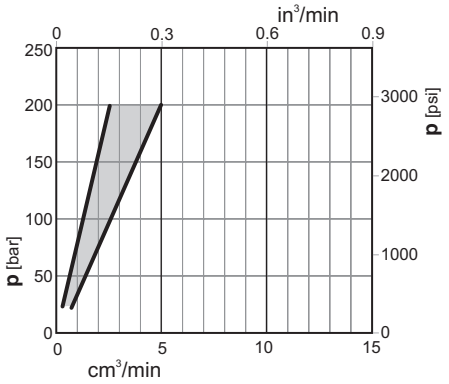
Perdite di carico con il cursore in posizione di lavoro
Pressure drop with spool in working position





❶❷❸❹ Sezioni / *Sections*

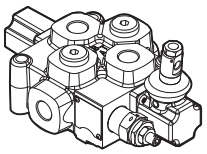


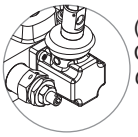


N.B. Le curve sono state effettuate con olio Tellus 46 a 40 °C e cursore 103.
NOTE. The tests were performed with Tellus 46 oil to 40 °C *and spool 103 type.*

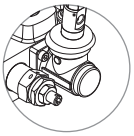
Q25

DISTRIBUTORI MONOBLOCCO
MONOBLOCK DIRECTIONAL CONTROL VALVES



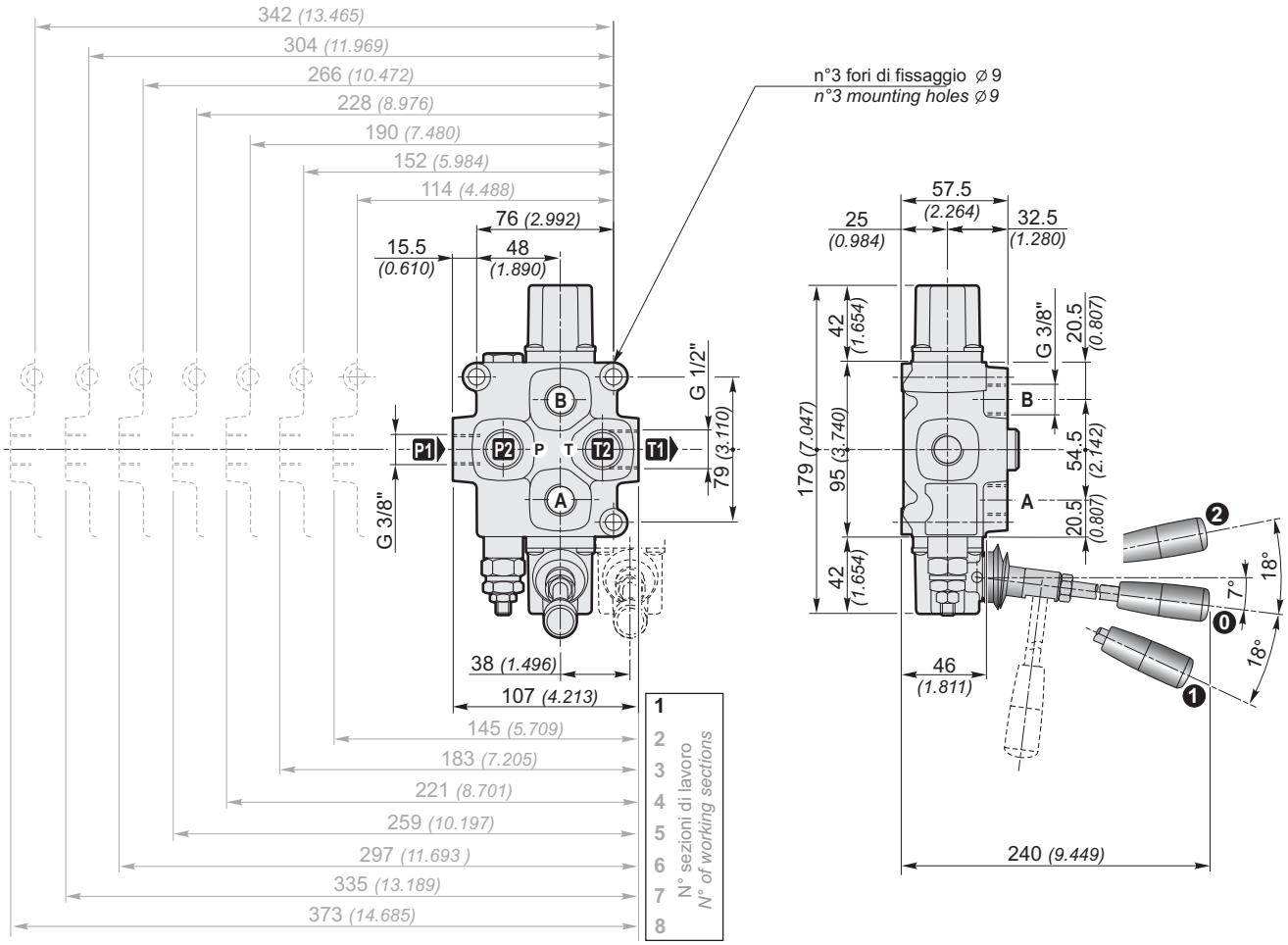


(Standard)
Comando e posizionatore in plastica
Control and positionner plastic



S
Comando e posizionatore in Alluminio
Control and positionner Aluminium

Q25	—	F7S	R250	—	2x	103	A1	M1	—	F3D	—	S	—	1E
1		2	3			4	5	6		7		8		9

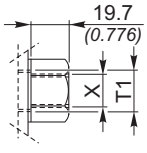


Q25	—	F7S	R250	—	2x	103	A1	M1	—	F3D	—	12V	—	2E
1		2	3			5	6	7		8		9		10

Filettature disponibili / *Available ports*

Bocche *Ports*	**BSP** (standard)	**SAE**
P1	G 3/8"	9/16" - 18UNF (SAE 6)
P2	G 3/8"	9/16" - 18UNF (SAE 6)
A-B	G 3/8"	9/16" - 18UNF (SAE 6)
T1	G 1/2"	7/8" - 14UNF (SAE 10)
T2	G 3/8"	9/16" - 18UNF (SAE 6)

Tappo per carry-over (su uscita T1)
Carry-over plug (on T1 port)



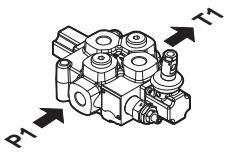
T1		**X**	
G 1/2"	7/8"-14UNF (SAE 10)	G 3/8" G 1/2"	3/4" - 16UNF (SAE 8)

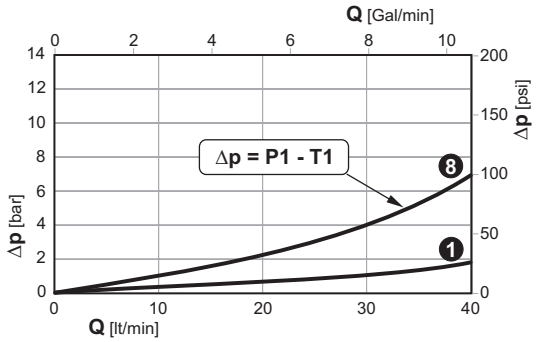
Dimensioni in / *Dimensions in:* mm *(inch)*

Q25

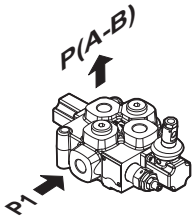
DISTRIBUTORI MONOBLOCCO
MONOBLOCK DIRECTIONAL CONTROL VALVES

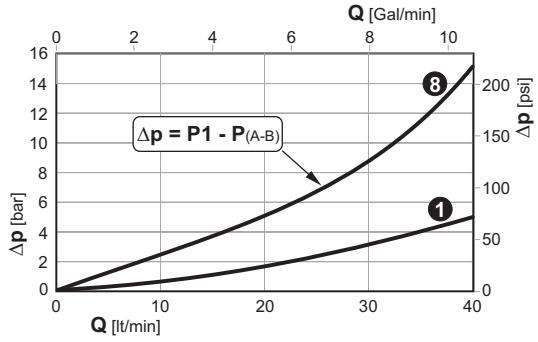
Perdite di carico con il cursore in posizione neutra
(Δp in funzione del numero di sezioni attraversate)
Pressure drop with spool in neutral position
(*Δp depending on the number of the crossed sections)*



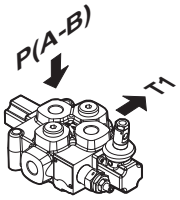


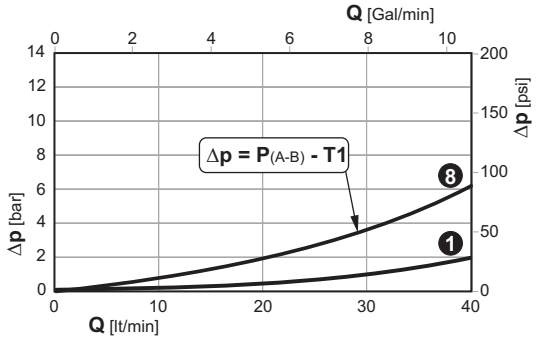
Perdite di carico con il cursore in posizione di lavoro
(Δp in funzione del numero di sezioni attraversate)
Pressure drop with spool in working position
(*Δp depending on the number of the crossed sections)*





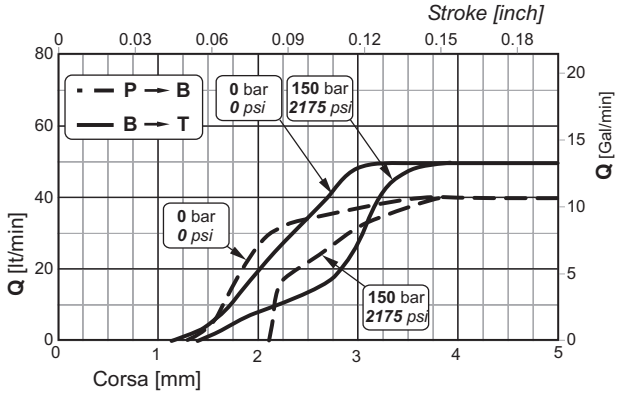
Perdite di carico con il cursore in posizione di lavoro
(Δp in funzione del numero di sezioni attraversate)
Pressure drop with spool in working position
(*Δp depending on the number of the crossed sections)*



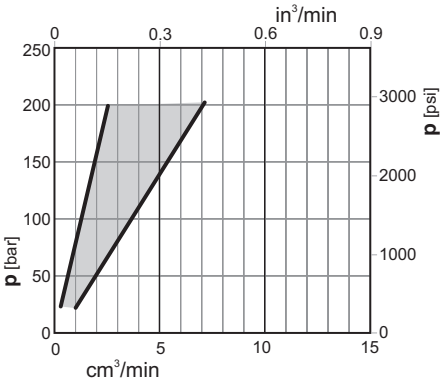


❶ ❽ Sezioni / *Sections*

Curve di progressività
Spool metering



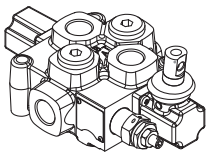
Trafilamenti sul cursore
Spool leakage



N.B. Le curve sono ricavate con cursore 103 / *NOTE. Performance curves measured using spool 103 type.*

Q45

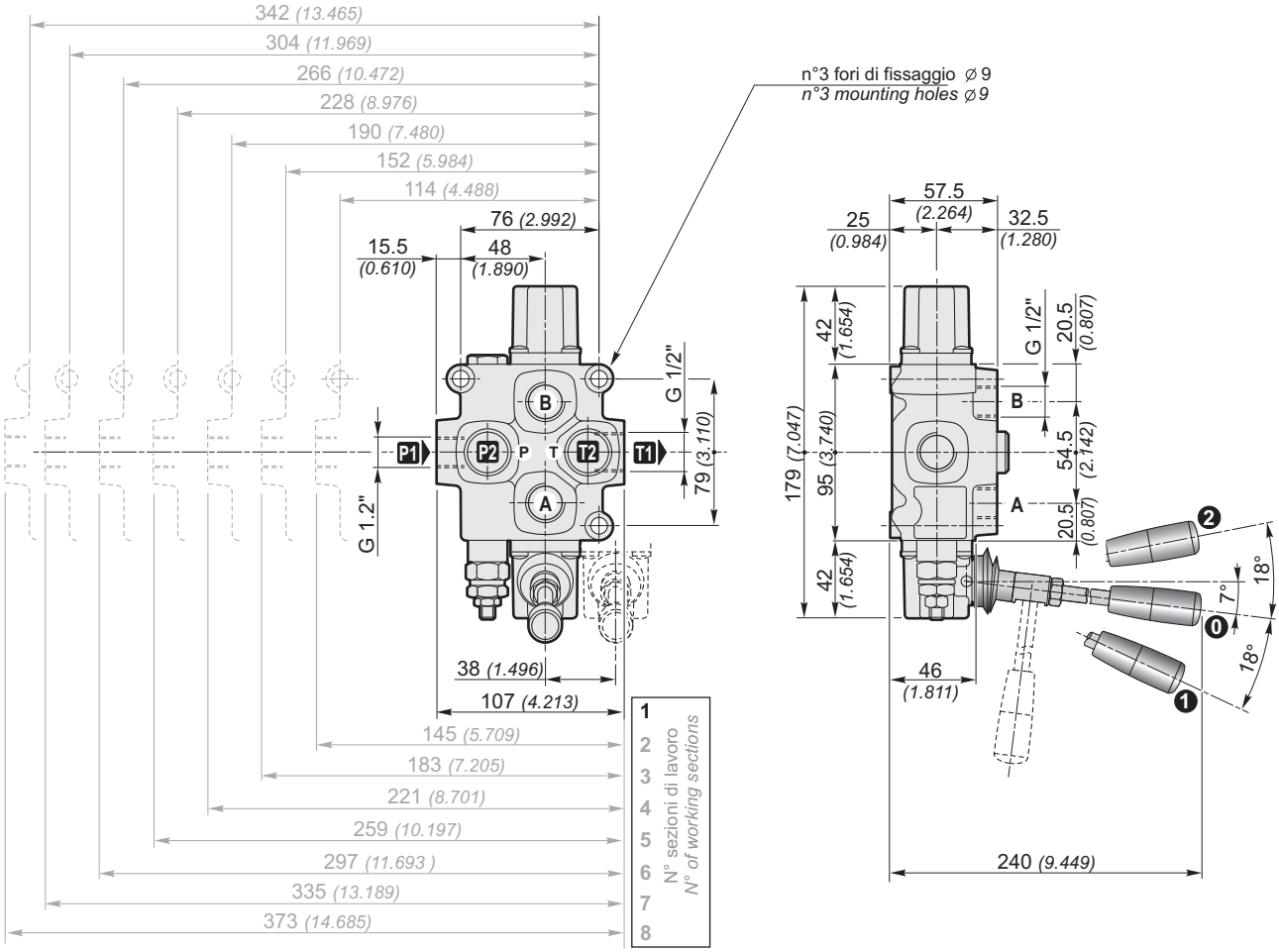
DISTRIBUTORI MONOBLOCCO
MONOBLOCK DIRECTIONAL CONTROL VALVES



(Standard)
Comando e posizionatore in plastica
Control and positionner plastic

S
Comando e posizionatore in Alluminio
Control and positionner Aluminium

Q45	—	F7S	R250	—	2x	103	A1	M1	—	F3D	—	S	—	1E
1		2	3			4	5	6		7		8		9

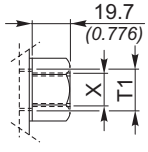


Q45	—	F7S	R250	—	2x	103	A1	M1	—	F3D	—	12V	—	2E
1		2	3			5	6	7		8		9		10

Filettature disponibili / *Available ports*

Bocche *Ports*	**BSP** (standard)	**SAE**
P1	G 1/2"	3/4" - 16 UNF (SAE 8)
P2	G 1/2"	3/4" - 16 UNF (SAE 8)
A-B	G 1/2"	3/4" - 16 UNF (SAE 8)
T1	G 1/2"	7/8" - 14 UNF (SAE 10)
T2	G 1/2"	3/4" - 16 UNF (SAE 8)

Tappo per carry-over (su uscita T1)
Carry-over plug (on T1 port)



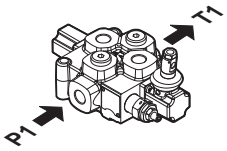
T1		X	
G 1/2"	7/8"-14UNF (SAE 10)	G 3/8" G 1/2"	3/4" - 16UNF (SAE 8) 7/8" - 14UNF (SAE 10)

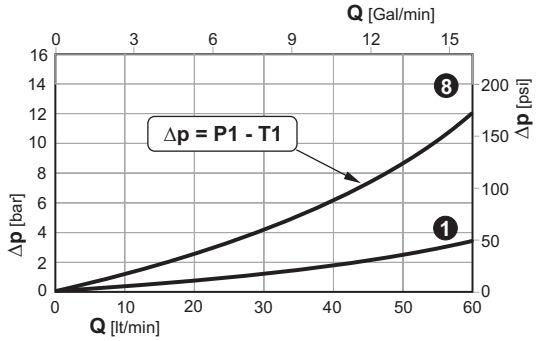
Dimensioni in / *Dimensions in:* mm *(inch)*

Q45

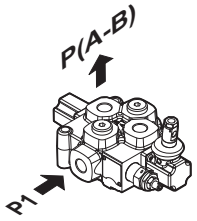
DISTRIBUTORI MONOBLOCCO
MONOBLOCK DIRECTIONAL CONTROL VALVES

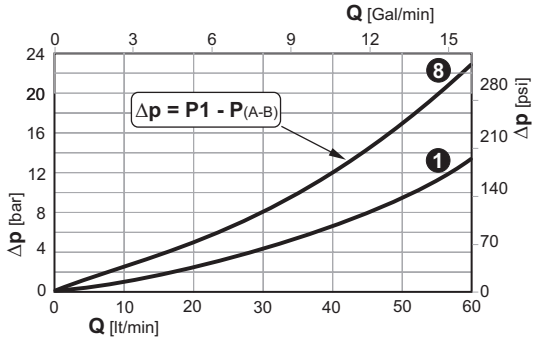
Perdite di carico con il cursore in posizione neutra
(Δp in funzione del numero di sezioni attraversate)
Pressure drop with spool in neutral position
(Δp depending on the number of the crossed sections)



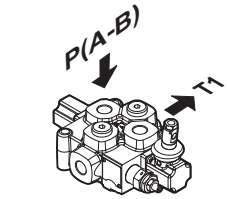


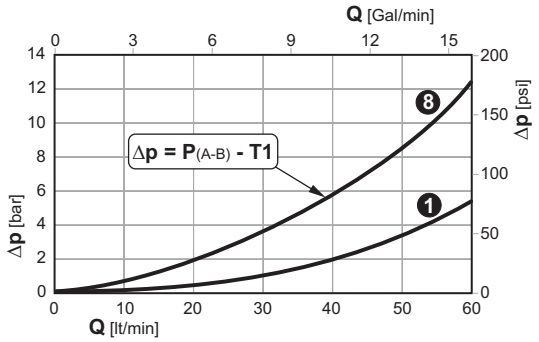
Perdite di carico con il cursore in posizione di lavoro
(Δp in funzione del numero di sezioni attraversate)
Pressure drop with spool in working position
(Δp depending on the number of the crossed sections)





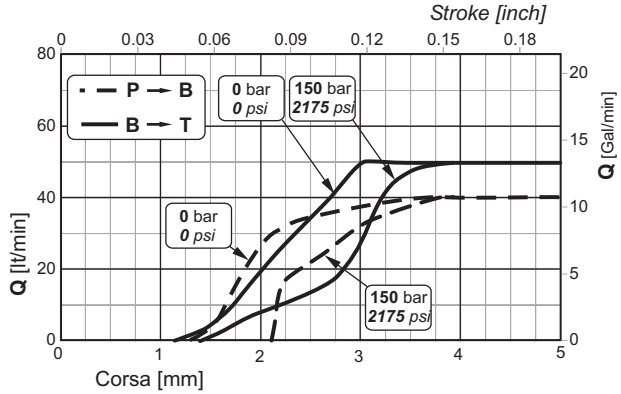
Perdite di carico con il cursore in posizione di lavoro
(Δp in funzione del numero di sezioni attraversate)
Pressure drop with spool in working position
(Δp depending on the number of the crossed sections)



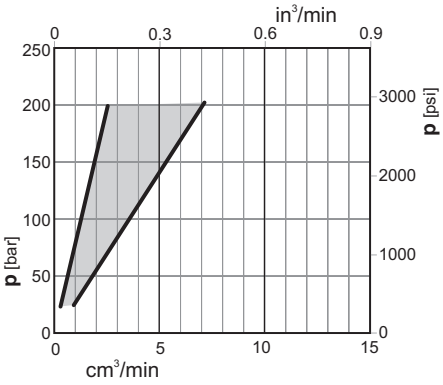


❶ ❽ Sezioni / *Sections*

Curve di progressività
Spool metering



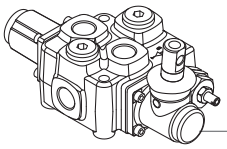
Trafilamenti sul cursore
Spool leakage

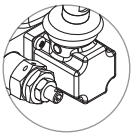


N.B. Le curve sono ricavate con cursore 103 / *NOTE. Performance curves measured using spool 103 type.*

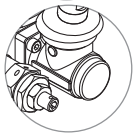
Q65

DISTRIBUTORI MONOBLOCCO
MONOBLOCK DIRECTIONAL CONTROL VALVES



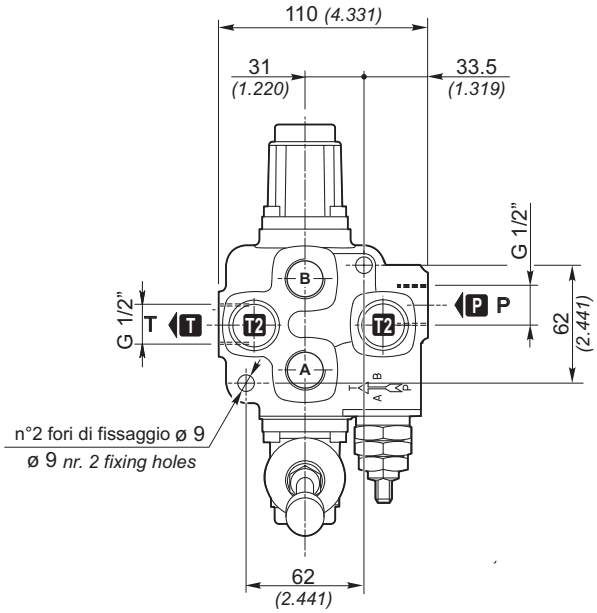


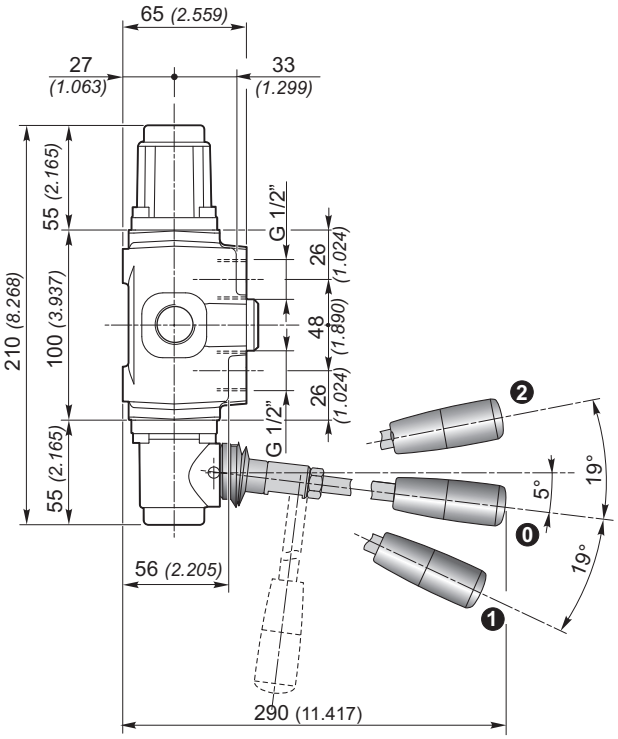
(Standard)
Comando e posizionatore in plastica
Control and positionner plastic



S
Comando e posizionatore in Alluminio
Control and positionner Aluminium

Q65	F7S	R250	2x	103	A1	M1	F3D	S	1E
1	2	3		4	5	6	7	8	9



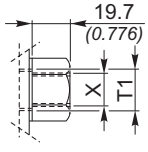


Q65	F7S	R250	2x	103	A1	M1	F3D	12V	2E
1	2	3		5	6	7	8	9	10

Filettature disponibili / *Available ports*

Bocche *Ports*	**BSP** (standard)	**SAE**
P1	G 1/2"	7/8" - 14 UNF (SAE 10)
P2	G 1/2"	7/8" - 14 UNF (SAE 10)
A-B	G 1/2"	7/8" - 14 UNF (SAE 10)
T1	G 1/2"	7/8" - 14 UNF (SAE 10)
T2	G 1/2"	7/8" - 14 UNF (SAE 10)

Tappo per carry-over (su uscita T1)
Carry-over plug (on T1 port)



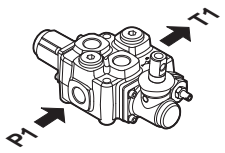
T1		**X**	
G 1/2"	7/8"-14UNF (SAE 10)	G 3/8" G 1/2"	3/4" - 16UNF (SAE 8) 7/8" - 14UNF (SAE 10)

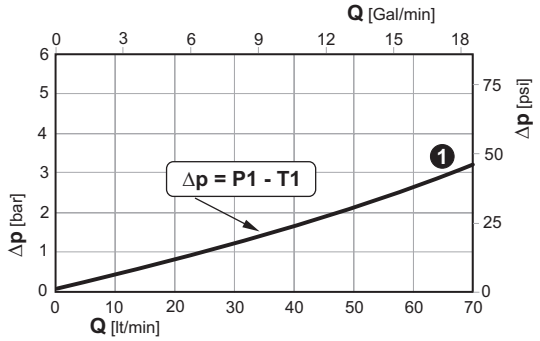
Dimensioni in / *Dimensions in:* mm *(inch)*

Q65

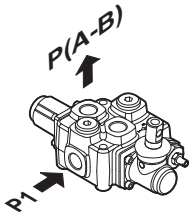
DISTRIBUTORI MONOBLOCCO
MONOBLOCK DIRECTIONAL CONTROL VALVES

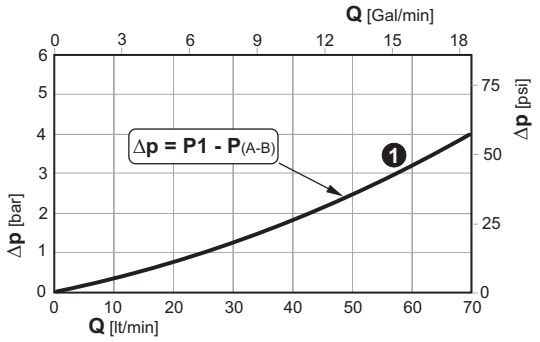
Perdite di carico con il cursore in posizione neutra
(Δp in funzione del numero di sezioni attraversate)
Pressure drop with spool in neutral position
(*Δp depending on the number of the crossed sections*)



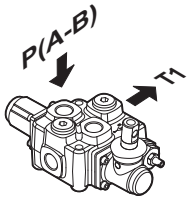


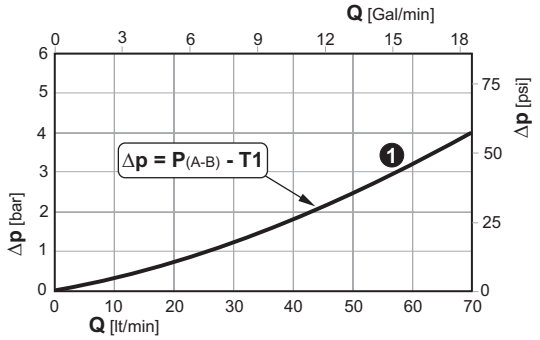
Perdite di carico con il cursore in posizione di lavoro
(Δp in funzione del numero di sezioni attraversate)
Pressure drop with spool in working position
(*Δp depending on the number of the crossed sections*)





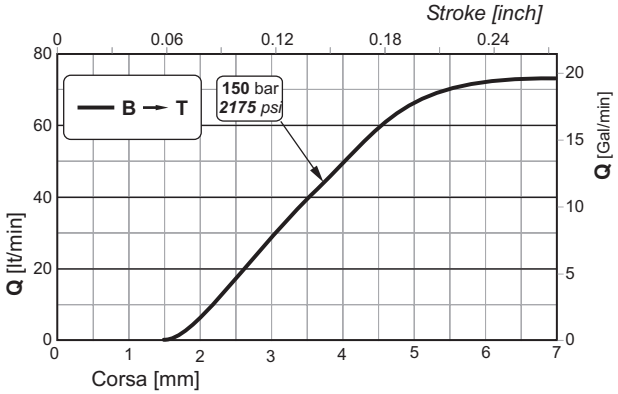
Perdite di carico con il cursore in posizione di lavoro
(Δp in funzione del numero di sezioni attraversate)
Pressure drop with spool in working position
(*Δp depending on the number of the crossed sections*)



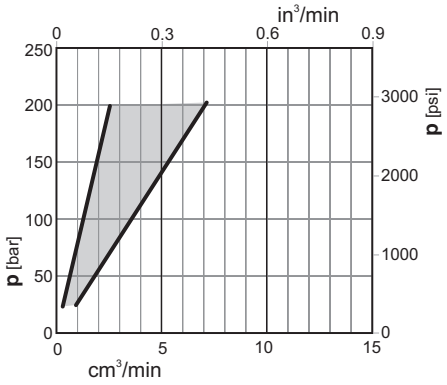


1 Sezioni / *Sections*

Curve di progressività
Spool metering



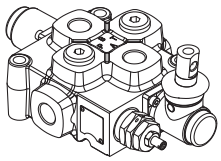
Trafilamenti sul cursore
Spool leakage

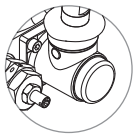


N.B. Le curve sono ricavate con cursore 103 / *NOTE. Performance curves measured using spool 103 type.*

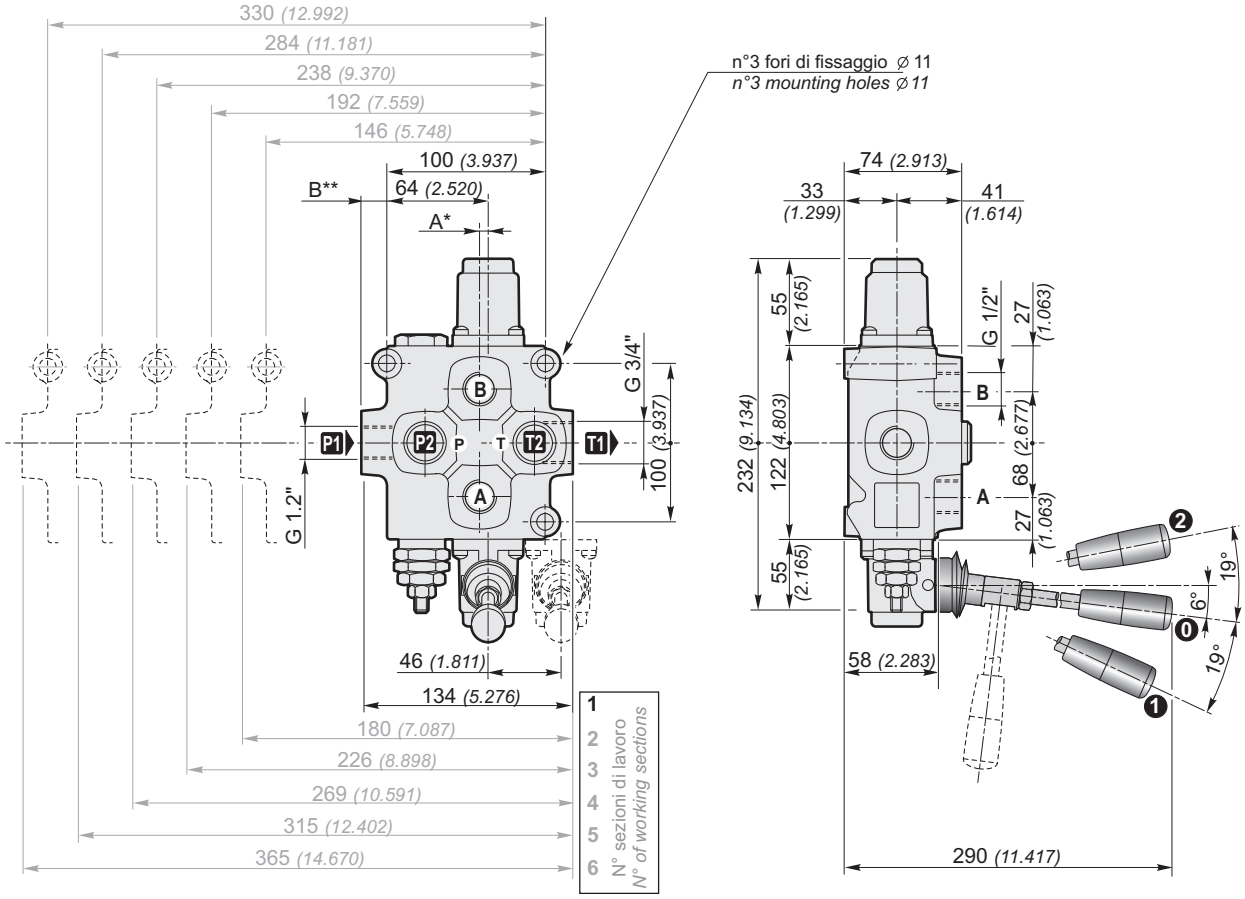
Q75

DISTRIBUTORI MONOBLOCCO
MONOBLOCK DIRECTIONAL CONTROL VALVES





(Standard)
Comando e posizionatore in Alluminio
Control and positionner Aluminium



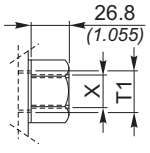
* **A=5.5** per monoblocco ad 1 sezione, **A=0** per monoblocchi a 2, 3, 4, 5, 6 sezioni di lavoro
* ***A =5.5*** *for 1 working section,* ***A=0*** *for 2, 3, 4, 5 and 6 working sections*
** **B=16** per monoblocco ad 1, 2, 3, 6 sezioni, **B=13** per monoblocchi a 4 e 5 sezioni di lavoro
** ***B=16*** *for 1, 2, 3, 6 working section,* ***B=13*** *for 4 and 5 working sections*

Q75	—	F7S	R250	—	2x	103	A1	M1	—	F3D	—	12V	—	2E
1		2	3			5	6	7		8		9		10

Filettature disponibili / *Available ports*

Bocche *Ports*	**BSP** (standard)	**SAE**
P1	G 1/2"	7/8" - 14 UNF (SAE 10)
P2	G 1/2"	7/8" - 14 UNF (SAE 10)
A-B	G 1/2"	7/8" - 14 UNF (SAE 10)
T1	G 3/4"	1" 1/16" - 12 UN (SAE 12)
T2	G 1/2"	7/8" - 14 UNF (SAE 10)

Tappo per carry-over (su uscita T1)
Carry-over plug (on T1 port)



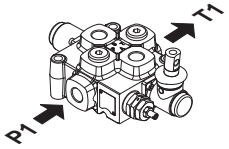
T1		**X**	
G 3/4"	1" 1/16" - 12 UN (SAE 12)	G 1/2" G 3/4"	7/8" - 14 UNF (SAE 10)

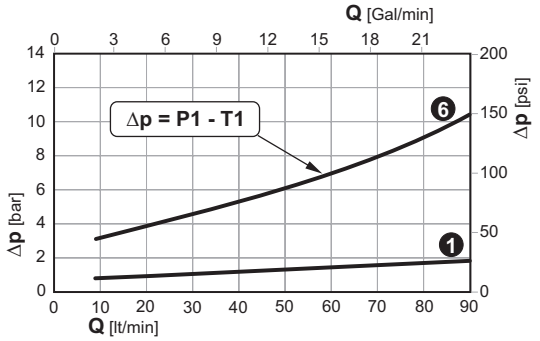
Dimensioni in / *Dimensions in:* mm *(inch)*

Q75

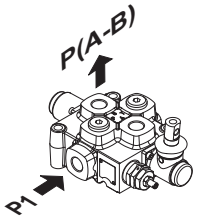
DISTRIBUTORI MONOBLOCCO
MONOBLOCK DIRECTIONAL CONTROL VALVES

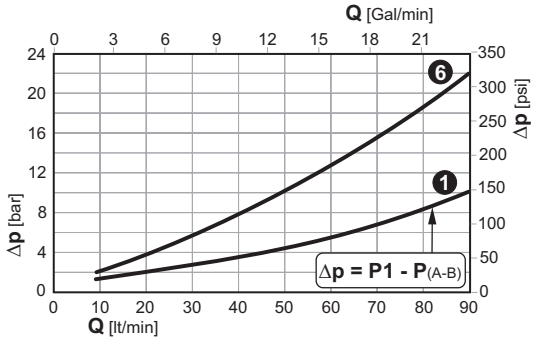
Perdite di carico con il cursore in posizione neutra
(Δp in funzione del numero di sezioni attraversate)
Pressure drop with spool in neutral position
(*Δp depending on the number of the crossed sections*)



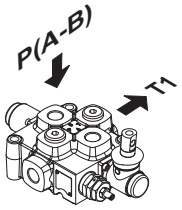


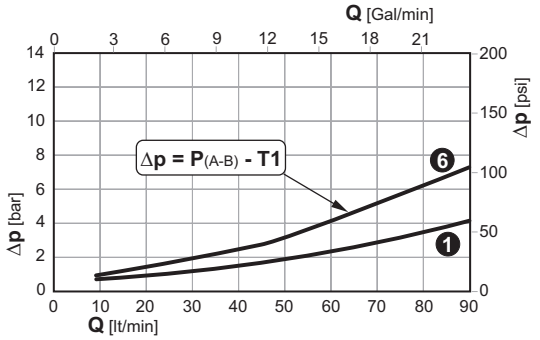
Perdite di carico con il cursore in posizione di lavoro
(Δp in funzione del numero di sezioni attraversate)
Pressure drop with spool in working position
(*Δp depending on the number of the crossed sections*)





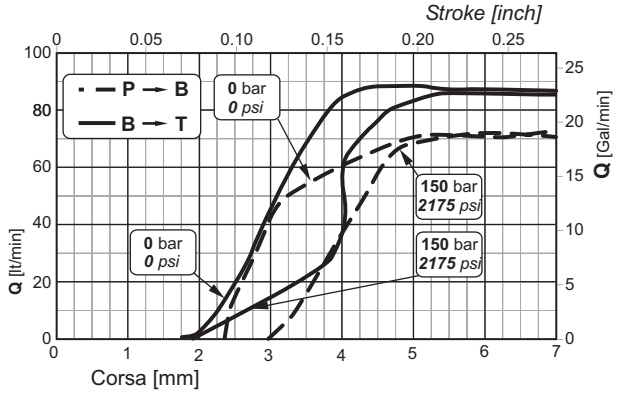
Perdite di carico con il cursore in posizione di lavoro
(Δp in funzione del numero di sezioni attraversate)
Pressure drop with spool in working position
(*Δp depending on the number of the crossed sections*)



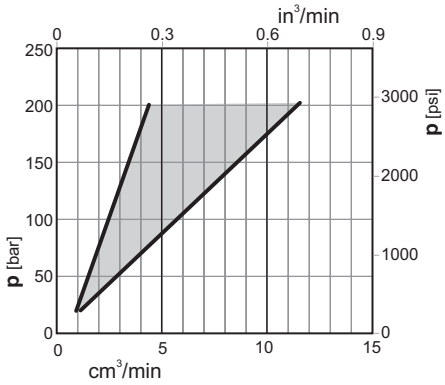


❶ ❻ Sezioni / *Sections*

Curve di progressività
Spool metering



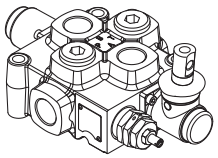
Trafilamenti sul cursore
Spool leakage

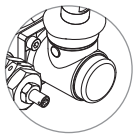


N.B. Le curve sono ricavate con cursore 103 / *NOTE. Performance curves measured using spool 103 type.*

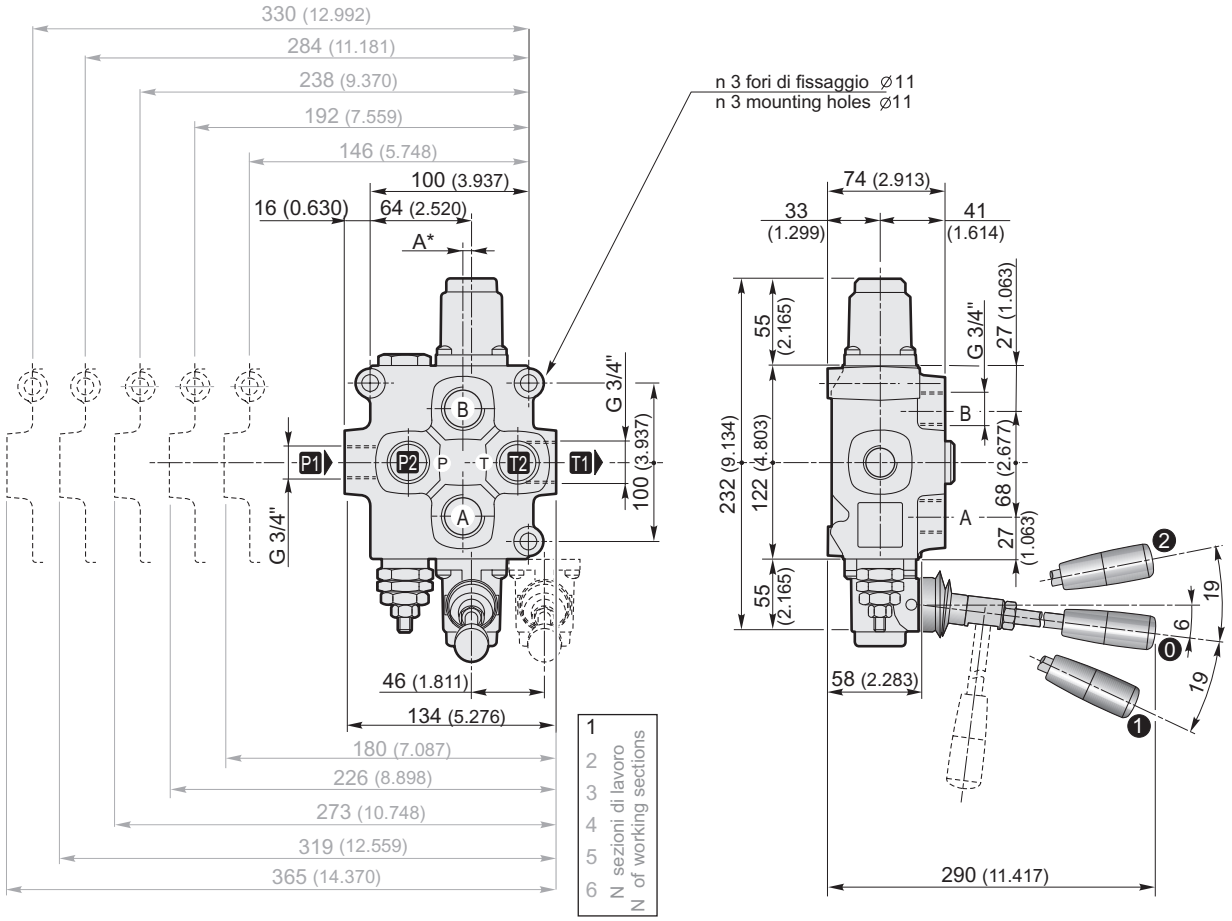
Q95

DISTRIBUTORI MONOBLOCCO
MONOBLOCK DIRECTIONAL CONTROL VALVES





(Standard)
Comando e posizionatore in Alluminio
Control and positionner Aluminium



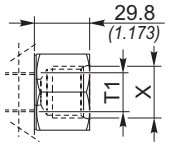
* **A= 5.5** per monoblocco a 1 sezione; **A=0** per monoblocco a 2-3-5-6 sezioni di lavoro
* ***A= 5.5*** *for 1 working section,* ***A=0*** *for 2-3-5-6 working section*

Q95	—	F7S	R250	—	2x	103	A1	M1	—	F3D	—	12V	—	2E
1		2	3			5	6	7		8		9		10

Filettature disponibili / *Available ports*

Bocche *Ports*	**BSP** (standard)	**SAE**
P1	G 3/4"	1" 1/16" - 12 UN (SAE 12)
P2	G 3/4"	1" 1/16" - 12 UN (SAE 12)
A-B	G 3/4"	1" 1/16" - 12 UN (SAE 12)
T1	G 3/4"	1" 1/16" - 12 UN (SAE 12)
T2	G 3/4"	1" 1/16" - 12 UN (SAE 12)

Tappo per carry-over (su uscita T1)
Carry-over plug (on T1 port)



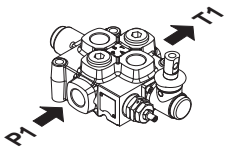
T1		**X**	
G 3/4"	1" 1/16" - 12 UN (SAE 12)	G 3/4"	7/8" - 14 UNF (SAE 10)

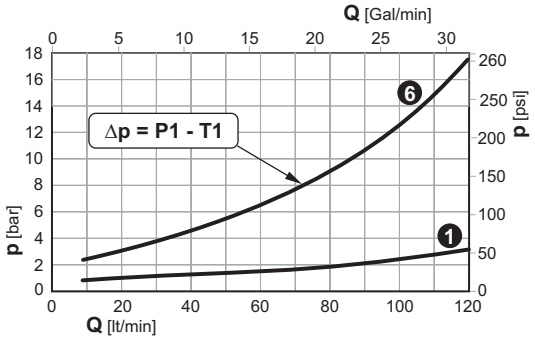
Dimensioni in / *Dimensions in:* mm *(inch)*

Q95

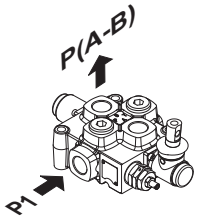
DISTRIBUTORI MONOBLOCCO
MONOBLOCK DIRECTIONAL CONTROL VALVES

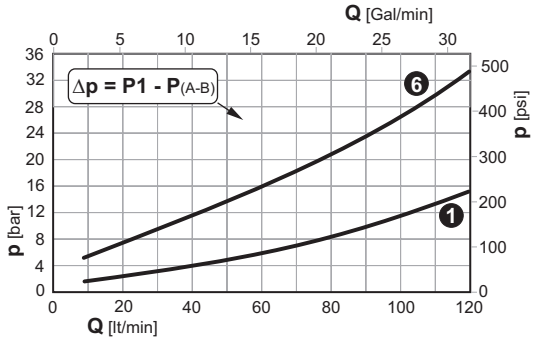
Perdite di carico con il cursore in posizione neutra
(Δp in funzione del numero di sezioni attraversate)
Pressure drop with spool in neutral position
(*Δp depending on the number of the crossed sections*)



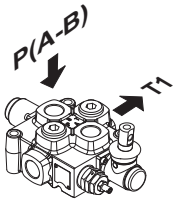


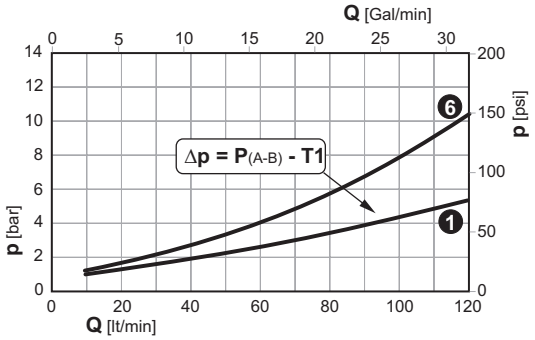
Perdite di carico con il cursore in posizione di lavoro
(Δp in funzione del numero di sezioni attraversate)
Pressure drop with spool in working position
(*Δp depending on the number of the crossed sections*)





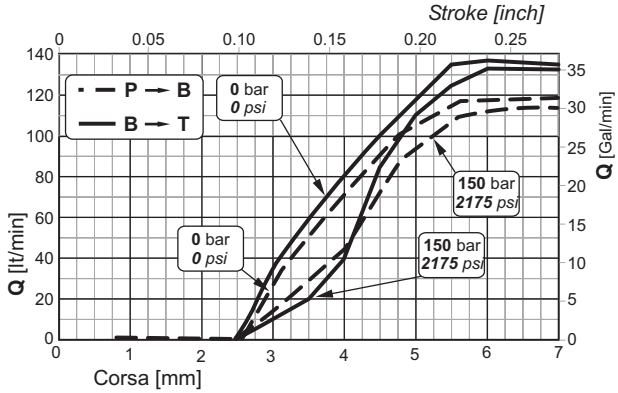
Perdite di carico con il cursore in posizione di lavoro
(Δp in funzione del numero di sezioni attraversate)
Pressure drop with spool in working position
(*Δp depending on the number of the crossed sections*)



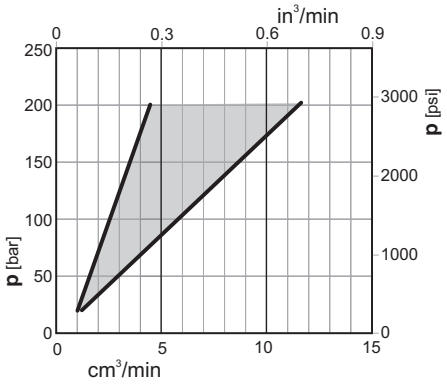


❶ ❻ Sezioni / *Sections*

Curve di progressività
Metering spool



Trafilamenti sul cursore
Spool leakage



N.B. Le curve sono ricavate con cursore 103 / *NOTE. Performance curves measured using spool 103 type.*

Fiancata d'ingresso — *Inlet section*

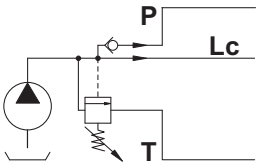
Q25	—	F1S	R250	—	2x	103	A1	M1	—	F3D	—	12V	—	2E+1
1		2	3			5	6	7		8		9		10

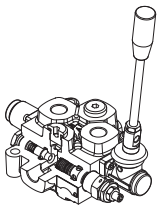
2 - Tipo fiancata d'ingresso / *Inlet section type*

			Q35	Q15	GMV 15	Q25	Q45	Q65	Q75	Q95
F1S	Collettore di entrata con valvola di ritegno VR e valvola limitatrice di pressione VLP	*Inlet section with check (VR) and relief valves (VLP)*			•	•	•		•	•
F2S	Collettore di entrata con valvola di ritegno VR	*Inlet sections with check valve VR*			•	•	•		•	•
F7S	Collettore di entrata con valvola limitatrice di pressione VLP	*Inlet section with relief valve VLP*	•	•	•	•	•	•	•	•
F8S	Collettore di entrata senza valvole VLP e VR	*Inlet section without valves VLP and VR*	•	•	•	•	•	•	•	•

F1S *F1S/SAE*

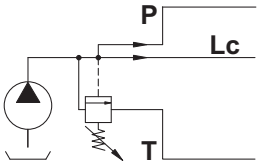
Collettore di entrata con valvola di ritegno VR
e valvola limitatrice di pressione VLP
Inlet section with check (VR) and relief valves VLP

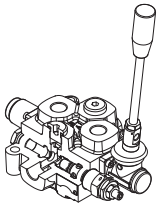




F7S

Collettore di entrata con valvola limitatrice di pressione VLP
Inlet section with relief valve VLP





3 - Tipo molla e taratura valvola

Dove è presente la valvola VLP (fiancate F1S e F7S), deve essere specificato il tipo di molla (**B, N o R**) e la sua pressione di taratura; **se quest'ultima viene omessa, verrà messa la molla N tarata a 150 bar**.

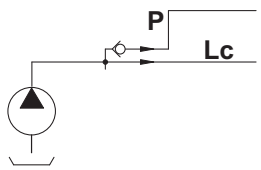
3 - Type of spring and valve setting

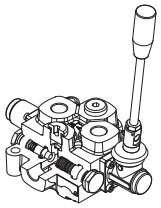
*If valve VLP is installed (inlet section F1S and F7S), specify the type of spring (**B, N or R**) and its pressure setting. **If omitted, spring N with a 150 bar setting will be installed**.*

			molla bianca *white spring*	molla nera *black spring*	molla rossa *red spring*
R	Tipo di molla per la VLP *Type of spring for relief valve*		**B**	**N**	**R**
			Campi di taratura / *Calibration fields* *bar (psi)*		
250	Taratura della VLP *VLP Setting*	*35S / 65S / 105S*	10 ÷ 80 *(145 ÷ 1160)*	81 ÷ 200 *(1175 ÷ 2900)*	201 ÷ 380 *(2915 ÷ 5510)*
		15S	0 ÷ 120 *(0 ÷ 1740)*	100 ÷ 280 *(1450 ÷ 2900)*	—

F2S

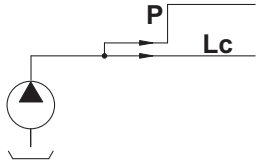
Collettore di entrata con valvola di ritegno VR
Inlet sections with check valve VR

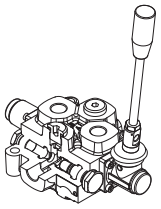




F8S

Collettore di entrata senza valvole
Inlet section without valves





Fiancata d'ingresso — *Inlet section*

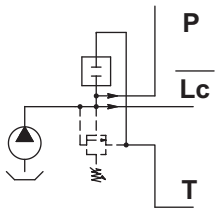
GMV15	F1S	R250	MSE	2x	103	A1	M1	F3D	12V	2E+1
1	2	3	**4**		5	6	7	8	9	10

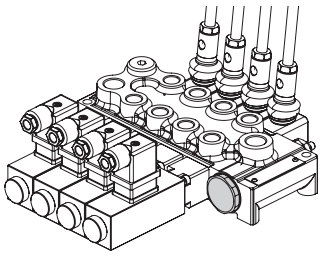
4 - Valvole aggiuntive alla fiancata (facoltativo) / *Additional valves to the inlet section (optional)*

			Q35	Q15	GMV 15	Q25	Q45	Q65	Q75	Q95
PMS	Collettore di entrata con predisposizione per valvola di messa a scarico elettrica (diretta)	*Inlet section presets for electrical outlet release valve (direct)*			•					
MSE	Collettore di entrata con valvola di messa a scarico elettrica (diretta)	*Inlet section with electrical outlet release valve (direct)*			•					

PMS

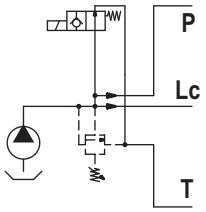
Collettore di entrata con predisposizione per valvola di messa a scarico elettrica (diretta)
Inlet section presets for electrical outlet release valve (direct)

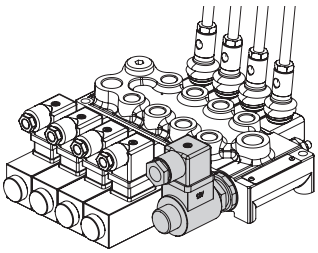




MSE

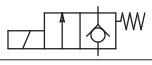
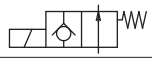
Collettore di entrata con valvola di messa a scarico elettrica (diretta)
Inlet section with electrical outlet release valve (direct)



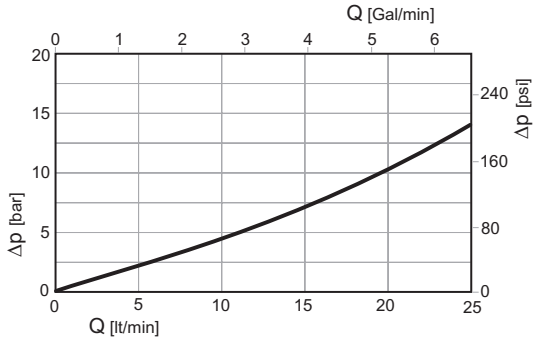


N.B.
Specificare tensione e schema dell'elettrovalvola
Specify voltage and type of the solenoid operated valve

Tensione *Voltage*
12 V.DC
24 V.DC

Schema *Scheme*		
N.C.	Normalmente chiusa *Usually closed*	
N.A.	Normalmente aperta *Usually open*	

Perdite di carico del distributore con valvola di messa a scarico elettrica aperta.
Directional control valve pressure drop with electrical outlet release valve open.



Sezione di lavoro — *Working section*

Q25	—	F7S	R250	—	2x	103	A1	M1	—	F3D	—	12V	—	2E
1		2	3			5	6	7		8		9		10

5 - Tipo cursore / *Spool type*

Cursori / *Spools*

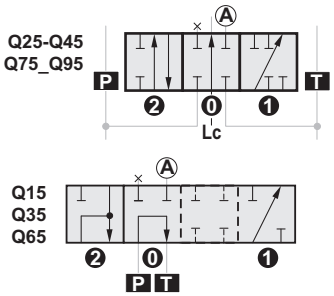
			Q35	Q15	GMV 15	Q25	Q45	Q65	Q75	Q95
101	Semplice effetto in A	*Single acting in A port*	•	•	•	•	•	•	•	•
102	Semplice effetto in B	*Single acting in B port*	•	•	•	•	•	•	•	•
103	Doppio effetto, A e B chiusi in posizione 0	*Double acting A and B closed in 0 position*	•	•	•	•	•	•	•	•
103RN	Doppio effetto a ricoprimento negativo	*Double acting with negative overlap*	•	•						
106	Doppio effetto, passaggi chiusi in posizione 0	*Double acting, ports closed in 0 position*				•	•		•	•
107	Doppio effetto, A in T e B chiuso in posizione 0	*Double acting, A to T and B closed in 0 position*				•	•		•	•
108	Doppio effetto, B in T e A chiuso in posizione 0	*Double acting, B to T and A closed in 0 position*				•	•		•	•
109	Semplice effetto in A, A in T in posizione 0	*Single acting in A, A to T in 0 position*				•	•		•	•
110	Semplice effetto in B, B in T in posizione 0	*Single acting in B, B to T in 0 position*				•	•		•	•
111	Doppio effetto, A e B in T in posizione 0	*Double acting, A and B to T in 0 position*	•	•	•	•	•	•	•	•
114	Doppio efletto, A e B in T e Lc chiusa in posizione 0	*Double acting, A and B to T and through passage closed in 0 position*				•	•		•	•
116*	Doppio effetto con 4ª posizione flottante	*Double acting with 4th position floating*		•	•	•	•		•	•
126*	Doppio effetto con 4ª posizione flottante	*Double acting with 4th position floating*			•	•	•		•	•

*** Limitazioni / *Limitations***

Cursore *Spools*	**Applicabile con: / *Applicable with:***	
	Comando / *Control*	**Posizionatore / *Positioner***
116	A1-Z1 / A2-Z1 / A4-Z1 / A6-Z1 / A8-Z1	R8
126	A1 / A2 / A4 / A5 / A6 / A8 / SL / SLA15 / A15 / A16	R10-Z1

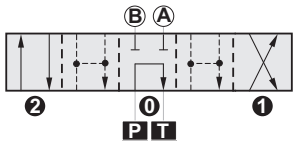
101

Semplice effetto in A
Single acting in A port



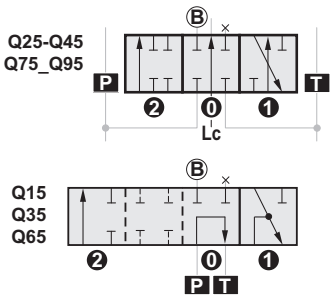
103RN

Doppio effetto a ricoprimento negativo
Double acting with negative overlap



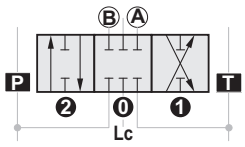
102

Semplice effetto in B
Single acting in B port



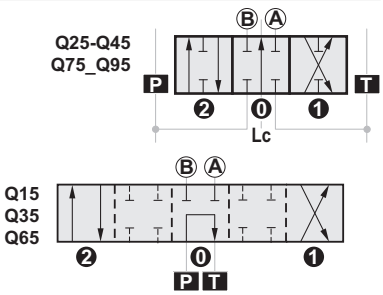
106

Doppio effetto, passaggi chiusi in posizione 0
Double acting, ports closed in 0 position



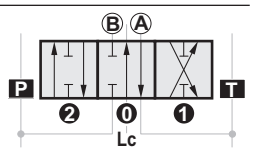
103

Doppio effetto, A e B chiusi in posizione 0
Double acting, A and B closed in 0 position



107

Doppio effetto, A in T e B chiuso in posizione 0
Double acting, A to T and B closed in 0 position



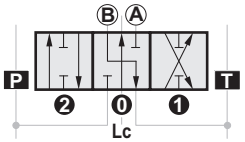
Sezione di lavoro — *Working section*

Q25	—	F7S	R250	—	2x	103	A1	M1	—	F3D	—	12V	—	2E
1		2	3			5	6	7		8		9		10

Cursori / *Spools*

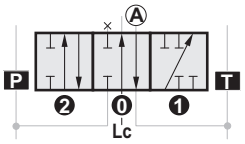
108

Doppio effetto, B in T e A chiuso in posizione 0
Double acting, B to T and A closed in 0 position



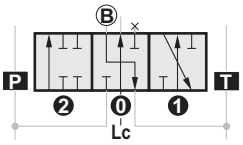
109

Semplice effetto in A, A in T in posizione 0
Single acting in A, A to T in 0 position



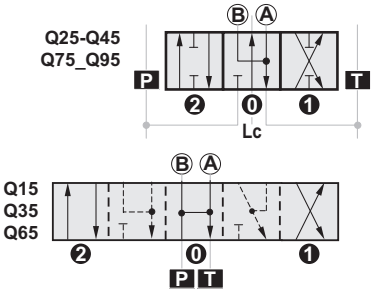
110

Semplice effetto in B, B in T in posizione 0
Single acting in B, B to T in 0 position



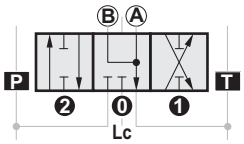
111

Doppio effetto, A e B in T in posizione 0
Double acting, A and B to T in 0 position



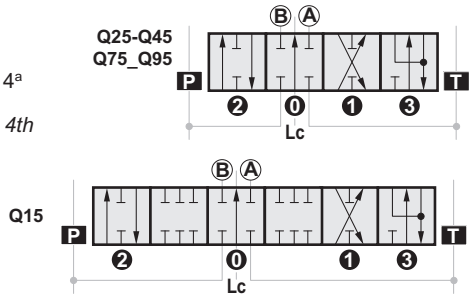
114

Doppio efletto, A e B in T e Lc chiusa in posizione 0
Double acting, A and B to T and through passage closed in 0 position



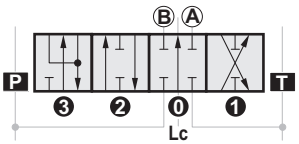
116

Doppio effetto con 4ª posizione flottante
Double acting with 4th position floating



126

Doppio effetto con 4ª posizione flottante
Double acting with 4th position floating



Sezione di lavoro — *Working section*

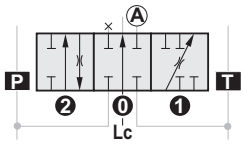
Q25	—	F7S	R250	—	2x	103	A1	M1	—	F3D	—	12V	—	2E
1		2	3			5	6	7		8		9		10

Cursori sensibilizzati / *Sensitized spools*

			Q35	Q25	Q45	Q75	Q95
101.20	Semplice effetto in A	*Single acting in A port*		•	•	•	•
102.20	Semplice effetto in B	*Single acting in B port*		•	•	•	•
103.05	Doppio effetto, A e B chiusi in posizione 0	*Double acting, A and B closed in 0 position*		•	•	•	•
103.10	Doppio effetto, A e B chiusi in posizione 0	*Double acting, A and B closed in 0 position*				•	•
103.20	Doppio effetto, A e B chiusi in posizione 0	*Double acting, A and B closed in 0 position*		•	•		
103.25	Doppio effetto, A e B chiusi in posizione 0	*Double acting, A and B closed in 0 position*		•	•		
103.30	Doppio effetto, A e B chiusi in posizione 0	*Double acting, A and B closed in 0 position*				•	•
103.40	Doppio effetto, A e B chiusi in posizione 0	*Double acting, A and B closed in 0 position*		•	•		
107.20	Doppio effetto, A in T e B chiuso in posizione 0	*Double acting, A to T and B closed in 0 position*		•	•		
108.20	Doppio effetto, B in T e A chiuso in posizione 0	*Double acting, B to T and A closed in 0 position*		•	•		
111.05	Doppio effetto, A e B in T in posizione 0	*Double acting, A and B to T in 0 position*		•	•		
111.10	Doppio effetto, A e B in T in posizione 0	*Double acting, A and B to T in 0 position*				•	•
111.20	Doppio effetto, A e B in T in posizione 0	*Double acting, A and B to T in 0 position*		•	•		
111.25	Doppio effetto, A e B in T in posizione 0	*Double acting, A and B to T in 0 position*		•	•		
111.30	Doppio effetto, A e B in T in posizione 0	*Double acting, A and B to T in 0 position*				•	•
111.40	Doppio effetto, A e B in T in posizione 0	*Double acting, A and B to T in 0 position*		•	•		

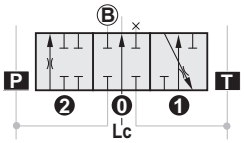
101.20

Semplice effetto in A
Single acting in A port



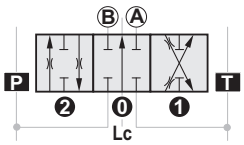
102.20

Semplice effetto in B
Single acting in B port



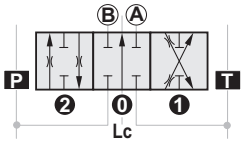
103.05

Doppio effetto, A e B chiusi in posizione 0
Double acting, A and B closed in 0 position



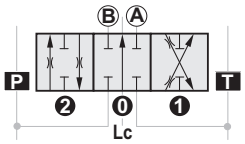
103.10

Doppio effetto, A e B chiusi in posizione 0
Double acting, A and B closed in 0 position



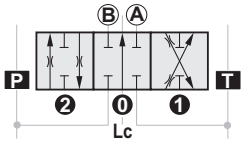
103.20

Doppio effetto, A e B chiusi in posizione 0
Double acting, A and B closed in 0 position



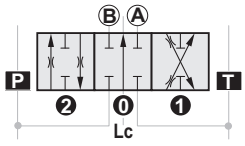
103.25

Doppio effetto, A e B chiusi in posizione 0
Double acting, A and B closed in 0 position



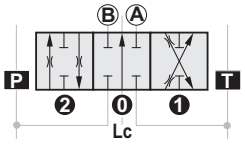
103.30

Doppio effetto, A e B chiusi in posizione 0
Double acting, A and B closed in 0 position



103.40

Doppio effetto, A e B chiusi in posizione 0
Double acting, A and B closed in 0 position



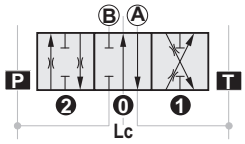
Sezione di lavoro — *Working section*

Q25	F7S	R250	2x	103	A1	M1	F3D	12V	2E
1	2	3		5	6	7	8	9	10

Cursori sensibilizzati / *Sensitized spools*

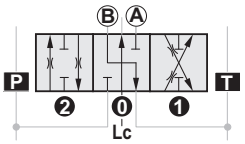
107.20

Doppio effetto, A in T e B chiuso in posizione 0
Double acting, A to T and B closed in 0 position



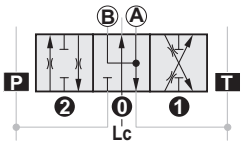
108.20

Doppio effetto, B in T e A chiuso in posizione 0
Double acting, B to T and A closed in 0 position



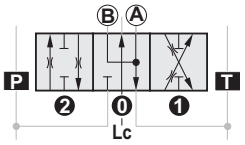
111.05

Doppio effetto, A e B in T in posizione 0
Double acting, A and B to T in 0 position



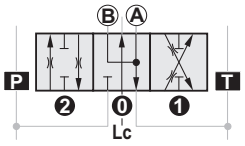
111.10

Doppio effetto, A e B in T in posizione 0
Double acting, A and B to T in 0 position



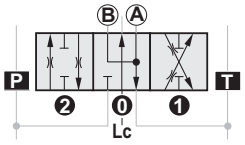
111.20

Doppio effetto, A e B in T in posizione 0
Double acting, A and B to T in 0 position



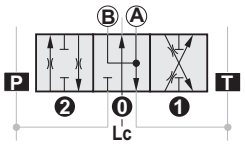
111.25

Doppio effetto, A e B in T in posizione 0
Double acting, A and B to T in 0 position



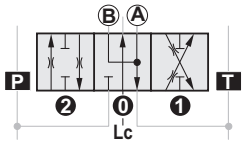
111.30

Doppio effetto, A e B in T in posizione 0
Double acting, A and B to T in 0 position



111.40

Doppio effetto, A e B in T in posizione 0
Double acting, A and B to T in 0 position



Sezione di lavoro | ***Working section***

Q25	F7S	R250	2x	103	A1	M1	F3D	12V	2E
1	2	3		5	6	7	8	9	10

6 - Tipo di comando / *Control type*

			Q35	Q15 GMV15	Q25	Q45	Q65	Q75	Q95
A1	Comando manuale con leva standard	*Hand control with standard lever*	•	•	•	•	•	•	•
A1/Z1*	Versione con kit distanziale per il montaggio del cursore 116	*Version with spacer kit for installation of spool 116*		•	•	•		•	•
A1S	Comando manuale con leva di sicurezza	*Hand control with safety lever*	•		•	•	•	•	•
A2	Comando manuale con leva standard ruotata di 180°	*Hand control with standard lever mounted rotated 180°*		•	•	•	•	•	•
A2/Z1*	Versione con kit distanziale per il montaggio del cursore 116	*Version with spacer kit for installation of spool 116*		•	•	•		•	•
A2S	Comando manuale con leva di sicurezza ruotata di 180°	*Hand control with safety lever rotated 180°*	•		•	•	•	•	•
A3*	Scatola di protezione in sostituzione del comando manuale con leva	*Cap replacing hand control with lever*			•	•	•	•	•
A4	Attacco diretto sul cursore per rinvio a distanza rigido	*Direct control connection on spool for stiff remote control*			•	•	•	•	•
A4/Z1*	Versione con kit distanziale per il montaggio del cursore 116	*Version with spacer kit for installation of spool 116*			•	•		•	•
A5	Attacco diretto sul cursore con terminale sferico (da utilizzare solo con il posizionamento M4 (2-1))	*Direct control connection on spool with spherical end (Control to be used for positioning M4 (2-1))*	•		•	•	•	•	•
A6	Attacco diretto sul cursore con terminale ad occhio fisso	*Direct control connection on spool eye end*	•		•	•	•	•	•
A6/Z1*	Versione con kit distanziale per il montaggio del cursore 116	*Version with spacer kit for installation of spool 116*			•	•		•	•
A8	Attacco diretto sul cursore per cavo flessibile rinvio a distanza	*Direct connection on spool for remote flexible control*			•	•	•	•	•
A8/Z1*	Versione con kit distanziale per il montaggio del cursore 116	*Version with spacer kit for installation of spool 116*			•	•		•	•
C1*	Cavo flessibile	*Flexible cable*			•	•		•	•
SL*	Comando a distanza	*Remote control*			•	•		•	•
SLA15*	Comando a cloche per controllo simultaneo di due cursori a distanza	*Remote dual axis control for simultaneous operation of two spools*			•	•		•	•

*** Limitazioni / *Limitations***

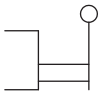
Comando ***Control***	**Applicabile con: / *Applicable with:***	
	Comando / *Control*	**Cursore / *Spool***
A3	M1-U1 / M2-U1 / M3-U1 / M1-U2 / M2-U2 / M3-U2 / D2 / P1-N / P1-NP / D3	Tutti / *All*
C1	A8 / M1U2 - M2U2 - M3U2	
SL		
SLA15		

Comando ***Control***	**Applicabile con: / *Applicable with:***	
	Posizionatore / *Positioner*	**Cursore / *Spool***
A1/Z1 **A2/Z1** **A4/Z1** **A6/Z1** **A8/Z1**	R8	116

Sezione di lavoro — *Working section*

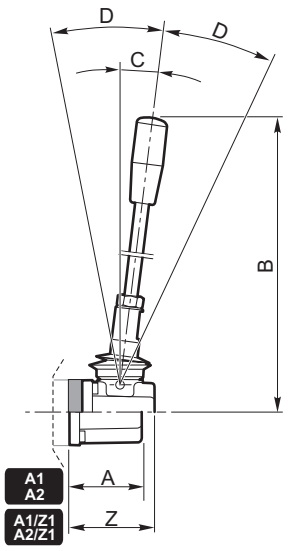
Q25	—	F7S	R250	—	2x	103	A1	M1	—	F3D	—	12V	—	2E
1		2	3			5	6	7		8		9		10

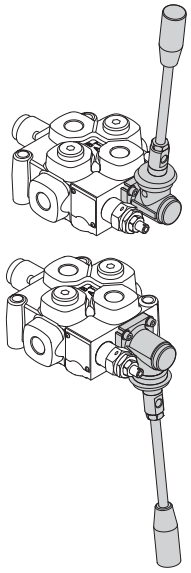
A1 — A1/Z1



A1: Comando manuale con leva standard
A1: Hand control with standard lever

A1/Z1: Versione con kit distanziale per il montaggio del cursore 116
A1/Z1: Version with spacer kit for installation of spool 116





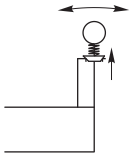
A2 — A2/Z1

A2: Comando manuale con leva standard ruotata di 180°
A2: Hand control with standard lever rotated 180°

A2/Z1: Versione con kit distanziale per il montaggio del cursore 116
A2/Z1: Version with spacer kit for installation of spool 116

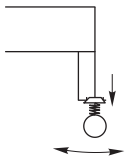
	A	B	C	D	Z
Q15 GMV15	35 *(1.378)*	205 *(8.071)*	7°	14°	44 *(1.732)*
Q35 Q25 - Q45	42 *(1.654)*	205 *(8.071)*	7°	18°	50.5 *(1.988)*
Q65 Q75 - Q95	55 *(2.165)*	260 *(10.236)*	6°	19°	68.5 *(2.697)*

A1S

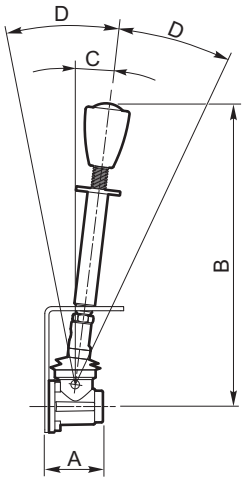


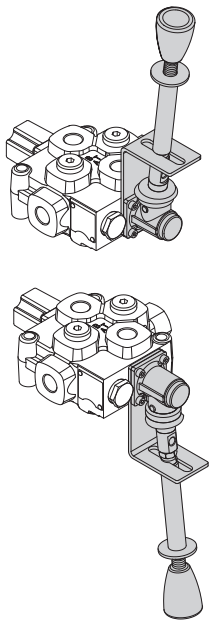
A1S: Comando manuale con leva di sicurezza
A1S: Hand control with safety lever

A2S



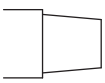
A2S: Comando manuale con leva di sicurezza ruotata di 180°
A2S: Hand control with safety lever rotated 180°



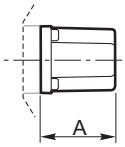


	A	B	C	D
Q35 Q25 - Q45	42 *(1.654)*	219 *(8.622)*	7°	18°
Q65 Q75 - Q95	55 *(2.165)*	256 *(10.079)*	6°	19°

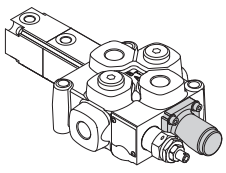
A3



Scatola di protezione in sostituzione del comando manuale con leva
Proof cap replacing hand control with lever



	A
Q25 - Q45	42 *(1.654)*
Q75 - Q95	55 *(2.165)*



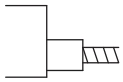
Dimensioni in / *Dimensions in:* mm *(inch)*

Sezione di lavoro — *Working section*

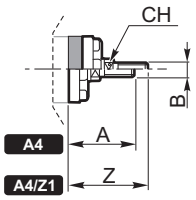
Q25	—	F7S	R250	—	2x	103	A1	M1	—	F3D	—	12V	—	2E
1		2	3			5	6	7		8		9		10

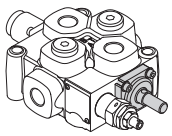
A4 A4/Z1

A4: Attacco diretto sul cursore
per rinvio a distanza rigido
A4: Direct control connection on spool
for stiff remote control



A4/Z1: Versione con kit distanziale per il montaggio del cursore 116
A4/Z1: Version with spacer kit for installation of spool 116

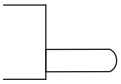


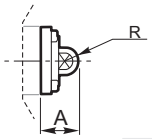


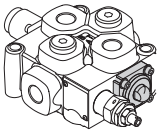
	A	B	CH	Corsa *Stroke*	Z
Q25 - Q45	39 *(1.535)*	M8	9 *(0.354)*	±5 *(0.197)*	47.5 *(1.870)*
Q65 Q75 - Q95	53 *(2.087)*	M10	14 *(0.551)*	±7 *(0.276)*	66.5 *(2.618)*

A5

Attacco diretto sul cursore
con terminale sferico
(da utilizzare solo
con il posizionamento M4 (2-1)
Direct control connection
on spool with spherical end
(Control to be used
for positioning M4 (2-1))0



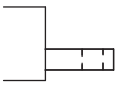




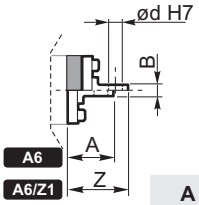
	A	R	Corsa *Stroke*
Q35 Q25 - Q45	22 *(0.866)*	6.85 *(0.270)*	±5 *(0.197)*
Q65 Q75 - Q95	33 *(1.299)*	8.75 *(0.344)*	±7 *(0.276)*

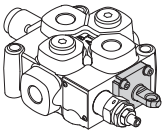
A6 A6/Z1

A6: Attacco diretto sul cursore
con terminale ad occhio fisso
A6: Direct control connection
on spool eye end



A6/Z1: Versione con kit distanziale per il montaggio del cursore 116
A6/Z1: Version with spacer kit for installation of spool 116

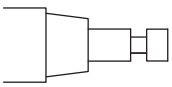




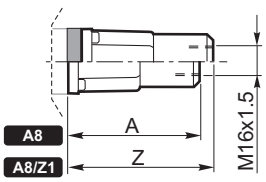
	A	B	d	Corsa *Stroke*	Z
Q35 Q25 - Q45	20 *(0.787)*	6 *(0.236)*	9 *(0.354)*	±5 *(0.197)*	28.5 *(1.122)*
Q65 Q75 - Q95	27 *(1.063)*	7 *(0.276)*	11 *(0.433)*	±7 *(0.276)*	40.5 *(1.594)*

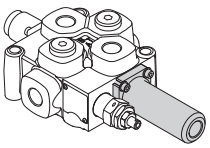
A8 A8/Z1

A8: Attacco diretto sul cursore
per cavo flessibile rinvio a distanza
A8: Direct connection on spool
for remote flexible control



A8/Z1: Versione con kit distanziale per il montaggio del cursore 116
A8/Z1: Version with spacer kit for installation of spool 116





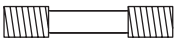
	A	Z
Q25 - Q45	73 *(2.874)*	81.5 *(3.209)*
Q65 Q75 - Q95	77 *(3.031)*	90.5 *(3.563)*

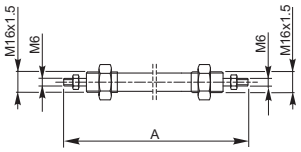
Dimensioni in / *Dimensions in:* mm *(inch)*

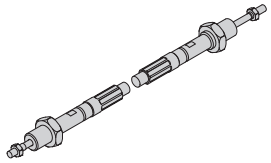
Sezione di lavoro										*Working section*									
Q25	—	F7S	R250	—	2x	103	A1	M1	—	F3D	—	12V	—	2E					
1		2	3			5	6	7		8		9		10					

C1

Cavo flessibile
Flexible cable







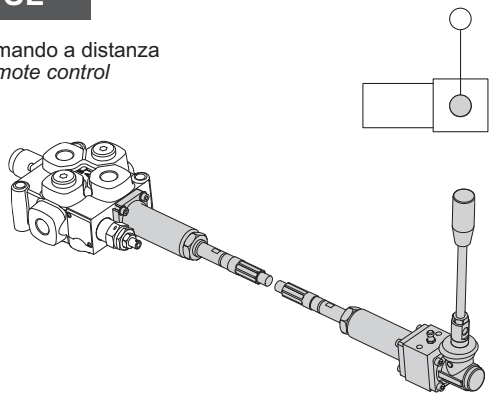
	A
Q25 - Q45 **Q75 - Q95**	Massima lunghezza cavo consigliata 4000 mm Raggio min. di curvatura 200mm *Max. reccomended lenght 4000 mm* *Minimun radium curve 200 mm*

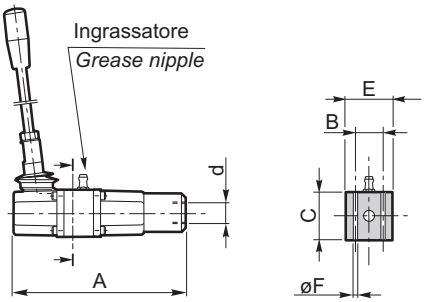
Dove è utilizzato il cavo flessibile C1, è necessario indicare la lunghezza del cavo espressa in mm.
Esempio per un cavo lungo 1000 mm: **A8-C1**x1000**-SL**

Indicate the cable length in mm when flexible cable C1 is used.
*E.g.: for a cable 1000 mm in length: **A8-C1**x1000**-SL***

SL

Comando a distanza
Remote control

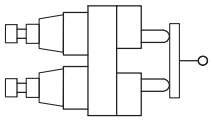


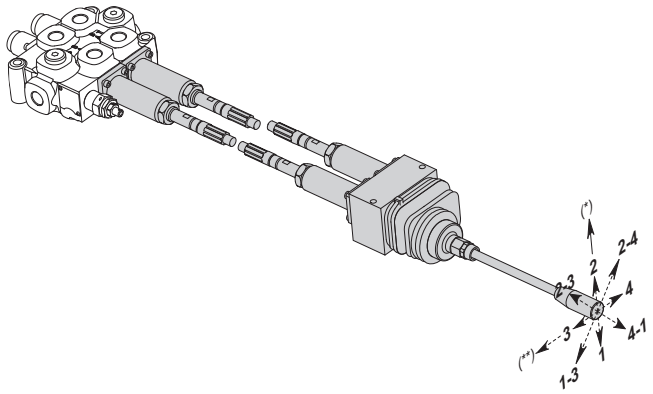


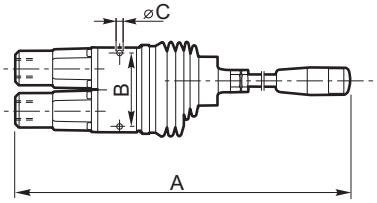
	A	B	C	d	E	F
Q25 - Q45	135 *(5.315)*	26 *(1.024)*	40 *(1.575)*	M16x1.5	38 *(1.496)*	5.5 *(0.217)*
Q75 - Q95	172 *(6.772)*	33.5 *(1.319)*	45 *(1.772)*		45 *(1.772)*	6.5 *(0.256)*

SLA15

Comando a cloche per controllo simultaneo di due cursori a distanza
Remote dual axis control for simultaneous operation of two spools







	A	B	Ø d
Q25 - Q45 **Q75 - Q95**	358 *(14.094)*	77 *(3.031)*	6.5 *(0.256)*

Eventuale cassetto con 4^ pos. (solo cod.126)
Optional spool with 4th position (only code 126)
(*) su 1ª sezione / on 1st section
(**) su 2ª sezione / on 2nd section

Dimensioni in / *Dimensions in:* mm *(inch)*

Sezione di lavoro — ***Working section***

Q25	F7S	R250	2x	103	A1	M1	F3D	12V	2E
1	2	3		5	6	7	8	9	10

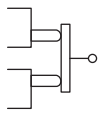
6 - Tipo di comando / *Control type*

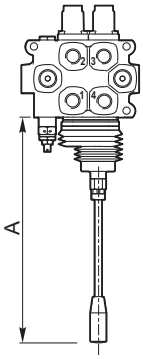
			Q15 GMV15	Q25	Q45	Q75	Q95
	Leva a cloche per il comando singolo o simultaneo di due cursori:	***Dual axis for single or simultaneous control of two spools:***					
A15_	- come a schema (pag. F-31)	*- as from the scheme (page F-31)*	●	●	●		
A35_	- come a schema (pag. F-31)	*- as from the scheme (page F-31)*				●	●
A16	- come a schema (pag. F-31)	*- as from the scheme (page F-31)*		●	●		
	Comando manuale con attivazione del contatto elettrico del microswitch centralizzato:	***Hand control with ON-OFF centralized microswitch operation***					
N1-A1	- per doppio effetto	*- double acting*	●	●	●	●	●
N1A-A1	- per semplice effetto in posizione 1	*- single acting in 1 position*		●	●	●	●
N1B-A1	- per semplice effetto in posizione 2	*- single acting in 2 position*		●	●	●	●
	Comando manuale, ruotato di 180°, con attivazione del contatto elettrico del microswitch centralizzato:	***180° Rotated hand control with ON-OFF centralized microswitch operation***					
N1-A2	- per doppio effetto	*- double acting*	●	●	●	●	●
N1A-A2	- per semplice effetto in posizione 1	*- single acting in 1 position*		●	●	●	●
N1B-A2	- per semplice effetto in posizione 2	*- single acting in 2 position*		●	●	●	●
	Comando microswitch centralizzato:	***Centralized microswitch control:***					
N1-A3	- per doppio effetto	*- double acting*		●	●	●	●
N1A-A3	- per semplice effetto in posizione 1	*- single acting in 1 position*		●	●	●	●
N1B-A3	- per semplice effetto in posizione 2	*- single acting in 2 position*		●	●	●	●

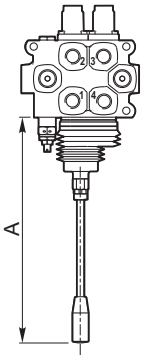
A15_ A35_

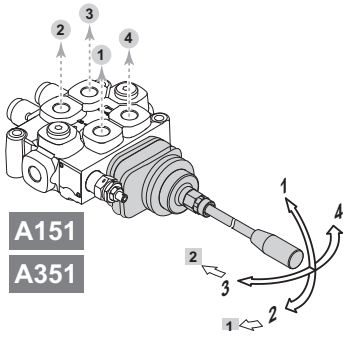
Leva a cloche per il comando singolo o simultaneo di due cursori, come schema a lato
Dual axis for simultaneous or single control of two spools, as from the scheme on the side

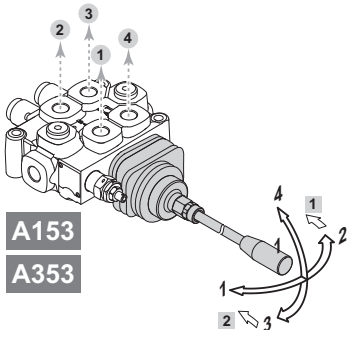
	A
GMV15	200 *(7.874)*
Q25 - Q45	280 *(11.024)*
Q75 - Q95	300 *(11.811)*

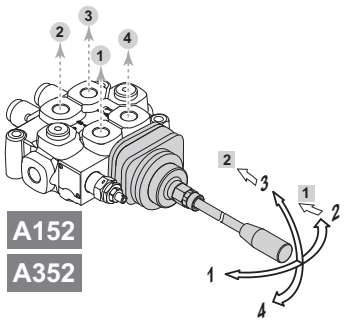


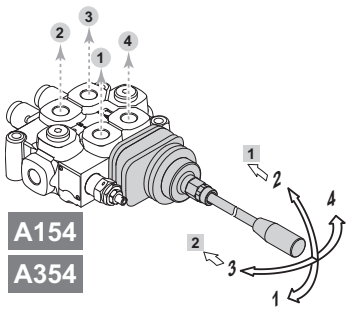












N.B. Nelle configurazioni A151 e A153, la parte inferiore del comando sporge dal piano di appoggio.

Note: **A151 - A153 configurations the smallest size is lower than the bolster.**

Eventuale cassetto con 4^ pos. (solo cod.126)
Optional spool with 4th position (only code 126)
1 su 1ª sezione / on 1st section
2 *su 2ª sezione / on 2nd section*

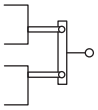
Dimensioni in / *Dimensions in:* mm *(inch)*

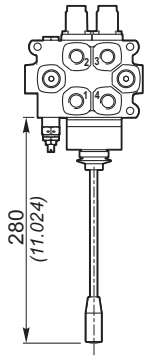
Sezione di lavoro	*Working section*

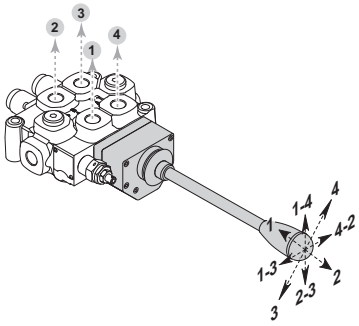
Q25	—	F7S	R250	—	2x	103	A1	M1	—	F3D	—	12V	—	2E
1		2	3			5	6	7		8		9		10

A16

Leva a cloche per il controllo singolo o simultaneo di due cursori come schema a lato
Dual axis for single or simultaneous control of two spools as from the scheme on the side







I comandi **A15**, **A16** o **SLA15** sono dei joistik che comandano due sezioni di lavoro; essendo un comando unico viene inserito come codice solo nella prima sezione di lavoro e viene omesso nella seconda.

Esempio
Q25 – F7SR250 – 103/**A15**/M1 – 103/M1 – F3D
Nella seconda sezione di lavoro è indicato solo il cursore e il posizionatore.

Quando è richiesto anche il cavo C1, è necessario specificarne la lunghezza in entrambe le sezioni.

Esempio
Q25 – F7SR250 – 103/**A8-C1x1000**-SLA15/M1 – 103/**A8-C1x1000**/M1 – F3D

*Controls **A15**, **A16** or **SLA15** are joysticks that control two working sections. Since it is a single control, it is only entered as a code in the first work section and is omitted from the second.*

Example
*Q25 – F7SR250 – 103/**A15**/M1 – 103/M1 – F3D*
Only the spool and positioner are indicated in the second working section.

When cable C1 is also required, its length must be specified in both sections.

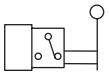
Example
*Q25 – F7SR250 – 103/**A8-C1x1000**-SLA15/M1 – 103/**A8-C1x1000**/M1 – F3D*

Dimensioni in / *Dimensions in:* mm *(inch)*

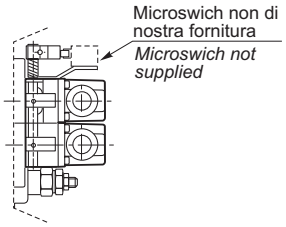
Sezione di lavoro — *Working section*

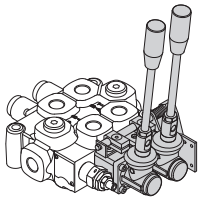
Q25	F7S	R250	2x	103	A1	M1	F3D	12V	2E
1	2	3		5	6	7	8	9	10

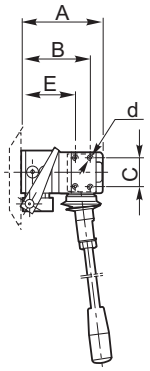
N1-A1 N1A-A1 N1B-A1



Comando manuale con attivazione del contatto elettrico del microswitch centralizzato.
N1-A1: Per doppio effetto
N1A-A1: Per semplice effetto in pos. 1
N1B-A1: Per semplice effetto in pos. 2
Hand control with ON-OFF centralized microswitch operation.
N1 -A1: Double acting
N1A-A1: Single acting in 1 position
N1B-A1: Single acting in 2 position

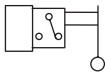




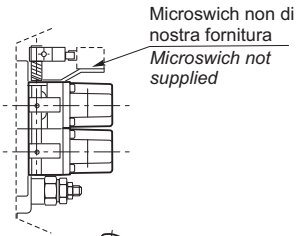


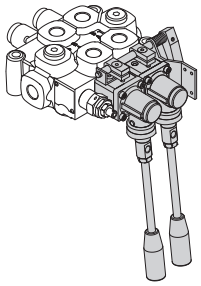
	A	B	C	E	d
Q15 - GMV15	64 *(2.520)*	42 *(1.654)*	22.2 *(0.874)*	31.7 *(1.248)*	M2.5
Q25 - Q45	70 *(2.756)*	59 *(2.323)*	25 *(0.984)*	49 *(1.929)*	M4
Q75 - Q95	84 *(3.307)*				

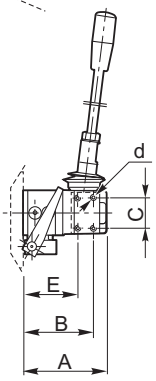
N1-A2 N1A-A2 N1B-A2



Comando manuale ruotato di 180° con attivazione del contatto elettrico del microswitch centralizzato.
N1-A2: Per doppio effetto
N1A-A2: Per semplice effetto in pos. 1
N1B-A2: Per semplice effetto in pos. 2
180° rotated hand control with ON-OFF centralized microswitch operation.
N1-A2: Double acting
N1A-A2: Single acting in 1 position
N1B-A2: Single acting in 2 position

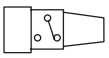




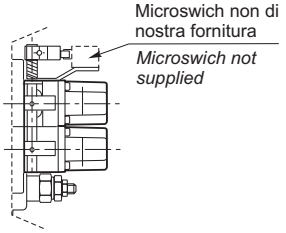


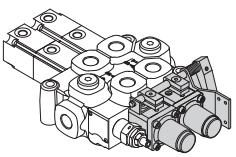
	A	B	C	E	d
Q15 - GMV15	64 *(2.520)*	42 *(1.654)*	22.2 *(0.874)*	31.7 *(1.248)*	M2.5
Q25 - Q45	70 *(2.756)*	59 *(2.323)*	25 *(0.984)*	49 *(1.929)*	M4
Q75 - Q95	84 *(3.307)*				

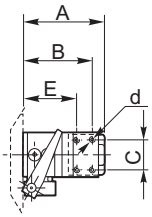
N1-A3 N1A-A3 N1B-A3



Comando microswitch centralizzato.
N1-A3: Per doppio effetto
N1A-A3: Per semplice effetto in pos. 1
N1B-A3: Per semplice effetto in pos. 2
Centralized microswitch control.
N1-A3: Double acting
N1A-A3:Single acting in 1 position
N1B-A3: Single acting in 2 position







	A	B	C	E	d
Q25 - Q45	70 *(2.756)*	59 *(2.323)*	25 *(0.984)*	49 *(1.929)*	M4
Q75 - Q95	84 *(3.307)*				

Sezione di lavoro — *Working section*

Q25	—	F7S	R250	—	2x	103	A1	M1	—	F3D	—	12V	—	2E
1		2	3			5	6	7		8		9		10

7 - Tipo posizionatore

*** La posizione dei campi 5 e 6 si riferisce al comando collocato sul lato effetto A e al posizionatore lato effetto B; se le posizioni sono opposte, invertire i due campi 5 e 6 come da esempio seguente:**

A1	M1
6	7

Comando lato effetto A
Posizionatore lato effetto B
Port A side control
Port B side positioner

6 - Positioner type

**** The position of fields 5 and 6 refers to the control located on the A port side and to the positioner on the B port side. If the positions are opposite, invert the two fields 5 and 6 as shown in the example below:***

M1	A1
7	6

Comando lato effetto B
Posizionatore lato effetto A
Port B side control
Port A side positioner

Posizionatori / *Positioner*			**Q35**	**Q15**	**GMV 15**	**Q25**	**Q45**	**Q65**	**Q75**	**Q95**
M1	Tre posizioni ritorno a molla in pos.0	*Three positions spring centred in 0*	●	●		●	●	●	●	●
M2	Due posizioni 0-1 ritorno a molla in pos.0	*Two positions spring 0-1 centred in 0*			●	●	●	●	●	●
M3	Due posizioni 0-2 ritorno a molla in pos.0	*Two positions spring 0-2 centred in 0*			●	●	●	●	●	●
M4(1-2)	Due posizioni estreme ritorno a molla in pos.1	*Two end positions spring back in 1*	●			●	●	●	●	●
M4(2-1)	Due posizioni estreme ritorno a molla in pos.2	*Two end positions spring back in 2*	●			●	●	●	●	●
R1	Tre posizioni ritorno a molla in pos.0, detent in pos.1	*Three positions spring centred in 0, detent in 1*	●			●	●	●	●	●
R2	Tre posizioni ritorno a molla in pos.0, detent in pos.2	*Three positions spring centred in 0, detent in 2*	●			●	●	●	●	●
R3	Tre posizioni in detent	*Three positions detent*	●		●	●	●	●	●	●
R4	Due posizioni in detent 0-1	*Two positions detent 0-1*			●	●	●	●	●	●
R5	*Due posizioni in detent 0-2*	*Two positions detent 0-2*			●	●	●	●	●	●
R6	*Due posizioni in detent 1-2*	*Two positions detent 1-2*				●	●	●	●	●
R8*	Due posizioni (1 e 2) con ritorno a molla in pos. 0; (3) 4ª posizione flottante con detent. (Da montare con Z1 lato comando e cursore 116)	*Two positions (1 and 2) with spring return centred in 0 position. (3) 4th position floating with detent. (Mounting with Z1 side control and speel 116)*		●		●	●		●	●
R10/Z1*	Due posizioni (1 e 2) con ritorno a molla in pos. 0, (3) 4ª posizione flottante con detent (da montare con cursore 126)	*Two positions (1 and 2) with spring return centred in 0, position (3) 4th position floating with detent (mounting with speel 126)*			●	●	●		●	●
R1K*	Comando a 3 posizioni, detent in pos. 1 con sgancio automatico registrabile. Disponibile solo con cursore cod. 103 e 111	*3 Position control, detent in J pos. with automatic adjustable release. Available with spool code 103 and 111 only*				●	●		●	●
R2K*	Comando a 3 posizioni, detent in pos. 2 con sgancio automatico registrabile. Disponibile solo con cursore cod. 103 e 111	*3 Position control, detent in 2 pos. with automatic adjustable release. Available with spool code 103 and 111 only*				●	●		●	●
R3K*	Comando a 3 posizioni, detent in pos. 1 e 2 con sgancio automatico registrabile. Disponibile solo con cursore cod. 103 e 111	*3 Position control, detent in 1 and 2 pos. with automatic adjustable release. Available with spool code 103 and 111 only*				●	●		●	●
M1-B1	Tre posizioni ritorno a molla in pos.0 con comando microswitch posteriore	*Three positions spring centred in 0 with back microswitch control*				●	●		●	●
M2-B1	Due posizioni, 0-1, ritorno a molla in pos.0 con comando microswitch posteriore	*Two positions 0-1, spring centred in 0 with back microswitch control*				●	●		●	●
M3-B1	Due posizioni, 0-2, ritorno a molla in pos. 0 con comando microswitch posteriore	*Two positions 0-2, spring centred in 0 with back microswitch control*				●	●		●	●
M1-N1 **M1-N1A** **M1-N1B**	Tre posizioni ritorno a molla in pos. 0, con attivazione del contatto elettrico del microswitch centralizzato **M1-N1**: Per doppio effetto **M1-N1A**: Per semplice effetto in pos 1 **M1-N1B**: Per semplice effetto in pos 2	*Three positions spring centred in 0, with ON-OFF centralized microswitch operation.* *N1-A1: Double acting* *N1A-A1: Single acting in 1 position* *N1B-A1: Single acting in 2 position*				●	●		●	●
M2-N1	Due posizioni, 0-1, con ritorno a molla in pos.0, con attivazione del contatto elettrico del microswitch centralizzato	*Two positions, 0-1 , with spring centred in 0, with ON-OFF centralized microswitch operation*				●	●		●	●
M3-N1	Due posizioni, 0-2, con ritorno a molla in pos.0, con attivazione del contatto elettrico del microswitch centralizzato	*Two positions, 0-2, with spring centred in 0, with ON-OFF centralized microswitch operation*				●	●		●	●

*** Limitazioni / *Limitations***

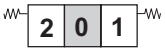
Posizionatore *Positioner*	**Applicabile con: / *Applicable with:***	
	Comando / *Control*	**Cursore / *Spool***
R8	A1/Z1 - A2/Z1 - A4/Z1 - A6/Z1 - A8/Z1	116
R10/Z1	Tutti / *All*	*126*
R1K **R2K** **R3K**	A1 / A2 / A4 / A5 / A6 / A8 / SL / SLA15 / A15 / A16 / N1-A1 / N1-A2 / N1-A3	103 / 111

Sezione di lavoro — *Working section*

Q25	F7S	R250	2x	103	A1	M1	F3D	12V	2E
1	2	3		5	6	7	8	9	10

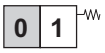
M1

Tre posizioni ritorno a molla in pos.0
Three positions spring centred in 0



M2

Due posizioni 0-1 ritorno a molla in pos.0
Two positions spring 0-1 centred in 0



M3

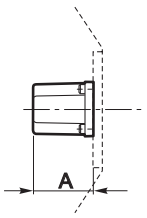
Due posizioni 0-2 ritorno a molla in pos.0
Two positions spring 0-2 centred in 0

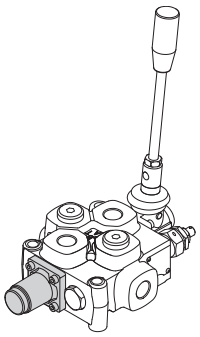
M4 (1-2)

Due posizioni estreme ritorno a molla in pos.1
Two end positions spring back in 1

M4 (2-1)

Due posizioni estreme ritorno a molla in pos.2
Two end positions spring back in 2





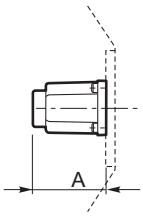
	A			
	M1	M2	M3	M4 2-1
Q15 GMV15	22.5 *(0.886)*	22.5 *(0.886)*	22.5 *(0.886)*	
Q35 Q25 - Q45	42 *(1.654)*	42 *(1.654)*	42 *(1.654)*	42 *(1.654)*
Q65 Q75 - Q95	55 *(2.165)*	55 *(2.165)*	55 *(2.165)*	55 *(2.165)*

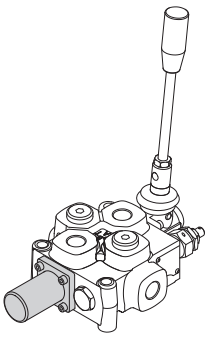
R1

Tre posizioni ritorno a molla in pos.0, detent in pos.1
Three positions spring centred in 0, detent in 1

R2

Tre posizioni ritorno a molla in pos.0, detent in pos.2
Three positions spring centred in 0, detent in 2

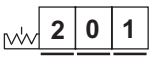




	A	
	R1	R2
Q35 Q25 - Q45	52 *(2.047)*	54 *(2.126)*
Q65 Q75 - Q95	70 *(2.756)*	68.5 *(2.697)*

R3

Tre posizioni in detent
Three positions detent

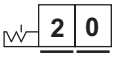


R4

Due posizioni in detent 0-1
Two positions detent 0-1

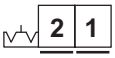
R5

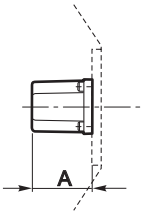
Due posizioni in detent 0-2
Two positions detent 0-2

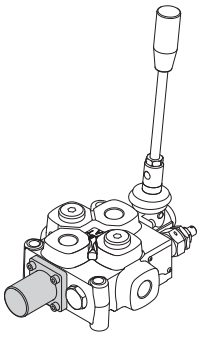


R6

Due posizioni in detent 1-2
Two positions detent 1-2







	A			
	R3	R4	R5	R6
Q15 GMV15	22 *(0.866)*	22 *(0.866)*	22 *(0.866)*	
Q35 Q25 - Q45	42 *(1.654)*	42 *(1.654)*	42 *(1.654)*	42 *(1.654)*
Q65 Q75 - Q95	55 *(2.165)*	55 *(2.165)*	55 *(2.165)*	55 *(2.165)*

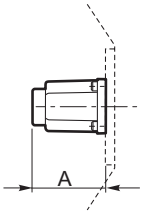
Dimensioni in / *Dimensions in:* mm *(inch)*

Sezione di lavoro — *Working section*

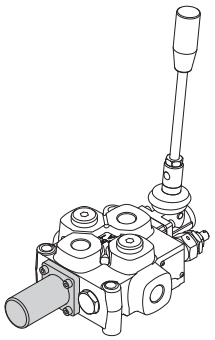
Q25	—	F7S	R250	—	2x	103	A1	M1	—	F3D	—	12V	—	2E
1		2	3			5	6	7		8		9		10

R8

Due posizioni (1 e 2) con ritorno a molla in pos. 0;
(3) 4ª posizione flottante con detent.
(Da montare con Z1 lato comando e cursore 116)
Two positions (1 and 2) with spring return centred in 0 position.
(3) 4th position floating with detent.
(Mounting with Z1 side control and spool 116)

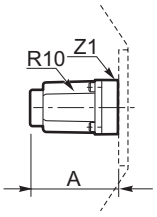


	A
Q15 GMV15	43 *(1.693)*
Q25 - Q45	56.5 *(2.224)*
Q65 Q75 - Q95	75 *(2.953)*

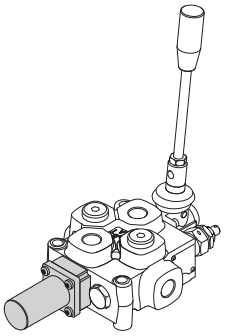


R10/Z1

Due posizioni (1 e 2) con ritorno a molla in pos. 0,
(3) 4ª posizione flottante con detent
(Da montare cursore 126)
Two positions (1 and 2) with spring return centred in 0 position
(3) 4th position floating with detent.
(Mounting with spool 126)



	A
Q15 GMV15	50 *(1.969)*
Q25 - Q45	70 *(2.756)*
Q75 - Q95	92 *(3.622)*



R1K

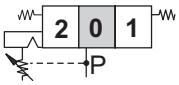
Comando a 3 posizioni, detent in pos. 1
con sgancio automatico registrabile.
Disponibile solo con cursore cod. 103 e 111
3 Position control, detent in 1 pos.
with automatic adjustable release.
Available with spool code 103 and 111 only

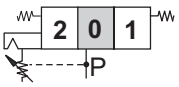
R2K

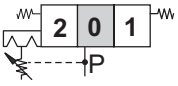
Comando a 3 posizioni, detent in pos. 2
con sgancio automatico registrabile.
Disponibile solo con cursore cod. 103 e 111
3 Position control, detent in 2 pos.
with automatic adjustable release.
Available with spool code 103 and 111 only

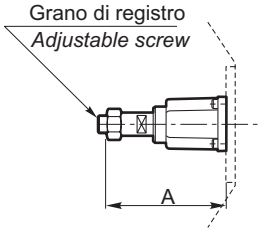
R3K

Comando a 3 posizioni, detent in pos. 1 e 2
con sgancio automatico registrabile.
Disponibile solo con cursore cod. 103 e 111
3 Position control, detent in 1 and 2 pos.
with automatic adjustable release.
Available with spool code 103 and 111 only

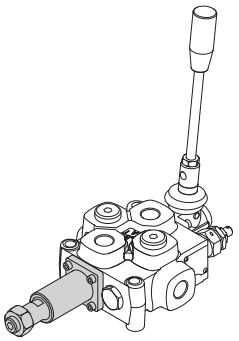








	A		
	R1K	**R2K**	**R3K**
Q25 - Q45	91.5 *(3.602)*	91.5 *(3.602)*	91.5 *(3.602)*
Q75 - Q95	106 *(4.173)*	106 *(4.173)*	106 *(4.173)*



Campo di taratura della pressione per lo sgancio automatico 45 - 350 bar (653 - 5075 PSI)
Pressure calibration field for automatic release 45 - 350 bar (653 - 5075 PSI)

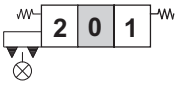
Dimensioni in / *Dimensions in:* mm *(inch)*

Sezione di lavoro — *Working section*

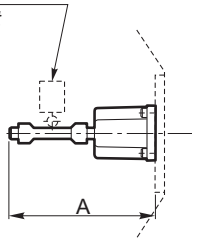
Q25	F7S	R250	2x	103	A1	M1	F3D	12V	2E
1	2	3		5	6	7	8	9	10

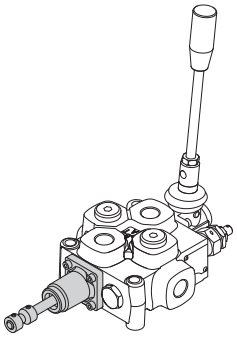
M1-B1

Tre posizioni ritorno a molla in pos.0
con comando microswitch posteriore
Three positions spring centred in 0
with back microswitch control



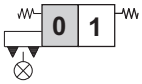
Microswich non di nostra fornitura
Microswich not supplied





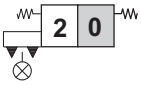
M2-B1

Due posizioni, 0-1, ritorno a molla in pos.0
con comando microswitch posteriore
Two positions, 0-1, spring centred in 0
with back microswitch control



M3-B1

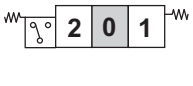
Due posizioni, 0-2, ritorno a molla in pos. 0
con comando microswitch posteriore
Two positions, 0-2, spring centred in 0
with back microswitch control

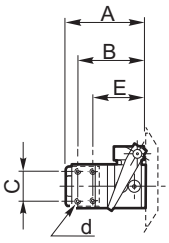


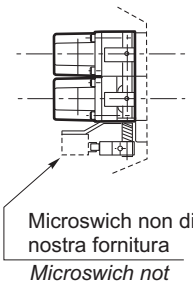
	A		
	M1-B1	**M2-B1**	**M3-B1**
Q25 - Q45	82 *(3.228)*	82 *(3.228)*	82 *(3.228)*
Q75 - Q95	102 *(4.016)*	102 *(4.016)*	102 *(4.016)*

M1-N1
M1-N1A
M1-N1B

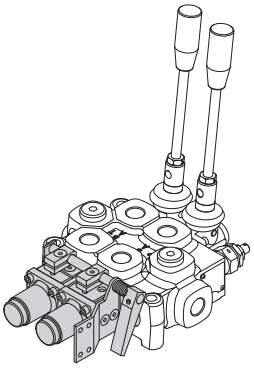
Tre posizioni ritorno a molla in pos. 0,
con attivazione del contatto elettrico
del microswitch centralizzato
M1-N1: Per doppio effetto
M1-N1A: Per semplice effetto in pos 1
M1-N1B: Per semplice effetto in pos 2
Three positions spring centred in 0,
with ON-OFF centralized microswitch operation.
N1-A1: Double acting
N1A-A1: Single acting in 1 position
N1B-A1: Single acting in 2 position







Microswich non di nostra fornitura
Microswich not supplied



M2-N1

Due posizioni, 0-1, con ritorno a molla
in pos.0, con attivazione del contatto elettrico
del microswitch centralizzato
Two positions, 0-1 , with spring centred in 0,
with ON-OFF centralized microswitch operation

M3-N1

Due posizioni, 0-2, con ritorno a molla
in pos.0, con attivazione del contatto elettrico
del microswitch centralizzato
Two positions, 0-2, with spring centred in 0,
with ON-OFF centralized microswitch operation

	A	B	C	E	d
Q25 - Q45	70 *(2.756)*	59 *(2.323)*	25 *(0.984)*	49 *(1.929)*	M4
Q75 - Q95	84 *(3.307)*				

Dimensioni in / *Dimensions in:* mm *(inch)*

Sezione di lavoro — *Working section*

Q25	—	F7S	R250	—	2x	103	A1	M1	—	F3D	—	12V	—	2E
1		2	3			5	6	7		8		9		10

Comandi con posizionamento / *Controls with positioning*

			Q35	Q25	Q45	Q75	Q95
M1-U1*	Tre posizioni con ritorno a molla in pos.0, attacco diretto sul cursore per rinvio a distanza rigido	*Three positions spring centred in 0, with direct control connection on spool, cap side, for stiff remote control*		•	•	•	•
M2-U1*	Due posizioni, 0-1, con ritorno a molla in pos.0, attacco diretto sul cursore per rinvio a distanza rigido	*Two positions, 0-1, spring centred in 0, with direct control connection on spool, cap side, for stiff remote control*		•	•	•	•
M3-U1*	Due posizioni, 0-2, con ritorno a molla in pos. 0, attacco diretto sul cursore per rinvio a distanza rigido	*Two positions, 0-2, spring centred in 0, with direct control connection on spool, cap side, for stiff remote control*		•	•	•	•
M1-U2*	Tre posizioni con ritorno a molla in pos. 0, attacco diretto sul cursore per rinvio a distanza con cavo flessibile	*Three positions spring centred in 0, direct control connection on spool, cap side, for flexible remote control*		•	•	•	•
M2-U2*	Due posizioni, 0-1, ritorno a molla in pos. 0, attacco diretto sul cursore per rinvio a distanza con cavo flessibile	*Two positions, 0-1, spring centred in 0, direct control connection on spool, cap side, for flexible remote control*		•	•	•	•
M3-U2*	Due posizioni, 0-2, ritorno a molla in pos. 0, attacco diretto sul cursore per rinvio a distanza con cavo flessibile	*Two positions, 0-2, spring centred in 0, direct control connection on spool, cap side, for flexible remote control*		•	•	•	•
D2*	Comando elettroidraulico doppio con ritorno in pos. 0	*Double electro-hydraulic control, spring centred in 0*				•	•
P1-N*	Comando pneumatico	*Pneumatic control*		•	•	•	•
P1-NP*	Comando pneumatico progressivo	*Progressive pneumatic control*		•	•	•	•
D3*	Comando elettropneumatico	*Electropneumatic control*		•	•	•	•

*** Limitazioni / *Limitations***

Posizionatore *Positioner*	**Applicabile con: / *Applicable with:***	
	Comando / *Control*	**Cursore / *Spool***
M1-U1 **M2-U1** **M3-U1** **M1-U2** **M2-U2** **M3-U2** **D2** **P1-N** **P1-NP** **D3**	A1 / A2 / A3 / A4 / A6 / A8	Tutti tranne 116 e126 *All except 116 and 126*

Sezione di lavoro	*Working section*

Q25	—	F7S	R250	—	2x	103	A1	M1	—	F3D	—	12V	—	2E
1		2	3			5	6	7		8		9		10

M1-U1

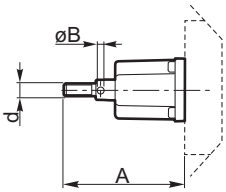
Tre posizioni con ritorno a molla in pos.0,
attacco diretto sul cursore
per rinvio a distanza rigido
Three positions spring centred in 0,
with direct control connection on spool,
cap side, for stiff remote control

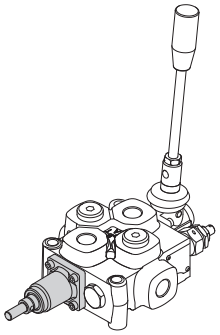
M2-U1

Due posizioni, 0-1, con ritorno a molla in pos.0,
attacco diretto sul cursore
per rinvio a distanza rigido
Two positions, 0-1, spring centred in 0,
with direct control connection on spool,
cap side, for stiff remote control

M3-U1

Due posizioni, 0-2, con ritorno a molla in pos. 0,
attacco diretto sul cursore
per rinvio a distanza rigido
Two positions, 0-2, spring centred in 0,
with direct control connection on spool,
cap side, for stiff remote control





	A	B	d
Q25 - Q45	73 *(2.874)*	4 *(0.157)*	M8
Q75 - Q95	96 *(3.780)*	5 *(0.197)*	M10

M1-U2

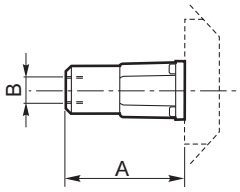
Tre posizioni con ritorno a molla in pos. 0,
attacco diretto sul cursore
per rinvio a distanza con cavo flessibile
Three positions spring centred in 0,
direct control connection on spool,
cap side, for flexible remote control

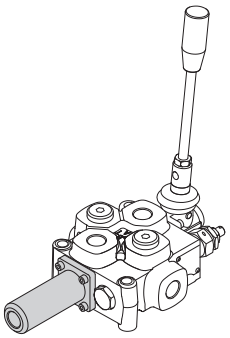
M2-U2

Due posizioni, 0-1, ritorno a molla in pos. 0,
attacco diretto sul cursore
per rinvio a distanza con cavo flessibile
Two positions, 0-1, spring centred in 0,
direct control connection on spool,
cap side, for flexible remote control

M3-U2

Due posizioni, 0-2, ritorno a molla in pos. 0,
attacco diretto sul cursore
per rinvio a distanza con cavo flessibile
Two positions, 0-2, spring centred in 0,
direct control connection on spool,
cap side, for flexible remote control





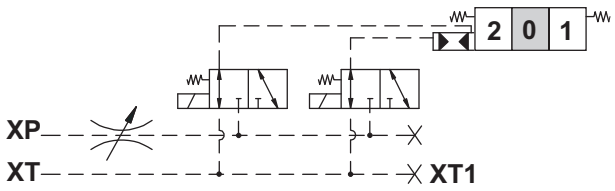
	A	B
Q25 - Q45	73 *(2.874)*	M16X1.5
Q75 - Q95	77 *(3.031)*	

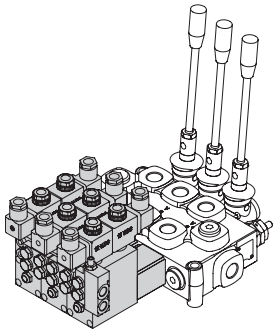
Sezione di lavoro — *Working section*

Q25	F7S	R250	2x	103	A1	M1	F3D	12V	2E
1	2	3		5	6	7	8	9	10

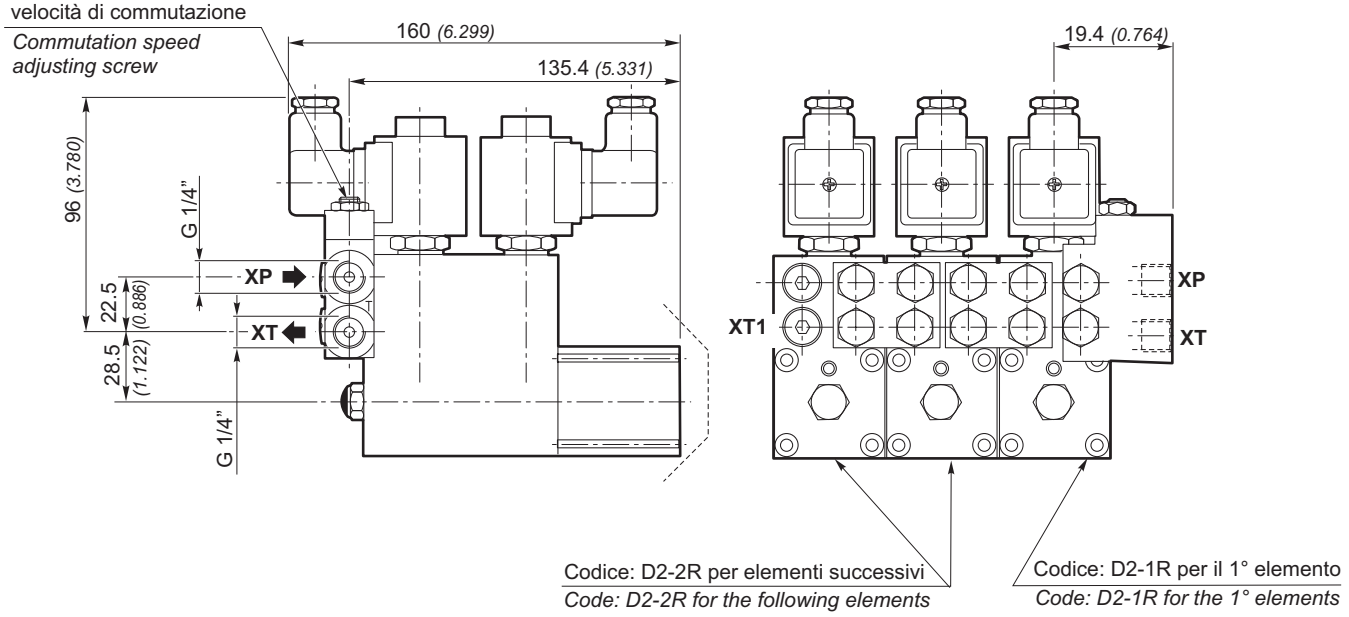
D2 Solo per **Q75** e **Q95**
*Only for **Q75** and **Q95***

Comando elettroidraulico doppio con ritorno in pos. 0
Double electro-hydraulic control spring centred in 0





Vite di regolazione velocità di commutazione
Commutation speed adjusting screw



Codice: D2-2R per elementi successivi
Code: D2-2R for the following elements

Codice: D2-1R per il 1° elemento
Code: D2-1R for the 1° elements

Pressione di pilotaggio in XP *Pilot pressure in XP*		Contropressione max. su XT *Maximum back pressure on XT*	Portata minima per ogni elemento *Minimum flow for each section*	Volume di pilotaggio per elemento *Piloting volume for each section*
Max.	Min.	4 bar *(56 PSI)*	0.5 lt/min *(0.132 GPM)*	5.5 cm^3 *(0.336 in^3)*
35 bar *(490 PSI)*	20 bar *(280 PSI)*			

Caratteristiche tecniche elettromagnete tipo "H" / *Electromagnet characteristics type "H"*

Attacco magnete / *Magnet connection*	Tipo DIN 43650 (versione A) / *Type DIN 43650 (A version)*
Tipo di protezione / *Protection type*	IP 65
Classe d'isolamento / *Coil insulation class*	H 180 VDE 0580
Tensione di alimentazione / *Supply voltage*	D.C.: 12, 24V A.C. - 50 Hz: 110, 220 V
Variazione di tensione max. / *Maximum voltage tollerance*	± 10%
Potenza assorbita / *Absorbed power supply*	18 W
Rapporto di max. utilizzo / *Maximum utilization ratio*	100%
Temperatura max. / *Max. temperature*	100° C

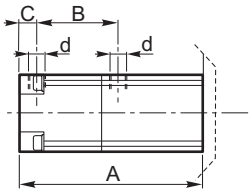
Dimensioni in / *Dimensions in:* mm *(inch)*

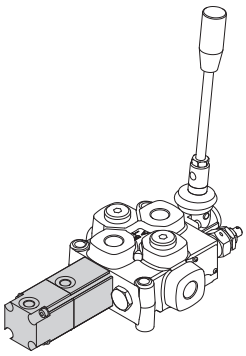
Sezione di lavoro — *Working section*

Q25	—	F7S	R250	—	2x	103	A1	M1	—	F3D	—	12V	—	2E
1		2	3			5	6	7		8		9		10

P1-N

Comando pneumatico a tre posizioni con ritorno in pos. 0
Three positions pneumatic control, spring centred in 0



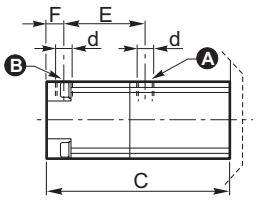


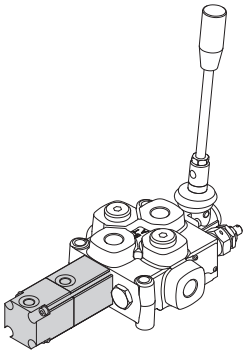
	A	B	C	d
Q25 - Q45	90.5 *(3.563)*	43 *(1.693)*	10 *(0.394)*	G 1/8"
Q75 - Q95	107 *(4.213)*	48 *(1.890)*	10.5 *(0.413)*	

Pressione di pilotaggio / *Pilot pressure*	Min.	5 bar *(72.5 PSI)*
	Max.	30 bar *(435 PSI)*
Volume pilotaggio / *Pilot volume*	Q25-Q45	4 cm^3 *(0.244 in^3)*
	Q75-Q95	9 cm^3 *(0.549 in^3)*

P1-NP

Comando pneumatico progressivo a tre posizioni con ritorno in posizione 0 per azionamento con manipolatore
Three positions progressive pneumatic control, spring centred in 0 for remote control

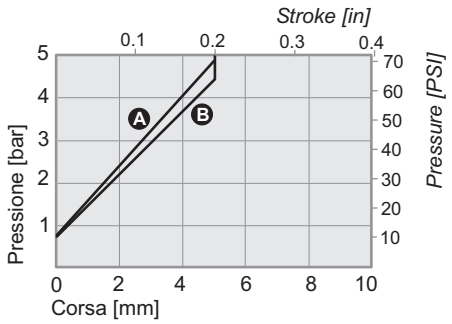




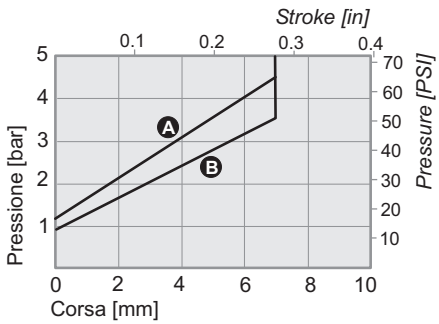
	C	E	F	d
Q25 - Q45	90.5 *(3.563)*	43 *(1.693)*	10 *(0.394)*	G 1/8"
Q75 - Q95	107 *(4.213)*	48 *(1.890)*	10.5 *(0.413)*	

Diagramma pressione di pilotaggio - Corsa spool / *Pilot pressure diagram - Spool stroke*

Q25 - Q45



Q75 - Q95



Pressione di pilotaggio / *Pilot pressure*	Min.	5 bar *(72.5 PSI)*
	Max.	30 bar *(435 PSI)*
Volume pilotaggio / *Pilot volume*	Q25-Q45	4 cm^3 *(0.244 in^3)*
	Q75-Q95	9 cm^3 *(0.549 in^3)*

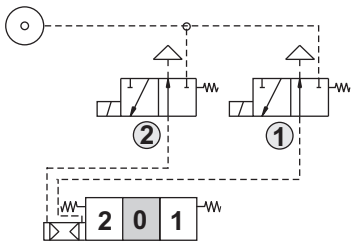
Dimensioni in / *Dimensions in:* mm *(inch)*

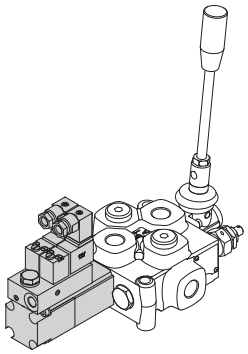
Sezione di lavoro	*Working section*

Q25	—	F7S	R250	—	2x	103	A1	M1	—	F3D	—	12V	—	2E
1		2	3			5	6	7		8		9		10

D3

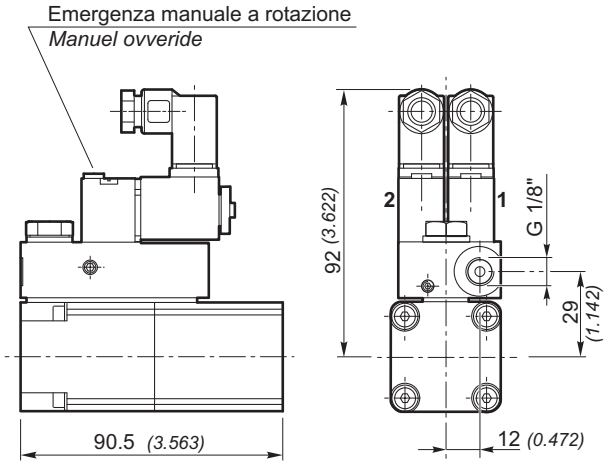
Comando elettropneumatico a tre posizioni con ritorno in pos. 0
Three positions electro-pneumatic control, spring centred in 0





Q25 - Q45

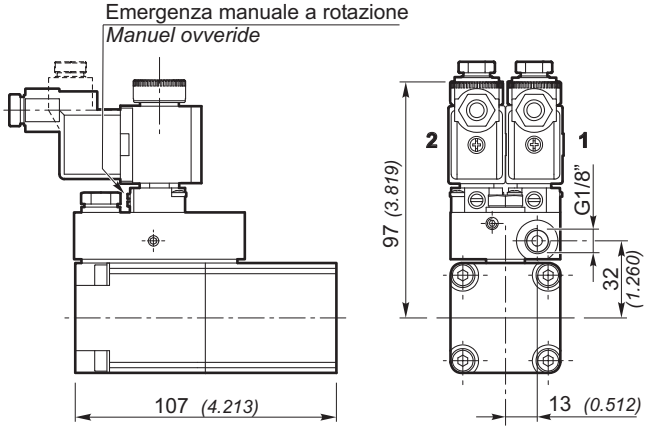
Caratteristiche di funzionamento *Operation characteristics*	
Pressione di pilotaggio *Pilot pressure*	1 ÷ 10 bar *(14.5 ÷ 145 PSI)*
Volume pilotaggio *Pilot volume*	27Nl/ a 6 bar Δpl *(27Nl/ a 87 PSI Δpl)*



Caratteristiche tecniche elettromagnete *Electromagnet characteristics*	
Tipo attacco magnete *Magnet connection type*	DIN 175301-803-C
Tipo di protezione *Protection type*	IP 65
Classe d'isolamento *Coil insulation class*	F
Tensione di alimentazione *Supply voltage*	D.C.: 12, 24V A.C.: 50 Hz 230 V
Variazione di tensione max. *Maximum voltage tollerance*	± 10%
Potenza assorbita *Absorbed power supply*	D.C.: 2.9 W A.C. 4VA
Rapporto di max. utilizzo *Maximum utilization ratio*	100%
Temperatura max. *Max. temperature*	-10 ÷ 50 °C

Q75 - Q95

Caratteristiche di funzionamento *Operation characteristics*	
Pressione di pilotaggio *Pilot pressure*	1 ÷ 10 bar *(14.5 ÷ 145 PSI)*
Volume pilotaggio *Pilot volume*	53Nl/ a 6 bar Δpl *(53Nl/ a 87 PSI Δpl)*



Caratteristiche tecniche elettromagnete *Electromagnet characteristics*	
Tipo attacco magnete *Magnet connection type*	DIN 43650
Tipo di protezione *Protection type*	IP 65
Classe d'isolamento *Coil insulation class*	F
Tensione di alimentazione *Supply voltage*	D.C.: 12, 24V
Variazione di tensione max. *Maximum voltage tollerance*	± 10%
Potenza assorbita *Absorbed power supply*	D.C.: 5 W
Rapporto di max. utilizzo *Maximum utilization ratio*	100%
Temperatura max. *Max. temperature*	-10 ÷ 50 °C

Dimensioni in / *Dimensions in:* mm *(inch)*

Sezione di lavoro — *Working section*

Q25	—	F7S	R250	—	2x	103	H1	—	F3D	—	12V	—	2E
1		2	3			5	6		8		9		10

Comandi completi / *Complete controls*

			Q15 GMV15	Q25	Q45	Q75	Q95
H1*	Comando idraulico ad alta pressione ON-OFF a tre posizioni, ritorno a molla in posizione 0	*Three positions with high-pressure hydraulic control, spring centered in 0 position*		•	•	•	•
H5*	Comando idraulico a bassa pressione per manipolatore idraulico	*Low pressure hydraulic control for hydraulic pilot valves*		•	•	•	•
RTL-s*	Comando rotativo frizionato a tre posizioni: tacca in pos. 0, leva in pos. 2	*3-position clutch-operated rotary control: notch mark in pos. 0, lever in pos. 2*		•	•	•	•
RTL-d*	Comando rotativo frizionato a tre posizioni: tacca in pos. 0, leva in pos. 1	*3-position clutch-operated rotary control: detent in pos. 0, lever in pos. 1*		•	•	•	•
C2*	Comando a camme 2 posizioni estreme 1-2, ritorno a molla in pos. 1	*Cam control, 2 end positions 1-2, spring centered in 1 position*		•	•	•	•
C3*	Comando a camme 2 posizioni estreme 2-1, ritorno a molla in pos. 2	*Cam control, 2 end positions 2-1, spring centered in 2 position*		•	•	•	•
A1/D41*	Comando elettrico diretto doppio, ritorno a molla in pos. 0	*Double direct electrical control with spring centred in 0*	•	•	•	•	•
A2/D41*	Comando elettrico diretto doppio con leva ruotata, ritorno a molla in pos. 0	*180° rotated double direct electrical control with spring centred in 0*	•	•	•	•	•
A1/DP*	Comando elettrico diretto doppio, ritorno a molla in pos. 0	*Double direct electrical control with spring centred in 0*		•	•	•	•
A2/DP*	Comando elettrico diretto doppio, ritorno a molla in pos. 0	*Double direct electrical control with spring centred in 0*		•	•	•	•
D9*	Comando elettrico diretto a due magneti con ritorno a molla in pos. 0	*Double direct electrical control with spring centred in 0*		•	•	•	•

*** Limitazioni / *Limitations***

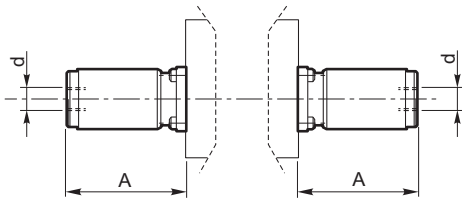
Comando completo *Complete control*	**Applicabile con: / *Applicable with:*** **Cursore / *Spool***
H1	Tutti tranne / *All except* 116 / 126
H5	
RTL-s	
RTL-d	
C2	
C3	
A1/D41	101 / 102 / 103 / 107 / 108 / 109 / 110 / 111
A2/D41	
A1/DP	
A2/DP	
D9	

Sezione di lavoro — *Working section*

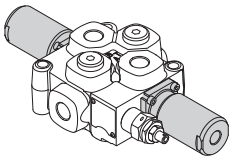
Q25	F7S	R250	2x	103	H1	F3D	12V	2E
1	2	3		5	6	8	9	10

H1

Comando idraulico ad alta pressione ON-OFF a tre posizioni, ritorno a molla in posizione 0
Three positions whit high-pressure hydraulic control, spring centred in 0 position



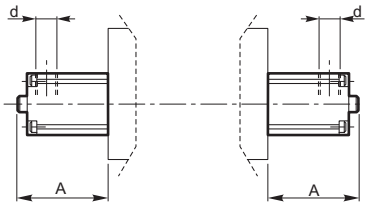
	A	d
Q25 - Q45	70 *(2.756)*	G 1/4
Q75 - Q95	85 *(3.346)*	



Pressione di pilotaggio / *Pilot pressure*	Min.	16 bar *(232 PSI)*
	Max.	350 bar *(5075 PSI)*
Volume pilotaggio / *Pilot volume*	Q25-Q45	2 cm^3 *(0.122 in^3)*
	Q75-Q95	3 cm^3 *(0.183 in^3)*

H5

Comando idraulico a bassa pressione a tre posizioni per manipolatore idraulico, ritorno a molla in posizione 0
Three positions whit low-pressure control for hydraulic remote control, spring centred in 0 position



	A	d
Q25 - Q45	50 *(1.969)*	G 1/4
Q75 - Q95	71.5 *(2.815)*	

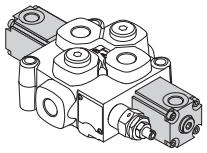
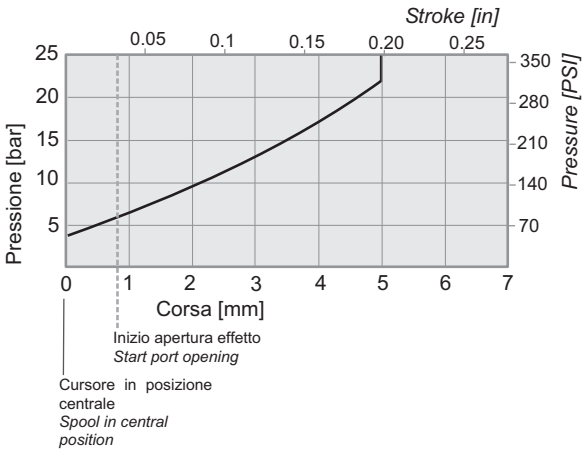
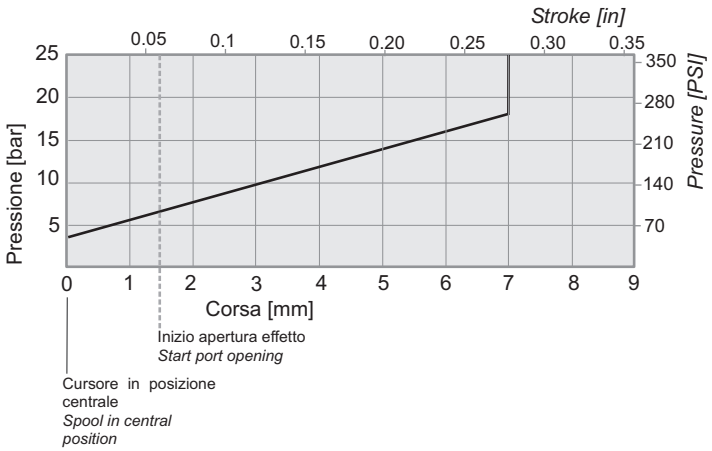


Diagramma pressione di pilotaggio - Corsa spool / *Pilot pressure diagram - Spool stroke*

Q25 - Q45



Q75 - Q95



Pressione di pilotaggio / *Pilot pressure*	Max.	100 bar *(1450 PSI)*
Volume pilotaggio / *Pilot volume*	Q25-Q45	1 cm^3 *(0.061 in^3)*
	Q75-Q95	2 cm^3 *(0.122 in^3)*

N.B.
Le curve sono ricavate con cursore 103
NOTE. The curves are formed with spool 103 type

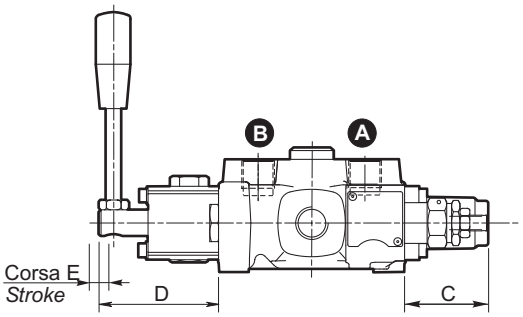
Dimensioni in / *Dimensions in:* mm *(inch)*

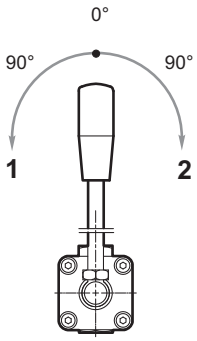
Sezione di lavoro	*Working section*

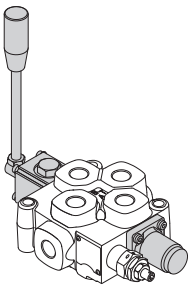
Q25	F7S	R250	2x	103	H1	F3D	12V	2E
1	2	3		5	6	8	9	10

RTL-s

Tre posizioni con comando rotativo frizionato, tacca in pos. 0, leva in pos. 2
Three positions with rotary control, lever in 2 position



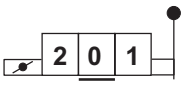


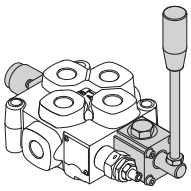


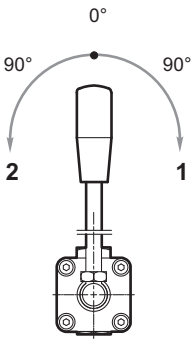
	C	D	E
Q25 - Q45	42 *(1.654)*	61 *(2.402)*	10 (5+5) *0.394 (0.197+0.197)*
Q75 - Q95	55 *(2.165)*	72.5 *(2.854)*	14 (7+7) 0.551 *(0.276+ 0.276)*

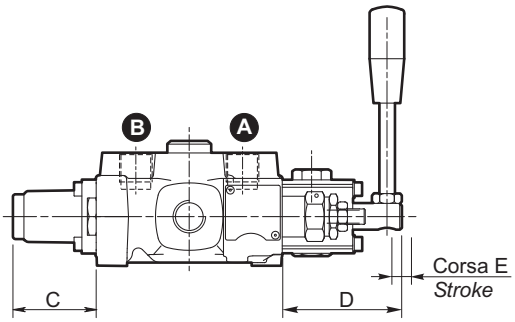
RTL-d

Tre posizioni con comando rotativo frizionato, tacca in pos. 0, leva in pos. 1
Three positions with rotary control, lever in 1 position









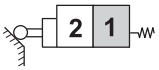
	C	D	E
Q25 - Q45	42 *(1.654)*	61 *(2.402)*	10 (5+5) *0.394 (0.197+0.197)*
Q75 - Q95	55 *(2.165)*	72.5 *(2.854)*	14 (7+7) 0.551 *(0.276+ 0.276)*

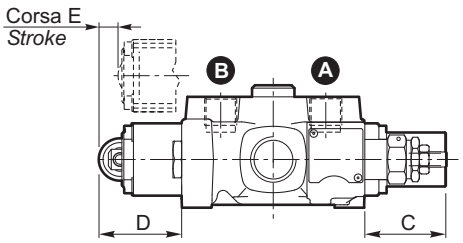
Dimensioni in / *Dimensions in:* mm *(inch)*

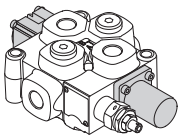
Sezione di lavoro										*Working section*
Q25	—	F7S	R250	—	2x	103	H1	—	F3D	—	12V	—	2E
1		2	3			5	6		8		9		10

C2

Comando a camme 2 posizioni estreme 1-2, con ritorno a molla in pos. 1
Cam control, 2 end positions 1-2, spring centred in 1 position



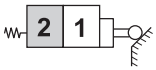


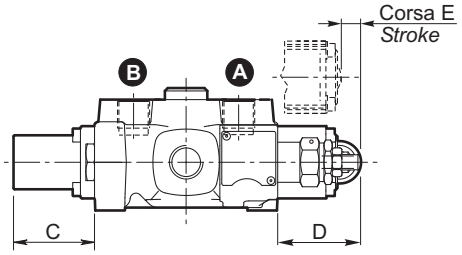


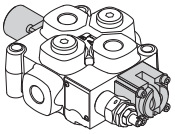
	C	D	E
Q25 - Q45	42 *(1.654)*	43 *(1.693)*	10 *(0.394)*
Q75 - Q95	55 *(2.165)*	51 *(2.008)*	14 *(0.551)*

C3

Comando a camme, 2 posizioni estreme 2-1, con ritorno a molla in pos. 2
Cam control, 2 end positions 2-1, spring centred in 2 position







	C	D	E
Q25 - Q45	42 *(1.654)*	43 *(1.693)*	10 *(0.394)*
Q75 - Q95	55 *(2.165)*	51 *(2.008)*	14 *(0.551)*

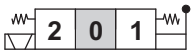
Dimensioni in / *Dimensions in:* mm *(inch)*

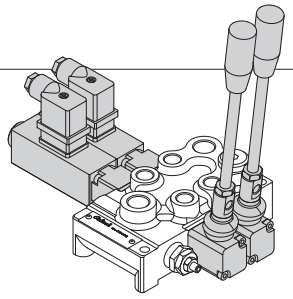
Sezione di lavoro — *Working section*

GMV15	F7S	R250	2x	103	A1/D41	F3D	12V	2E
1	2	3		5	6	8	9	10

A1/D41

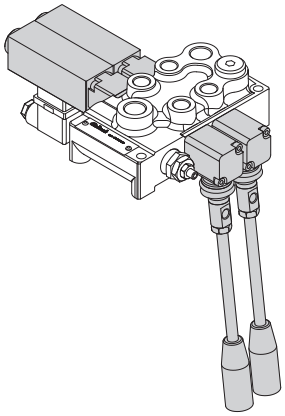
Comando elettrico diretto doppio ON/OFF con ritorno a molla in posizione 0
ON/OFF double direct electrical control with spring centred in 0





A2/D41

Comando elettrico diretto doppio ON/OFF ruotato di 180°con ritorno a molla in posizione 0
180° rotated ON/OFF double direct electrical control with spring centred in 0



Connessione *Connection*		
	1 - 2	Effetto **A** *Port* **A**
	1 - 3	Effetto **B** *Port* **B**

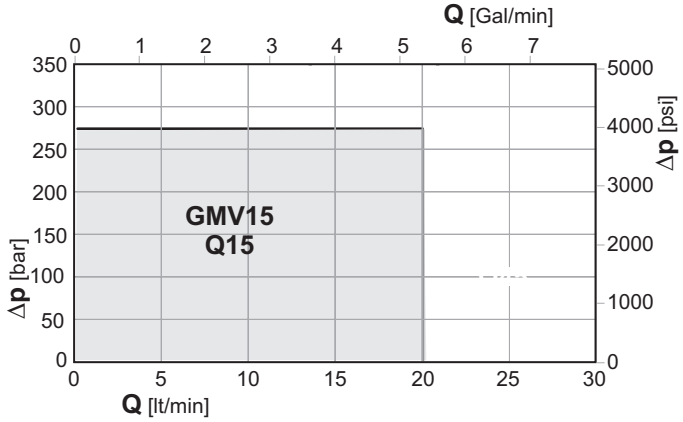
Dimensioni in / *Dimensions in:* mm *(inch)*

Caratteristiche tecniche elettromagnete / *Electromagnet technical features*	
Tipo distributore / *Valve type*	**Q15 - GMV15**
Attacco magnete / *Magnet connection*	Tipo/*Type* DIN 43650 (vers. B1)
Tipo protezione / *Protection type*	IP65
Classe d'isolamento / *Coil insulation class*	H
Tensione di alimentazione / *Supply voltage*	12V D.C./24V D.C.
Variazione di tensione max / *Maximum voltage tolerance*	±10%
Potenza assorbita / *Absorbed power supply*	33W
Rapporto di massimo utilizzo / *Maximum utilization ratio*	100%
Caratteristiche tecniche distributore / *Directional control valve characteristics*	
Portata max (lt/min) / *Max. flow (Gal/min)*	20 *(5.3)*
Pressione max di lavoro / Max. working pressure	280 bar *(4060 PSI)*
Contropressione max sullo scarico / *Max. back outlet pressure*	25 bar *(3363 PSI)*
Manovra di emergenza o in assenza di corrente / *Emergency operation or in case of power failure*	Con leva / *With lever*
Trafilamento max di A e B in T a 100 bar con viscosità 35 mm^2/s *Max. spool leakage of A and B ports to T port at 1450 PSI with viscosity 35 mm^2/s*	5 cm^3/min

Sezione di lavoro

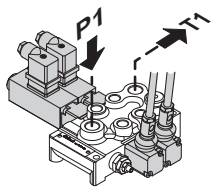
Working section

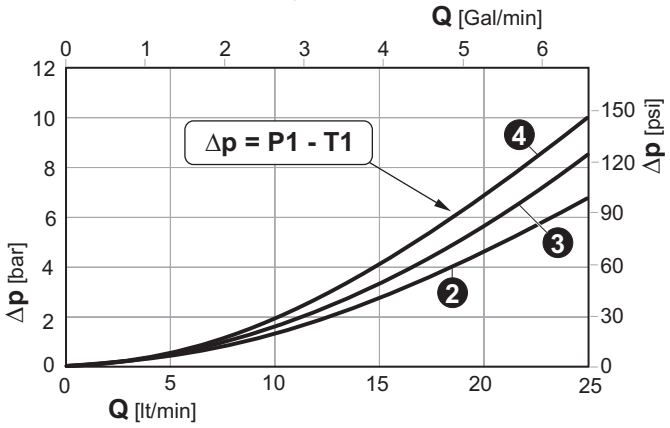
Limiti d'impiego / *Use limits*



Perdite di carico con il cursore in posizione neutra
(Δp in funzione del numero di sezioni attraversate)

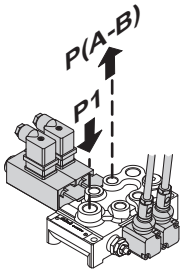
Pressure drop with spool in neutral position
(*Δp depending on the number of the crossed sections)*

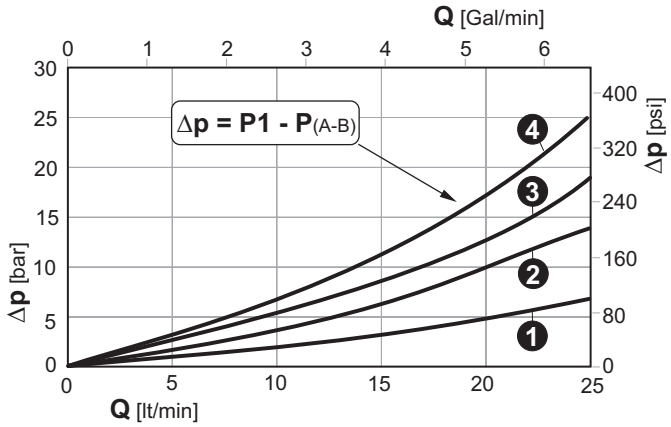


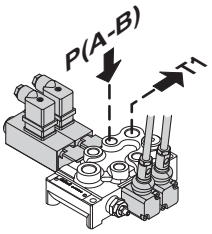


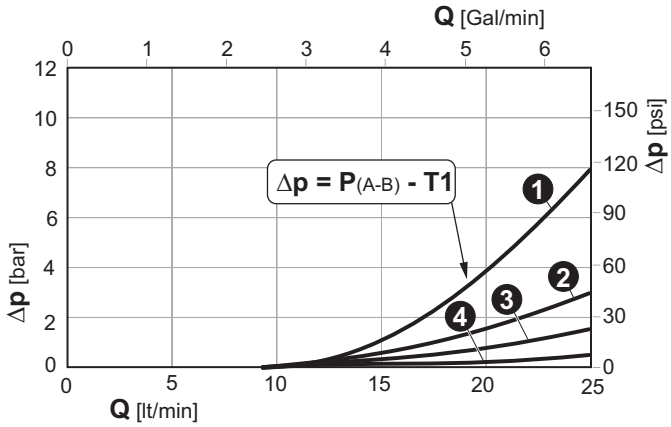
Perdite di carico con il cursore in posizione di lavoro
(Δp in funzione del numero di sezioni attraversate)

Pressure drop with spool in working position
(*Δp depending on the number of the crossed sections)*









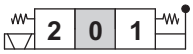
❶❷❸❹ Sezioni / *Sections*

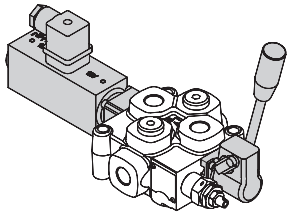
N.B. Le curve sono ricavate con cursore 103 / *NOTE. Performance curves measured using spool 103 type.*

Sezione di lavoro										*Working section*
Q25	—	F7S	R250	—	2x	103	A1/D41	—	F3D	—	12V	—	2E
1		2	3			5	6		8		9		10

A1/D41

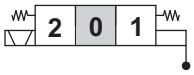
Comando elettrico diretto doppio ON/OFF con ritorno a molla in posizione 0
ON/OFF double direct electrical control with spring centred in 0

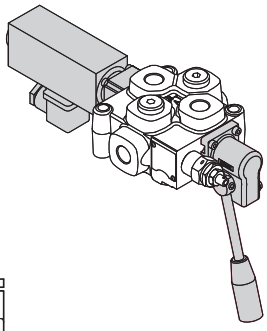


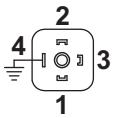


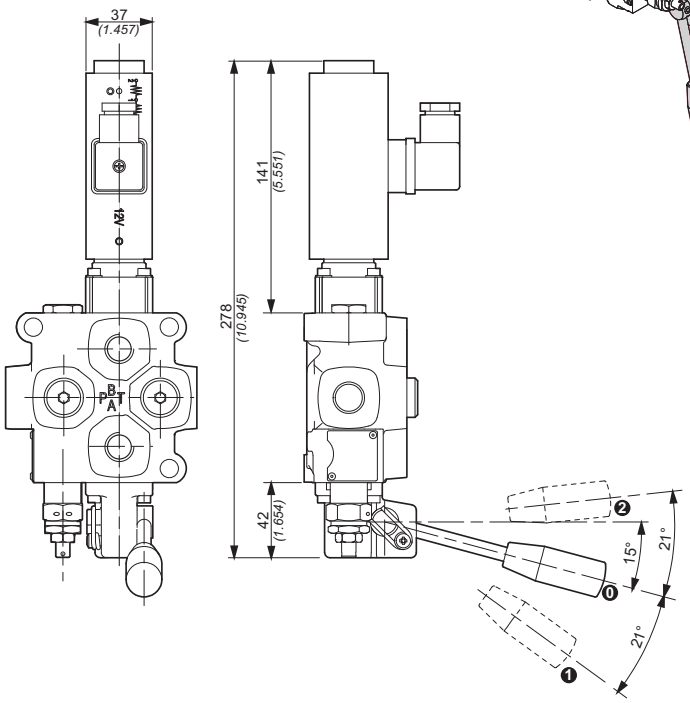
A2/D41

Comando elettrico diretto doppio ON/OFF ruotato di 180°con ritorno a molla in posizione 0
180° rotated ON/OFF double direct electrical control with spring centred in 0





Connessione *Connection*		
	**1 - 2**	Effetto **A** *Port* **A**
	1 - 3	Effetto **B** *Port* **B**



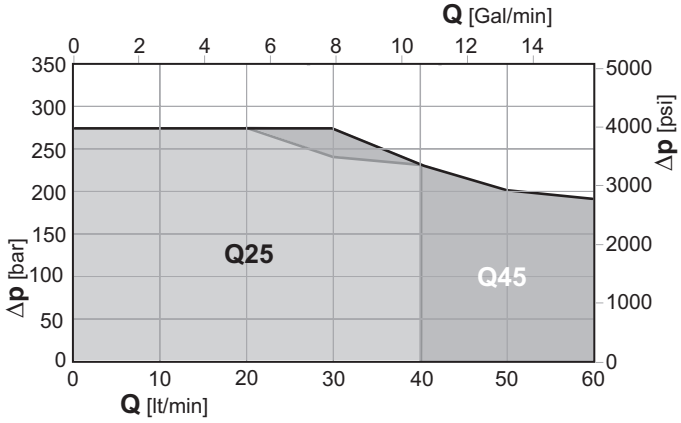
Dimensioni in / *Dimensions in:* mm *(inch)*

Caratteristiche tecniche elettromagnete / *Electromagnet technical features*		
Tipo distributore / *Valve type*	**Q25**	**Q45**
Attacco magnete / *Magnet connection*	Tipo/*Type* DIN 43650 (vers. A)	
Tipo protezione / *Protection type*	IP65	
Classe d'isolamento / *Coil insulation class*	H	
Tensione di alimentazione / *Supply voltage*	12V D.C./24V D.C.	
Variazione di tensione max / *Maximum voltage tolerance*	±10%	
Potenza assorbita / *Absorbed power supply*	58W	
Rapporto di massimo utilizzo / *Maximum utilization ratio*	100%	
Caratteristiche tecniche distributore / *Directional control valve characteristics*		
Portata max (lt/min) / *Max. flow (Gal/min)*	50 *(13)*	60 *(16)*
Pressione max di lavoro / Max. working pressure	275 bar *(3988 PSI)*	
Contropressione max sullo scarico / *Max. back outlet pressure*	25 bar *(3363 PSI)*	
Manovra di emergenza o in assenza di corrente / *Emergency operation or in case of power failure*	Con leva / *With lever*	
Trafilamento max di A e B in T a 100 bar con viscosità 35 mm^2/s *Max. spool leakage of A and B ports to T port at 1450 PSI with viscosity 35 mm^2/s*	5 cm^3/min	

Sezione di lavoro

Working section

Limiti d'impiego / *Use limits*

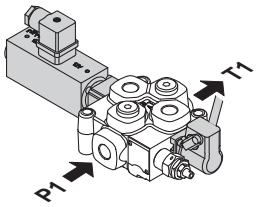


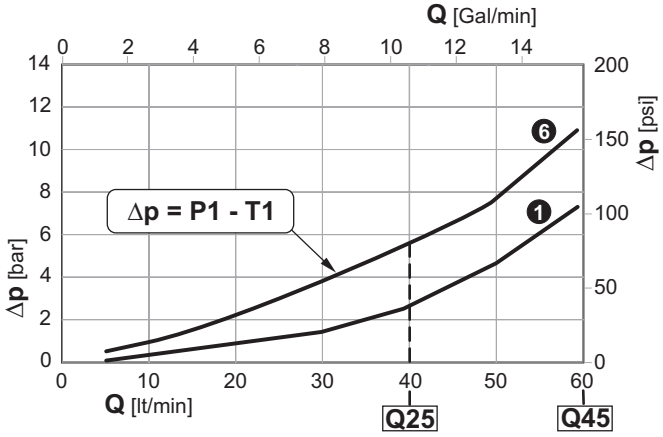
Perdite di carico con il cursore in posizione neutra

(Δp in funzione del numero di sezioni attraversate)

Pressure drop with spool in neutral position

(*Δp depending on the number of the crossed sections*)



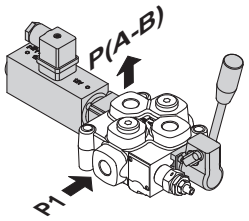


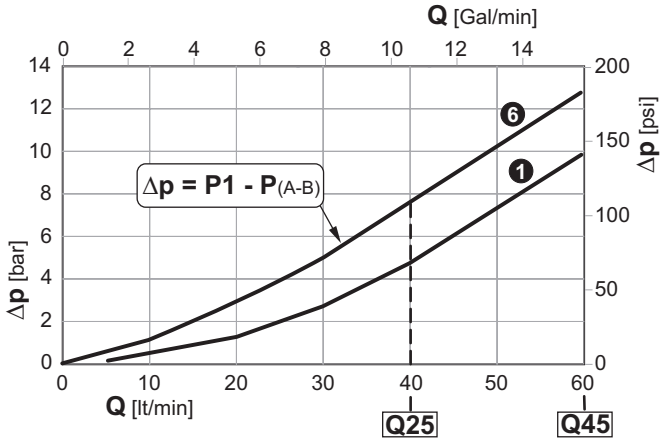
Perdite di carico con il cursore in posizione di lavoro

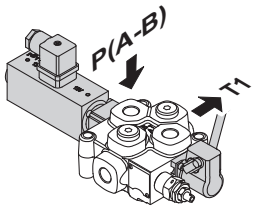
(Δp in funzione del numero di sezioni attraversate)

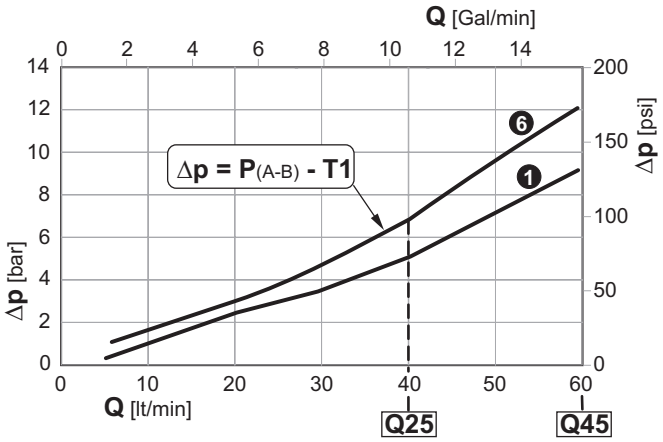
Pressure drop with spool in working position

(*Δp depending on the number of the crossed sections*)









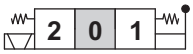
❶ ❻ Sezioni / *Sections*

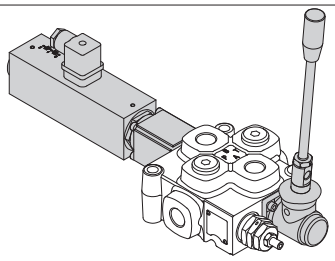
N.B. Le curve sono ricavate con cursore 103 / *NOTE. Performance curves measured using spool 103 type.*

Sezione di lavoro										*Working section*
Q75	—	F7S	R250	—	2x	103	H1	—	F3D	—	12V	—	2E
1		2	3			5	6		8		9		10

A1/D41

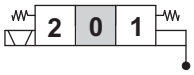
Comando elettrico diretto doppio ON/OFF con ritorno a molla in posizione 0
ON/OFF double direct electrical control with spring centred in 0

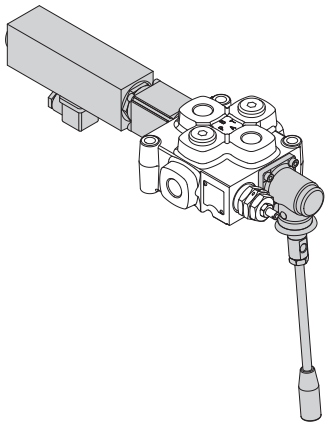


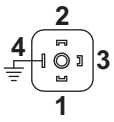


A2/D41

Comando elettrico diretto doppio ON/OFF ruotato di 180° con ritorno a molla in posizione 0
180° rotated ON/OFF double direct electrical control with spring centred in 0





Connessione *Connection*		
	**1 - 2**	Effetto **A** *Port* **A**
	1 - 3	Effetto **B** *Port* **B**

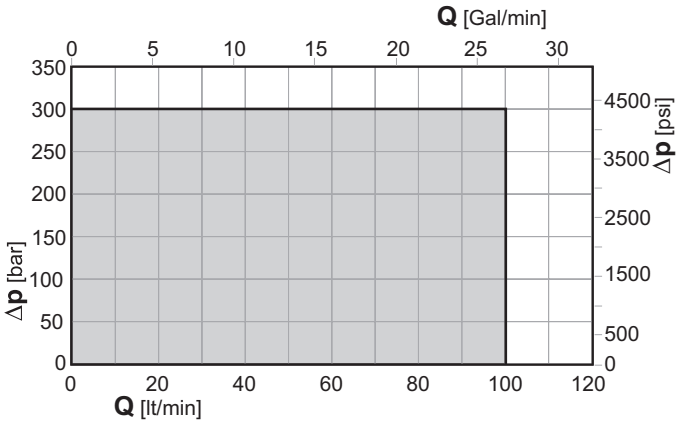
Dimensioni in / *Dimensions in:* mm *(inch)*

Caratteristiche tecniche elettromagnete / *Electromagnet technical features*		
Tipo distributore / *Valve type*	**Q75**	**Q95**
Attacco magnete / *Magnet connection*	Tipo/*Type* DIN 43650 (vers. A)	
Tipo protezione / *Protection type*	IP65	
Classe d'isolamento / *Coil insulation class*	H	
Tensione di alimentazione / *Supply voltage*	12V D.C./24V D.C.	
Variazione di tensione max / *Maximum voltage tolerance*	±10%	
Potenza assorbita / *Absorbed power supply*	80W	
Rapporto di massimo utilizzo / *Maximum utilization ratio*	100%	
Caratteristiche tecniche distributore / *Directional control valve characteristics*		
Portata max (lt/min) / *Max. flow (Gal/min)*	90 *(24)*	120 *(32)*
Pressione max di lavoro / Max. working pressure	300 bar	
Contropressione max sullo scarico / *Max. back outlet pressure*	25 bar	
Manovra di emergenza o in assenza di corrente / *Emergency operation or in case of power failure*	Con leva / *With lever*	
Trafilamento max di A e B in T a 100 bar con viscosità 35 mm^2/s *Max. spool leakage of A and B ports to T port at 1450 bar with viscosity 35 mm^2/s*	5 cm^3/min	

Sezione di lavoro

Working section

Limiti d'impiego / *Use limits*

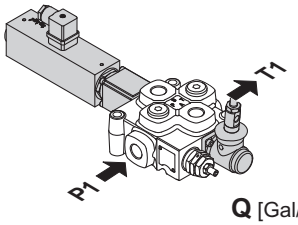


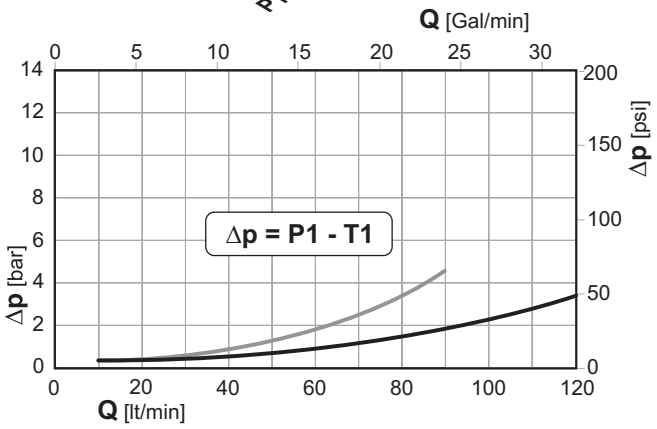
Perdite di carico con il cursore in posizione neutra

(Δp in funzione del numero di sezioni attraversate)

Pressure drop with spool in neutral position

(*Δp depending on the number of the crossed sections)*



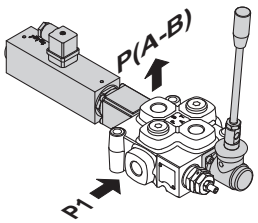


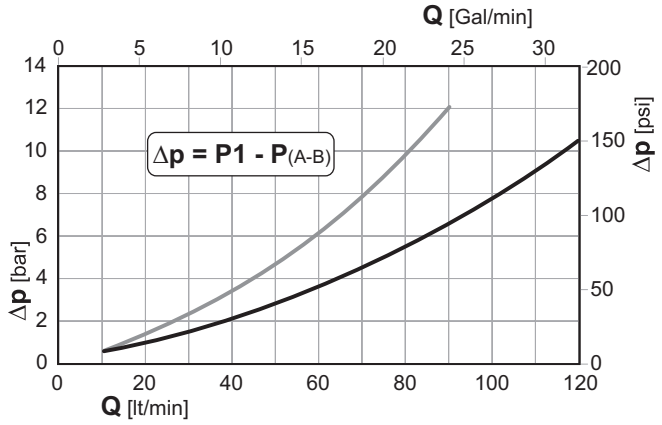
Perdite di carico con il cursore in posizione di lavoro

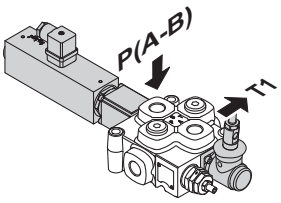
(Δp in funzione del numero di sezioni attraversate)

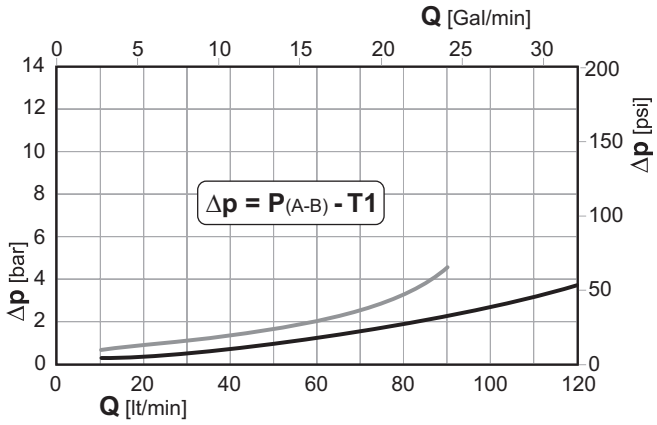
Pressure drop with spool in working position

(*Δp depending on the number of the crossed sections)*









1 Elemento Q95 / *1 section Q95*

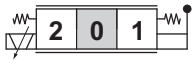
1 Elemento Q75 / *1 section Q75*

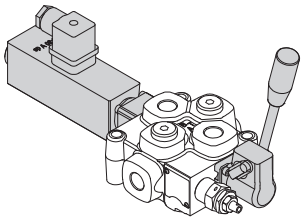
N.B. Le curve sono ricavate con cursore 103 / *NOTE. Performance curves measured using spool 103 type.*

Sezione di lavoro											*Working section*									
Q25	—	F7S	R250	—	2x	103	H1	—	F3D	—	12V	—	2E							
1		2	3			5	6		8		9		10							

A1/DP

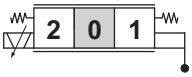
Comando elettrico diretto doppio con magnete proporzionale e ritorno a molla in posizione 0
Double direct electrical control with proportional solenoid and spring centred in 0

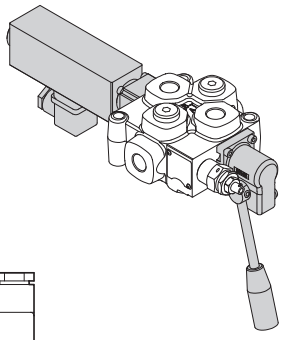


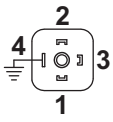


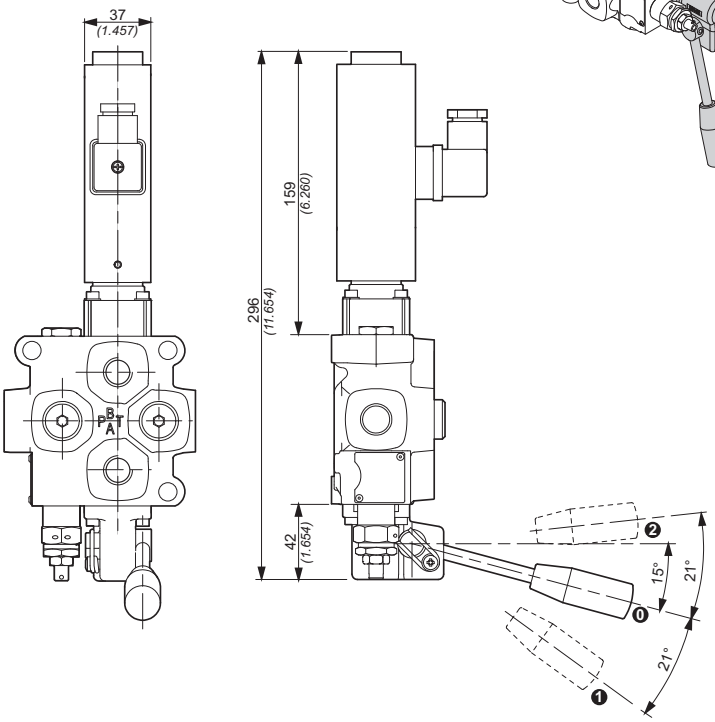
A2/DP

Comando elettrico diretto doppio con magnete proporzionale ruotato di 180° e ritorno a molla in posizione 0
180° rotated double direct electrical control with proportional solenoid and spring centred in 0





Connessione *Connection*		
	**1 - 2**	Effetto **A** *Port* **A**
	1 - 3	Effetto **B** *Port* **B**



Per l'elettronica di comando contattare l'ufficio commerciale.
For electronic control unit contact the sales office.

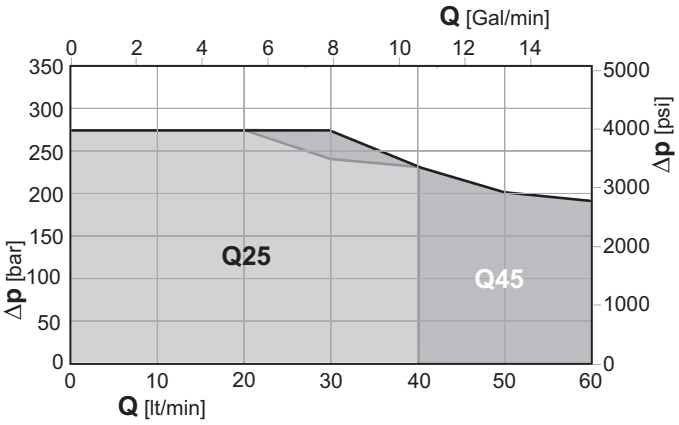
Dimensioni in / *Dimensions in:* mm *(inch)*

Caratteristiche tecniche elettromagnete / *Electromagnet technical features*		
Tipo distributore / *Valve type*	**Q25**	**Q45**
Attacco magnete / *Magnet connection*	Tipo/*Type* DIN 43650 (vers. A)	
Tipo protezione / *Protection type*	IP65	
Classe d'isolamento / *Coil insulation class*	H	
Tensione di alimentazione / *Supply voltage*	12 VDC	24 VDC
Corrente di regolazione massima / *Current maximum range*	5A	2.5A
PWM frequency	100 Hz	
Caratteristiche tecniche / *Technical characteristics*		
Portata max (lt/min) / *Max. flow (Gal/min)*	30 *(8)*	60 *(16)*
Pressione max di lavoro / Max. working pressure	250 bar	
Contropressione max sullo scarico / *Max. back outlet pressure*	25 bar	
Manovra di emergenza o in assenza di corrente / *Emergency operation or in case of power failure*	Con leva / *With lever*	
Trafilamento max di A e B in T a 100 bar con viscosità 35 mm^2/s *Max. spool leakage of A and B ports to T port at 1450 bar with viscosity 35 mm^2/s*	5 cm^3/min	

Sezione di lavoro

Working section

Limiti d'impiego / *Use limits*

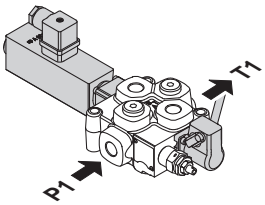


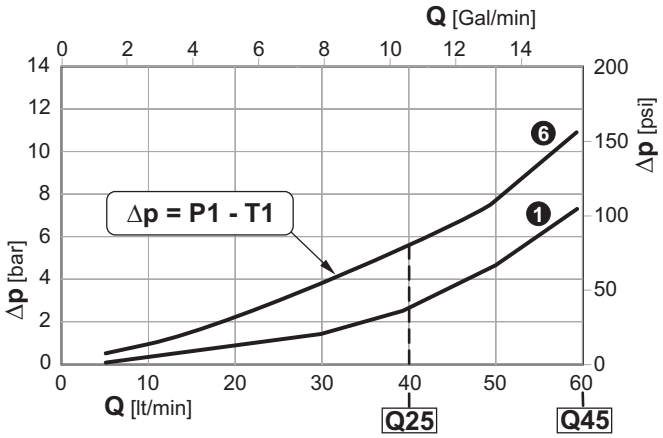
Perdite di carico con il cursore in posizione neutra

(Δp in funzione del numero di sezioni attraversate)

Pressure drop with spool in neutral position

(*Δp depending on the number of the crossed sections*)

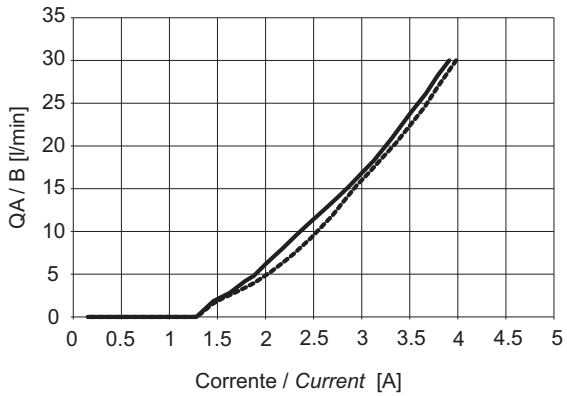




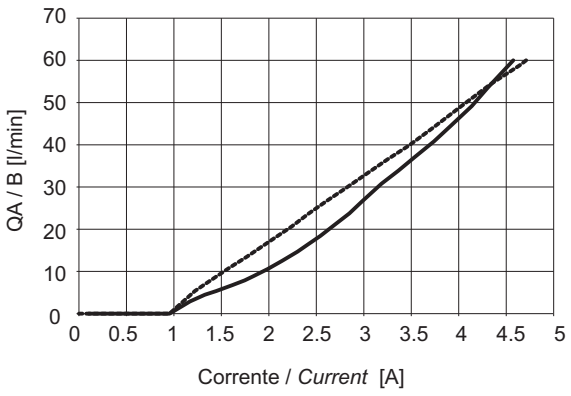
N.B. Le curve sono ricavate con cursore 103 / *NOTE. Performance curves measured using spool 103 type.*

❶ ❻ Sezioni / *Sections*

Curve di metering corrente bassa portata Qin 30 l/min
Metering curve current low delivery Qin 30 l/min



Curve di metering corrente alta portata Qin 60 l/min
Metering curve current high delivery Qin 60 l/min

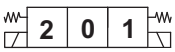


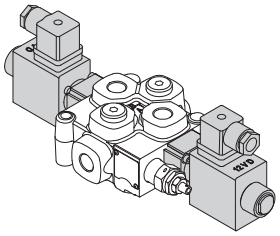
Cursore 111 / Spool 111 type
Cursore 103 / Spool 103 type

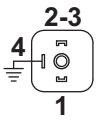
Sezione di lavoro											*Working section*
Q25	—	F7S	R250	—	2x	103	H1	—	F3D	—	12V	—	2E
1		2	3			5	6		8		9		10

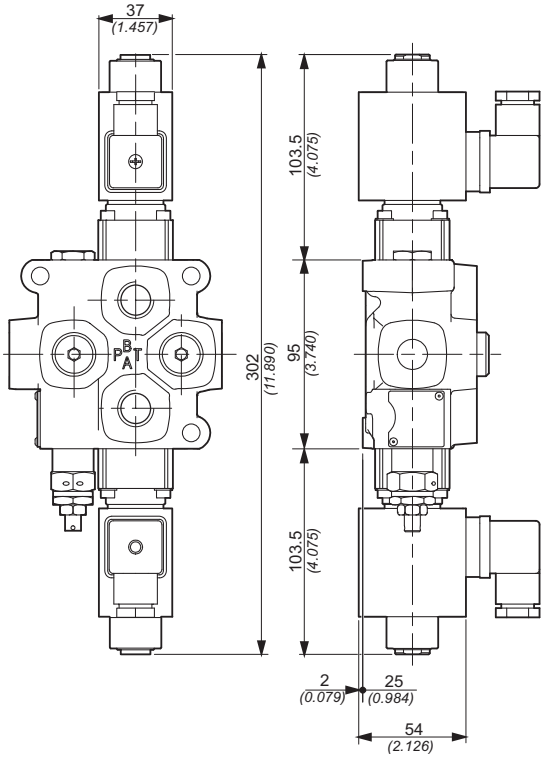
D9

Comando elettrico diretto doppio ON/OFF con ritorno a molla in posizione 0
ON/OFF double direct electrical control with spring centred in 0





Connessione *Connection*		
	**1 - 2**	Effetto **A** *Port* **A**
	1 - 3	Effetto **B** *Port* **B**



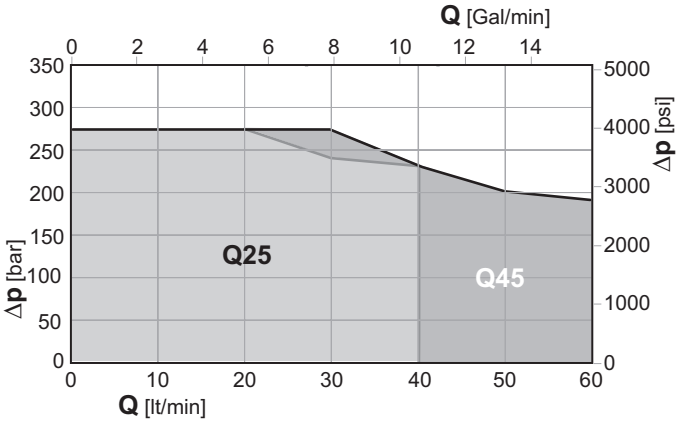
Dimensioni in / *Dimensions in:* mm *(inch)*

Caratteristiche tecniche elettromagnete / *Electromagnet technical features*		
Tipo distributore / *Valve type*	**Q25**	**Q45**
Attacco magnete / *Magnet connection*	Tipo/*Type* DIN 43650 (vers. A)	
Tipo protezione / *Protection type*	IP65	
Classe d'isolamento / *Coil insulation class*	H	
Tensione di alimentazione / *Supply voltage*	12V D.C./24V D.C.	
Variazione di tensione max / *Maximum voltage tolerance*	±10%	
Potenza assorbita / *Absorbed power supply*	58W	
Rapporto di massimo utilizzo / *Maximum utilization ratio*	100%	
Caratteristiche tecniche distributore / *Directional control valve characteristics*		
Portata max / *Max. flow*	50	60
Pressione max di lavoro / Max. working pressure	275 bar	
Contropressione max sullo scarico / *Max. back outlet pressure*	25 bar	
Manovra di emergenza o in assenza di corrente / *Emergency operation or in case of power failure*	A pulsante in spinta / *Push type*	
Trafilamento max di A e B in T a 100 bar con viscosità 35 mm^2/s / *Max. spool leakage of A and B ports to T port at 100 bar with viscosity 35* mm^2/s	5 cm^3/min	

Sezione di lavoro

Working section

Limiti d'impiego / *Use limits*

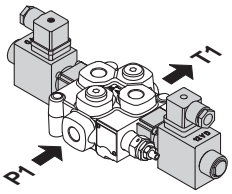


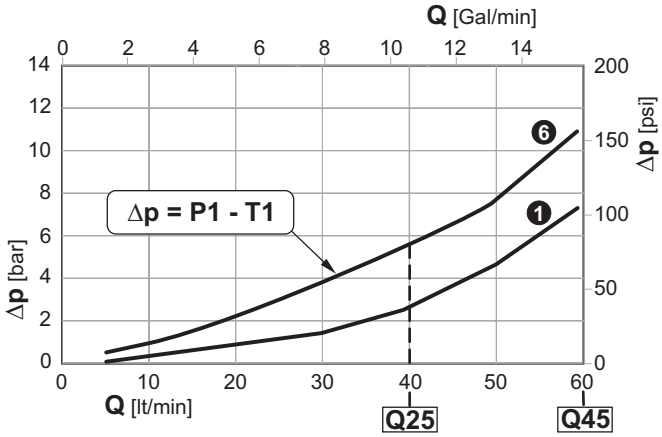
Perdite di carico con il cursore in posizione neutra

(Δp in funzione del numero di sezioni attraversate)

Pressure drop with spool in neutral position

(*Δp depending on the number of the crossed sections*)



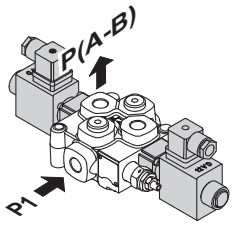


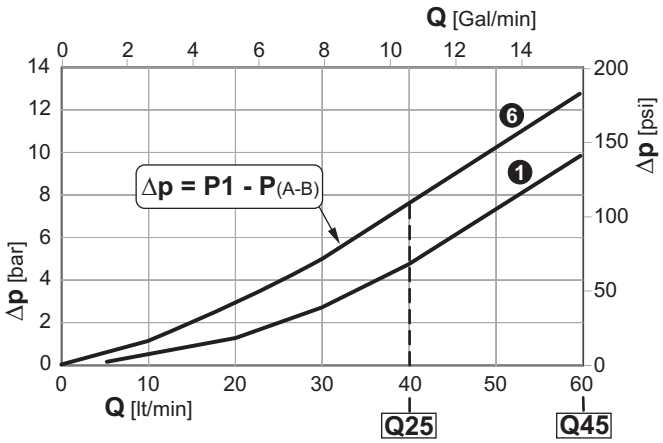
Perdite di carico con il cursore in posizione di lavoro

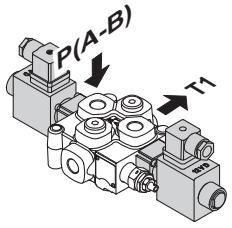
(Δp in funzione del numero di sezioni attraversate)

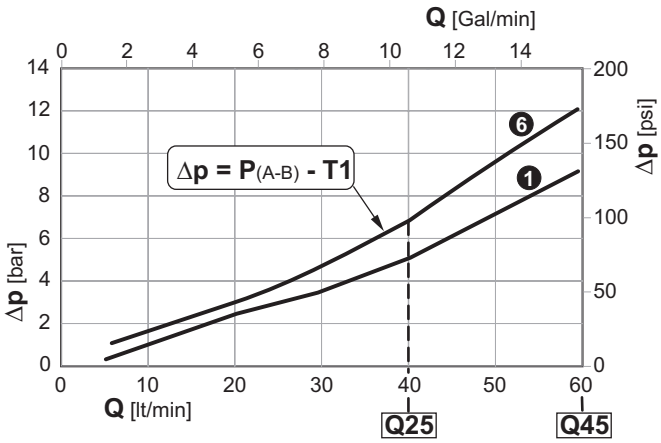
Pressure drop with spool in working position

(*Δp depending on the number of the crossed sections*)









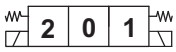
❶ ❻ Sezioni / *Sections*

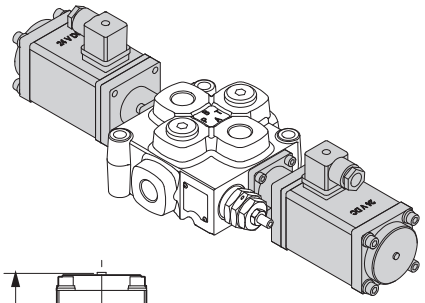
N.B. Le curve sono ricavate con cursore 103 */ NOTE.Performance curves measured using spool 103 type.*

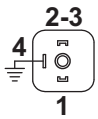
Q75	F7S	R250	2x	103	H1	F3D	12V	2E
1	2	3		5	6	8	9	10

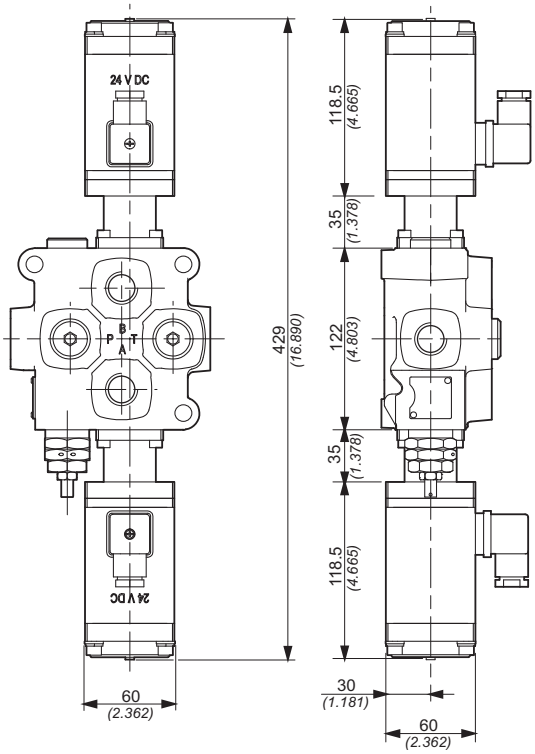
D9

Comando elettrico diretto doppio ON/OFF con ritorno a molla in posizione 0
ON/OFF double direct electrical control with spring centred in 0





Connessione Connection		
	**1 - 2**	Effetto **A** *Port* **A**
	1 - 3	Effetto **B** *Port* **B**



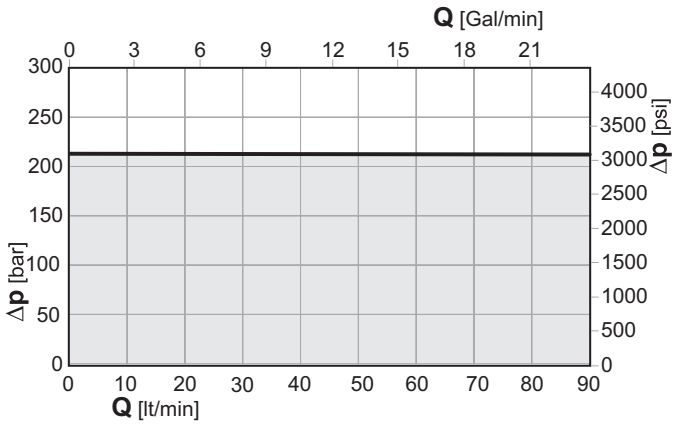
Dimensioni in / *Dimensions in:* mm *(inch)*

Caratteristiche tecniche elettromagnete / *Electromagnet technical features*		
Tipo distributore / *Valve type*	**Q75**	**Q95**
Attacco magnete / *Magnet connection*	Tipo/*Type* DIN 43650 (vers. A)	
Tipo protezione / *Protection type*	IP65	
Classe d'isolamento / *Coil insulation class*	H	
Tensione di alimentazione / *Supply voltage*	12V D.C./24V D.C.	
Variazione di tensione max / *Maximum voltage tolerance*	±10%	
Potenza assorbita / *Absorbed power supply*	80W	
Rapporto di massimo utilizzo / *Maximum utilization ratio*	100%	
Caratteristiche tecniche distributore / *Directional control valve characteristics*		
Portata max / *Max. flow*	90	120
Pressione max di lavoro / Max. working pressure	210 bar	
Contropressione max sullo scarico / *Max. back outlet pressure*	25 bar	
Manovra di emergenza o in assenza di corrente / *Emergency operation or in case of power failure*	A pulsante in spinta / *Push type*	
Trafilamento max di A e B in T a 100 bar con viscosità 35 mm^2/s / *Max. spool leakage of A and B ports to T port at 100 bar with viscosity 35 mm^2/s*	7 cm^3/min	

Sezione di lavoro

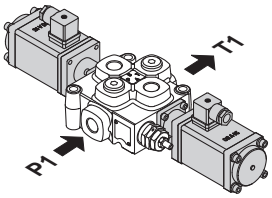
Working section

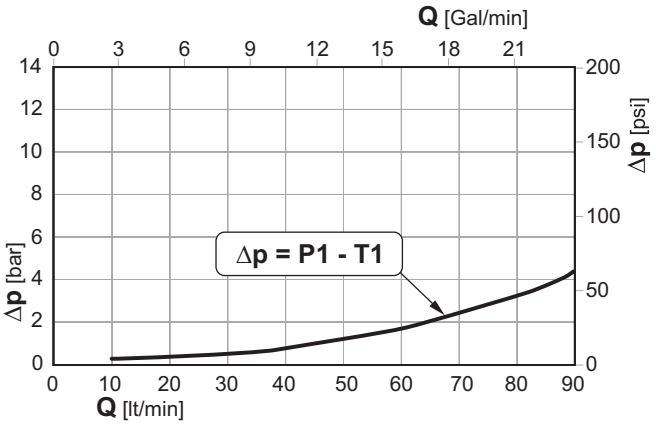
Limiti d'impiego / *Use limits*



Perdite di carico con il cursore in posizione neutra
(Δp in funzione del numero di sezioni attraversate)

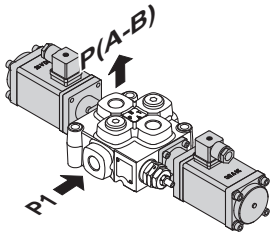
Pressure drop with spool in neutral position
(*Δp depending on the number of the crossed sections*)

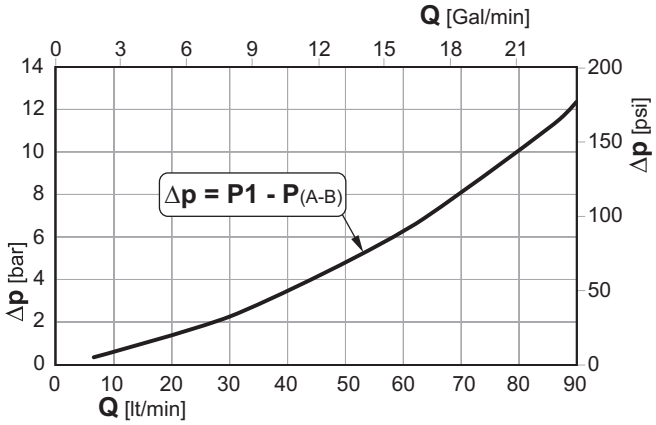


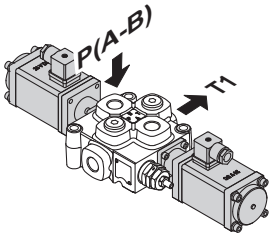


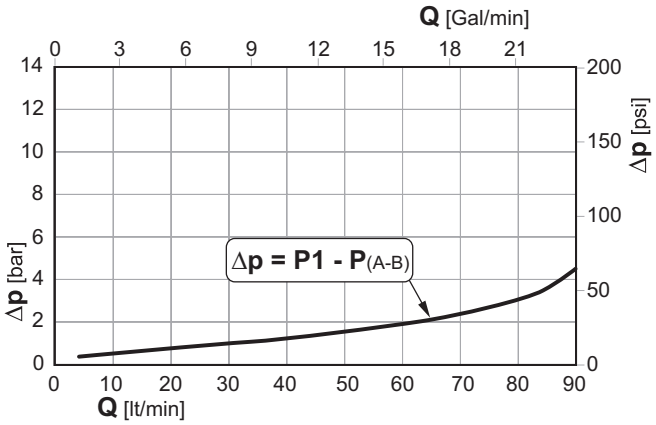
Perdite di carico con il cursore in posizione di lavoro
(Δp in funzione del numero di sezioni attraversate)

Pressure drop with spool in working position
(*Δp depending on the number of the crossed sections*)









N.B. Le curve sono ricavate con cursore 103 / *NOTE. Performance curves measured using spool 103 type.*

Fiancata di scarico	*Outlet section type*

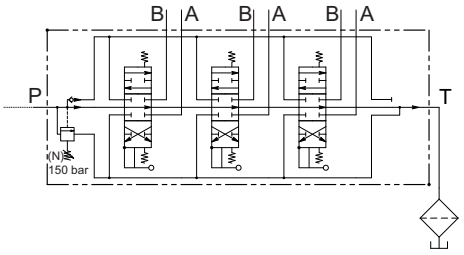
Q25	—	F7S	R250	—	2x	103	A1	M1	—	F3D	—	12V	—	2E+1
1		2	3			5	6	7		8		9		10

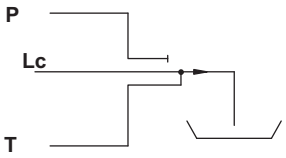
8 - Tipo fiancata di scarico / *Outlet section type*

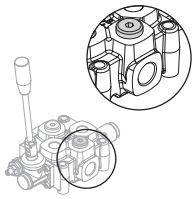
			Q15	GMV 15	Q35	Q25	Q45	Q65	Q75	Q95
F3D	Fiancata di scarico	*Outlet section*	•	•	•	•	•	•	•	•
F6D	Fiancata di scarico con alimentazione in pressione per altri componenti (carry-over)	*Outlet section and high pressure (carry-over)*		•		•	•		•	•
F16D	Fiancata di scarico destro per centro chiuso	*Right outlet section for through passage closed*		•		•	•		•	•

F3D

Fiancata di scarico
Outlet section



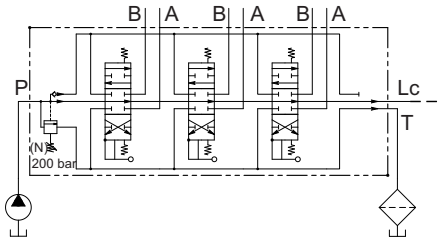


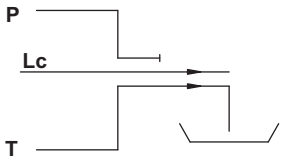


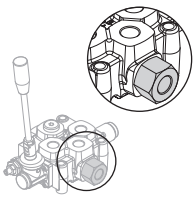
F6D

Fiancata di scarico con alimentazione in pressione per altri componenti (carry-over)
Outlet section and high pressure (carry-over)

Per il GMV15 vedere l'installazione del carry-over a pag. F10
For GMV15 Carry Over installation see page F10



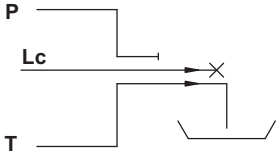


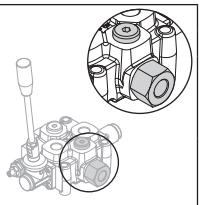


F16D

Fiancata di scarico destro per centro chiuso
Right outlet section for through passage closed

Per il GMV15 vedere l'installazione del carry-over a pag. F10
For GMV15 Carry Over installation see page F10





Note aggiuntive | ***Additional notes***

Q25	—	F7S	R250	—	2x	103	A1	M1	—	F3D	—	12V	—	2E
1		2	3			5	6	7		8		9		10

9 - Note aggiuntive / *Additional notes*

12V, 24V
S Alluminio (pag. F-6 ... F-10)

Codice **asta di comando** (vedi tabella seguente)

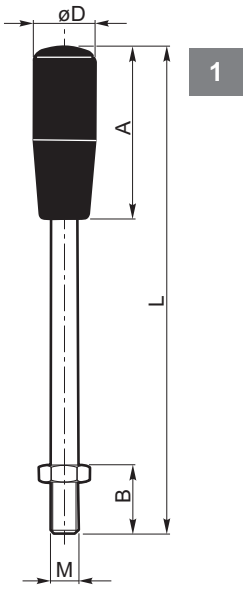
8 - *Additional notes*

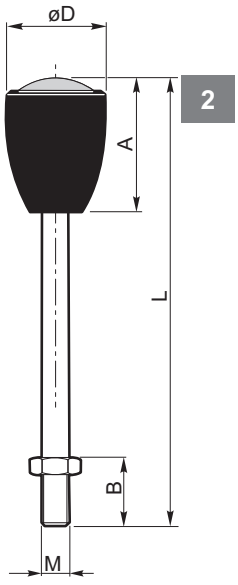
12V, 24V
S Aluminium *(page F-6 ... F-10)*

Control ***lever code*** *(see next table)*

Codice / *Code*		Versione / *Version*	M	L	D	A	B	Colore / *Color*
Q35 - Q15 - GMV15 - Q25 - Q45			Dimensioni in / *Dimensions in:* mm *(inch)*					
06.029.22862	1	Standard / *Standard*	M8	164 *(6.457)*	20 *(0.787)*	57 *(2.244)*	20 *(0.787)*	Nero / *Black*
06.029.30335	1	Standard / *Standard*	M8	164 *(6.457)*	20 *(0.787)*	57 *(2.244)*	20 *(0.787)*	Rosso / *Red*
06.029.30528	1	Lunga tipo A / *Long version type A*	M8	184 *(7.244)*	20 *(0.787)*	57 *(2.244)*	20 *(0.787)*	Nero / *Black*
06.029.30492	1	Lunga tipo A / *Long version type A*	M8	184 *(7.244)*	20 *(0.787)*	57 *(2.244)*	20 *(0.787)*	Rosso / *Red*
06.029.28922	1	Lunga / *Long version*	M8	204 *(8.031)*	20 *(0.787)*	57 *(2.244)*	20 *(0.787)*	Nero / *Black*
06.029.30336	1	Lunga / *Long version*	M8	204 *(8.031)*	20 *(0.787)*	57 *(2.244)*	20 *(0.787)*	Rosso / *Red*
06.029.27421	1	Extra lunga / *Extra-long*	M8	324 *(12.756)*	20 *(0.787)*	57 *(2.244)*	20 *(0.787)*	Nero / *Black*
06.029.22876	1	Extra corta / *Extra-short*	M8	82 *(3.228)*	18 *(0.709)*	50 *(1.969)*	20 *(0.787)*	Nero / *Black*
06.029.29451	2	Standard con oblo'/ *Standard with lens*	M8	174 *(6.850)*	32 *(1.260)*	46 *(1.811)*	20 *(0.787)*	Nero / *Black*
06.029.29423	2	Lunga con oblo' / *Long with lens*	M8	214 *(8.425)*	32 *(1.260)*	46 *(1.811)*	20 *(0.787)*	Nero / *Black*
Q75 - Q95								
06.029.27013	1	Standard / *Standard*	M10	209 *(8.228)*	20 *(0.787)*	57 *(2.244)*	28 *(1.102)*	Nero / *Black*
06.029.28148	1	Lunga / *Long version*	M10	357 *(14.055)*	20 *(0.787)*	57 *(2.244)*	28 *(1.102)*	Nero / *Black*
06.029.27344	1	Corta / *Short version*	M10	154 *(6.063)*	20 *(0.787)*	57 *(2.244)*	28 *(1.102)*	Nero / *Black*
06.029.27635	1	Extra corta / *Extra-short*	M10	66 *(2.598)*	26 *(1.024)*	42 *(1.654)*	22 *(0.866)*	Nero / *Black*
06.029.29866	2	Standard con oblo' *Standard with lens*	M10	219 *(8.622)*	32 *(1.260)*	46 *(1.811)*	28 *(1.102)*	Nero / *Black*
06.029.30295	2	Lunga con oblo' *Long with lens*	M10	367 *(14.449)*	32 *(1.260)*	46 *(1.811)*	28 *(1.102*	Nero / *Black*
Per comando elettrico / For electric control Q25 - Q45								
06.029.28945	1	Standard / *Standard*	Ø7	133 *(5.236)*	20 *(0.787)*	57 *(2.244)*	15 *(0.591)*	Nero / *Black*
06.029.29349	1	Lunga / *Long version*	Ø7	201 *(7.913)*	20 *(0.787)*	57 *(2.244)*	15 *(0.591)*	Nero / *Black*
06.029.30951	2	Standard con oblo' *Standard with lens*	Ø7	143 *(5.630)*	32 *(1.260)*	46 *(1.811)*	15 *(0.591)*	Nero / *Black*

Dimensioni in / *Dimensions in:* mm *(inch)*





Note aggiuntive | ***Additional notes***

Q25	—	F7S	R250	—	2x	103	A1	M1	—	F3D	—	12V	—	2E
1		2	3			4	5	6		7		8		9

10 - Numero elementi

Specificare il numero delle sezioni di lavoro previste (es. 2E).

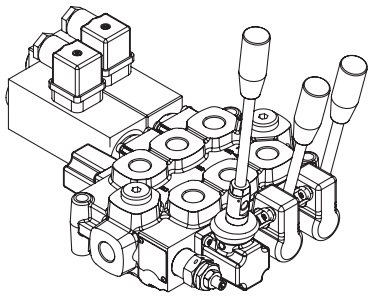
10 - Number of sections

Specify the number of working sections used (e.g. 2E).

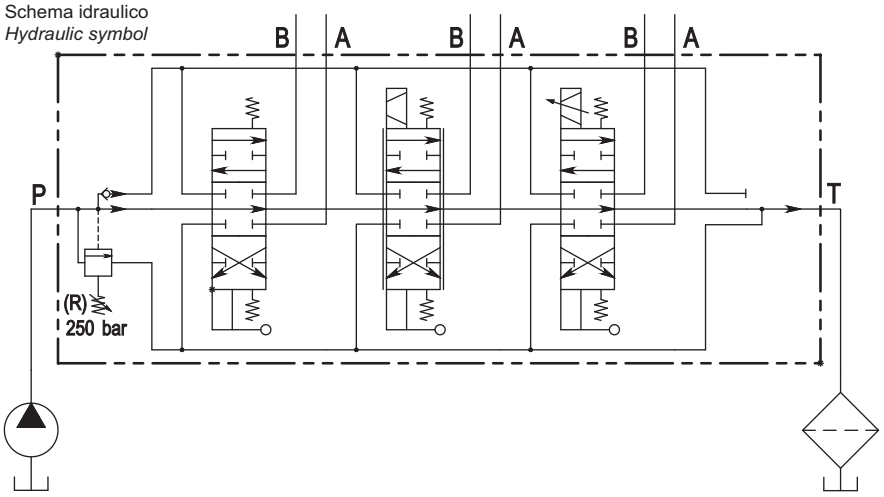
ESEMPI DI ORDINAZIONE IN CODICE
ORDERING CODE EXAMPLES

Q25 - F1S R(250) - 103/A1/M1 - 103/A1/D41 - 103/A1/DP - F3D - 12V - 3E

A	B		C	D	E
1	2	3	5 - 6 - 7	8	9 - 10
Q25	F1S	R250	103/A1/M1 103/A1/D41 103/A1/DP	F3D	12V - 3E

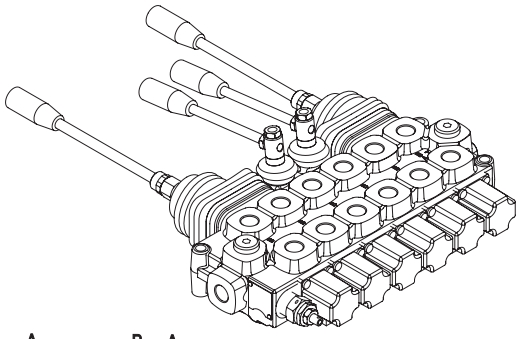


Schema idraulico
Hydraulic symbol

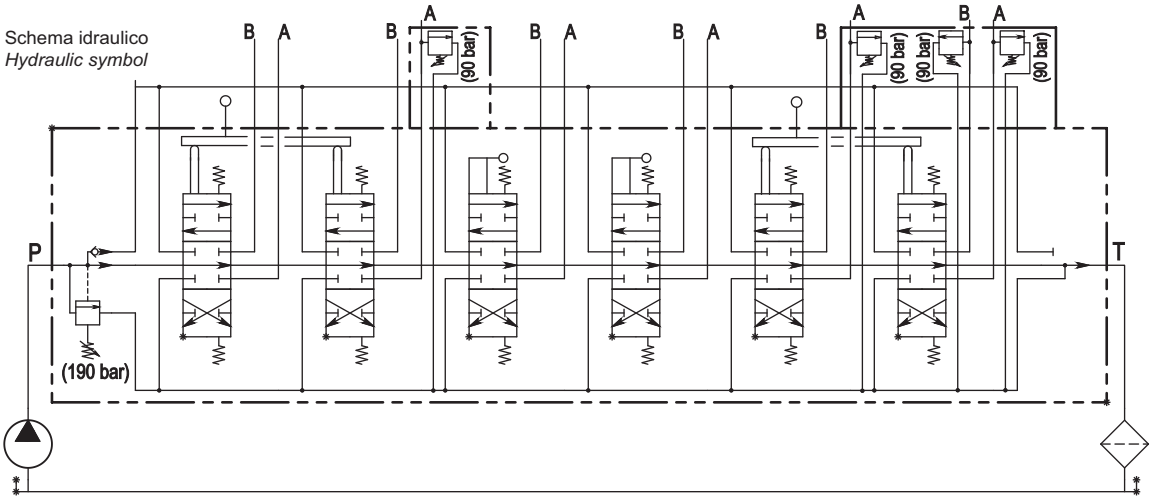


Q25 - F1S(N) - 103/M1/A352 - 103/M1/V30(N) - 2x103/M1/A1 - 103/M1/A354/V30(N) - 103/M1/V32(N) - F3D - 6E

A	B		C	D	E
1	2	3	5 - 6 - 7	8	9 - 10
Q25	F1S	N190	103/M1/A352 103/M1/V30(N) 2x 103/M1/A1 103/M1/A354/V30(N) 103/M1/V32(N)	F3D	6E



Schema idraulico
Hydraulic symbol

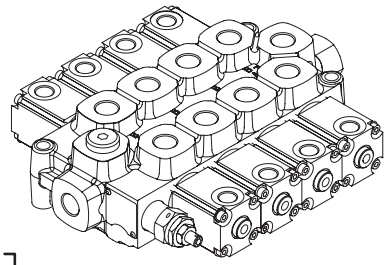


A - Tipo / ***Type***
B - Fiancata d'ingresso / ***Inlet section***
C - Sezione di lavoro / ***Working section***
D - Fiancata di scarico / ***Outlet section***
E - Note aggiuntive / ***Additional notes***

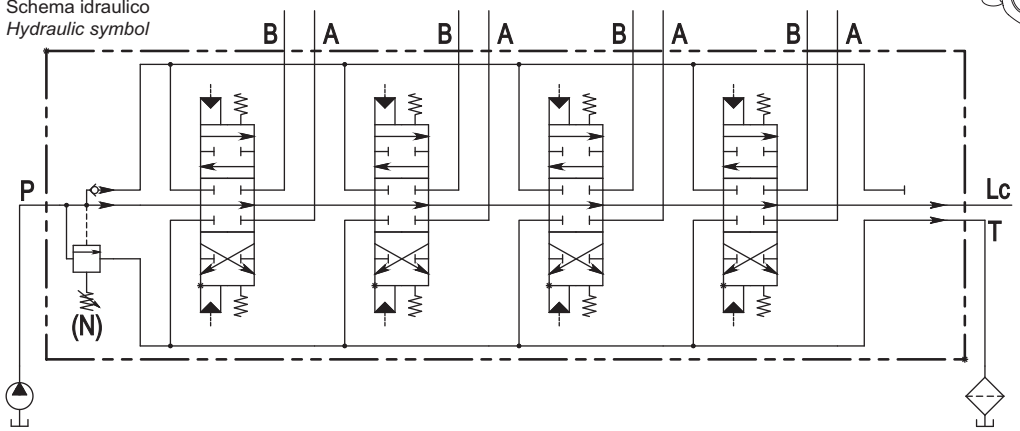
ESEMPI DI ORDINAZIONE IN CODICE
ORDERING CODE EXAMPLES

Q25 - F1S(N) - 4x103/H5 - F6D - 4E

A	B		C	D	E
1	2	3	5 - 6 - 7	8	9 - 10
Q25	F1S	N180	4x 103/H5	F6D	4E

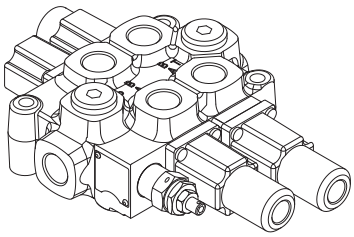


Schema idraulico
Hydraulic symbol

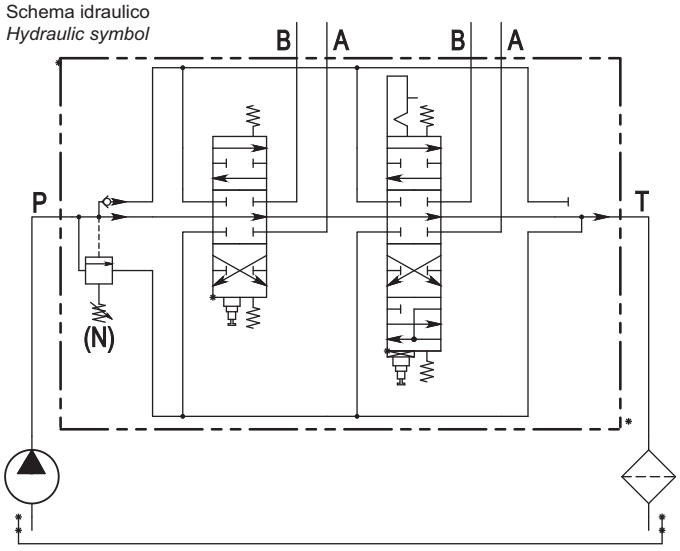


Q45 - F1S(N) - 103/A8/M1 - 116/A8-Z1/R8 - F3D - 2E

A	B		C	D	E
1	2	3	5 - 6 - 7	8	9 - 10
Q45	F1S	R250	103/A8/M1 116/A8-Z1/R8	F3D	2E



Schema idraulico
Hydraulic symbol

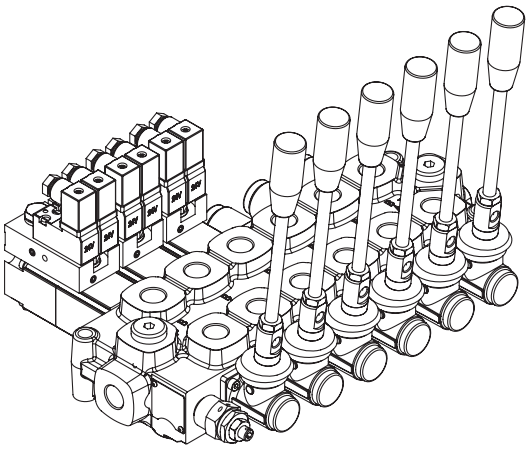


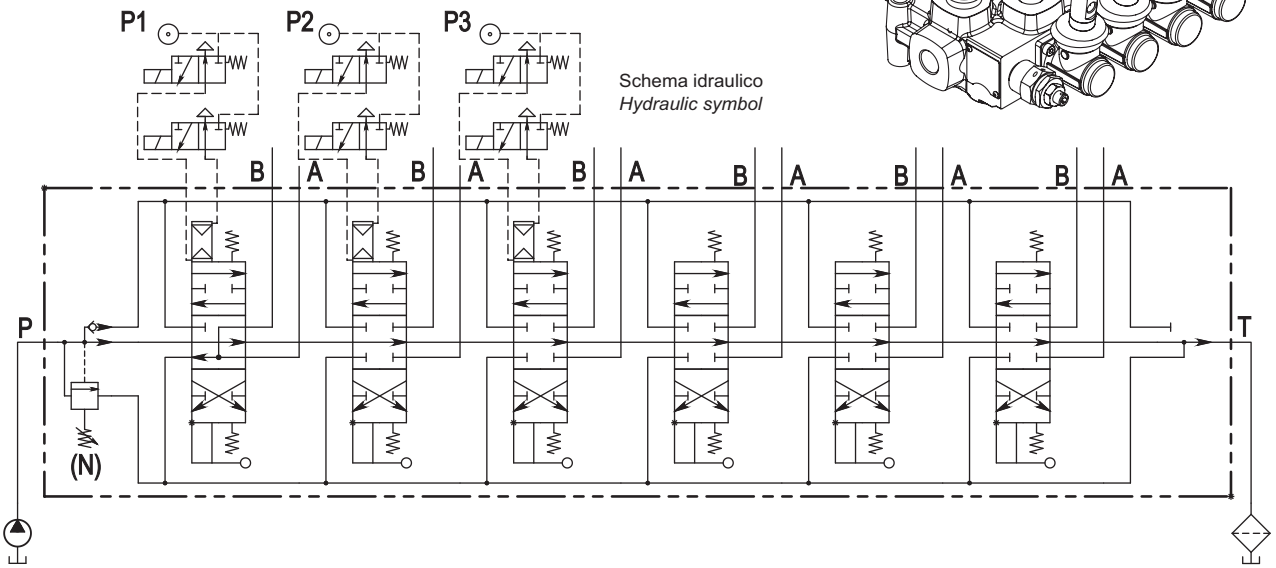
A - Tipo / *Type*
B - Fiancata d'ingresso / *Inlet section*
C - Sezione di lavoro / *Working section*
D - Fiancata di scarico / *Outlet section*
E - Note aggiuntive / *Additional notes*

ESEMPI DI ORDINAZIONE IN CODICE
ORDERING CODE EXAMPLES

Q25 - F1S (N) - 111/A1/D3 - 2x103/A1/D3 - 3x103/A1/M1 - F3D - S 24V - 6E

A	B		C	D	E
1	2	3	5 - 6 - 7	8	9 - 10
Q25 —	F1S	N180 —	111/A1/D3	— F3D —	S 24V - 6E
			2x 103/A1/D3		
			3x 103/A1/M1		

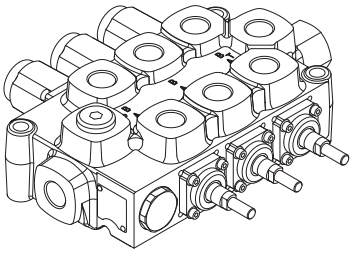




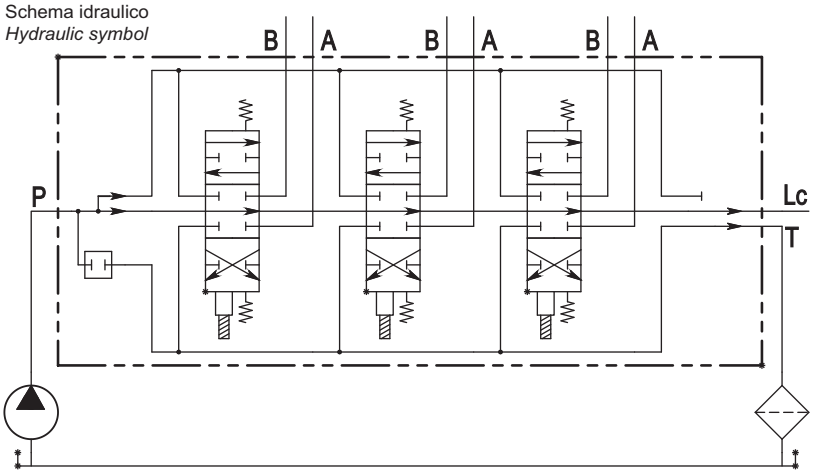
Schema idraulico
Hydraulic symbol

Q75 - F8S(N) - 3x103/A4/M1 - F6D - 3E

A	B		C	D	E
1	2	3	5 - 6 - 7	8	9 - 10
Q75 —	F8S	N180	3x 103/A4/M1	— F6D —	3E

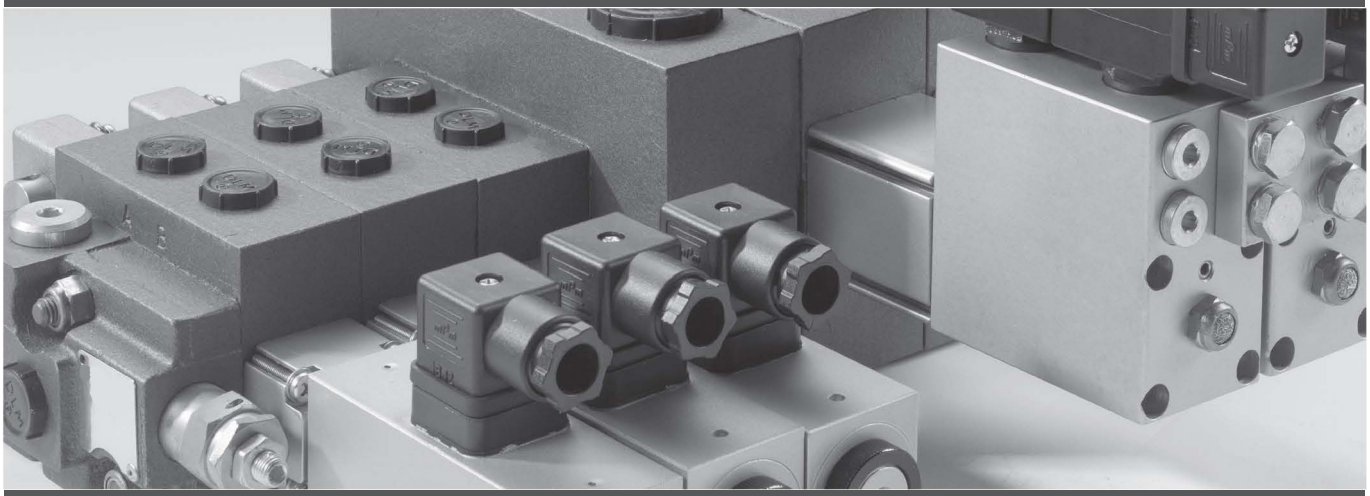


Schema idraulico
Hydraulic symbol



A - Tipo / ***Type***
B - Fiancata d'ingresso / ***Inlet section***
C - Sezione di lavoro / ***Working section***
D - Fiancata di scarico / ***Outlet section***
E - Note aggiuntive / ***Additional notes***

DISTRIBUTORI COMPONIBILI
SECTIONAL DIRECTIONAL CONTROL VALVES

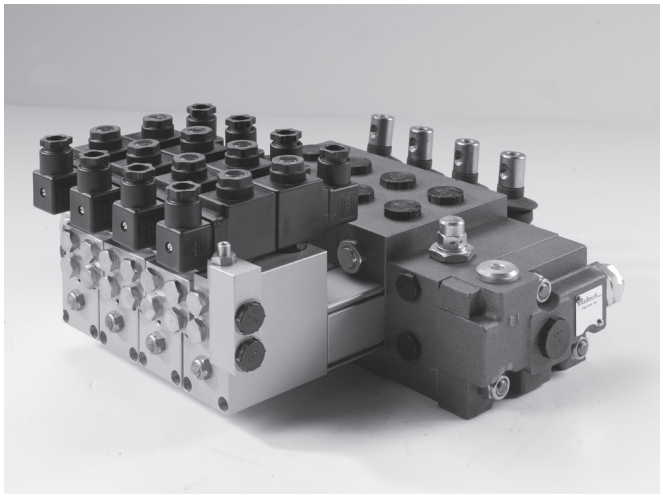


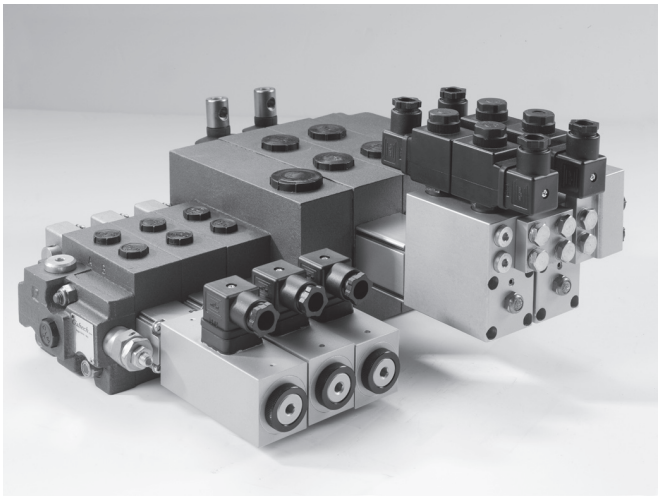
CARATTERISTICHE

- Elevate prestazioni tecniche che consentono una vasta applicazione.
- Corpo in ghisa speciale ad alta resistenza per essere adatto alle alte pressioni di lavoro.
- Cursori nichelati ad alto scorrimento che permettono di poter lavorare ad alte pressioni con lunga durata di vita.
- Trafilamenti di valore ridottissimo.
- Possibilità di inversione del lato di comando ruotando il cursore di 180°, consentendo così unificazione, versatilità, bassi valori di particolari a magazzino.
- Il tipo di libera circolazione a “Y” permette alte portate con basse perdite di carico, in rapporto alle ridotte dimensioni del distributore.
- Maggior versatilità rispetto ai distributori monoblocco e prestazioni superiori.
- Esecuzione standard con valvole di ritegno su ogni effetto.
- Protezione dei singoli effetti con valvole ausiliarie antiurto, anticavitazione e combinate.
- Possibilità di diversi tipi di circuito: PARALLELO, SERIE, SINGOLO.
- Entrate e scarichi laterali ed intermedi.
- Possibilità di inserimento di elementi intermedi con vari tipi di valvole nel medesimo distributore.

CHARACTERISTICS

- *High technical performances granting larger application range.*
- *Special high resistance cast-iron body, suitable for high working pressures.*
- *Nickel-plated offering granting long working life under high pressure conditions (see attached scheme).*
- *Minimal internal leackages.*
- *Possibility to reverse the control side, turning the spool of 180° permits unification, versatility and low value of some parts in stock.*
- *Free movement version “Y shape” allows high oil flow with low pressure drops, in relation with the small dimensions of the control valves.*
- *Better versatility compared to monoblock control valves and higher performances.*
- *Standard check valves on each element.*
- *Protection on single elements with auxiliary antishock, anti-cavitation and combined valves.*
- *Possibility of different types of circuit: PARALLEL, SERIES and SINGLE.*
- *Side and intermediate inlets and outlets.*
- *Possibility to connect intermediate elements with different type of valves in the same control valves.*





AVVERTENZA PER L’INSTALLAZIONE DEI DISTRIBUTORI

- I distributori devono sempre appoggiare su una superficie perfettamente piana
- Non manomettere i dadi dei tiranti in quanto comprometterebbero il normale funzionamento del distributore.
- Non utilizzare raccordi conici su filetti cilindrici.
- Per pulire il distributore, prima della verniciatura, non utilizzare diluenti/solventi o qualsiasi prodotto che possa intaccare le parti in gomma.

NOTES FOR DIRECTIONAL CONTROL VALVES ASSEMBLY

- *The valve must always and perfectly rest on a 180° degree flat surface.*
- *Do not tamper the tie rod nuts so they might impair the standard working of the valve.*
- *No conical nipples with JIC thread must be used.*
- *Before painting the control valve, do not use diluent or any products that could damage rubber parts.*

CARATTERISTICHE TECNICHE
TECHNICAL CHARACTERISTICS

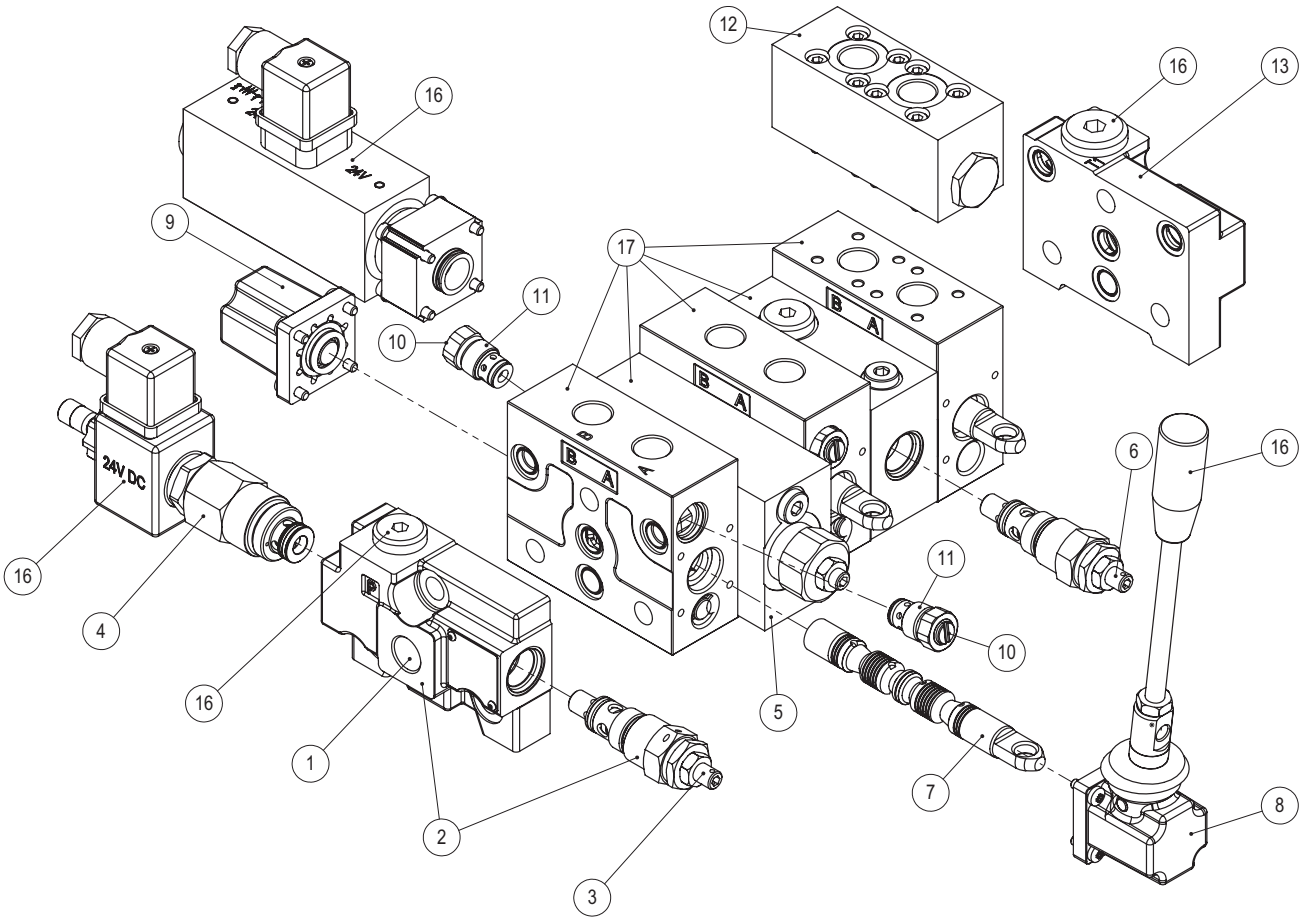
	Q30	GVS50 (Q50)	Q80	Q130
Numero massimo di elementi ***Working sections maximum***	10	10	10	10
Limiti temperatura olio ***Oil temperature range***	-30 ÷ 80 °C			
Temperatura olio consigliata ***Recommended oil temperature***	30° ÷ 60 °C			
Filtraggio consigliato ***Recommended filtration***	26/23µm ISO DIS 4406			
Fluido ***Hidraulic fluid***	Olio minerale *Mineral oil*			
Viscosità ***Viscosity***	10 ÷ 400 mm^2/s			

Massa [Kg] ***Weight*** *(lbs)*	**1**	Elemento + fiancata d'ingresso + fiancata di scarico *Working section + inlet + outlet section*	4.2 *(9.3)*	4.2 *(9.3)*	8.1 *(17.9)*	16.6 *(36.6)*
	2	Elementi + fiancata d'ingresso + fiancata di scarico *Working sections + inlet + outlet section*	6.2 *(13.7)*	6.1 *(13.5)*	11.9 *(26.2)*	22.4 *(49.4)*
	3	Elementi + fiancata d'ingresso + fiancata di scarico *Working sections + inlet + outlet section*	8.1 *(17.9)*	8.0 *(17.6)*	15.8 *(34.8)*	28.2 *(62.2)*
	4	Elementi + fiancata d'ingresso + fiancata di scarico *Working sections + inlet + outlet section*	10.1 *(22.3)*	9.9 *(21.8)*	19.7 *(43.4)*	34.1 *(75.2)*
	5	Elementi + fiancata d'ingresso + fiancata di scarico *Working sections + inlet + outlet section*	12 *(26.5)*	11.8 *(26.0)*	23.5 *(51.8)*	39.9 *(88.0)*
	6	Elementi + fiancata d'ingresso + fiancata di scarico *Working sections + inlet + outlet section*	14 *(30.9)*	13.7 *(30.2)*	27.4 *(60.4)*	45.7 *(100.8)*
	7	Elementi + fiancata d'ingresso + fiancata di scarico *Working sections + inlet + outlet section*	15.9 *(35.1)*	15.6 *(34.4)*	31.2 *(68.8)*	51.6 *(113.8)*
	8	Elementi + fiancata d'ingresso + fiancata di scarico *Working sections + inlet + outlet section*	17.9 *(39.5)*	17.5 *(38.6)*	35 *(77.2)*	57.4 *(126.6)*
	9	Elementi + fiancata d'ingresso + fiancata di scarico *Working sections + inlet + outlet section*	19.8 *(43.7)*	19.4 *(42.8)*	38.9 *(85.8)*	63.2 *(139.4)*
	10	Elementi + fiancata d'ingresso + fiancata di scarico *Working sections + inlet + outlet section*	21.8 *(48.1)*	21.3 *(47.0)*	42.7 *(94.2)*	69 *(152.1)*
		Elemento aggiuntivo *Additional section*	2.0 *(4.4)*	1.9 *(4.2)*	3.9 *(8.6)*	5.9 *(13.6)*

Pressioni massime di lavoro [bar] ***Max working pressure*** *(PSI)*	da **1** a **3** elementi *from **1** up to **3** working sections*	375 *(5438)*	375 *(5438)*	350 *(5075)*	375 *(5438)*
	da **4** a **6** elementi *from **4** up to **6** working sections*	350 *(5075)*	350 *(5075)*	320 *(4640)*	350 *(5075)*
	da **7** a **10** elementi *from **7** up to **10** working sections*	325 *(4713)*	325 *(4713)*	300 *(4350)*	325 *(4713)*
Pressione massima sullo scarico [bar] ***Max back pressure*** *(PSI)*	25 *(363)*				

ESEMPIO DI ORDINAZIONE IN CODICE
ORDERING CODE EXAMPLE

Tipo *Type*		Fiancata d'ingresso *Inlet section*				Sezione di lavoro e/o elemento intermedio *Working section and/or intermediate section*										Fiancata di scarico o ingresso suppl. *Outlet section or additional inlet section*		Note aggiuntive *Additional notes*		
Q30	—	F7S	R250	MSE	—	E50	R250	—	2x	103	A1	M1	V30	R250	V01	—	F3D	—	12V	— 2E+1
1		2	3	4		5	6			7	8	9	10	11	12		13		16	17



Tipo

1 - Tipo

Q30, Q50 (ad esaurimento)**, GSV50, Q80, Q130**
Indica il tipo di distributore; le caratteristiche dimensionali sono riportate da pag. G-6 a pag. G15

Fiancata d'ingresso

2 - Tipo fiancata d'ingresso (pag. G-16)

3 - Tipo molla e taratura valvola (pag. G-16)
Dove è presente la valvola VLP (fiancate F7S), deve essere specificato il tipo di molla (**B, N o R**) e la sua pressione di taratura; se quest'ultima viene omessa la valvola verrà montata la molla N tarata a **150** bar.

4 - Valvole aggiuntive alla fiancata di ingresso (pag. G-17).

Type

1 - Type

Q30, Q50 *(phasing out),* ***GSV50, Q80, Q130***
Indicates model valve, characteristics and dimensions found on page G6 to page G15.

Inlet section

2 - Inlet section type *(page G-16)*

3 - Type of spring and valve setting *(page G-16)*
*If valve VLP is installed (inlet section F7S), specify the type of spring (**B, N or R**) and its pressure setting. If omitted spring N with a **150** bar setting will be installed.*

4 - Additional valves on the inlet section *(page G-17)*

ESEMPIO DI ORDINAZIONE IN CODICE
ORDERING CODE EXAMPLE

Sezione di lavoro e/o elemento intermedio

5 - Elemento intermedio (pag. G-18)

6 - Tipo molla e taratura valvola (pag. G-18)
Dove è presente la valvola VLP (elementi intermedi E50, E53), deve essere specificato il tipo di molla (**B, N o R**) e la sua pressione di taratura; se quest'ultima viene omessa verrà messa la molla N tarata a **150** bar.

N.B. I campi da 7 a 13 sono da ripetere per ogni sezione. Nel caso in cui due sezioni contigue siano identiche, è sufficiente descriverne solo una anteponendo 2x al campo 7. Il numero massimo complessivo di sezioni di lavoro è indicato a pag. G3.

7 - Tipo cursore (pag. G-20)

8 - Tipo di comando (pag. G-25, G29)

9 - Tipo posizionatore (pag. G-32)

10 - Tipo valvole a cartuccia (pag. G-55)

11 - Tipo molla e taratura valvola (pag. G-56)
Specificare il tipo di molla e la sua pressione di taratura; se quest'ultima viene omessa, verrà messa la molla N a 120 bar.

12 - Tipo valvole a pannello (pag. G-57)

Working section and/or Intermediate section

5 - Intermediate section *(page G-18)*

6 - Type of spring and valve setting (*page* G-18)
*If VLP valve is installed (intermediate section E50 and E53), specify the type of spring (**B, N or R**) and its pressure setting. If omitted spring N with a **150** bar setting will be installed.*

N.B. Fields 7 to 13 must be repeated for each section. If two adjacent sections are identical, just describe one and put 2x before field 4.
The maximum overall number of working sections is indicated on page G3.

7 - Spool type *(page G-20)*

8 - Control type *(page G-25, G29)*

9 - Positioner type *(page G-32)*

10 - Type of built-in cartridge valves *(page G-55)*

11 - Type of spring and valve setting *(page G-56)*
Specify the type of spring and its pressure setting. If omitted, spring N with a 120 bar setting will be installed.

12 - Type of panel valves *(page G-57)*

Fiancata di scarico o ingresso supplementare

13 - Tipo fiancata di scarico (pag. G-59)

13 - Ingresso supplementare (pag. G-60)
Gli ingressi supplementari, dotati di due ingressi laterali e uno scarico centrale, possono essere utilizzati in sostituzione della fiancata di scarico utilizzando come scarico l'elemento intermedio **E51** (vedi par. 5, pag. G-18).

14 - Tipo molla e taratura valvola (pag. G-60)
Dove è presente la valvola VLP, deve essere specificato il tipo di molla (**B, N o R**) e la sua pressione di taratura; se quest'ultima viene omessa verrà messa la molla N tarata a **150** bar.

15 - Valvole aggiuntive alla fiancata (pag. G-61)

Outlet section or additional inlet section

13 - Outlet section type *(page G-59)*

13 - Additional inlet *(page G-60)*
The additional inlet sections, fitted with two lateral inlets and with a central outlet can be used as a replacement of the outlet section by using the intermediate element E51 (see par. 5, page G-18) as relief.

14 - Type of spring and valve setting (pag. G-60)
*If VLP valve is installed, specify the type of spring (**B, N or R**) and its pressure setting. If omitted, spring N with a **150** bar setting will be installed.*

15 - Valvole aggiuntive alla fiancata (*page* G-61)

Note aggiuntive

16 - Note aggiuntive (pag. G-62)

17 - Numero sezioni di lavoro
Specificare il numero delle sezioni di lavoro (es. 2E) e il numero degli elementi intermedi (es. +1) utilizzati tenendo sempre in considerazione che la somma dei due non potrà superare il limite massimo di 10.

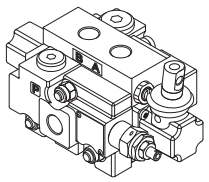
Additional notes

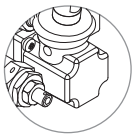
16 - Additional notes (*page* G-62)

17 - Number of working sections
Specify the number of working sections (for ex. 2E) and the number of intermediate elements (for ex. +1) used, always taking into account that the sum of the two will not have to exceed the maximum limit of 10.

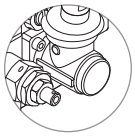
Q30

DISTRIBUTORI COMPONIBILI
SECTIONAL DIRECTIONAL CONTROL VALVES





(Standard)
Comando e posizionatore in plastica
Control and positionner plastic

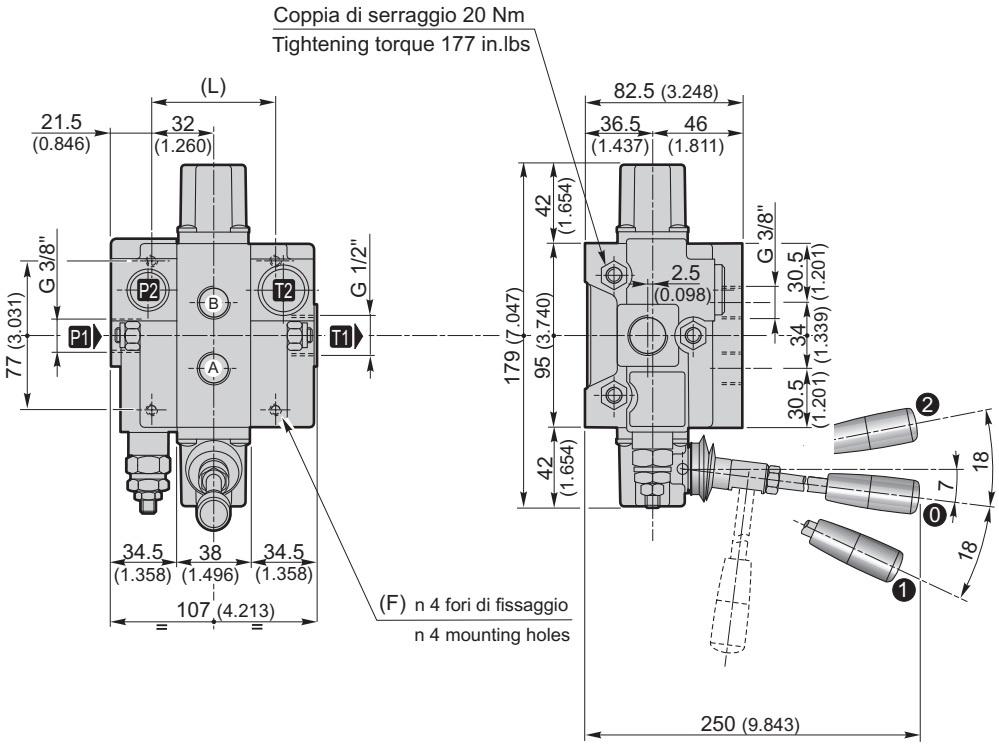


S
Comando e posizionatore in Alluminio
Control and positionner Aluminium

—	F3D	—	S	—	
	13		**16**		17

Fori di fissaggio / *Mounting holes*

L	F
64 (2.520)	M6 per fori fissaggio attacchi metrici e GAS *M6 mounting holes for metric and GAS ports*
56 (2.205)	3/8" - 24 UNF per fori fissaggio attacchi SAE *3/8" - 24 UNF mounting holes for SAE ports*

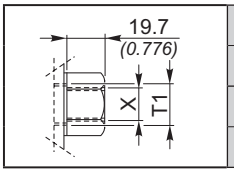


Q30	—	F7S	R250	MSE	—	E50	R250	—	2x	103	A1	M1	V30	R250	V01	—	F3D	—	12V	—	2E+1
1		2	3	4		5	6			7	8	9	10	11	12		13		16		17

Filettature disponibili / *Available ports*

Bocche *Ports*	**BSP** (standard)	**SAE**
P1	G 3/8"	3/4" - 16UNF (SAE 8)
P2	G 3/8"	3/4" - 16UNF (SAE 8)
A-B	G 3/8"	9/16" - 18UNF (SAE 6)
T1	G 1/2"	7/8" - 14UNF (SAE 10)
T2	G 1/2"	3/4" - 16UNF (SAE 8)

Tappo per carry-over (su uscita T1)
Carry-over plug (on T1 port)



T1	G 1/2"
X	G 3/8" - G 1/2"
T1	7/8"-14UNF (SAE 10)
X	3/4" - 16UNF (SAE 8)

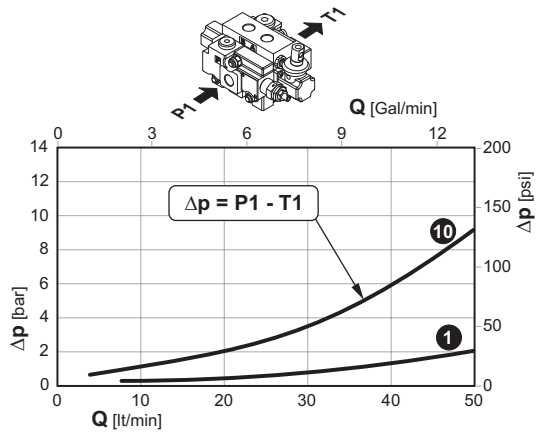
Dimensioni in / *Dimensions in:* mm *(inch)*

Q30

DISTRIBUTORI COMPONIBILI
SECTIONAL DIRECTIONAL CONTROL VALVES

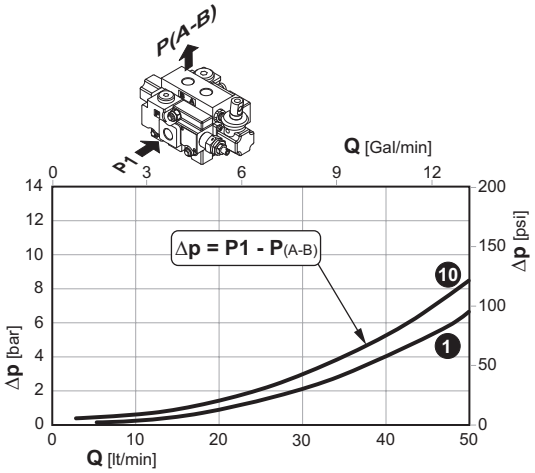
Perdite di carico con il cursore in posizione neutra
(Δp in funzione del numero di sezioni attraversate)

Pressure drop with spool in neutral position
(*Δp depending on the number of the crossed sections*)



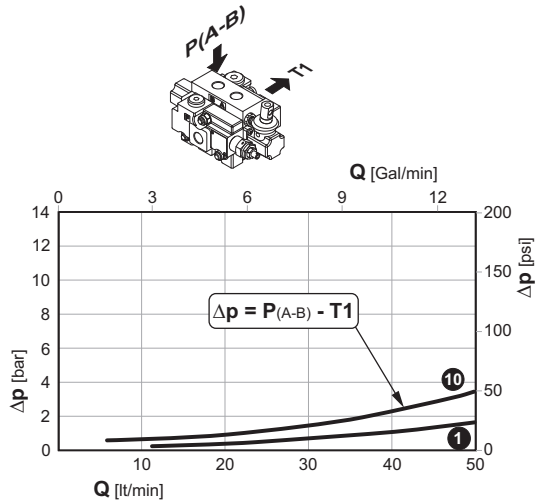
Perdite di carico con il cursore in posizione di lavoro
(Δp in funzione del numero di sezioni attraversate)

Pressure drop with spool in working position
(*Δp depending on the number of the crossed sections*)

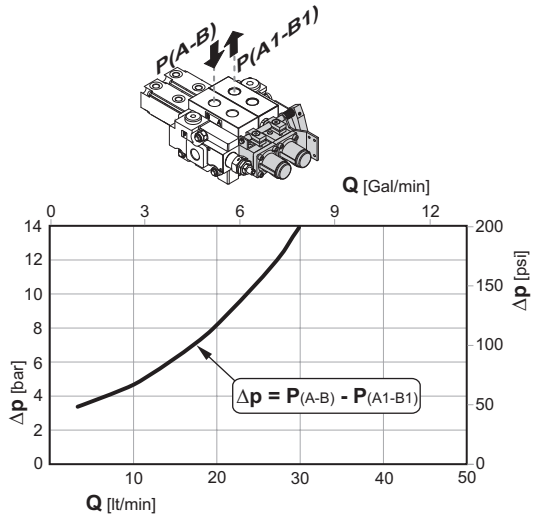


Perdite di carico con il cursore in posizione di lavoro
(Δp in funzione del numero di sezioni attraversate)

Pressure drop with spool in working position
(*Δp depending on the number of the crossed sections*)

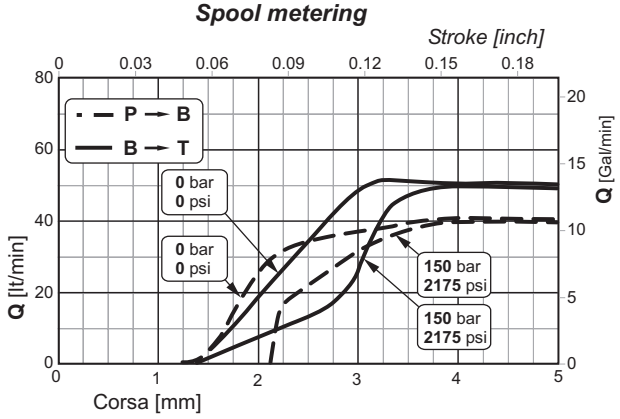


Perdite di carico tra due elementi in serie
Pressure drop through two sections connected in series

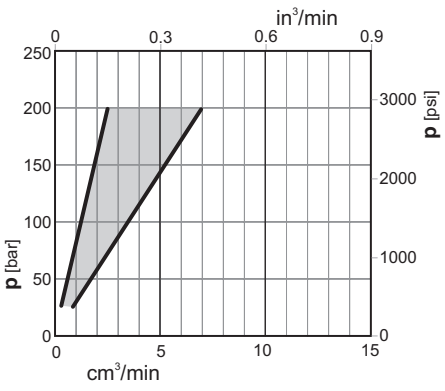


1 **10** Sezioni / *Sections*

Curve di progressività
Spool metering



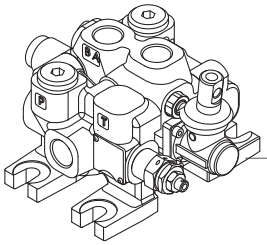
Trafilamenti sul cursore
Spool leakage

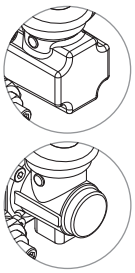


N.B. Le curve sono ricavate con cursore 103 / *NOTE. Performance curves measured using spool 103 type.*

GSV50

DISTRIBUTORI COMPONIBILI
SECTIONAL DIRECTIONAL CONTROL VALVES

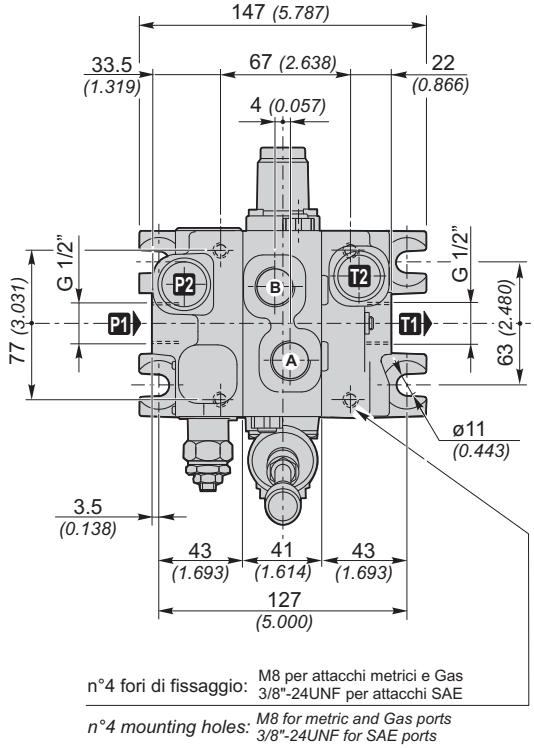




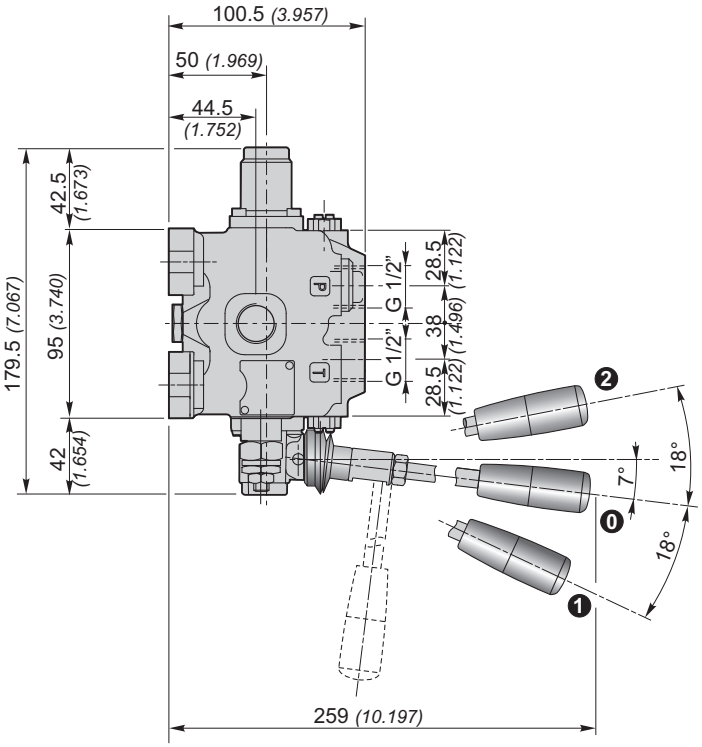
(Standard)
Comando e posizionatore in plastica
Control and positionner plastic

S
Comando e posizionatore in Alluminio
Control and positionner Aluminium

	—	F3D	—	S	—	
		13		**16**		17



n°4 fori di fissaggio: M8 per attacchi metrici e Gas 3/8"-24UNF per attacchi SAE
n°4 mounting holes: M8 for metric and Gas ports 3/8"-24UNF for SAE ports



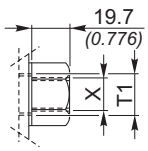
E' possibile avere lo scarico T3 nella fiancata di ingresso
It's possible add Tank porting T3 in the inlet section

GSV50	—	F7S	R250	MSE	—	E50	R250	—	2x	103	A1	M1	V30	R250	V01	—	F3D	—	12V	—	2E+1
1		2	3	4		5	6			7	8	9	10	11	12		13		16		17

Filettature disponibili / *Available ports*

Bocche *Ports*	**BSP** (standard)	**SAE**
P1	G 1/2"	3/4" - 16UNF (SAE 8)
P2	G 1/2"	3/4" - 16UNF (SAE 8)
A-B	G 1/2"	3/4" - 16UNF (SAE 8)
T1	G 1/2"	7/8" - 14UNF (SAE 10)
T2	G 1/2"	3/4" - 16UNF (SAE 8)
T3	G 1/2"	3/4" - 16UNF (SAE 8)

Tappo per carry-over (su uscita T1)
Carry-over plug (on T1 port)



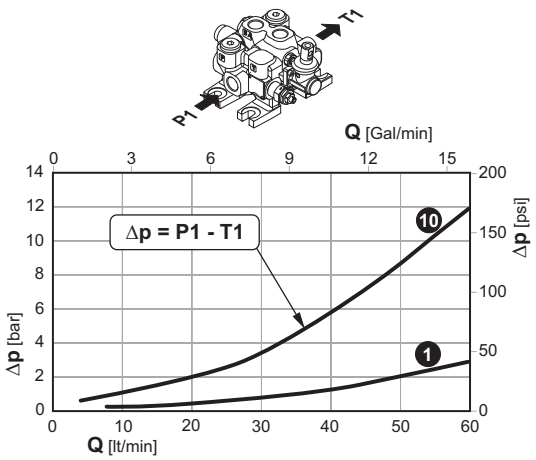
T1	G 1/2"
X	G 3/8" - G 1/2"
T1	7/8"-14UNF (SAE 10)
X	3/4" - 16UNF (SAE 8) 7/8"-14UNF (SAE 10)

Dimensioni in / *Dimensions in:* mm *(inch)*

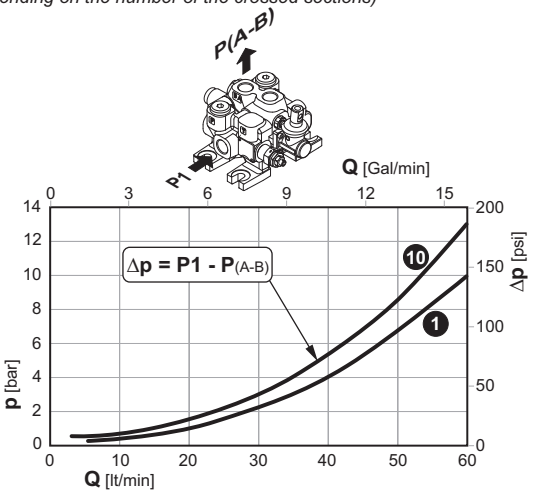
GSV50

DISTRIBUTORI COMPONIBILI
SECTIONAL DIRECTIONAL CONTROL VALVES

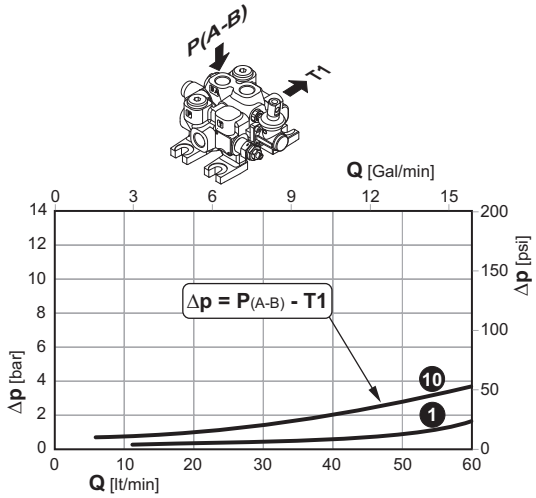
Perdite di carico con il cursore in posizione neutra
(Δp in funzione del numero di sezioni attraversate)
Pressure drop with spool in neutral position
(*Δp depending on the number of the crossed sections*)



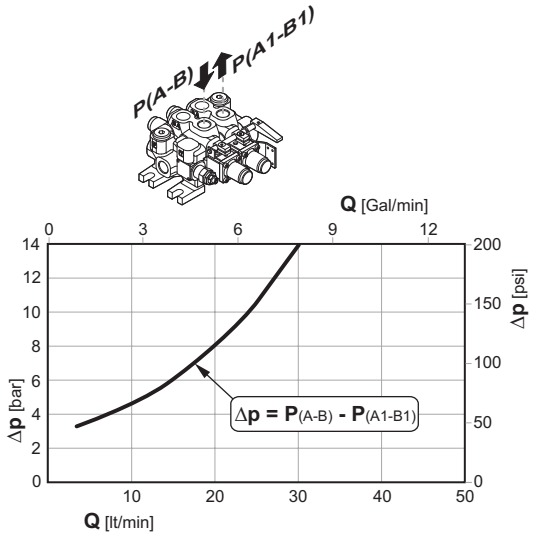
Perdite di carico con il cursore in posizione di lavoro
(Δp in funzione del numero di sezioni attraversate)
Pressure drop with spool in working position
(*Δp depending on the number of the crossed sections*)



Perdite di carico con il cursore in posizione di lavoro
(Δp in funzione del numero di sezioni attraversate)
Pressure drop with spool in working position
(*Δp depending on the number of the crossed sections*)

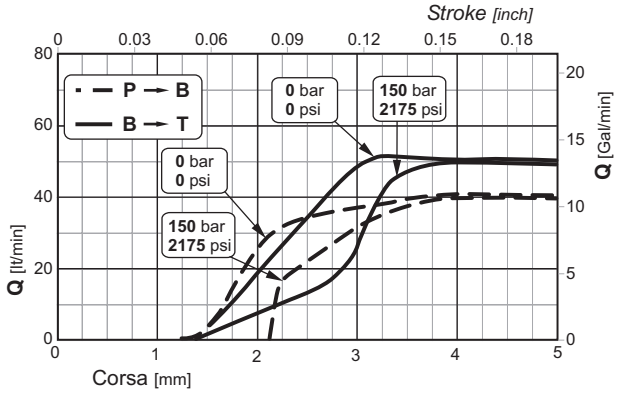


Perdite di carico tra due elementi in serie
Pressure drop through two sections connected in series

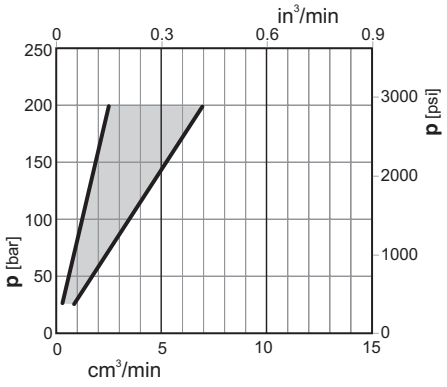


1 **10** Sezioni / *Sections*

Curve di progressività
Spool metering



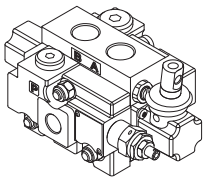
Trafilamenti sul cursore
Spool leakage

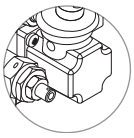


N.B. Le curve sono ricavate con cursore 103 / *NOTE. Performance curves measured using spool 103 type.*

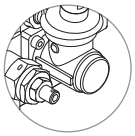
Q50

DISTRIBUTORI COMPONIBILI
SECTIONAL DIRECTIONAL CONTROL VALVES





(Standard)
Comando e posizionatore in plastica
Control and positionner plastic

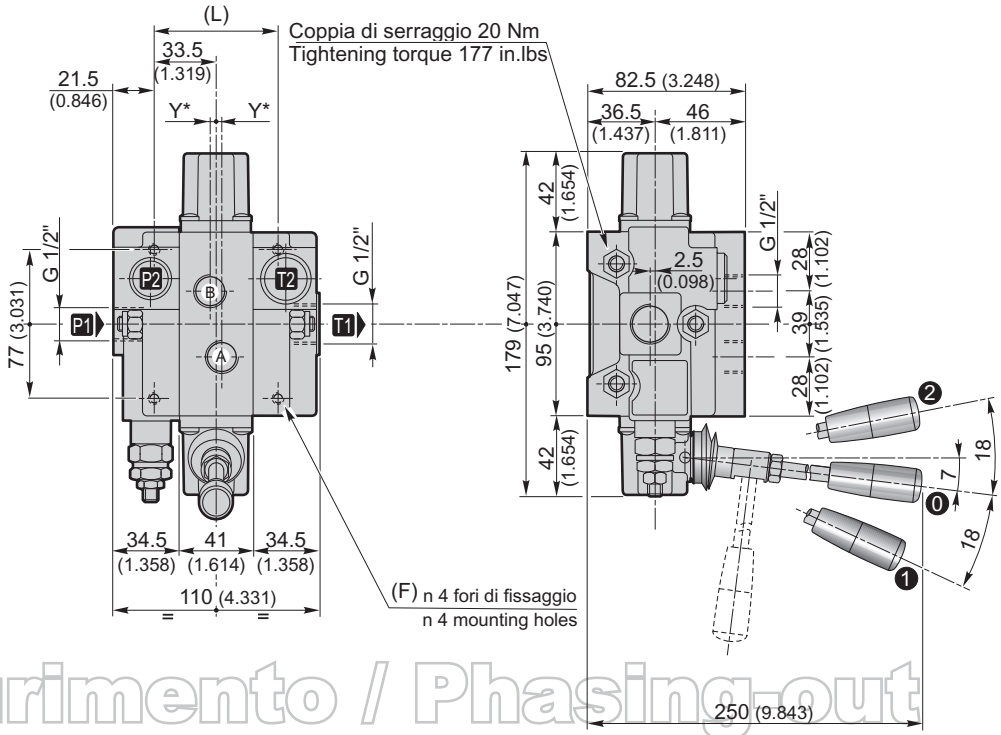


S
Comando e posizionatore in Alluminio
Control and positionner Aluminium

—	F3D	—	S	—	
	13		**16**		17

Fori di fissaggio / *Mounting holes*

L	F
67 (2.638)	M6 per fori fissaggio attacchi metrici e GAS *M6 mounting holes for metric and GAS ports*
59 (2.323)	3/8" - 24 UNF per fori fissaggio attacchi SAE *3/8" - 24 UNF mounting holes for SAE ports*

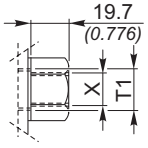


Q50	—	F7S	R250	MSE	—	E50	R250	—	2x	103	A1	M1	V30	R250	V01	—	F3D	—	12V	—	2E+1
1		2	3	4		5	6			7	8	9	10	11	12		13		16		17

Filettature disponibili / *Available ports*

Bocche *Ports*	**BSP** (standard)	**SAE**
P1	G 1/2"	3/4" - 16UNF (SAE 8)
P2	G 1/2"	3/4" - 16UNF (SAE 8)
A-B	G 1/2"	3/4" - 16UNF (SAE 8)
T1	G 1/2"	7/8" - 14UNF (SAE 10)
T2	G 1/2"	3/4" - 16UNF (SAE 8)
Y* [mm]	2.5	1.5

Tappo per carry-over (su uscita T1)
Carry-over plug (on T1 port)



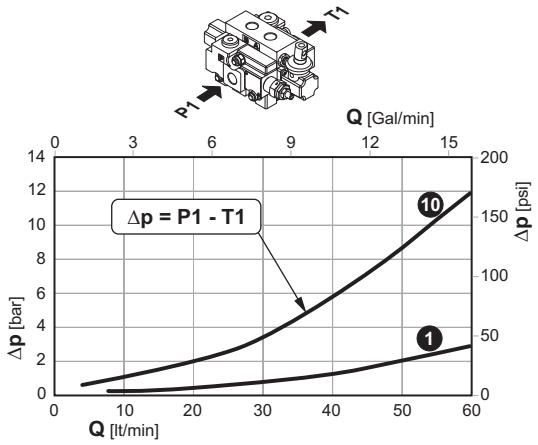
T1	G 1/2"
X	G 3/8" - G 1/2"
T1	7/8"-14UNF (SAE 10)
X	3/4" - 16UNF (SAE 8) 7/8"-14UNF (SAE 10)

Dimensioni in / *Dimensions in:* mm *(inch)*

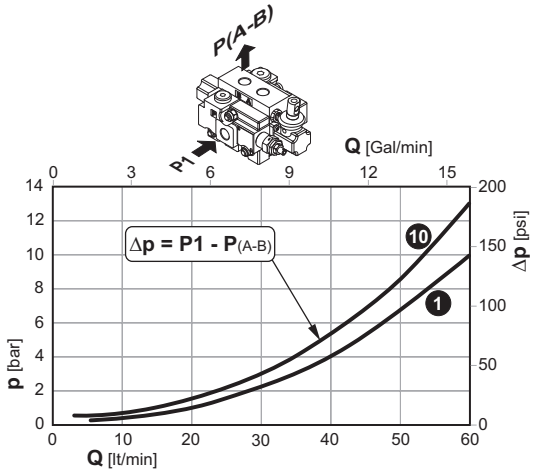
Q50

DISTRIBUTORI COMPONIBILI
SECTIONAL DIRECTIONAL CONTROL VALVES

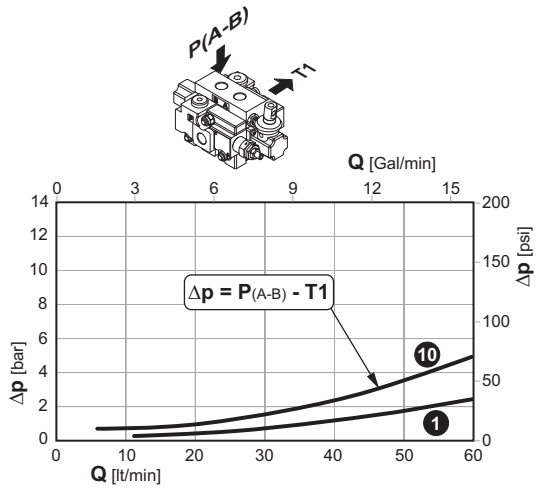
Perdite di carico con il cursore in posizione neutra
(Δp in funzione del numero di sezioni attraversate)
Pressure drop with spool in neutral position
(*Δp depending on the number of the crossed sections*)



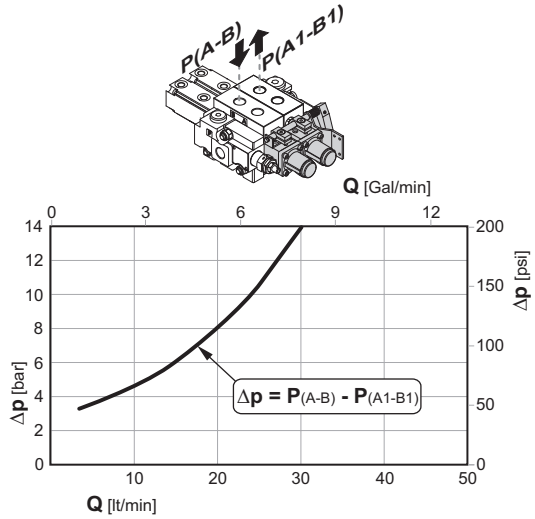
Perdite di carico con il cursore in posizione di lavoro
(Δp in funzione del numero di sezioni attraversate)
Pressure drop with spool in working position
(*Δp depending on the number of the crossed sections*)



Perdite di carico con il cursore in posizione di lavoro
(Δp in funzione del numero di sezioni attraversate)
Pressure drop with spool in working position
(*Δp depending on the number of the crossed sections*)

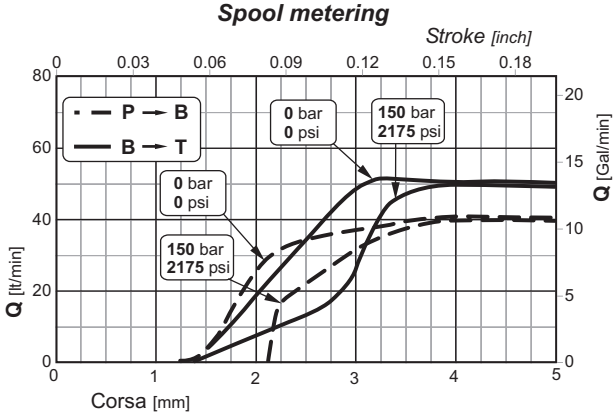


Perdite di carico tra due elementi in serie
Pressure drop through two sections connected in series

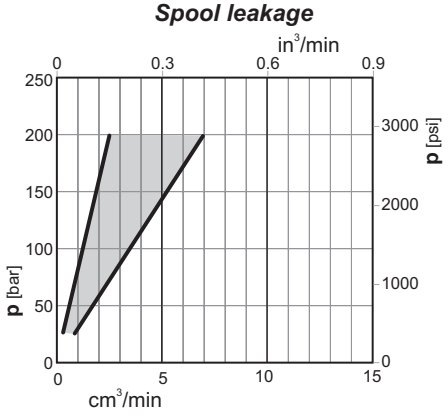


1 **10** Sezioni / *Sections*

Curve di progressività
Spool metering



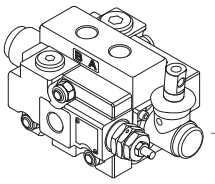
Trafilamenti sul cursore
Spool leakage

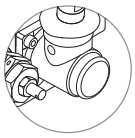


N.B. Le curve sono ricavate con cursore 103 / *NOTE. Performance curves measured using spool 103 type.*

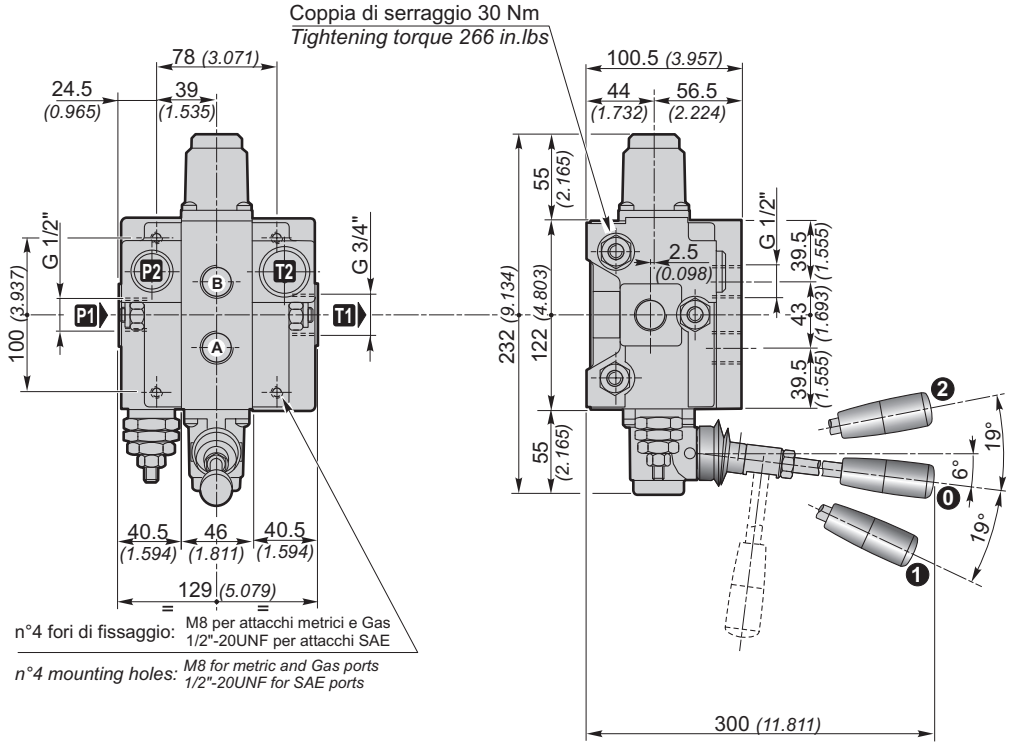
Q80

DISTRIBUTORI COMPONIBILI
SECTIONAL DIRECTIONAL CONTROL VALVES





(Standard)
Comando e posizionatore in Alluminio
Control and positionner Aluminium

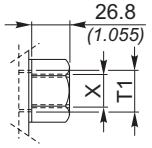


Q80	—	F7S	R250	MSE	—	E50	R250	—	2x	103	A1	M1	V30	R250	V01	—	F3D	—	12V	—	2E+1
1		2	3	4		5	6			7	8	9	10	11	12		13		16		17

Filettature disponibili / *Available ports*

Bocche *Ports*	**BSP** (standard)	**BSP G 3/4"**	**SAE**
P1	G 1/2"	G 3/4"	7/8" - 14UNF (SAE 10)
P2	G 1/2"	G 3/4"	7/8" - 14UNF (SAE 10)
A-B	G 1/2"	G 3/4"	3/4" - 16UNF (SAE 8)
T1	G 3/4"	G 3/4"	1" 1/16" - 12UN (SAE 12)
T2	G 3/4"	G 3/4"	7/8" - 14UNF (SAE 10)

Tappo per carry-over (su uscita T1)
Carry-over plug (on T1 port)



T1	G 3/4"
X	G 1/2" - G 3/4"
T1	1" 1/16"-12UN (SAE 12)
X	7/8" - 14UNF (SAE 10)
T1	G 3/4"
X	G 3/4"

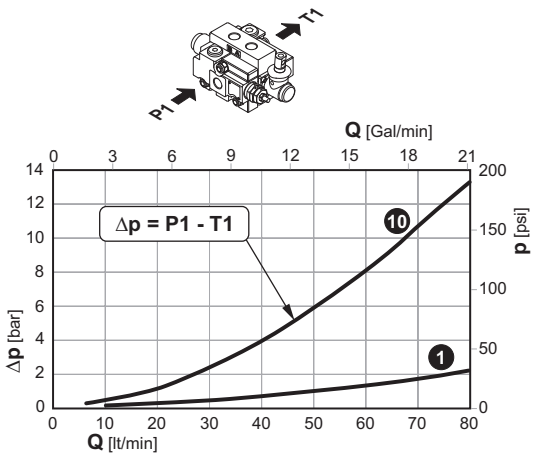
Dimensioni in / *Dimensions in:* mm *(inch)*

Q80

DISTRIBUTORI COMPONIBILI
SECTIONAL DIRECTIONAL CONTROL VALVES

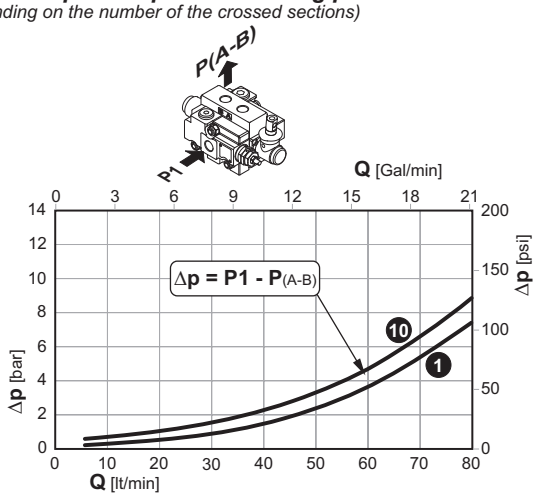
Perdite di carico con il cursore in posizione neutra
(Δp in funzione del numero di sezioni attraversate)

Pressure drop with spool in neutral position
(*Δp depending on the number of the crossed sections*)



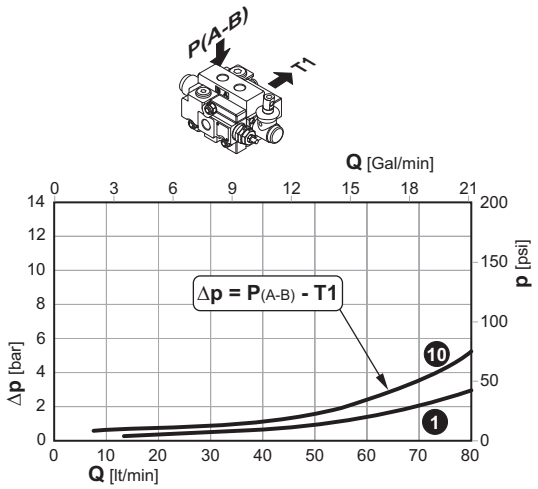
Perdite di carico con il cursore in posizione di lavoro
(Δp in funzione del numero di sezioni attraversate)

Pressure drop with spool in working position
(*Δp depending on the number of the crossed sections*)

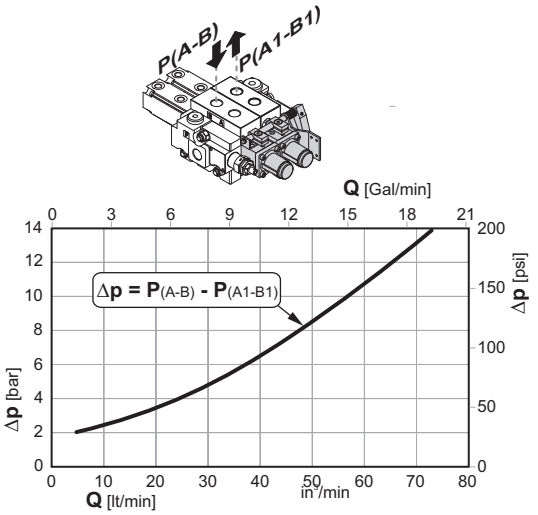


Perdite di carico con il cursore in posizione di lavoro
(Δp in funzione del numero di sezioni attraversate)

Pressure drop with spool in working position
(*Δp depending on the number of the crossed sections*)

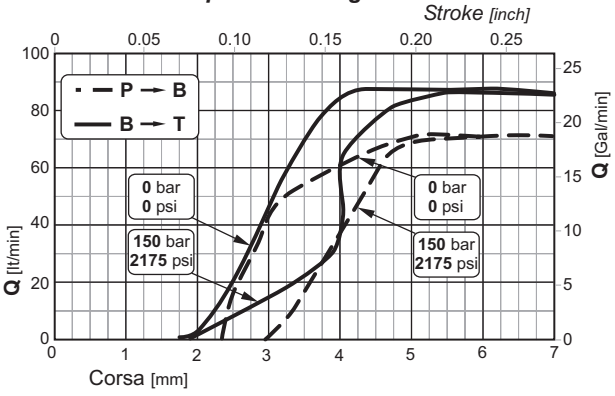


Perdite di carico tra due elementi in serie
Pressure drop through two sections connected in series

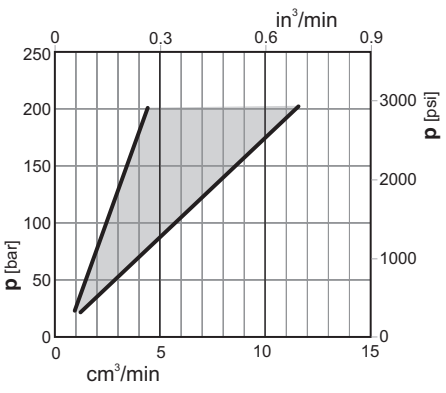


1 10 Sezioni / *Sections*

Curve di progressività
Spool metering



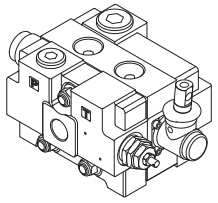
Trafilamenti sul cursore
Spool leakage

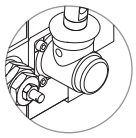


N.B. Le curve sono ricavate con cursore 103 / *NOTE. Performance curves measured using spool 103 type.*

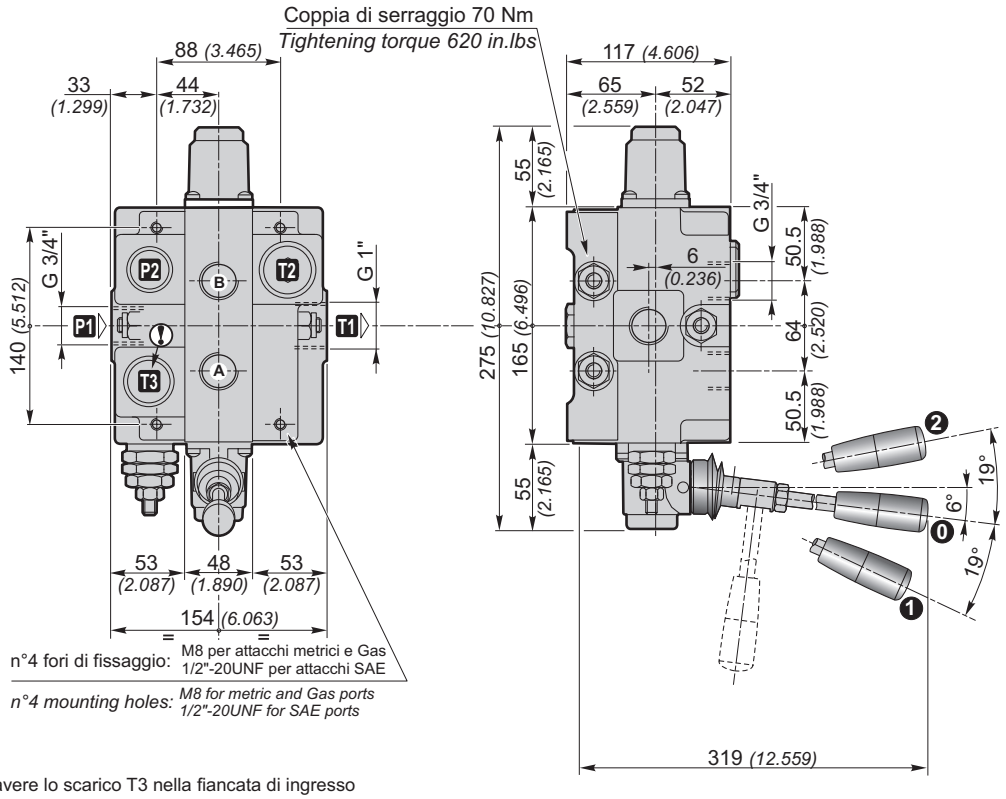
Q130

DISTRIBUTORI COMPONIBILI
SECTIONAL DIRECTIONAL CONTROL VALVES





(Standard)
Comando e posizionatore in Alluminio
Control and positionner Aluminium



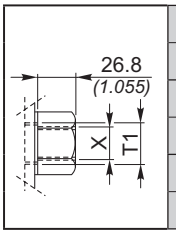
E' possibile avere lo scarico T3 nella fiancata di ingresso
It's possible add Tank porting T3 in the inlet section

Q130	—	F7S	R250	MSE	—	E50	R250	—	2x	103	A1	M1	V30	R250	V01	—	F3D	—	12V	—	2E+1
1		2	3	4		5	6			7	8	9	10	11	12		13		16		17

Filettature disponibili / *Available ports*

Bocche *Ports*	**BSP** (standard)	**BSP G 1"**	**SAE** (standard)	**SAE**
P1	G 3/4"	G 1"	1" 5/16 - 12UN (SAE 16)	1" 5/16 - 12UN (SAE 16)
P2	G 3/4"	G 1"	1" 5/16 - 12UN (SAE 16)	1" 5/16 - 12UN (SAE 16)
A-B	G 3/4"	G 1"	1" 1/16 - 12UN (SAE 12)	1" 5/16 - 12UN (SAE 16)
T1	G 1"	G 1"	1" 5/16 - 12UN (SAE 16)	1" 5/16 - 12UN (SAE 16)
T2	G 1"	G 1"	1" 5/16 - 12UN (SAE 16)	1" 5/16 - 12UN (SAE 16)
T3	G 1"	G 1"	1" 5/16 - 12UN (SAE 16)	1" 5/16 - 12UN (SAE 16)

Tappo per carry-over (su uscita T1)
Carry-over plug (on T1 port)



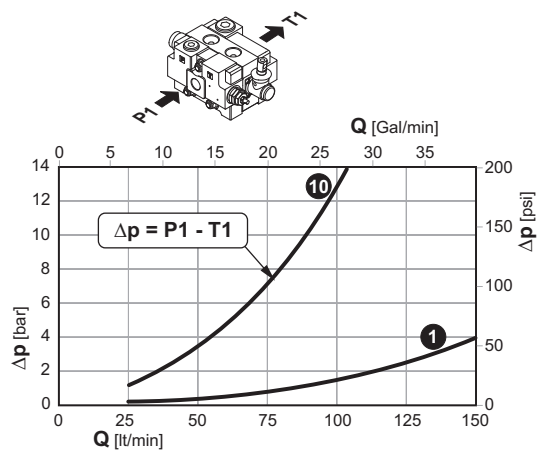
T1	G 1"
X	G 3/4" - G 1"
T1	G 1"
X	G 1"
T1	1" 5/16-12 UN (SAE 16)
X	1" 1/16-12 UN (SAE 12)

Dimensioni in / *Dimensions in:* mm *(inch)*

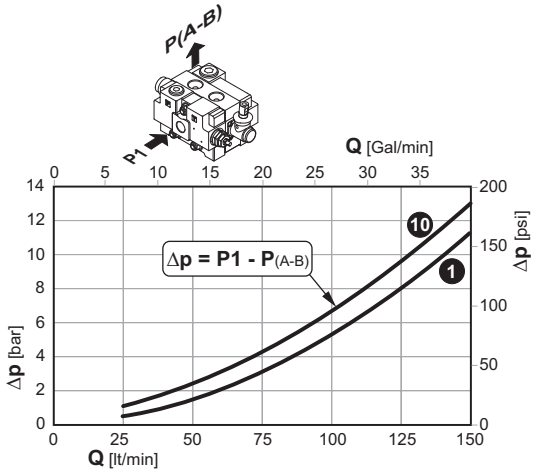
Q130

DISTRIBUTORI COMPONIBILI
SECTIONAL DIRECTIONAL CONTROL VALVES

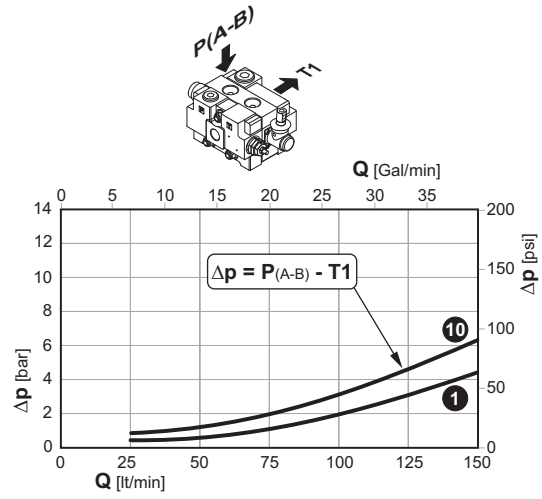
Perdite di carico con il cursore in posizione neutra
(Δp in funzione del numero di sezioni attraversate)
Pressure drop with spool in neutral position
(*Δp depending on the number of the crossed sections*)



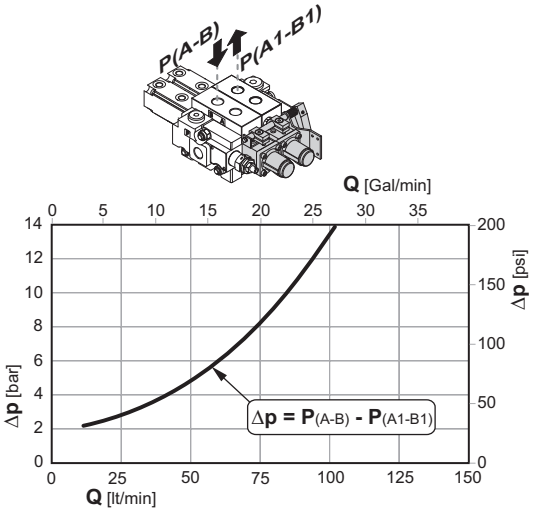
Perdite di carico con il cursore in posizione di lavoro
(Δp in funzione del numero di sezioni attraversate)
Pressure drop with spool in working position
(*Δp depending on the number of the crossed sections*)



Perdite di carico con il cursore in posizione di lavoro
(Δp in funzione del numero di sezioni attraversate)
Pressure drop with spool in working position
(*Δp depending on the number of the crossed sections*)

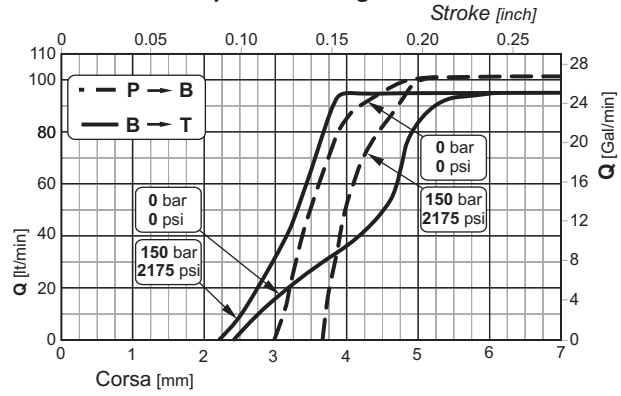


Perdite di carico tra due elementi in serie
Pressure drop through two sections connected in series

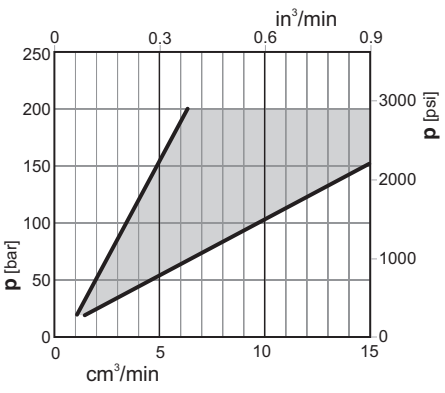


1 10 Sezioni / *Sections*

Curve di progressività
Spool metering



Trafilamenti sul cursore
Spool leakage



N.B. Le curve sono ricavate con cursore 103 / *NOTE. Performance curves measured using spool 103 type.*

Fiancata d'ingresso	*Inlet section*

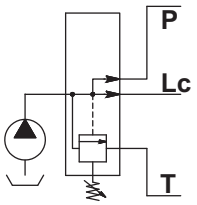
Q30	—	F7S	R250	MSE	—	E50	R250	—	2x	103	A1	M1	V30	R250	V01	—	F3D	—	12V	—	2E+1
1		2	3	4		5	6			7	8	9	10	11	12		13		16		17

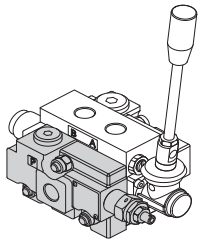
2 - Tipo fiancata d'ingresso / *Inlet section type*

			Q30	GSV50 (Q50)	Q80	Q130
F7S	Collettore di entrata sinistro con valvola limitatrice di pressione VLP	*Left inlet section with relief valve VLP*	•	•	•	•
F17S	Collettore di entrata sinistro con valvola limitatrice di pressione VLP e attacco T3	*Left inlet section with relief valve VLP and T3 porting*		•		•
F7SP	Collettore di entrata sinistro con valvola limitatrice di pressione pilotata	*Inlet section with pilot relief valve VLPP*				•
F17SP	Collettore di entrata sinistro con valvola limitatrice di pressione pilotata e attacco T3	*Inlet section with pilot relief valve VLPP and T3 porting*				•
F8S	Collettore di entrata sinistro senza valvole	*Left inlet section without valves*	•	•	•	•
F18S	Collettore di entrata sinistro senza valvole e attacco T3	*Left inlet section without valves and T3 porting*		•		•

F7S F17S

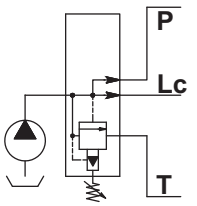
Collettore di entrata con valvola limitatrice di pressione VLP
Inlet section with relief valve VLP

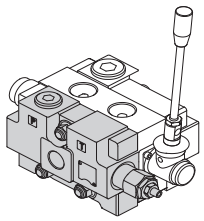




F7SP F17SP

Collettore di entrata con valvola limitatrice di pressione pilotata
Inlet sections with check valve VR





3 - Tipo molla e taratura valvola

Dove è presente la valvola VLP (fiancate F7S e F7SP), deve essere specificato il tipo di molla (**B, N o R**) e la sua pressione di taratura; **se quest'ultima viene omessa, verrà messa la molla N tarata a 150 bar**.

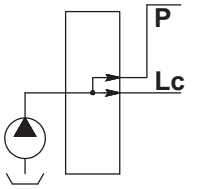
3 - Type of spring and valve setting

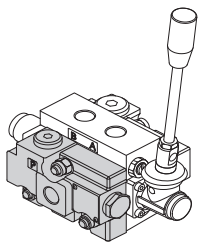
*If valve VLP is installed (inlet section F7S and F7SP), specify the type of spring (**B, N or R**) and its pressure setting. **If omitted, spring N with a 150 bar setting will be installed**.*

		molla bianca *white spring*	molla nera *black spring*	molla rossa *red spring*
R	Tipo di molla per la VLP *Type of spring for relief valve*	**B**	**N**	**R**
		Campi di taratura / *Calibration fields bar (psi)*		
250	Taratura della VLP *VLP Setting*	10 ÷ 80 *(145 ÷ 1160)*	81 ÷ 200 *(1175 ÷ 2900)*	201 ÷ 380 *(2915 ÷ 5510)*

F8S F18S

Collettore di entrata senza valvole
Inlet section without valves





Fiancata d'ingresso	*Inlet section*

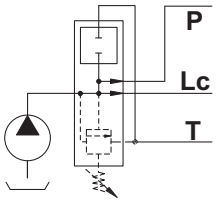
Q30	—	F7S	R250	MSE	—	E50	R250	—	2x	103	A1	M1	V30	R250	V01	—	F3D	—	12V	—	2E+1
1		2	3	4		5	6			7	8	9	10	11	12		13		16		17

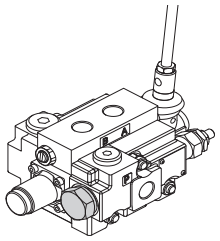
4 - Valvole aggiuntive alla fiancata (facoltativo) / *Additional valves to the inlet section (optional)*

			Q30	GSV50 (Q50)	Q80	Q130
PMS	Collettore di entrata con predisposizione per valvola di messa a scarico elettrica (indiretta) o idraulica	*Inlet section presets for electrical outlet release valve (indirect) or hydraulic*	•	•	•	•
MSI	Collettore di entrata con valvola di messa a scarico idraulica	*Inlet section with hydraulic outlet release valve*	•	•	•	•
MSE	Collettore di entrata con valvola di messa a scarico elettrica (indiretta)	*Inlet section with electrical outlet release valve (indirect)*	•	•	•	•
VRF	Collettore di entrata con valvola regolatrice di flusso	*Inlet section flow regulator valve*	•	•		•

PMS

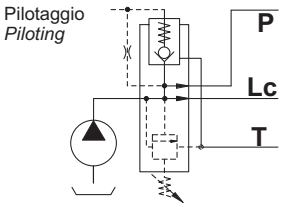
Collettore di entrata con predisposizione per valvola di messa a scarico elettrica (indiretta) o idraulica
Inlet section presets for electrical outlet release valve (indirect) or hydraulic

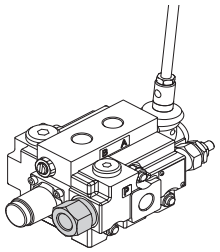




MSI

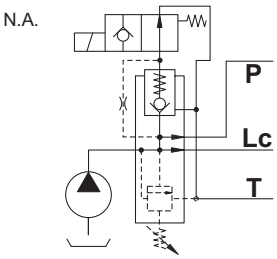
Collettore di entrata con valvola di messa a scarico idraulica
Inlet section with hydraulic outlet release valve

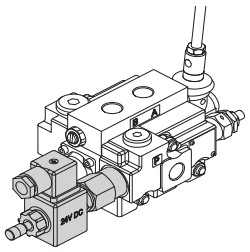




MSE

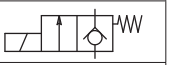
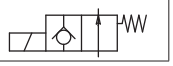
Collettore di entrata con valvola di messa a scarico elettrica (indiretta)
Inlet section with electrical outlet release valve (indirect)





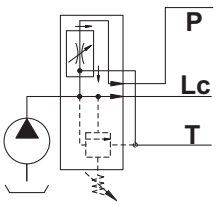
N.B.
Specificare tensione e schema dell'elettrovalvola
Specify voltage and type of the solenoid operated valve

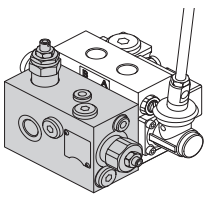
Tensione *Voltage*
12 V.DC
24 V.DC

Schema *Scheme*		
N.C.	Normalmente chiusa *Usually closed*	
N.A.	Normalmente aperta *Usually open*	

VRF

Collettore di entrata con valvola regolatrice di flusso
Inlet section flow regulator valve





Sezione di lavoro e/o elemento intermedio — ***Working section and/or intermediate section***

Q30	—	F7S	R250	MSE	—	E50	R250	—	2x	103	A1	M1	V30	R250	V01	—	F3D	—	12V	—	2E+1
1		2	3	4		5	6			7	8	9	10	11	12		13		16		17

I campi da 7 a 13 sono da ripetere per ogni sezione. Nel caso in cui due sezioni contigue sìano identiche, è sufficiente descriverne solo una anteponendo **2x** al campo 7.

Fields 7 to 13 must be repeated for each section. If two adjacent sections are identical, just describe one and put 2x before field 7.

5 - Elemento intermedio

Questo campo viene omesso se viene utilizzata una sezione di lavoro.
Il numero massimo complessivo di sezioni di lavoro e/o elementi intermedi è 10.

5 - *Intermediate section*

This field is omitted if a working section is used.
The maximum overall number of working sections and/or intermediate elements is 10.

			Q30	GSV50 (Q50)	Q80	Q130
E50	Elemento intermedio con VLP	*Intermediate section with relief valve*	•	•	•	•
E51	Collettore di uscita intermedio	*Intermediate outlet section*	•	•	•	•
E53	Elemento intermedio per entrata 2ª pompa con VLP	*Intermediate inlet section for 2nd pump with relief valve*	•	•	•	•
E58	Elemento intermedio con divisore di portata 3 vie compensato registrabile con cacciavite (tipo “C”) o con volantino (tipo "V")	*Intermediate section with 3 way flow divider adjustable and compensated whit screwdriver (type “C”) or handw eel (type “V”)*	•	•	•	
E68	Elemento intermedio con divisore di portata 3 vie compensato registrabile con cacciavite (tipo “C”) o con volantino (tipo “V”)	*Intermediate section with 3 way flow divider adjustable and compensated whit screwdriver (type “C”) or handweel (type “V”)*	•	•	•	•
E62	Elemento intermedio con valvola riduttrice di pressione per pilotaggio comando elettroidraulico	*Intermediate section with pressure reducing valve for piloting electro-hydraulic control*			•	•
E61	Elemento intermedio di spessoramento	*Intermediate spacer element*	•	•	•	•

*** Limitazioni / *Limitations***

Elemento intermedio ***Intermediate section***	**Applicabile con: / *Applicable with:***			
	Valvole / Valves	**Cursore** ***Spool***	**Comando** ***Control***	**Posizionatore** ***Positioner***
E50	Indicare la molla (B - N - R) e taratura della valvola limitatrice VLP *Indicate the spring (B-N_R) and setting of the pressure relief valve VLP*	Non serve *It is of no use*	Non serve *It is of no use*	Non serve *It is of no use*
E51	Non serve *It is of no use*			
E53	Indicare la molla (B - N - R) e taratura della valvola limitatrice VLP *Indicate the spring (B-N_R) and setting of the pressure relief valve VLP*			
E58	Non serve *It is of no use*			
E68				
E62				
E61				

6 - Tipo molla e taratura valvola

Dove è presente la valvola VLP (fiancate E50 e E53), deve essere specificato il tipo di molla (**B, N o R**) e la sua pressione di taratura; **se quest'ultima viene omessa, verrà messa la molla N tarata a 150 bar**.

6 - Type of spring and valve setting

*If valve VLP is installed (inlet section E50 and E53), specify the type of spring (**B, N or R**) and its pressure setting. **If omitted, spring N with a 150 bar setting will be installed**.*

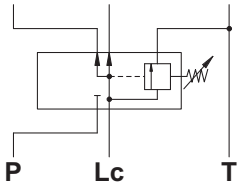
		molla bianca *white spring*	molla nera *black spring*	molla rossa *red spring*
R	Tipo di molla per la VLP *Type of spring for relief valve*	**B**	**N**	**R**
		Campi di taratura / *Calibration fields* *bar (psi)*		
250	Taratura della VLP *VLP Setting*	10 ÷ 80 *(145 ÷ 1160)*	81 ÷ 200 *(1175 ÷ 2900)*	201 ÷ 380 *(2915 ÷ 5510)*

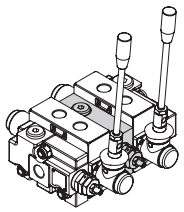
Sezione di lavoro e/o elemento intermedio | ***Working section and/or intermediate section***

Q30	—	F7S	R250	MSE	—	E50	R250	—	2x	103	A1	M1	V30	R250	V01	—	F3D	—	12V	—	2E+1
1		2	3	4		5	6			7	8	9	10	11	12		13		16		17

E50

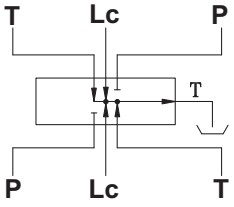
Elemento intermedio con VLP
Intermediate section with relief valve

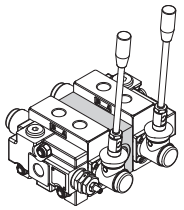




E51

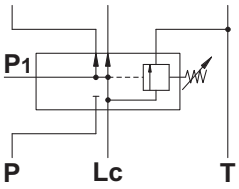
Collettore di uscita intermedio
Intermediate outlet section

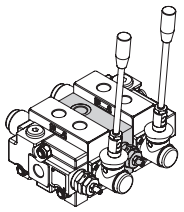




E53

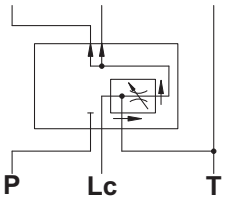
Elemento intermedio per
entrata 2ª pompa con VLP
Intermediate inlet section for
2nd pump with relief valve

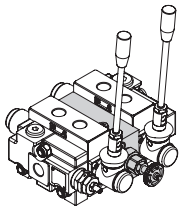




E58

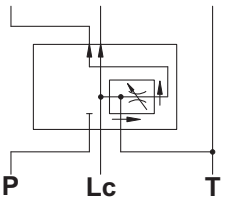
Elemento intermedio con divisore di portata 3 vie compensato registrabile con cacciavite (tipo “C”) o con volantino (tipo "V"), centro aperto
Intermediate section with 3 way flow divider adjustable and compensated whit screw (type “C”) or handwheel (type “V”), through passage opened

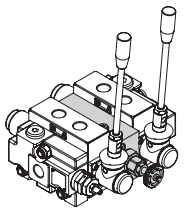




E68

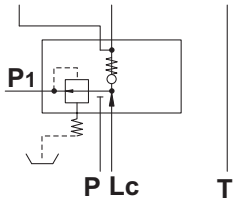
Elemento intermedio con divisore di portata 3 vie compensato registrabile con cacciavite (tipo “C”) o con volantino (tipo “V”), centro aperto
Intermediate section with 3 way flow divider adjustable and compensated whit screw (type “C”) or handwheel (type “V”), through passage opened

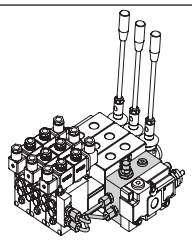




E62

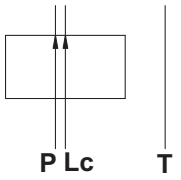
Elemento intermedio con valvola riduttrice
di pressione per pilotaggio comando elettroidraulico
Intermediate section with pressure reducing
valve for piloting electro-hydraulic control

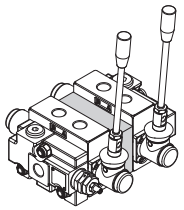




E61

Elemento intermedio di spessoramento
Intermediate spacer element





Sezione di lavoro e/o elemento intermedio — *Working section and/or intermediate section*

Q30	—	F7S	R250	MSE	—	E50	R250	—	2x	103	A1	M1	V30	R250	V01	—	F3D	—	12V	—	2E+1
1		2	3	4		5	6			7	8	9	10	11	12		13		16		17

I campi da 7 a 13 sono da ripetere per ogni sezione. Nel caso in cui due sezioni contigue siano identiche, è sufficiente descriverne solo una anteponendo **2x** al campo 7.

*Fields 7 to 13 must be repeated for each section. If two adjacent sections are identical, just describe one and put **2x** before field 7.*

7 - Tipo cursore / *Spool type*

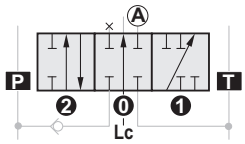
Cursori			Q30	GSV50 (Q50)	Q80	Q130
101	Semplice effetto in A	*Single acting in A port*	•	•	•	•
102	Semplice effetto in B	*Single acting in B port*	•	•	•	•
103	Doppio effetto, A e B chiusi in posizione 0	*Double acting A and B closed in 0 position*	•	•	•	•
106	Doppio effetto, passaggi chiusi in posizione 0	*Double acting, ports closed in 0 position*	•	•	•	•
107	Doppio effetto, A in T e B chiuso in posizione 0	*Double acting, A to T and B closed in 0 position*	•	•	•	•
108	Doppio effetto, B in T e A chiuso in posizione 0	*Double acting, B to T and A closed in 0 position*	•	•	•	•
109	Semplice effetto in A, A in T in posizione 0	*Single acting in A, A to T in 0 position*	•	•	•	•
110	Semplice effetto in B, B in T in posizione 0	*Single acting in B, B to T in 0 position*	•	•	•	•
111	Doppio effetto, A e B in T in posizione 0	*Double acting, A and B to T in 0 position*	•	•	•	•
114	Doppio effetto, A e B in T e Lc chiusa in posizione 0	*Double acting, A and B to T and through passage closed in 0 position*	•	•	•	•
116*	Doppio effetto con 4ª posizione flottante	*Double acting with 4th position floating*	•	•	•	•
126*	Doppio effetto con 4ª posizione flottante	*Double acting with 4th position floating*	•	•	•	

*** Limitazioni / *Limitations***

Cursore *Spools*	Applicabile con: / *Applicable with:*		
	Comando / *Control*	**Posizionatore / *Positioner***	**Valvole / *Valves***
116	A1-Z1 / A2-Z1 / A4-Z1 / A6-Z1 / A8-Z1	R8	Tutte le valvole a cartuccia e tutte le valvole a pannello *All of the cartridge valves and all of the panel valves*
126	A1 / A2 / A4 / A5 / A6 / A8 / SL / SLA15 / A15 / A16	R10-Z1	

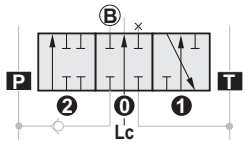
101

Semplice effetto in A
Single acting in A port



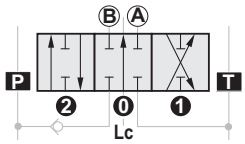
102

Semplice effetto in B
Single acting in B port



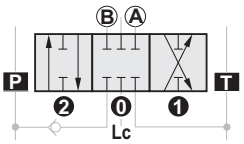
103

Doppio effetto, A e B chiusi in posizione 0
Double acting, A and B closed in 0 position



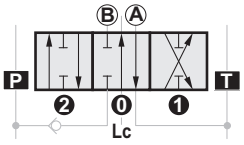
106

Doppio effetto, passaggi chiusi in posizione 0
Double acting, ports closed in 0 position



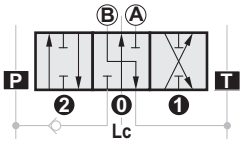
107

Doppio effetto, A in T e B chiuso in posizione 0
Double acting, A to T and B closed in 0 position



108

Doppio effetto, B in T e A chiuso in posizione 0
Double acting, B to T and A closed in 0 position



Sezione di lavoro e/o elemento intermedio

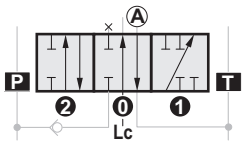
Working section and/or intermediate section

Q30	F7S	R250	MSE	E50	R250	2x	103	A1	M1	V30	R250	V01	F3D	12V	2E+1
1	2	3	4	5	6		7	8	9	10	11	12	13	16	17

Cursori

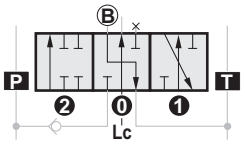
109

Semplice effetto in A, A in T in posizione 0
Single acting in A, A to T in 0 position



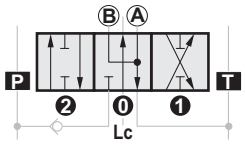
110

Semplice effetto in B, B in T in posizione 0
Single acting in B, B to T in 0 position



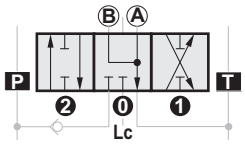
111

Doppio effetto, A e B in T in posizione 0
Double acting, A and B to T in 0 position



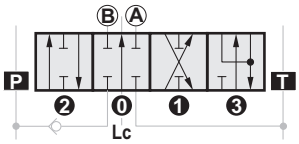
114

Doppio efletto, A e B in T e Lc chiusa in posizione 0
Double acting, A and B to T and through passage closed in 0 position



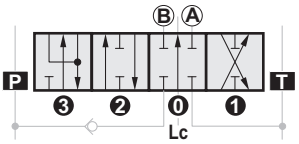
116

Doppio effetto con 4ª posizione flottante
Double acting with 4th position floating



126

Doppio effetto con 4ª posizione flottante
Double acting with 4th position floating

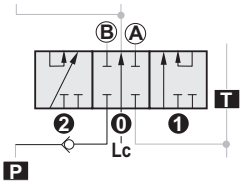


Cursori serie / *Serie spools*

			Q30	GSV50 (Q50)	Q80	Q130
403	Doppio effetto SERIE	*Double acting SERIE*	•		•	•
411	Doppio effetto SERIE, A e B in T in pos. 0	*Double acting SERIE, A and B to T in 0 position*	•		•	•

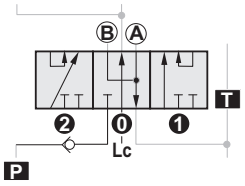
403

Doppio effetto SERIE
Double acting SERIE



411

Doppio effetto SERIE, A e B in T in pos. 0
Double acting SERIE, A and B to T in 0 position



Sezione di lavoro e/o elemento intermedio

Working section and/or intermediate section

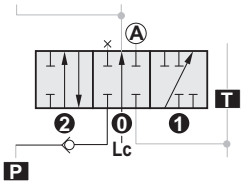
Q30	F7S	R250	MSE	E50	R250	2x	103	A1	M1	V30	R250	V01	F3D	12V	2E+1
1	2	3	4	5	6		7	8	9	10	11	12	13	16	17

Cursori singoli / *Single spools*

			Q30	GSV50 (Q50)	Q80	Q130
201	Semplice effetto in A	*Single acting in A port*	•	•	•	•
202	Semplice effetto in B	*Single acting in B port*	•	•	•	•
203	Doppio effetto	*Double acting*	•	•	•	•
207	Doppio effetto, A in T e B chiuso in posizione 0	*Double acting, A to T and B closed in 0 position*	•	•	•	•
208	Doppio effetto, B in T e A chiuso in posizione 0	*Double acting, B to T and A closed in 0 position*	•	•	•	•
209	Semplice effetto in A, A in T in posizione 0	*Single acting in A, A to T in 0 position*	•	•	•	•
210	Semplice effetto in B, B in T in posizione 0	*Single acting in B, B to T in 0 position*	•	•	•	•
211	Doppio effetto, A e B in T in posizione 0	*Double acting, A and B to T in 0 position*	•	•	•	•
216*	Doppio effetto con 4ª posizione flottante	*Double acting with 4th position floating*	•	•	•	•
226*	Doppio effetto con 4ª posizione flottante	*Double acting with 4th position floating*	•	•	•	

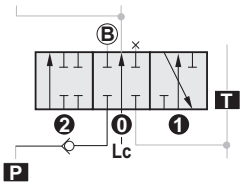
201

Semplice effetto in A
Single acting in A port



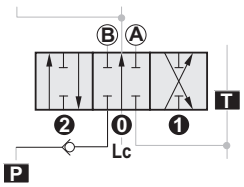
202

Semplice effetto in B
Single acting in B port



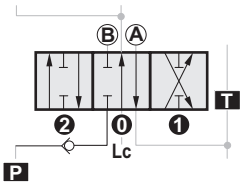
203

Doppio effetto
Double acting



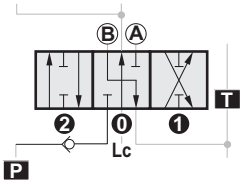
207

Doppio effetto, A in T e B chiuso in posizione 0
Double acting, A to T and B closed in 0 position



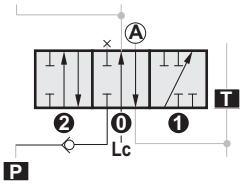
208

Doppio effetto, B in T e A chiuso in posizione 0
Double acting, B to T and A closed in 0 position



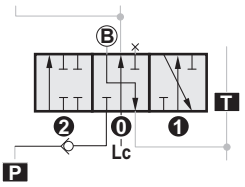
209

Semplice effetto in A, A in T in posizione 0
Single acting in A, A to T in 0 position



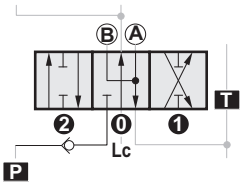
210

Semplice effetto in B, B in T in posizione 0
Single acting in B, B to T in 0 position



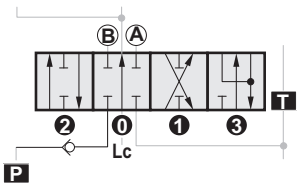
211

Doppio effetto, A e B in T in posizione 0
Double acting, A and B to T in 0 position



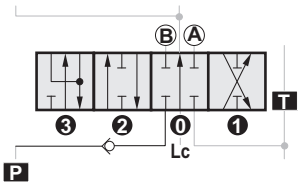
216

Doppio effetto con 4ª posizione flottante
Double acting with 4th position floating



226

Doppio effetto con 4ª posizione flottante
Double acting with 4th position floating



Sezione di lavoro e/o elemento intermedio

Working section and/or intermediate section

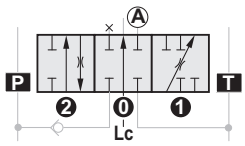
Q30	—	F7S	R250	MSE	—	E50	R250	—	2x	103	A1	M1	V30	R250	V01	—	F3D	—	12V	—	2E+1
1		2	3	4		5	6			7	8	9	10	11	12		13		16		17

Cursori sensibilizzati / *Sensitized spools*

			Q30	GSV50	Q50	Q80	Q130
101.20	Semplice effetto in A	*Single acting in A port*	•		•		
102.20	Semplice effetto in B	*Single acting in B port*	•		•		
103.05	Doppio effetto, A e B chiusi in posizione 0	*Double acting, A and B closed in 0 position*	•	•	•		
103.10	Doppio effetto, A e B chiusi in posizione 0	*Double acting, A and B closed in 0 position*				•	
103.20	Doppio effetto, A e B chiusi in posizione 0	*Double acting, A and B closed in 0 position*	•		•		
103.25	Doppio effetto, A e B chiusi in posizione 0	*Double acting, A and B closed in 0 position*	•		•		
103.30	Doppio effetto, A e B chiusi in posizione 0	*Double acting, A and B closed in 0 position*				•	
103.40	Doppio effetto, A e B chiusi in posizione 0	*Double acting, A and B closed in 0 position*	•		•		
103.50	Doppio effetto, A e B chiusi in posizione 0	*Double acting, A and B closed in 0 position*					•
103.60	Doppio effetto, A e B chiusi in posizione 0	*Double acting, A and B closed in 0 position*					•
103.80	Doppio effetto, A e B chiusi in posizione 0	*Double acting, A and B closed in 0 position*					•
107.20	Doppio effetto, A in T e B chiuso in posizione 0	*Double acting, A to T and B closed in 0 position*	•		•		
108.20	Doppio effetto, B in T e A chiuso in posizione 0	*Double acting, B to T and A closed in 0 position*	•		•		
111.05	Doppio effetto, A e B in T in posizione 0	*Double acting, A and B to T in 0 position*	•	•	•		
111.10	Doppio effetto, A e B in T in posizione 0	*Double acting, A and B to T in 0 position*	•		•	•	
111.20	Doppio effetto, A e B in T in posizione 0	*Double acting, A and B to T in 0 position*	•		•		
111.25	Doppio effetto, A e B in T in posizione 0	*Double acting, A and B to T in 0 position*	•		•		
111.30	Doppio effetto, A e B in T in posizione 0	*Double acting, A and B to T in 0 position*				•	
111.40	Doppio effetto, A e B in T in posizione 0	*Double acting, A and B to T in 0 position*	•		•		

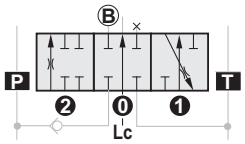
101.20

Semplice effetto in A
Single acting in A port



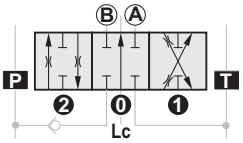
102.20

Semplice effetto in B
Single acting in B port



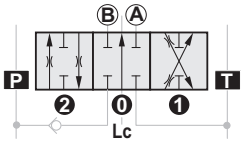
103.05

Doppio effetto, A e B chiusi in posizione 0
Double acting, A and B closed in 0 position



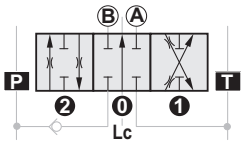
103.10

Doppio effetto, A e B chiusi in posizione 0
Double acting, A and B closed in 0 position



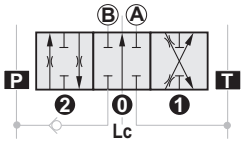
103.20

Doppio effetto, A e B chiusi in posizione 0
Double acting, A and B closed in 0 position



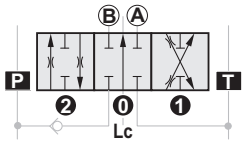
103.25

Doppio effetto, A e B chiusi in posizione 0
Double acting, A and B closed in 0 position



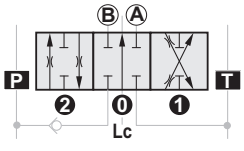
103.30

Doppio effetto, A e B chiusi in posizione 0
Double acting, A and B closed in 0 position



103.40

Doppio effetto, A e B chiusi in posizione 0
Double acting, A and B closed in 0 position



Sezione di lavoro e/o elemento intermedio

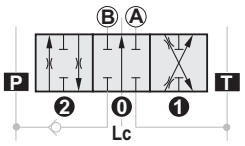
Working section and/or intermediate section

Q30	—	F7S	R250	MSE	—	E50	R250	—	2x	103	A1	M1	V30	R250	V01	—	F3D	—	12V	—	2E+1
1		2	3	4		5	6			7	8	9	10	11	12		13		16		17

Cursori sensibilizzati

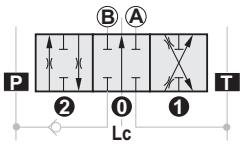
103.50

Doppio effetto, A e B chiusi in posizione 0
Double acting, A and B closed in 0 position



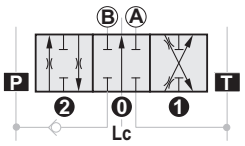
103.60

Doppio effetto, A e B chiusi in posizione 0
Double acting, A and B closed in 0 position



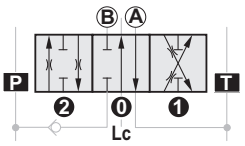
103.80

Doppio effetto, A e B chiusi in posizione 0
Double acting, A and B closed in 0 position



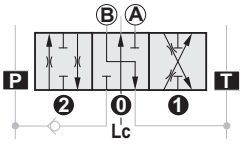
107.20

Doppio effetto, A in T e B chiuso in posizione 0
Double acting, A to T and B closed in 0 position



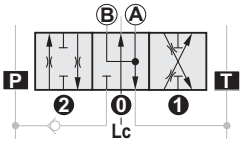
108.20

Doppio effetto, B in T e A chiuso in posizione 0
Double acting, B to T and A closed in 0 position



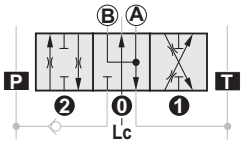
111.05

Doppio effetto, A e B in T in posizione 0
Double acting, A and B to T in 0 position



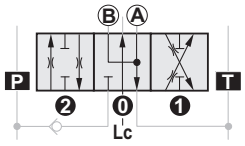
111.10

Doppio effetto, A e B in T in posizione 0
Double acting, A and B to T in 0 position



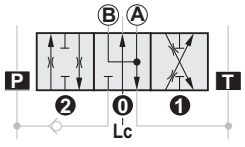
111.20

Doppio effetto, A e B in T in posizione 0
Double acting, A and B to T in 0 position



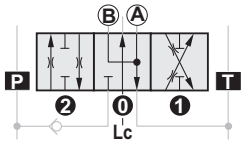
111.25

Doppio effetto, A e B in T in posizione 0
Double acting, A and B to T in 0 position



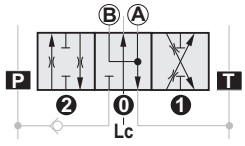
111.30

Doppio effetto, A e B in T in posizione 0
Double acting, A and B to T in 0 position



111.40

Doppio effetto, A e B in T in posizione 0
Double acting, A and B to T in 0 position



Sezione di lavoro e/o elemento intermedio — ***Working section and/or intermediate section***

Q30	—	F7S	R250	MSE	—	E50	R250	—	2x	103	A1	M1	V30	R250	V01	—	F3D	—	12V	—	2E+1
1		2	3	4		5	6			7	8	9	10	11	12		13		16		17

8 - Tipo di comando / *Control type*

			Q30	GSV50 (Q50)	Q80	Q130
A1	Comando manuale con leva standard	*Hand control with standard lever*	•	•	•	•
A1/Z1*	Versione con kit distanziale per il montaggio del cursore 116	*Version with spacer kit for installation of spool 116*	•	•	•	•
A1S	Comando manuale con leva di sicurezza	*Hand control with safety lever*	•	•	•	•
A2	Comando manuale con leva standard ruotata di 180°	*Hand control with standard lever mounted rotated 180°*	•	•	•	•
A2/Z1*	Versione con kit distanziale per il montaggio del cursore 116	*Version with spacer kit for installation of spool 116*	•	•	•	•
A2S	Comando manuale con leva di sicurezza ruotata di 180°	*Hand control with safety lever rotated 180°*	•	•	•	•
A3*	Scatola di protezione in sostituzione del comando manuale con leva	*Cap replacing hand control with lever*	•	•	•	•
A4	Attacco diretto sul cursore per rinvio a distanza rigido	*Direct control connection on spool for stiff remote control*	•	•	•	•
A4/Z1*	Versione con kit distanziale per il montaggio del cursore 116	*Version with spacer kit for installation of spool 116*	•	•	•	•
A5	Attacco diretto sul cursore con terminale sferico (da utilizzare solo con il posizionamento M4 (2-1))	*Direct control connection on spool with spherical end (Control to be used for positioning M4 (2-1))*	•	•	•	•
A6	Attacco diretto sul cursore con terminale ad occhio fisso	*Direct control connection on spool eye end*	•	•	•	•
A6/Z1*	Versione con kit distanziale per il montaggio del cursore 116	*Version with spacer kit for installation of spool 116*	•	•	•	•
A8	Attacco diretto sul cursore per cavo flessibile rinvio a distanza	*Direct connection on spool for remote flexible control*	•	•	•	•
A8/Z1*	Versione con kit distanziale per il montaggio del cursore 116	*Version with spacer kit for installation of spool 116*	•	•	•	•
C1*	Cavo flessibile	*Flexible cable*	•	•	•	•
SL*	Comando a distanza	*Remote control*	•	•	•	•
SLA15*	Comando a cloche per controllo simultaneo di due cursori a distanza	*Remote dual axis control for simultaneous operation of two spools*	•	•	•	•

*** Limitazioni / *Limitations***

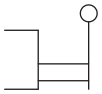
Comando ***Control***	**Applicabile con: / *Applicable with:***	
	Comando / *Control*	**Cursore / *Spool***
A3	M1-U1 / M2-U1 / M3-U1 / M1-U2 / M2-U2 / M3-U2 / D2 / P1-N / P1-NP / D3	Tutti / *All*
C1	A8 / M1U2 - M2U2 - M3U2	
SL		
SLA15		

Comando ***Control***	**Applicabile con: / *Applicable with:***	
	Posizionatore / *Positioner*	**Cursore / *Spool***
A1/Z1 **A2/Z1** **A4/Z1** **A6/Z1** **A8/Z1**	R8	116

Sezione di lavoro e/o elemento intermedio | ***Working section and/or intermediate section***

Q30	F7S	R250	MSE	E50	R250	2x	103	A1	M1	V30	R250	V01	F3D	12V	2E+1
1	2	3	4	5	6		7	8	9	10	11	12	13	16	17

A1 A1/Z1



A1: Comando manuale con leva standard
A1: Hand control with standard lever

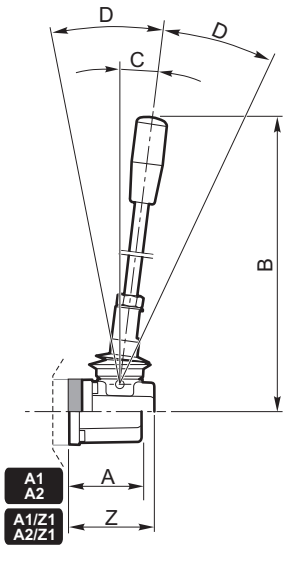
A1/Z1: Versione con kit distanziale per il montaggio del cursore 116
A1/Z1: Version with spacer kit for installation of spool 116

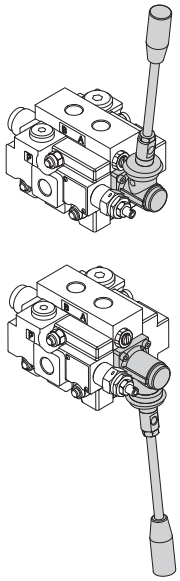
A2 A2/Z1

A2: Comando manuale con leva standard ruotata di 180°
A2: Hand control with standard lever rotated 180°

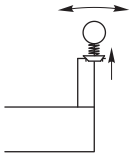
A2/Z1: Versione con kit distanziale per il montaggio del cursore 116
A2/Z1: Version with spacer kit for installation of spool 116

	A	B	C	D	Z
Q30 - GSV50 (Q50)	42 *(1.654)*	205 *(8.071)*	7°	18°	50.5 *(1.988)*
Q80 - Q130	55 *(2.165)*	260 *(10.236)*	6°	19°	68.5 *(2.697)*



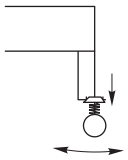


A1S



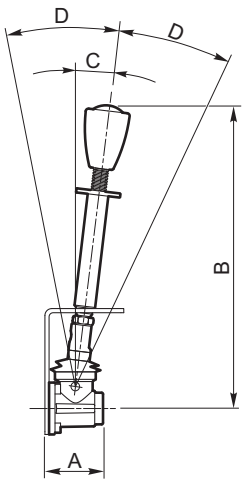
A1S: Comando manuale con leva di sicurezza
A1S: Hand control with safety lever

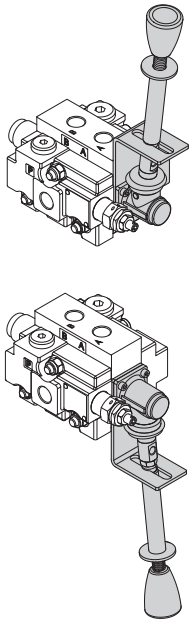
A2S



A2S: Comando manuale con leva di sicurezza ruotata di 180°
A2S: Hand control with safety lever rotated 180°

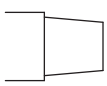
	A	B	C	D
Q30 - GSV50 (Q50)	42 *(1.654)*	219 *(8.622)*	7°	18°
Q80 - Q130	55 *(2.165)*	256 *(10.079)*	6°	19°

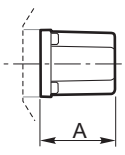




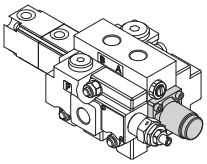
A3

Scatola di protezione in sostituzione del comando manuale con leva
Cap replacing hand control with lever





	A
Q30 - GSV50 (Q50)	42 *(1.654)*
Q80 - Q130	55 *(2.165)*



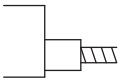
Dimensioni in / *Dimensions in:* mm *(inch)*

Sezione di lavoro e/o elemento intermedio | ***Working section and/or intermediate section***

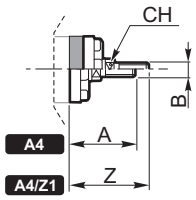
Q30	F7S	R250	MSE	E50	R250	2x	103	A1	M1	V30	R250	V01	F3D	12V	2E+1
1	2	3	4	5	6		7	8	9	10	11	12	13	16	17

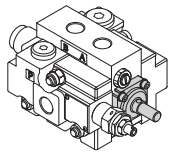
A4 A4/Z1

A4: Attacco diretto sul cursore
per rinvio a distanza rigido
A4: Direct control connection on spool
for stiff remote control



A4/Z1: Versione con kit distanziale per il montaggio del cursore 116
A4/Z1: Version with spacer kit for installation of spool 116

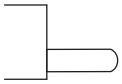


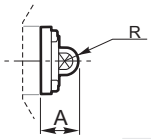


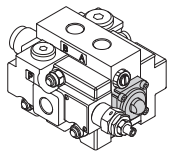
	A	B	CH	Corsa *Stroke*	Z
Q30 - GSV50 (Q50)	39 *(1.535)*	M8	9 *(0.354)*	±5 *(0.197)*	47.5 *(1.870)*
Q80 - Q130	53 *(2.087)*	M10	14 *(0.551)*	±7 *(0.276)*	66.5 *(2.618)*

A5

Attacco diretto sul cursore
con terminale sferico
(da utilizzare solo
con il posizionamento M4 (2-1)
Direct control connection
on spool with spherical end
(Control to be used
for positioning M4 (2-1))0



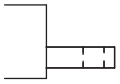




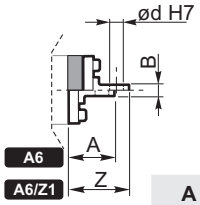
	A	R	Corsa *Stroke*
Q30 - GSV50 (Q50)	22 *(0.866)*	6.85 *(0.270)*	±5 *(0.197)*
Q80 - Q130	33 *(1.299)*	8.75 *(0.344)*	±7 *(0.276)*

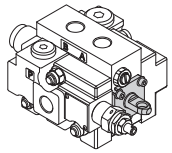
A6 A6/Z1

A6: Attacco diretto sul cursore
con terminale ad occhio fisso
A6: Direct control connection
on spool eye end



A6/Z1: Versione con kit distanziale per il montaggio del cursore 116
A6/Z1: Version with spacer kit for installation of spool 116

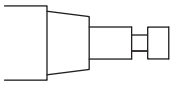




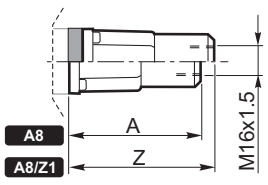
	A	B	d	Corsa *Stroke*	Z
Q30 - GSV50 (Q50)	20 *(0.787)*	6 *(0.236)*	9 *(0.354)*	±5 *(0.197)*	28.5 *(1.122)*
Q80 - Q130	27 *(1.063)*	7 *(0.276)*	11 *(0.433)*	±7 *(0.276)*	40.5 *(1.594)*

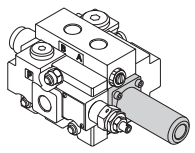
A8 A8/Z1

A8: Attacco diretto sul cursore
per cavo flessibile rinvio a distanza
A8: Direct connection on spool
for remote flexible control



A8/Z1: Versione con kit distanziale per il montaggio del cursore 116
A8/Z1: Version with spacer kit for installation of spool 116





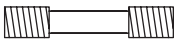
	A	Z
Q30 - GSV50 (Q50)	73 *(2.874)*	81.5 *(3.209)*
Q80 - Q130	77 *(3.031)*	90.5 *(3.563)*

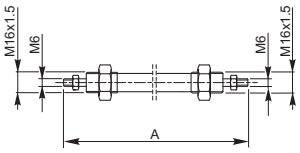
Sezione di lavoro e/o elemento intermedio — ***Working section and/or intermediate section***

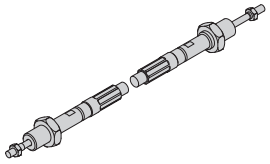
Q30	F7S	R250	MSE	E50	R250	2x	103	A1	M1	V30	R250	V01	F3D	12V	2E+1
1	2	3	4	5	6		7	8	9	10	11	12	13	16	17

C1

Cavo flessibile
Flexible cable







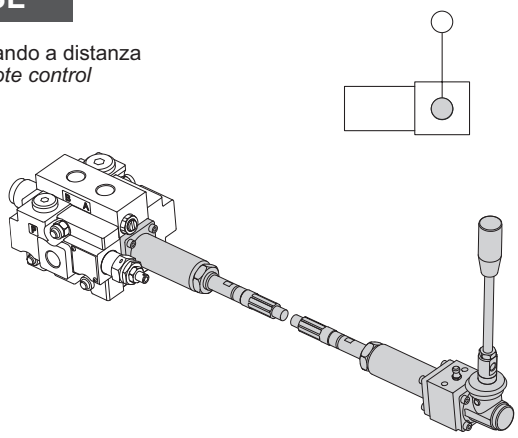
	A
Q30 - GSV50 (Q50) Q80 - Q130	Massima lunghezza cavo consigliata 4000 mm Raggio min. di curvatura 200mm *Max. reccomended lenght 4000 mm* *Minimun radium curve 200 mm*

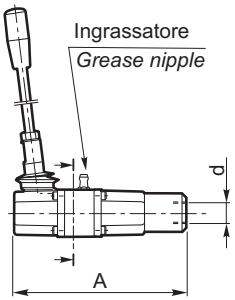
Dove è utilizzato il cavo flessibile C1, è necessario indicare la lunghezza del cavo espressa in mm.
Esempio per un cavo lungo 1000 mm: **A8-C1**x1000**-SL**

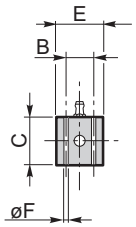
Indicate the cable length in mm when flexible cable C1 is used.
*E.g.: for a cable 1000 mm in length: **A8-C1**x1000**-SL***

SL

Comando a distanza
Remote control



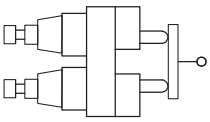


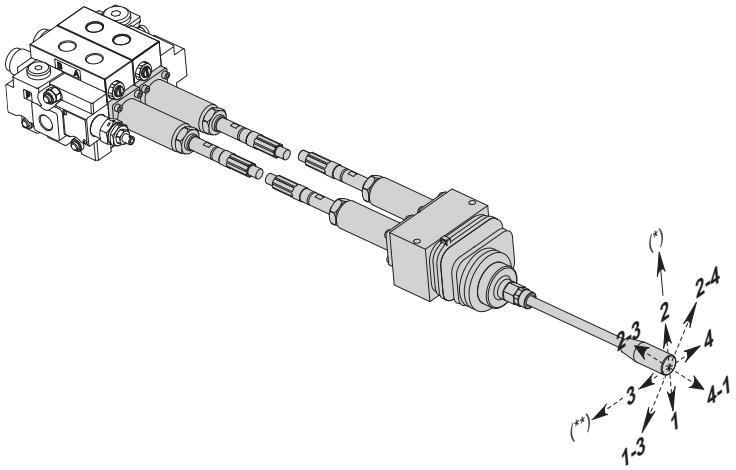


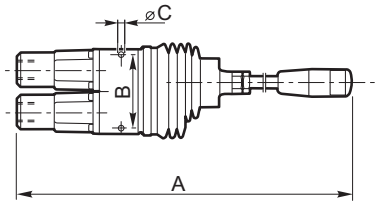
	A	B	C	d	E	F
Q30 - GSV50 (Q50)	135 *(5.315)*	26 *(1.024)*	40 *(1.575)*	M16x1.5	38 *(1.496)*	5.5 *(0.217)*
Q80 - Q130	172 *(6.772)*	33.5 *(1.319)*	45 *(1.772)*		45 *(1.772)*	6.5 *(0.256)*

SLA15

Comando a cloche per controllo simultaneo di due cursori a distanza
Remote dual axis control for simultaneous operation of two spools







	A	B	Ø d
Q30 - GSV50 (Q50) Q80 - Q130	358 *(14.094)*	77 *(3.301)*	6.5 *(0.256)*

Sezione di lavoro e/o elemento intermedio — ***Working section and/or intermediate section***

Q30	—	F7S	R250	MSE	—	E50	R250	—	2x	103	A1	M1	V30	R250	V01	—	F3D	—	12V	—	2E+1
1		2	3	4		5	6			7	8	9	10	11	12		13		16		17

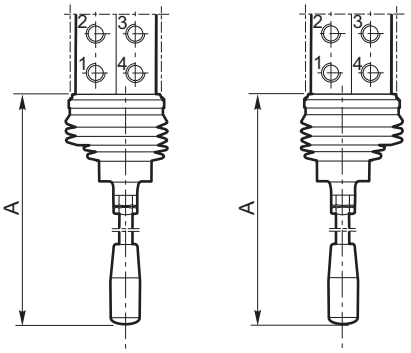
8 - Tipo di comando / *Control type*

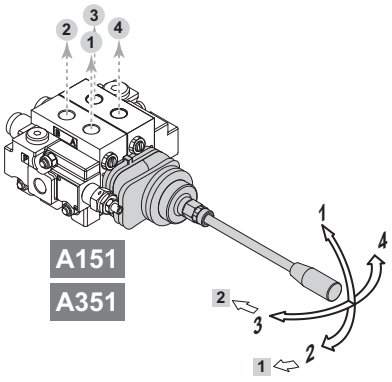
			Q30	GSV50 (Q50)	Q80	Q130
	Leva a cloche per il comando singolo o simultaneo di due cursori:	*Dual axis for single or simultaneous control of two spools:*				
A15_	- come a schema (pag. G-29)	*- with scheme (page G-29)*	•	•		
A35_	- come a schema (pag. G-29)	*- with scheme (page G-29)*			•	•
A16	- come a schema (pag. G-29)	*- with scheme (page G-29)*	•			
	Comando manuale con attivazione del contatto elettrico del microswitch centralizzato:	*Hand control with ON-OFF centralized microswitch operation*				
N1-A1	- per doppio effetto	*- double acting*	•	•	•	•
N1A-A1	- per semplice effetto in posizione 1	*- single acting in 1 position*	•	•	•	•
N1B-A1	- per semplice effetto in posizione 2	*- single acting in 2 position*	•	•	•	•
	Comando manuale, ruotato di 180°, con attivazione del contatto elettrico del microswitch centralizzato:	*180° Rotated hand control with ON-OFF centralized microswitch operation*				
N1-A2	- per doppio effetto	*- double acting*	•	•	•	•
N1A-A2	- per semplice effetto in posizione 1	*- single acting in 1 position*	•	•	•	•
N1B-A2	- per semplice effetto in posizione 2	*- single acting in 2 position*	•	•	•	•
	Comando microswitch centralizzato:	*Centralized microswitch control:*				
N1-A3	- per doppio effetto	*- double acting*	•	•	•	•
N1A-A3	- per semplice effetto in posizione 1	*- single acting in 1 position*	•	•	•	•
N1B-A3	- per semplice effetto in posizione 2	*- single acting in 2 position*	•	•	•	•

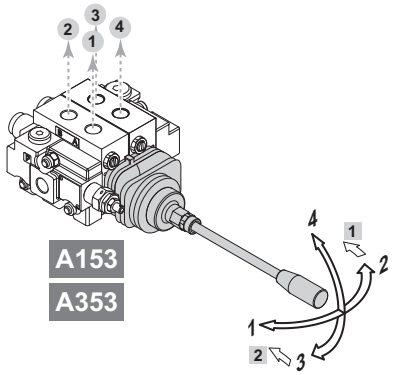
A15_ | A35_

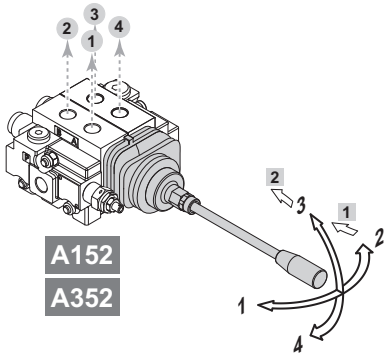
Leva a cloche per il comando singolo o simultaneo di due cursori, come schema a lato
Dual axis for simultaneous or single control of two spools, as from the scheme on the side

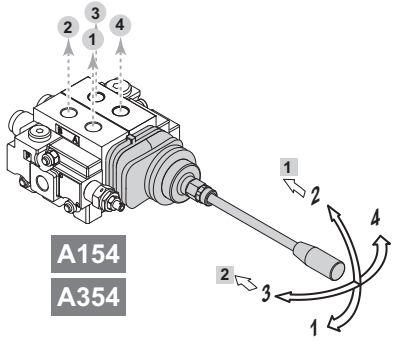
	A
Q30 - GSV50 (Q50)	280 *(11.024)*
Q80 - Q130	300 *(11.811)*











N.B. Nelle configurazioni A152 e A154, non è possibile montare le valvole antiurto.
Note: A152 - A154 configurations not permitted to mount cartridge valves.

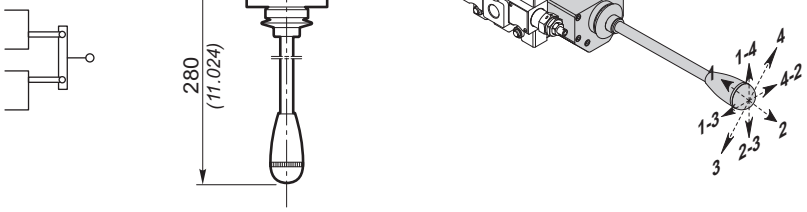
Eventuale cassetto con 4^ pos. (solo cod.126)
Optional spool with 4th position (only code 126)
1 su 1ª sezione / on 1st section
2 *su 2ª sezione / on 2nd section*

Sezione di lavoro e/o elemento intermedio — ***Working section and/or intermediate section***

Q30	F7S	R250	MSE	E50	R250	2x	103	A1	M1	V30	R250	V01	F3D	12V	2E+1
1	2	3	4	5	6		7	8	9	10	11	12	13	16	17

A16

Leva a cloche per il controllo singolo o simultaneo di due cursori come a schema sottoindicato
Dual axis for single or simultaneous control of two spools as from the scheme here below



I comandi **A15**, **A16** o **SLA15** sono dei joistik che comandano due sezioni di lavoro; essendo un comando unico viene inserito come codice solo nella prima sezione di lavoro e viene omesso nella seconda.

Esempio
Q30 – F7SR250 – 103/**A15**/M1 – 103/M1 – F3D
Nella seconda sezione di lavoro è indicato solo il cursore e il posizionatore.

Quando è richiesto anche il cavo C1, è necessario specificarne la lunghezza in entrambe le sezioni.

Esempio
Q30 – F7SR250 – 103/**A8-C1x1000**-SLA15/M1 – 103/**A8-C1x1000**/M1 – F3D

*Controls **A15**, **A16** or **SLA15** are joysticks that control two working sections. Since it is a single control, it is only entered as a code in the first work section and is omitted from the second.*

Example
*Q30 – F7SR250 – 103/**A15**/M1 – 103/M1 – F3D*
Only the spool and positioner are indicated in the second working section.

When cable C1 is also required, its length must be specified in both sections.

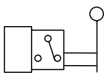
Example
*Q30 – F7SR250 – 103/**A8-C1x1000**-SLA15/M1 – 103/**A8-C1x1000**/M1 – F3D*

Dimensioni in / *Dimensions in:* mm *(inch)*

Sezione di lavoro e/o elemento intermedio — *Working section and/or intermediate section*

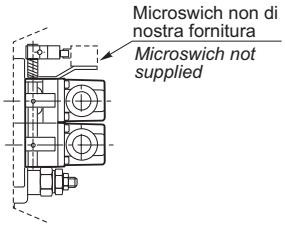
Q30	—	F7S	R250	MSE	—	E50	R250	—	2x	103	A1	M1	V30	R250	V01	—	F3D	—	12V	—	2E+1
1		2	3	4		5	6			7	8	9	10	11	12		13		16		17

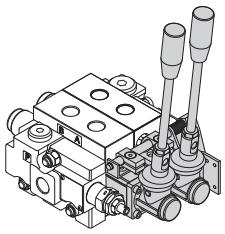
N1-A1
N1A-A1
N1B-A1

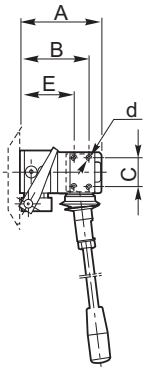


Comando manuale con attivazione del contatto elettrico del microswitch centralizzato.
N1-A1: Per doppio effetto
N1A-A1: Per semplice effetto in pos. 1
N1B-A1: Per semplice effetto in pos. 2
Hand control with ON-OFF centralized microswitch operation.
N1 -A1: Double acting
N1A-A1: Single acting in 1 position
N1B-A1: Single acting in 2 position

Con le valvole a cartuccia occorre montare il comando ruotato di 180° oppure inserire il distanziale cod. Z1
With cartridge valves it is necessary to mount the 180° rotated control or to insert a spacer code Z1

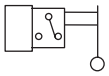






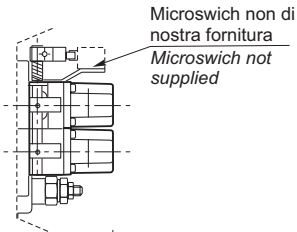
	A	B	C	E	d
Q30 - GSV50 (Q50)	70 (2.756)	59 (2.323)	25 (0.984)	49 (1.929)	M4
Q80 - Q130	84 (3.307)				

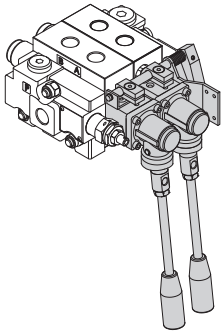
N1-A2
N1A-A2
N1B-A2

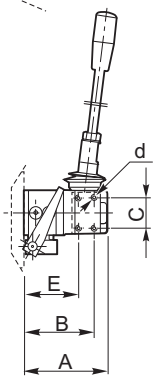


Comando manuale ruotato di 180° con attivazione del contatto elettrico del microswitch centralizzato.
N1-A2: Per doppio effetto
N1A-A2: Per semplice effetto in pos. 1
N1B-A2: Per semplice effetto in pos. 2
180° rotated hand control with ON-OFF centralized microswitch operation.
N1-A2: Double acting
N1A-A2: Single acting in 1 position
N1B-A2: Single acting in 2 position

Con le valvole a cartuccia occorre montare il comando ruotato di 180° oppure inserire il distanziale cod. Z1
With cartridge valves it is necessary to mount the 180° rotated control or to insert a spacer code Z1

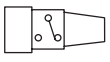






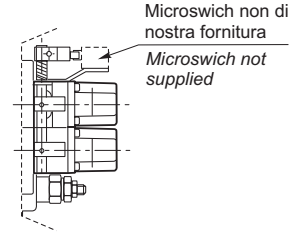
	A	B	C	E	d
Q30 - GSV50 (Q50)	70 (2.756)	59 (2.323)	25 (0.984)	49 (1.929)	M4
Q80 - Q130	84 (3.307)				

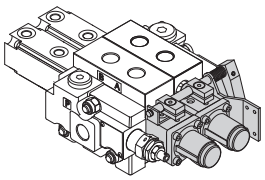
N1-A3
N1A-A3
N1B-A3

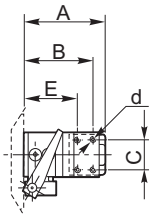


Comando microswitch centralizzato.
N1-A3: Per doppio effetto
N1A-A3: Per semplice effetto in pos. 1
N1B-A3: Per semplice effetto in pos. 2
Centralized microswitch control.
N1-A3: Double acting
N1A-A3:Single acting in 1 position
N1B-A3: Single acting in 2 position

Con le valvole a cartuccia occorre montare il comando ruotato di 180° oppure inserire il distanziale cod. Z1
With cartridge valves it is necessary to mount the 180° rotated control or to insert a spacer code Z1







Dimensioni in / *Dimensions in:* mm *(inch)*

Sezione di lavoro e/o elemento intermedio — ***Working section and/or intermediate section***

Q30	F7S	R250	MSE	E50	R250	2x	103	A1	M1	V30	R250	V01	F3D	12V	2E+1
1	2	3	4	5	6		7	8	**9**	10	11	12	13	16	17

9 - Tipo posizionatore

*** La posizione dei campi 8 e 9 si riferisce al comando collocato sul lato effetto A e al posizionatore lato effetto B; se le posizioni sono opposte, invertire i due campi 5 e 6 come da esempio seguente:**

A1	M1
8 - 9	

Comando lato effetto A
Posizionatore lato effetto B
Port A side control
Port B side positioner

6 - Positioner type

**** The position of fields 8 and 9 refers to the control located on the A port side and to the positioner on the B port side. If the positions are opposite, invert the two fields 5 and 6 as shown in the example below:***

M1	A1
9 - 8	

Comando lato effetto B
Posizionatore lato effetto A
Port B side control
Port A side positioner

Posizionatori			**Q30**	**GSV50 (Q50)**	**Q80**	**Q130**
M1	Tre posizioni ritorno a molla in pos.0	*Three positions spring centred in 0*	•	•	•	•
M2	Due posizioni 0-1 ritorno a molla in pos.0	*Two positions spring 0-1 centred in 0*	•	•	•	•
M3	Due posizioni 0-2 ritorno a molla in pos.0	*Two positions spring 0-2 centred in 0*	•	•	•	•
M4(1-2)	Due posizioni estreme ritorno a molla in pos.1	*Two end positions spring back in 1*	•	•	•	•
M4(2-1)	Due posizioni estreme ritorno a molla in pos.2	*Two end positions spring back in 2*	•	•	•	•
R1	Tre posizioni ritorno a molla in pos.0, detent in pos.1	*Three positions spring centred in 0, detent in 1*	•	•	•	•
R2	Tre posizioni ritorno a molla in pos.0, detent in pos.2	*Three positions spring centred in 0, detent in 2*	•	•	•	•
R3	Tre posizioni in detent	*Three positions detent*	•	•	•	•
R4	Due posizioni in detent 0-1	*Two positions detent 0-1*	•	•	•	•
R5	*Due posizioni in detent 0-2*	*Two positions detent 0-2*	•	•	•	•
R6	*Due posizioni in detent 1-2*	*Two positions detent 1-2*	•	•	•	•
R8*	Due posizioni (1 e 2) con ritorno a molla in pos. 0; (3) 4ª posizione flottante con detent. (Da montare con Z1 lato comando e cursore 116)	*Two positions (1 and 2) with spring return centred in 0 position. (3) 4th position floating with detent. (Mounting with Z1 side control and speel 116)*	•	•	•	•
R10/Z1	Due posizioni (1 e 2) con ritorno a molla in pos. 0, (3) 4ª posizione flottante con detent (da montare con cursore 126)	*Two positions (1 and 2) with spring return centred in 0, position (3) 4th position floating with detent (mounting with speel 126)*	•	•	•	
R1K*	Comando a 3 posizioni, detent in pos. 1 con sgancio automatico registrabile. Disponibile solo con cursore cod. 103 e 111	*3 Position control, detent in J pos. with automatic adjustable release. Available with spool code 103 and 111 only*	•	•	•	•
R2K*	Comando a 3 posizioni, detent in pos. 2 con sgancio automatico registrabile. Disponibile solo con cursore cod. 103 e 111	*3 Position control, detent in 2 pos. with automatic adjustable release. Available with spool code 103 and 111 only*	•	•	•	•
R3K*	Comando a 3 posizioni, detent in pos. 1 e 2 con sgancio automatico registrabile. Disponibile solo con cursore cod. 103 e 111	*3 Position control, detent in 1 and 2 pos. with automatic adjustable release. Available with spool code 103 and 111 only*	•	•	•	•
M1-B1	Tre posizioni ritorno a molla in pos.0 con comando microswitch posteriore	*Three positions detent centred in 0 with back microswitch control*	•	•	•	•
M2-B1	Due posizioni, 0-1, ritorno a molla in pos.0 con comando microswitch posteriore	*Two positions, 0-1, spring centred in 0 with back microswitch control*	•	•	•	•
M3-B1	Due posizioni, 0-2, ritorno a molla in pos. 0 con comando microswitch posteriore	*Two positions, 0-2, spring centred in 0 with back microswitch control*	•	•	•	•
M1-N1 **M1-N1A** **M1-N1B**	Tre posizioni ritorno a molla in pos. 0, con attivazione del contatto elettrico del microswitch centralizzato **M1-N1**: Per doppio effetto **M1-N1A**: Per semplice effetto in pos 1 **M1-N1B**: Per semplice effetto in pos 2	*Three positions spring centred in 0, with ON-OFF centralized microswitch operation.* *N1-A1: Double acting* *N1A-A1: Single acting in 1 position* *N1B-A1: Single acting in 2 position*	•	•	•	•
M2-N1	Due posizioni, 0-1, con ritorno a molla in pos.0, con attivazione del contatto elettrico del microswitch centralizzato	*Two positions, 0-1 , with spring centred in 0, with ON-OFF centralized microswitch operation*	•	•	•	•
M3-N1	Due posizioni, 0-2, con ritorno a molla in pos.0, con attivazione del contatto elettrico del microswitch centralizzato	*Two positions, 0-2, with spring centred in 0, with ON-OFF centralized microswitch operation*	•	•	•	•

*** Limitazioni / *Limitations***

Posizionatore *Positioner*	**Applicabile con: / *Applicable with:***		
	Comando / *Control*	**Cursore / *Spool***	**Valvole / *Valves***
R8	A1/Z1 - A2/Z1 - A4/Z1 - A6/Z1 - A8/Z1	116	Tutte le valvole a cartuccia e tutte le valvole a pannello *All cartridge and panel valves*
R10/Z1	Tutti / *All*	*126*	
R1K **R2K** **R3K**	A1 / A2 / A4 / A5 / A6 / A8 / SL / SLA15 / A15 / A16 / N1-A1 / N1-A2 / N1-A3	103 / 111	

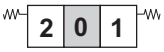
Sezione di lavoro e/o elemento intermedio

Working section and/or intermediate section

Q30	F7S	R250	MSE	E50	R250	2x	103	A1	M1	V30	R250	V01	F3D	12V	2E+1
1	2	3	4	5	6		7	8	9	10	11	12	13	16	17

M1

Tre posizioni ritorno a molla in pos.0
Three positions spring centred in 0



M2

Due posizioni 0-1 ritorno a molla in pos.0
Two positions spring 0-1 centred in 0

M3

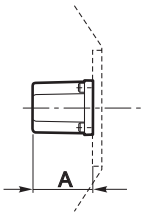
Due posizioni 0-2 ritorno a molla in pos.0
Two positions spring 0-2 centred in 0

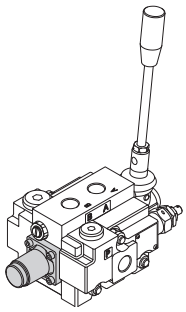
M4 (1-2)

Due posizioni estreme ritorno a molla in pos.1
Two end positions spring back in 1

M4 (2-1)

Due posizioni estreme ritorno a molla in pos.2
Two end positions spring back in 2





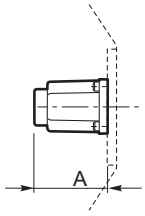
	A			
	M1	M2	M3	M4 2-1
Q30 - GSV50 (Q50)	42 *(1.654)*	42 *(1.654)*	42 *(1.654)*	42 *(1.654)*
Q80 - Q130	55 *(2.165)*	55 *(2.165)*	55 *(2.165)*	55 *(2.165)*

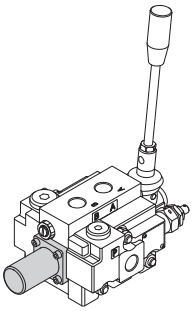
R1

Tre posizioni ritorno a molla in pos.0, detent in pos.1
Three positions spring centred in 0, detent in 1

R2

Tre posizioni ritorno a molla in pos.0, detent in pos.2
Three positions spring centred in 0, detent in 2

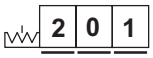




	A	
	R1	R2
Q30 - GSV50 (Q50)	52 *(2.047)*	54 *(2.126)*
Q80 - Q130	70 *(2.756)*	68.5 *(2.697)*

R3

Tre posizioni in detent
Three positions detent

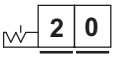


R4

Due posizioni in detent 0-1
Two positions detent 0-1

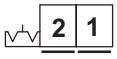
R5

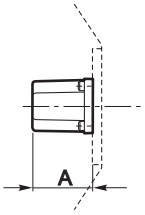
Due posizioni in detent 0-2
Two positions detent 0-2

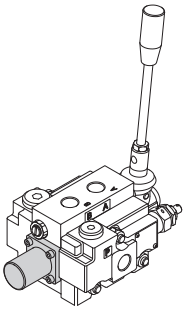


R6

Due posizioni in detent 1-2
Two positions detent 1-2







	A			
	R3	R4	R5	R6
Q30 - GSV50 (Q50)	42 *(1.654)*	42 *(1.654)*	42 *(1.654)*	42 *(1.654)*
Q80 - Q130	55 *(2.165)*	55 *(2.165)*	55 *(2.165)*	55 *(2.165)*

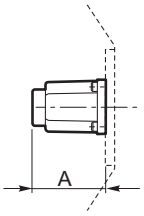
Dimensioni in / *Dimensions in:* mm *(inch)*

Sezione di lavoro e/o elemento intermedio — ***Working section and/or intermediate section***

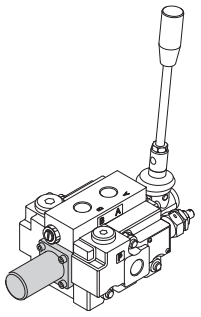
Q30	F7S	R250	MSE	E50	R250	2x	103	A1	M1	V30	R250	V01	F3D	12V	2E+1
1	2	3	4	5	6		7	8	9	10	11	12	13	16	17

R8

Due posizioni (1 e 2) con ritorno a molla in pos. 0;
(3) 4ª posizione flottante con detent.
(Da montare con Z1 lato comando e cursore 116)
Two positions (1 and 2) with spring return centred in 0 position.
(3) 4th position floating with detent.
(Mounting with Z1 side control and spool 116)

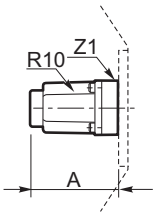


	A
Q30 - GSV50 (Q50)	56.5 *(2.224)*
Q80	75 *(2.953)*
Q130	80 *(3.150)*

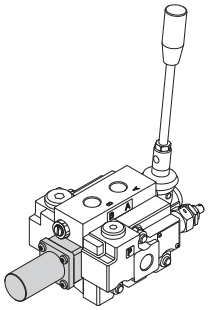


R10/Z1

Due posizioni (1 e 2) con ritorno a molla in pos. 0,
(3) 4ª posizione flottante con detent
(Da montare cursore 126)
Two positions (1 and 2) with spring return centred in 0 position
(3) 4th position floating with detent.
(Mounting with spool 126)

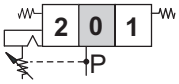


	A
Q30 - GSV50 (Q50)	70 *(2.756)*
Q80	92 *(3.622)*



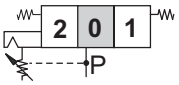
R1K

Comando a 3 posizioni, detent in pos. 1
con sgancio automatico registrabile.
Disponibile solo con cursore cod. 103 e 111
3 Position control, detent in 1 pos.
with automatic adjustable release.
Available with spool code 103 and 111 only



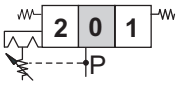
R2K

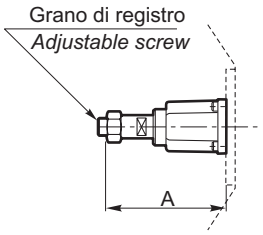
Comando a 3 posizioni, detent in pos. 2
con sgancio automatico registrabile.
Disponibile solo con cursore cod. 103 e 111
3 Position control, detent in 2 pos.
with automatic adjustable release.
Available with spool code 103 and 111 only



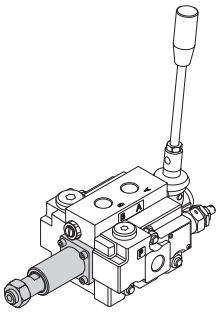
R3K

Comando a 3 posizioni, detent in pos. 1 e 2
con sgancio automatico registrabile.
Disponibile solo con cursore cod. 103 e 111
3 Position control, detent in 1 and 2 pos.
with automatic adjustable release.
Available with spool code 103 and 111 only





	A		
	R1K	**R2K**	**R3K**
Q30 - GSV50 (Q50)	91.5 *(3.602)*	91.5 *(3.602)*	91.5 *(3.602)*
Q80 - Q130	106 *(4.173)*	106 *(4.173)*	106 *(4.173)*



Campo di taratura della pressione per lo sgancio automatico 45 - 350 bar (653 - 5075 PSI)
Pressure calibration field for automatic release 45 - 350 bar (653 - 5075 PSI)

Dimensioni in / *Dimensions in:* mm *(inch)*

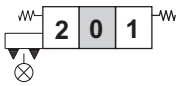
Sezione di lavoro e/o elemento intermedio

Working section and/or intermediate section

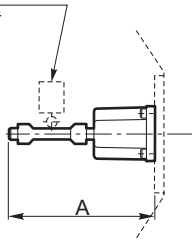
Q30	—	F7S	R250	MSE	—	E50	R250	—	2x	103	A1	M1	V30	R250	V01	—	F3D	—	12V	—	2E+1
1		2	3	4		5	6			7	8	9	10	11	12		13		16		17

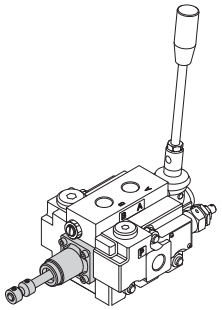
M1-B1

Tre posizioni ritorno a molla in pos.0
con comando microswitch posteriore
Three positions spring centred in 0
with back microswitch control



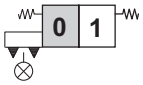
Microswich non di nostra fornitura
Microswich not supplied





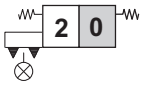
M2-B1

Due posizioni, 0-1, ritorno a molla in pos.0
con comando microswitch posteriore
Two positions, 0-1, spring centred in 0
with back microswitch control



M3-B1

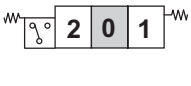
Due posizioni, 0-2, ritorno a molla in pos. 0
con comando microswitch posteriore
Two positions, 0-2, spring centred in 0
with back microswitch control

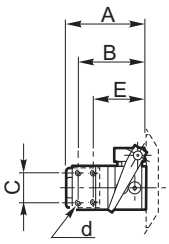


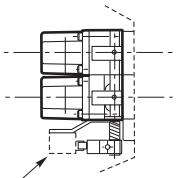
	A		
	M1-B1	**M2-B1**	**M3-B1**
Q30 - GSV50 (Q50)	82 *(3.228)*	82 *(3.228)*	82 *(3.228)*
Q80 - Q130	102 *(4.016)*	102 *(4.016)*	102 *(4.016)*

M1-N1
M1-N1A
M1-N1B

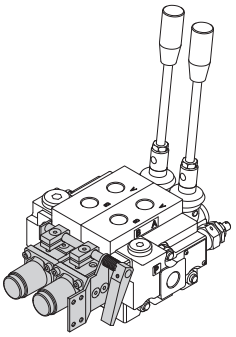
Tre posizioni ritorno a molla in pos. 0,
con attivazione del contatto elettrico
del microswitch centralizzato
M1-N1: Per doppio effetto
M1-N1A: Per semplice effetto in pos 1
M1-N1B: Per semplice effetto in pos 2
Three positions spring centred in 0,
with ON-OFF centralized microswitch operation.
N1-A1: Double acting
N1A-A1: Single acting in 1 position
N1B-A1: Single acting in 2 position





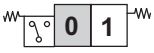


Microswich non di nostra fornitura
Microswich not supplied



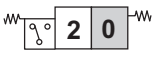
M2-N1

Due posizioni, 0-1, con ritorno a molla
in pos.0, con attivazione del contatto elettrico
del microswitch centralizzato
Two positions, 0-1 , with spring centred in 0,
with ON-OFF centralized microswitch operation



M3-N1

Due posizioni, 0-2, con ritorno a molla
in pos.0, con attivazione del contatto elettrico
del microswitch centralizzato
Two positions, 0-2, with spring centred in 0,
with ON-OFF centralized microswitch operation



	A	B	C	E	d
Q30 - GSV50 (Q50)	70 *(2.756)*	59 *(2.323)*	25 *(0.984)*	49 *(1.929)*	M4
Q80 - Q130	84 *(3.307)*				

Dimensioni in / *Dimensions in:* mm *(inch)*

Sezione di lavoro e/o elemento intermedio

Working section and/or intermediate section

Q30	—	F7S	R250	MSE	—	E50	R250	—	2x	103	A1	M1	V30	R250	V01	—	F3D	—	12V	—	2E+1
1		2	3	4		5	6			7	8	9	10	11	12		13		16		17

Comandi con posizionamento / *Controls with positioning* (pag. XXX)

			Q30	GSV50 (Q50)	Q80	Q130
M1-U1*	Tre posizioni con ritorno a molla in pos.0, attacco diretto sul cursore per rinvio a distanza rigido	*Three positions spring centred in 0, with direct control connection on spool, cap side, for stiff remote control*	•	•	•	•
M2-U1*	Due posizioni, 0-1, con ritorno a molla in pos.0, attacco diretto sul cursore per rinvio a distanza rigido	*Two positions, 0-1, spring centred in 0, with direct control connection on spool, cap side, for stiff remote control*	•	•	•	•
M3-U1*	Due posizioni, 0-2, con ritorno a molla in pos. 0, attacco diretto sul cursore per rinvio a distanza rigido	*Two positions, 0-2, spring centred in 0, with direct control connection on spool, cap side, for stiff remote control*	•	•	•	•
M1-U2*	Tre posizioni con ritorno a molla in pos. 0, attacco diretto sul cursore per rinvio a distanza con cavo flessibile	*Three positions spring centred in 0, direct control connection on spool, cap side, for flexible remote control*	•	•	•	•
M2-U2*	Due posizioni, 0-1, ritorno a molla in pos. 0, attacco diretto sul cursore per rinvio a distanza con cavo flessibile	*Two positions, 0-1, spring centred in 0, direct control connection on spool, cap side, for flexible remote control*	•	•	•	•
M3-U2*	Due posizioni, 0-2, ritorno a molla in pos. 0, attacco diretto sul cursore per rinvio a distanza con cavo flessibile	*Two positions, 0-2, spring centred in 0, direct control connection on spool, cap side, for flexible remote control*	•	•	•	•
D2*	Comando elettroidraulico doppio con ritorno in pos. 0	*Double electro-hydraulic control, spring centred in 0*			•	•
P1-N*	Comando pneumatico	*Pneumatic control*	•	•	•	•
P1-NP*	Comando pneumatico progressivo	*Progressive pneumatic control*	•	•	•	•
D3*	Comando elettropneumatico	*Electropneumatic control*	•	•	•	•

*** Limitazioni / *Limitations***

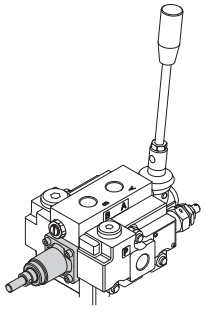
Posizionatore *Positioner*	**Applicabile con: / *Applicable with:***	
	Comando / *Control*	**Cursore / *Spool***
M1-U1 **M2-U1** **M3-U1** **M1-U2** **M2-U2** **M3-U2** **D2** **P1-N** **P1-NP** **D3**	A1 / A2 / A3 / A4 / A6 / A8	Tutti tranne 116 e126 *All except 116 and 126*

Sezione di lavoro e/o elemento intermedio | ***Working section and/or intermediate section***

Q30	—	F7S	R250	MSE	—	E50	R250	—	2x	103	A1	M1	V30	R250	V01	—	F3D	—	12V	—	2E+1
1		2	3	4		5	6			7	8	9	10	11	12		13		16		17

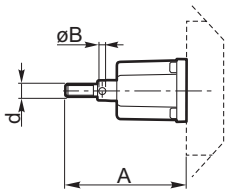
M1-U1

Tre posizioni con ritorno a molla in pos.0,
attacco diretto sul cursore
per rinvio a distanza rigido
Three positions spring centred in 0,
with direct control connection on spool,
cap side, for stiff remote control



M2-U1

Due posizioni, 0-1, con ritorno a molla in pos.0,
attacco diretto sul cursore
per rinvio a distanza rigido
Two positions, 0-1, spring centred in 0,
with direct control connection on spool,
cap side, for stiff remote control



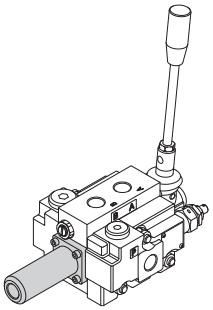
M3-U1

Due posizioni, 0-2, con ritorno a molla in pos. 0,
attacco diretto sul cursore
per rinvio a distanza rigido
Two positions, 0-2, spring centred in 0,
with direct control connection on spool,
cap side, for stiff remote control

	A	B	d
Q30 - GSV50 (Q50)	73 *(2.874)*	4 *(0.157)*	M8
Q80 - Q130	96 *(3.780)*	5 *(0.197)*	M10

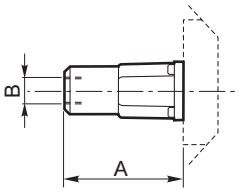
M1-U2

Tre posizioni con ritorno a molla in pos. 0,
attacco diretto sul cursore
per rinvio a distanza con cavo flessibile
Three positions spring centred in 0,
direct control connection on spool,
cap side, for flexible remote control



M2-U2

Due posizioni, 0-1, ritorno a molla in pos. 0,
attacco diretto sul cursore
per rinvio a distanza con cavo flessibile
Two positions, 0-1, spring centred in 0,
direct control connection on spool,
cap side, for flexible remote control



M3-U2

Due posizioni, 0-2, ritorno a molla in pos. 0,
attacco diretto sul cursore
per rinvio a distanza con cavo flessibile
Two positions, 0-2, spring centred in 0,
direct control connection on spool,
cap side, for flexible remote control

	A	B
Q30 - GSV50 (Q50)	73 *(2.874)*	M16X1.5
Q80 - Q130	77 *(3.031)*	

Dimensioni in / *Dimensions in:* mm *(inch)*

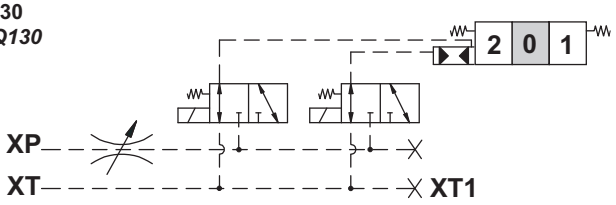
Sezione di lavoro e/o elemento intermedio — ***Working section and/or intermediate section***

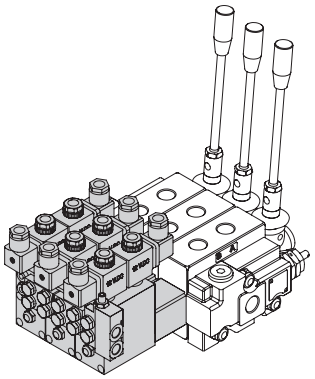
Q30	F7S	R250	MSE	E50	R250	2x	103	A1	M1	V30	R250	V01	F3D	12V	2E+1
1	2	3	4	5	6		7	8	9	10	11	12	13	16	17

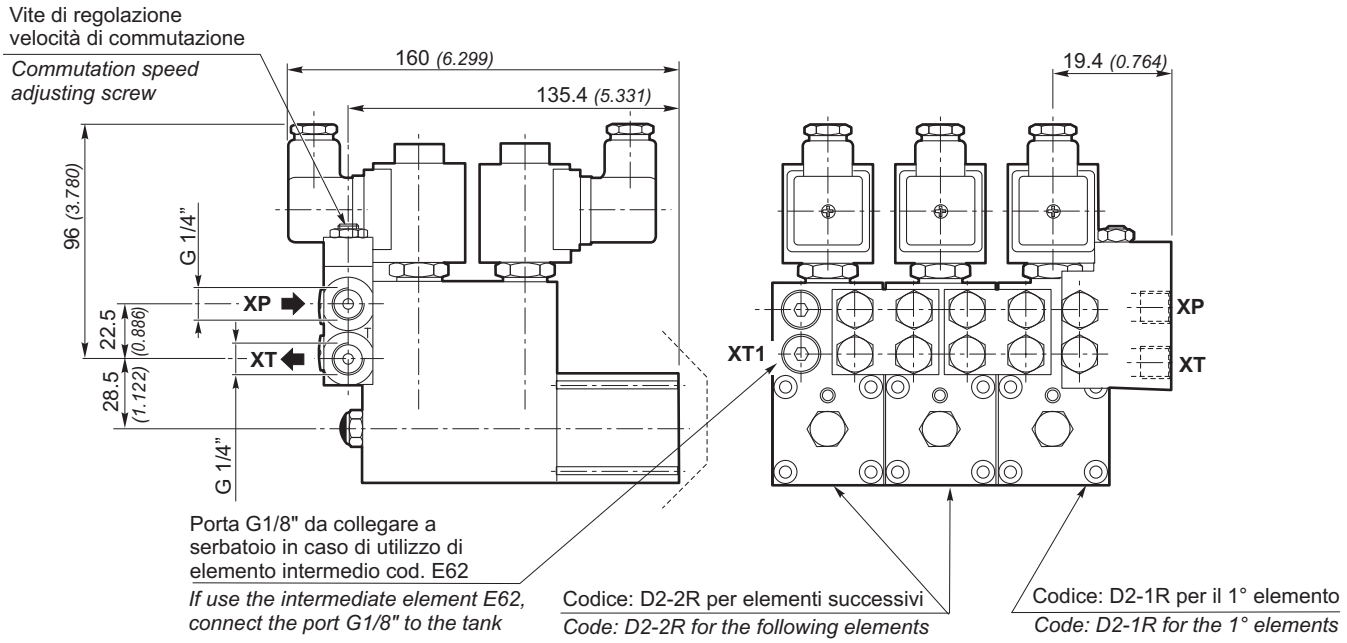
D2

Solo per **Q80** e **Q130**
*Only for **Q80** and **Q130***

Comando elettroidraulico doppio con ritorno in pos. 0
Double electro-hydraulic control spring centred in 0







Pressione di pilotaggio in XP *Pilot pressure in XP*		Contropressione max. su XT *Maximum back pressure on XT*	Portata minima per ogni elemento *Minimum flow for each section*	Volume di pilotaggio per elemento *Piloting volume for each section*
Max.	Min.	4 bar *(56 PSI)*	0.5 lt/min *(0.132 GPM)*	5.5 cm^3 *(0.336 in^3)*
35 bar *(490 PSI)*	20 bar *(280 PSI)*			

Caratteristiche tecniche elettromagnete tipo "H" / *Electromagnet characteristics type "H"*

Attacco magnete / *Magnet connection*	Tipo DIN 43650 (versione A) / *Type DIN 43650 (A version)*
Tipo di protezione / *Protection type*	IP 65
Classe d'isolamento / *Coil insulation class*	H 180 VDE 0580
Tensione di alimentazione / *Supply voltage*	D.C.: 12, 24V A.C. - 50 Hz: 110, 220 V
Variazione di tensione max. / *Maximum voltage tollerance*	± 10%
Potenza assorbita / *Absorbed power supply*	18 W
Rapporto di max. utilizzo / *Maximum utilization ratio*	100%
Temperatura max. / *Max. temperature*	100° C

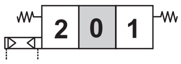
Dimensioni in / *Dimensions in:* mm *(inch)*

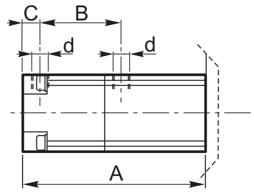
Sezione di lavoro e/o elemento intermedio / *Working section and/or intermediate section*

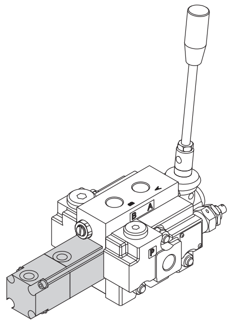
Q30	—	F7S	R250	MSE	—	E50	R250	—	2x	103	A1	**M1**	V30	R250	V01	—	F3D	—	12V	—	2E+1
1		2	3	4		5	6			7	8	**9**	10	11	12		13		16		17

P1-N

Comando pneumatico a tre posizioni con ritorno in pos. 0
Three positions pneumatic control spring centred in 0





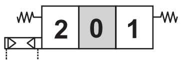


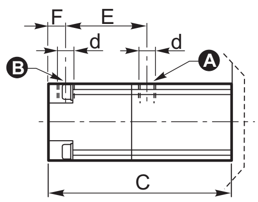
	A	B	C	d
Q30 - GSV50 (Q50)	90.5 *(3.563)*	43 *(1.693)*	10 *(0.394)*	G 1/8"
Q80 - Q130	107 *(4.213)*	48 *(1.890)*	10.5 *(0.413)*	

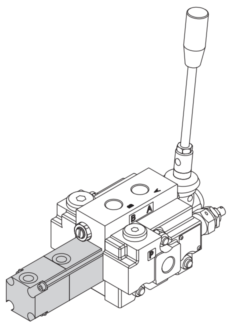
Pressione di pilotaggio / *Pilot pressure*	Min.	5 bar *(72.5 PSI)*
	Max.	30 bar *(435 PSI)*
Volume pilotaggio / *Pilot volume*	Q30 - GSV50 (Q50)	4 cm³ *(0.244 in³)*
	Q80 - Q130	9 cm³ *(0.549 in³)*

P1-NP

Comando pneumatico progressivo a tre posizioni con ritorno in posizione 0 per azionamento con manipolatore
Three positions progressive pneumatic control, spring centred in 0 for remote control



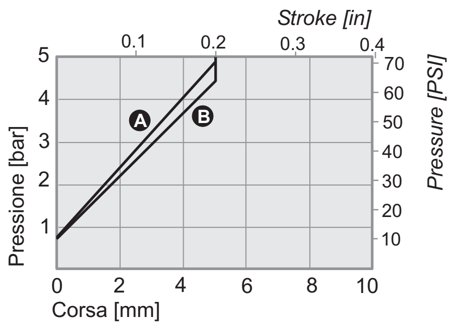




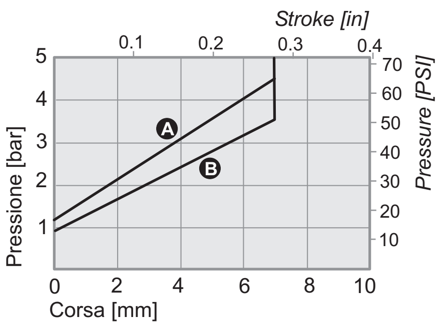
	C	E	F	d
Q30 - GSV50 (Q50)	90.5 *(3.563)*	43 *(1.693)*	10 *(0.394)*	G 1/8"
Q80 - Q130	107 *(4.213)*	48 *(1.890)*	10.5 *(0.413)*	

Diagramma pressione di pilotaggio - Corsa spool / *Pilot pressure diagram - Spool stroke*

Q30 - GSV50 (Q50)



Q80 - Q130



Pressione di pilotaggio / *Pilot pressure*	Min.	5 bar *(72.5 PSI)*
	Max.	30 bar *(435 PSI)*
Volume pilotaggio / *Pilot volume*	Q30 - GSV50 (Q50)	4 cm³ *(0.244 in³)*
	Q80 - Q130	9 cm³ *(0.549 in³)*

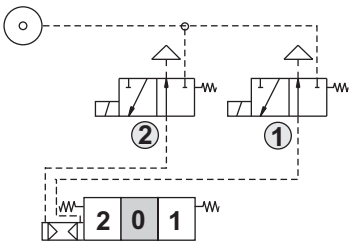
Dimensioni in / *Dimensions in:* mm *(inch)*

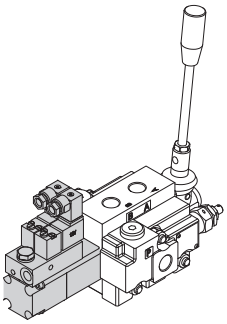
Sezione di lavoro e/o elemento intermedio — ***Working section and/or intermediate section***

Q30	F7S	R250	MSE	E50	R250	2x	103	A1	M1	V30	R250	V01	F3D	12V	2E+1
1	2	3	4	5	6		7	8	9	10	11	12	13	16	17

D3

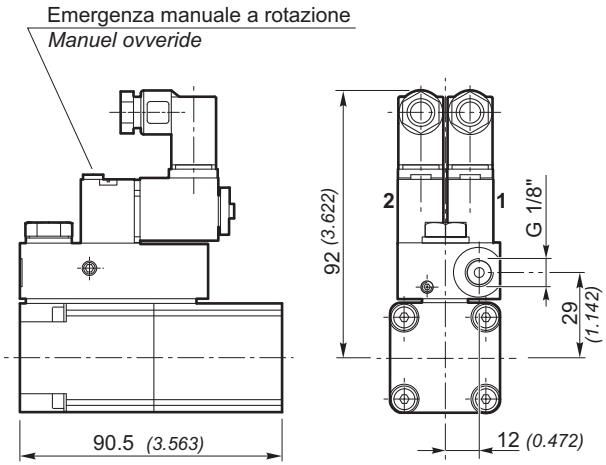
Comando elettropneumatico a tre posizioni con ritorno in pos. 0
Three positions electro-pneumatic control spring centred in 0





Q30 - GSV50 (Q50)

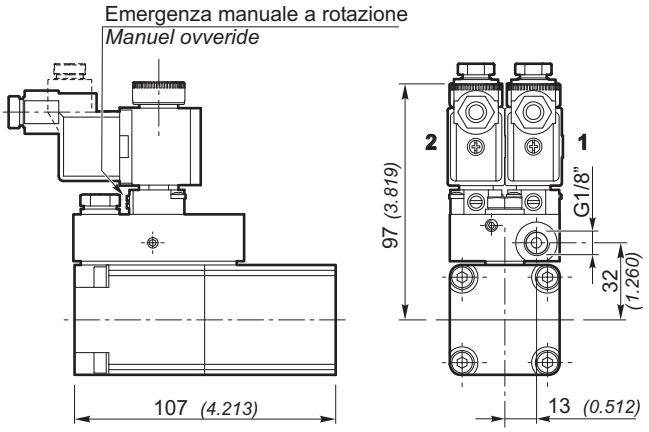
Caratteristiche di funzionamento *Operation characteristics*	
Pressione di pilotaggio *Pilot pressure*	1 ÷ 10 bar *(14.5 ÷ 145 PSI)*
Volume pilotaggio *Pilot volume*	27Nl/ a 6 bar Δpl *(27Nl/ a 87 PSI Δpl)*



Caratteristiche tecniche elettromagnete ***Electromagnet characteristics***	
Tipo attacco magnete *Magnet connection type*	DIN 175301-803-C
Tipo di protezione *Protection type*	IP 65
Classe d'isolamento *Coil insulation class*	F
Tensione di alimentazione *Supply voltage*	D.C.: 12, 24V A.C.: 50 Hz 230 V
Variazione di tensione max. *Maximum voltage tollerance*	± 10%
Potenza assorbita *Absorbed power supply*	D.C.: 2.9 W A.C. 4VA
Rapporto di max. utilizzo *Maximum utilization ratio*	100%
Temperatura max. *Max. temperature*	-10 ÷ 50 °C

Q80 - Q130

Caratteristiche di funzionamento *Operation characteristics*	
Pressione di pilotaggio *Pilot pressure*	1 ÷ 10 bar *(14.5 ÷ 145 PSI)*
Volume pilotaggio *Pilot volume*	53Nl/ a 6 bar Δpl *(53Nl/ a 87 PSI Δpl)*



Caratteristiche tecniche elettromagnete ***Electromagnet characteristics***	
Tipo attacco magnete *Magnet connection type*	DIN 43650
Tipo di protezione *Protection type*	IP 65
Classe d'isolamento *Coil insulation class*	F
Tensione di alimentazione *Supply voltage*	D.C.: 12, 24V
Variazione di tensione max. *Maximum voltage tollerance*	± 10%
Potenza assorbita *Absorbed power supply*	D.C.: 5 W
Rapporto di max. utilizzo *Maximum utilization ratio*	100%
Temperatura max. *Max. temperature*	-10 ÷ 50 °C

Dimensioni in / *Dimensions in:* mm *(inch)*

Sezione di lavoro e/o elemento intermedio

Working section and/or intermediate section

Q30	—	F7S	R250	MSE	—	E50	R250	—	2x	103	H1	V30	R250	V01	—	F3D	—	12V	—	2E+1
1		2	3	4		5	6			7	8	10	11	12		13		16		17

Comandi completi / *Complete controls*

			Q30	GSV50 (Q50)	Q80	Q130
H1*	Comando idraulico ad alta pressione ON-OFF a tre posizioni, ritorno a molla in posizione 0	*Three positions with high-pressure hydraulic control, spring centered in 0 position*	•	•	•	•
H5*	Comando idraulico a bassa pressione per manipolatore idraulico	*Low pressure hydraulic control for hydraulic pilot valves*	•	•	•	•
RTL-s*	Comando rotativo frizionato a tre posizioni: tacca in pos. 0, leva in pos. 2	*3-position clutch-operated rotary control: notch mark in pos. 0, lever in pos. 2*	•	•	•	•
RTL-d*	Comando rotativo frizionato a tre posizioni: tacca in pos. 0, leva in pos. 1	*3-position clutch-operated rotary control: detent in pos. 0, lever in pos. 1*	•	•	•	•
C2*	Comando a camme 2 posizioni estreme 1-2, ritorno a molla in pos. 1	*Cam control, 2 end positions 1-2, spring centered in 1 position*	•	•	•	•
C3*	Comando a camme 2 posizioni estreme 2-1, ritorno a molla in pos. 2	*Cam control, 2 end positions 2-1, spring centered in 2 position*	•	•	•	•
A1/D41*	Comando elettrico diretto doppio, ritorno a molla in pos. 0	*Double direct electrical control with spring centred in 0*	•	•	•	
A2/D41*	Comando elettrico diretto doppio con leva ruotata, ritorno a molla in pos. 0	*180° rotated double direct electrical control with spring centred in 0*	•	•	•	
A1/DP*	Comando elettrico diretto doppio, ritorno a molla in pos. 0	*Double direct electrical control with spring centred in 0*	•	•	•	
A2/DP*	Comando elettrico diretto doppio, ritorno a molla in pos. 0	*Double direct electrical control with spring centred in 0*	•	•	•	
D9*	Comando elettrico diretto a due magneti con ritorno a molla in pos. 0	*Double direct electrical control with spring centred in 0*	•	•	•	

* **Limitazioni / *Limitations***

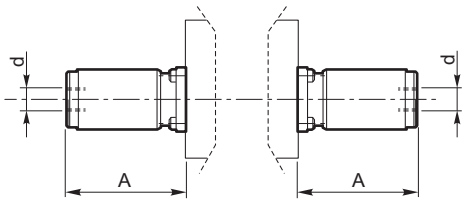
Comando completo *Complete control*	**Applicabile con: / *Applicable with:***	
	Cursore / *Spool*	**Valvole / *Valves***
H1	Tutti tranne / *All except* 116 / 126	Tutte le valvole a cartuccia e tutte le valvole a pannello *All cartridges and panel valves*
H5		
RTL-s		
RTL-d		
C2		
C3		
A1/D41	101 / 102 / 103 / 107 / 108 / 109 / 110 / 111	
A2/D41		
A1/DP		
A2/DP		
D9		

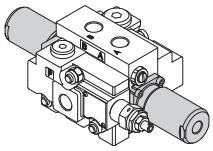
Sezione di lavoro e/o elemento intermedio — *Working section and/or intermediate section*

Q30	F7S	R250	MSE	E50	R250	2x	103	H1	V30	R250	V01	F3D	12V	2E+1
1	2	3	4	5	6		7	8	10	11	12	13	16	17

H1

Comando idraulico ad alta pressione ON-OFF a tre posizioni, ritorno a molla in posizione 0
Three positions whit high-pressure hydraulic control, spring centred in 0 position





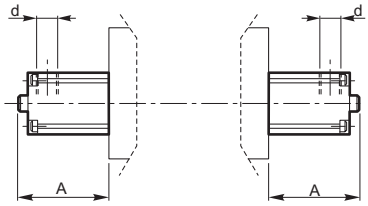
	A	d
Q30 - GSV50 (Q50)	70 *(2.756)*	G 1/4
Q80 - Q130	85 *(3.346)*	

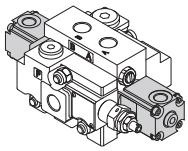
Pressione di pilotaggio / *Pilot pressure*	Min.	16 bar *(232 PSI)*
	Max.	350 bar *(5075 PSI)*
Volume pilotaggio / *Pilot volume*	Q30- GSV50 (Q50)	2 cm^3 *(0.122 in^3)*
	Q80-Q130	3 cm^3 *(0.183 in^3)*

H5

Comando idraulico a bassa pressione a tre posizioni per manipolatore idraulico, ritorno a molla in posizione 0
Three positions whit low-pressure control for hydraulic remote control, spring centred in 0 position

Montare le rondelle di tenuta sotto il raccordo.
Mount the sealing washer under the nipple.

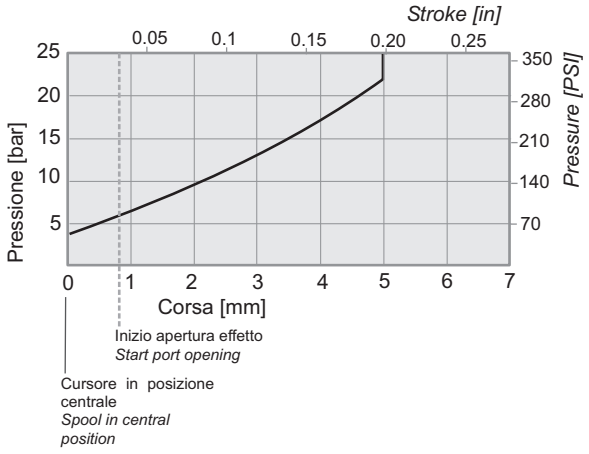




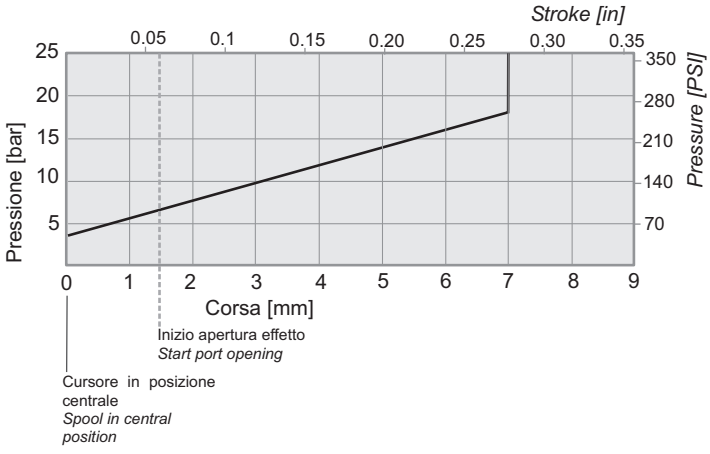
	A	d
Q30 - GSV50 (Q50)	50 *(1.969)*	G 1/4
Q80 - Q130	71.5 *(2.815)*	

Diagramma pressione di pilotaggio - Corsa spool / *Pilot pressure diagram - Spool stroke*

Q30 - GSV50 (Q50)



Q80 - Q130



Pressione di pilotaggio / *Pilot pressure*	Max.	100 bar *(1450 PSI)*
Volume pilotaggio / *Pilot volume*	Q30-GSV50-(Q50)	1 cm^3 *(0.061 in^3)*
	Q80-Q130	2 cm^3 *(0.122 in^3)*

N.B. Le curve sono ricavate con cursore 103
NOTE. Performance curves measured using spool 103 type.

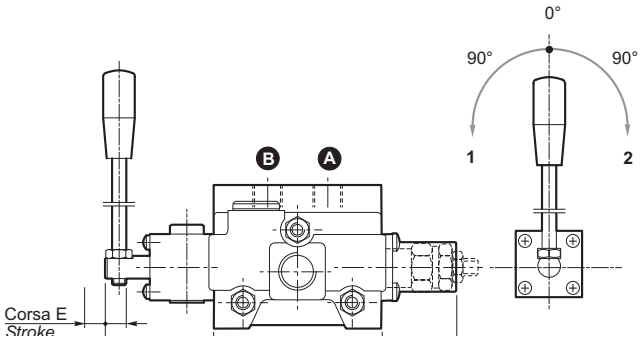
Dimensioni in / *Dimensions in:* mm *(inch)*

Sezione di lavoro e/o elemento intermedio | ***Working section and/or intermediate section***

Q30	—	F7S	R250	MSE	—	E50	R250	—	2x	103	H1	V30	R250	V01	—	F3D	—	12V	—	2E+1
1		2	3	4		5	6			7	8	10	11	12		13		16		17

RTL-s

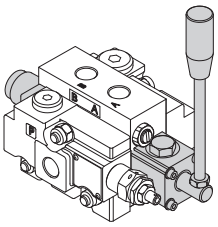
Tre posizioni con comando rotativo frizionato, tacca in pos. 0, leva in pos. 2
Three positions with rotary control, lever in 2 position

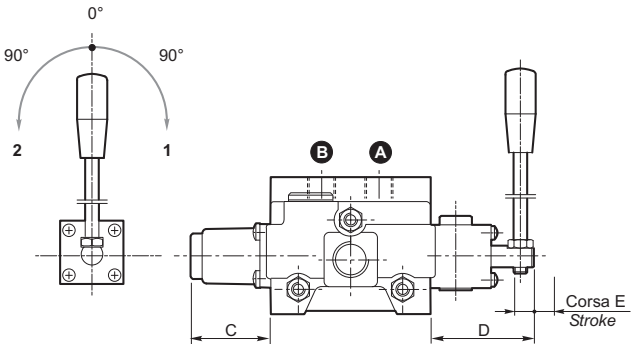


	C	D	E
Q30 - GSV50 (Q50)	42 *(1.654)*	61 *(2.402)*	10 (5+5) *0.394 (0.197+0.197)*
Q80 - Q130	55 *(2.165)*	72.5 *(2.854)*	14 (7+7) 0.551 *(0.276+ 0.276)*

RTL-d

Tre posizioni con comando rotativo frizionato, tacca in pos. 0, leva in pos. 1
Three positions with duched rotary control, lever in 1 position





	C	D	E
Q30 - GSV50 (Q50)	42 *(1.654)*	61 *(2.402)*	10 (5+5) *0.394 (0.197+0.197)*
Q80 - Q130	55 *(2.165)*	72.5 *(2.854)*	14 (7+7) 0.551 *(0.276+ 0.276)*

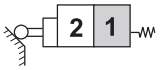
Dimensioni in / *Dimensions in:* mm *(inch)*

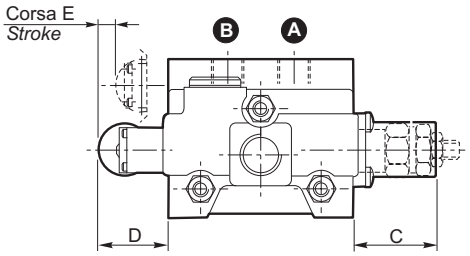
Sezione di lavoro e/o elemento intermedio | ***Working section and/or intermediate section***

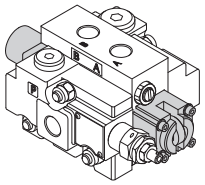
Q30	F7S	R250	MSE	E50	R250	2x	103	H1	V30	R250	V01	F3D	12V	2E+1
1	2	3	4	5	6		7	8	10	11	12	13	16	17

C2

Comando a camme 2 posizioni estreme 1-2, con ritorno a molla in pos. 1
Cam control, 2 end positions 1-2, spring centred in 1 position



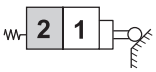


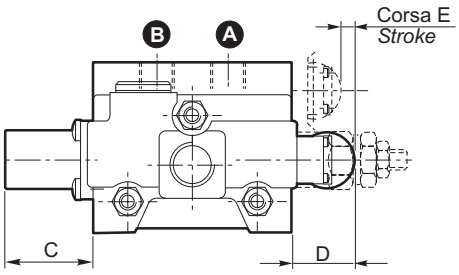


	C	D	E
Q30 - GSV50 (Q50)	42 *(1.654)*	43 *(1.693)*	10 *(0.394)*
Q80 - Q130	55 *(2.165)*	51 *(2.008)*	14 *(0.551)*

C3

Comando a camme, 2 posizioni estreme 2-1, con ritorno a molla in pos. 2
Cam control, 2 end positions 2-1, spring centred in 2 position





	C	D	E
Q30 - GSV50 (Q50)	42 *(1.654)*	43 *(1.693)*	10 *(0.394)*
Q80 - Q130	55 *(2.165)*	51 *(2.008)*	14 *(0.551)*

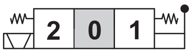
Dimensioni in / *Dimensions in:* mm *(inch)*

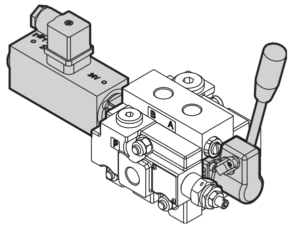
Sezione di lavoro e/o elemento intermedio	*Working section and/or intermediate section*

Q30	—	F7S	R250	MSE	—	E50	R250	—	2x	103	H1	V30	R250	V01	—	F3D	—	12V	—	2E+1
1		2	3	4		5	6			7	8	10	11	12		13		16		17

A1/D41

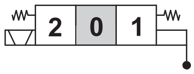
Comando elettrico diretto doppio ON/OFF con ritorno a molla in posizione 0
ON/OFF double direct electrical control with spring centred in 0

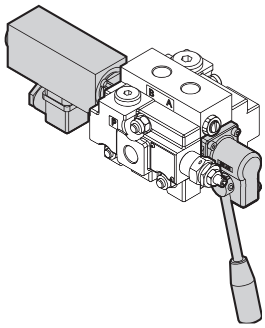


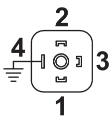


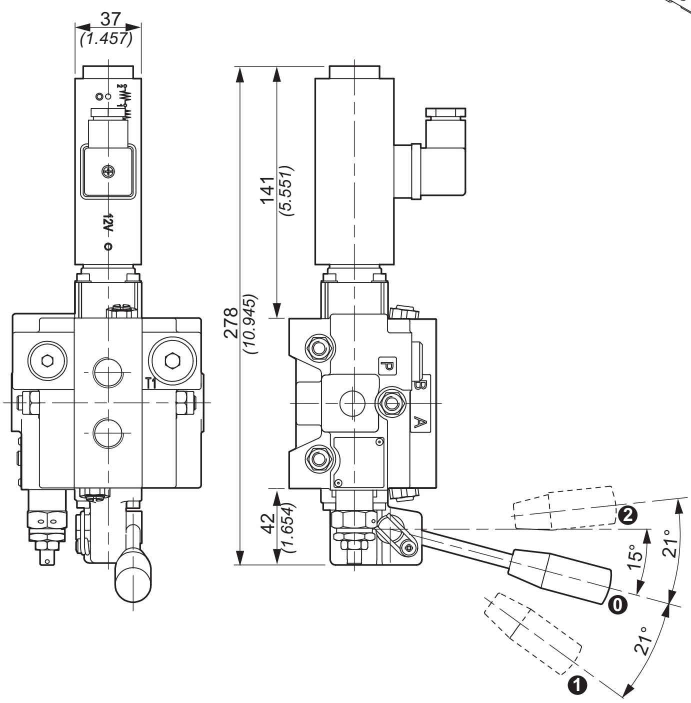
A2/D41

Comando elettrico diretto doppio ON/OFF ruotato di 180°con ritorno a molla in posizione 0
180° rotated ON/OFF double direct electrical control with spring centred in 0





Connessione *Connection*		
	1 - 2	Effetto **A** *Port* **A**
	1 - 3	Effetto **B** *Port* **B**



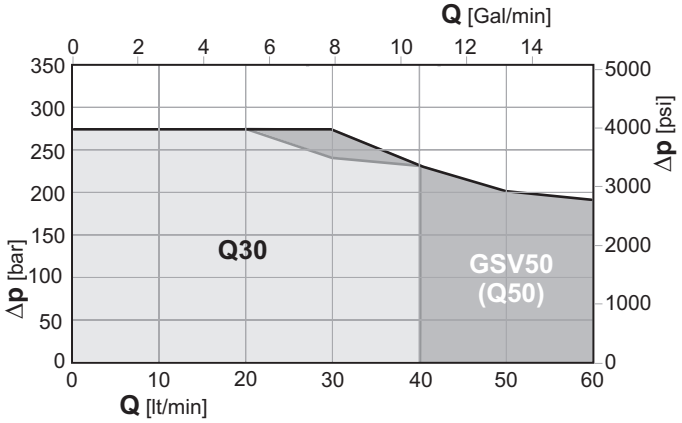
Dimensioni in / *Dimensions in:* mm *(inch)*

Caratteristiche tecniche elettromagnete / *Electromagnet technical features*		
Tipo distributore / *Valve type*	**Q30**	**GSV50 (Q50)**
Attacco magnete / *Magnet connection*	Tipo/*Type* DIN 43650 (vers. A)	
Tipo protezione / *Protection type*	IP65	
Classe d'isolamento / *Coil insulation class*	H	
Tensione di alimentazione / *Supply voltage*	12V D.C./24V D.C.	
Variazione di tensione max / *Maximum voltage tolerance*	±10%	
Potenza assorbita / *Absorbed power supply*	58W	
Rapporto di massimo utilizzo / *Maximum utilization ratio*	100%	
Caratteristiche tecniche distributore / *Directional control valve characteristics*		
Portata max (lt/min) / *Max. flow (Gal/min)*	50 *(13)*	60 *(16)*
Pressione max di lavoro / Max. working pressure	275 bar *(3988 PSI)*	
Contropressione max sullo scarico / *Max. back outlet pressure*	25 bar *(3363 PSI)*	
Manovra di emergenza o in assenza di corrente / *Emergency operation or in case of power failure*	Con leva / *With lever*	
Trafilamento max di A e B in T a 100 bar con viscosità 35 mm^2/s *Max. spool leakage of A and B ports to T port at 1450 PSI with viscosity 35 mm^2/s*	5 cm^3/min	

Sezione di lavoro e/o elemento intermedio

Working section and/or intermediate section

Limiti d'impiego / *Use limits*

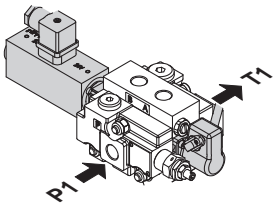


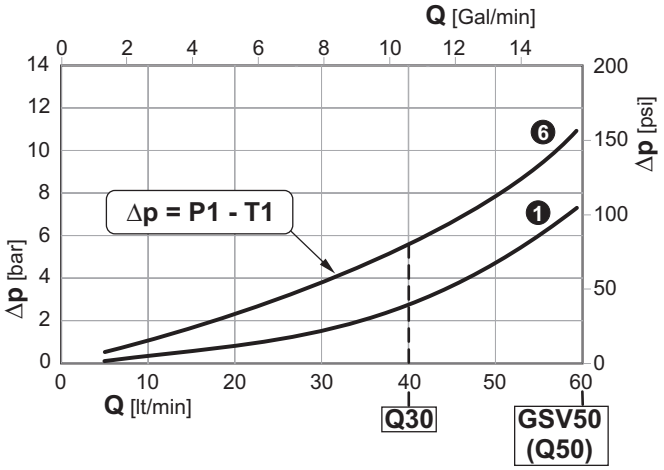
Perdite di carico con il cursore in posizione neutra

(Δp in funzione del numero di sezioni attraversate)

Pressure drop with spool in neutral position

(*Δp depending on the number of the crossed sections*)



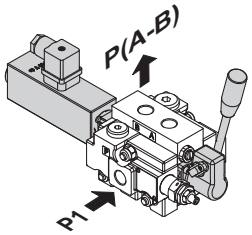


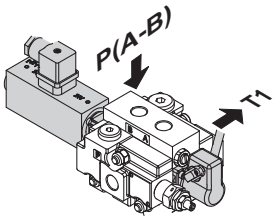
Perdite di carico con il cursore in posizione di lavoro

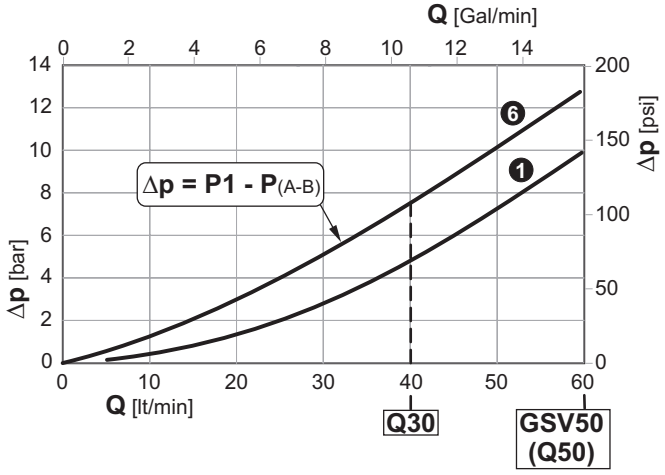
(Δp in funzione del numero di sezioni attraversate)

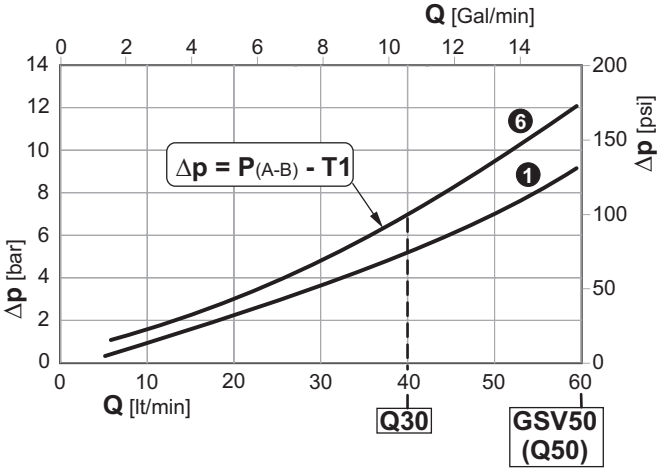
Pressure drop with spool in working position

(*Δp depending on the number of the crossed sections*)









❶ ❻ Sezioni / *Sections*

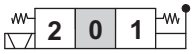
N.B. Le curve sono ricavate con cursore 103 */ NOTE. Performance curves measured using spool 103 type.*

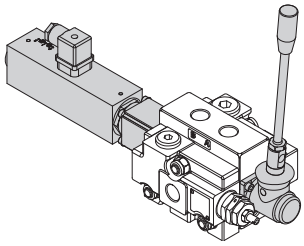
Sezione di lavoro e/o elemento intermedio — *Working section and/or intermediate section*

Q80	—	F7S	R250	MSE	—	E50	R250	—	2x	103	H1	V30	R250	V01	—	F3D	—	12V	—	2E+1
1		2	3	4		5	6			7	8	10	11	12		13		16		17

A1/D41

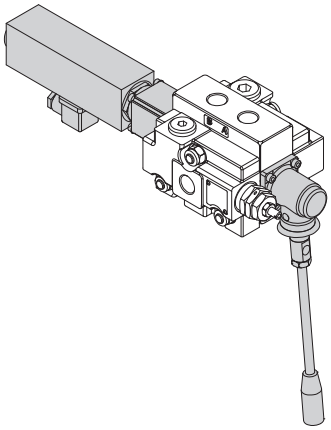
Comando elettrico diretto doppio e ritorno a molla in posizione 0
Double direct electrical control with spring centred in 0

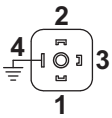


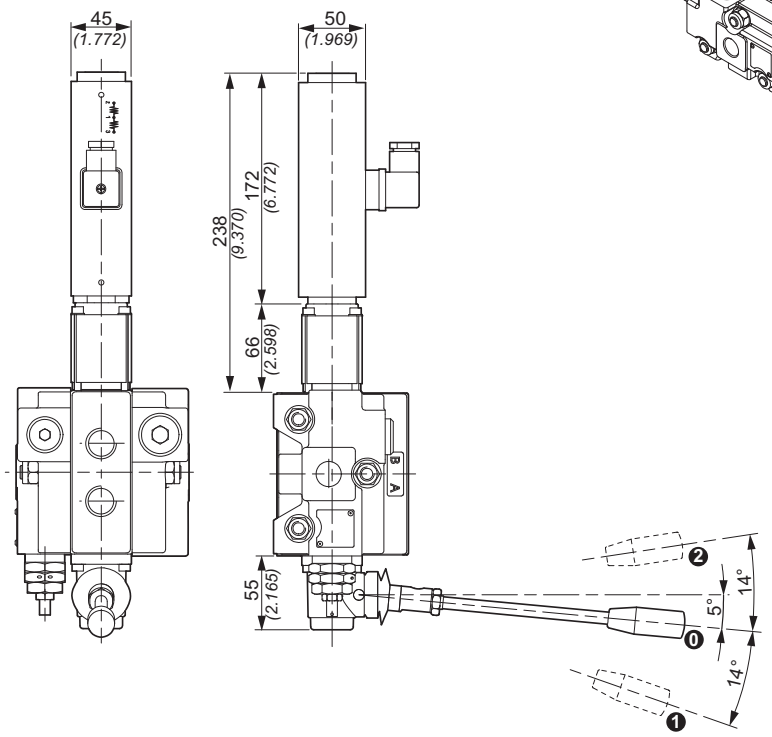


A2/D41

Comando elettrico diretto doppio ON/OFF ruotato di 180° e ritorno a molla in posizione 0
180° rotated ON/OFF double direct electrical control with spring centred in 0



Connessione *Connection*		
	1 - 2	Effetto **A** *Port* **A**
	1 - 3	Effetto **B** *Port* **B**



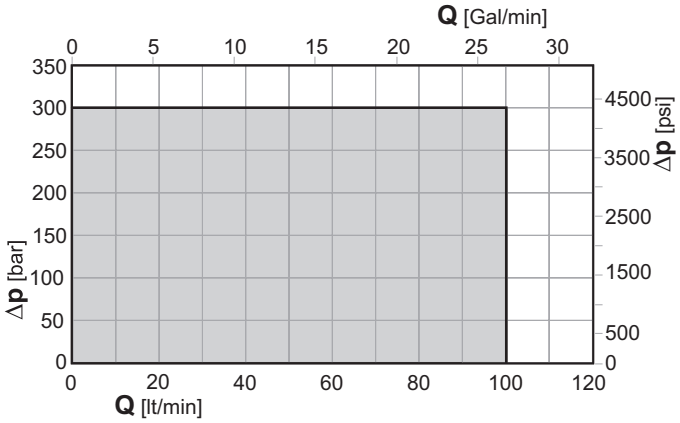
Dimensioni in / *Dimensions in:* mm *(inch)*

Caratteristiche tecniche elettromagnete / *Electromagnet technical features*	
Tipo distributore / *Valve type*	**Q80**
Attacco magnete / *Magnet connection*	Tipo/*Type* DIN 43650 (vers. A)
Tipo protezione / *Protection type*	IP65
Classe d'isolamento / *Coil insulation class*	H
Tensione di alimentazione / *Supply voltage*	12V D.C./24V D.C.
Variazione di tensione max / *Maximum voltage tolerance*	±10%
Potenza assorbita / *Absorbed power supply*	80W
Rapporto di massimo utilizzo / *Maximum utilization ratio*	100%
Caratteristiche tecniche distributore / *Directional control valve characteristics*	
Portata max (lt/min) / *Max. flow (Gal/min)*	90 *(24)*
Pressione max di lavoro / Max. working pressure	300 bar
Contropressione max sullo scarico / *Max. back outlet pressure*	25 bar
Manovra di emergenza o in assenza di corrente / *Emergency operation or in case of power failure*	Con leva / *With lever*
Trafilamento max di A e B in T a 100 bar con viscosità 35 mm^2/s *Max. spool leakage of A and B ports to T port at 1450 bar with viscosity 35 mm^2/s*	5 cm^3/min

Sezione di lavoro e/o elemento intermedio

Working section and/or intermediate section

Limiti d'impiego / *Use limits*

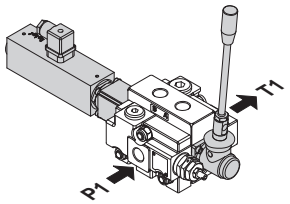


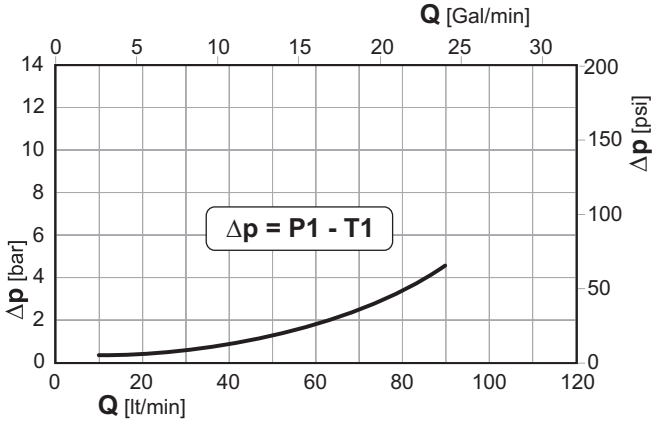
Perdite di carico con il cursore in posizione neutra

(Δp in funzione del numero di sezioni attraversate)

Pressure drop with spool in neutral position

(*Δp depending on the number of the crossed sections*)



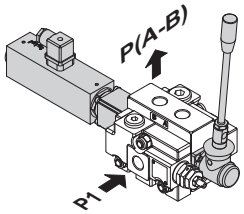


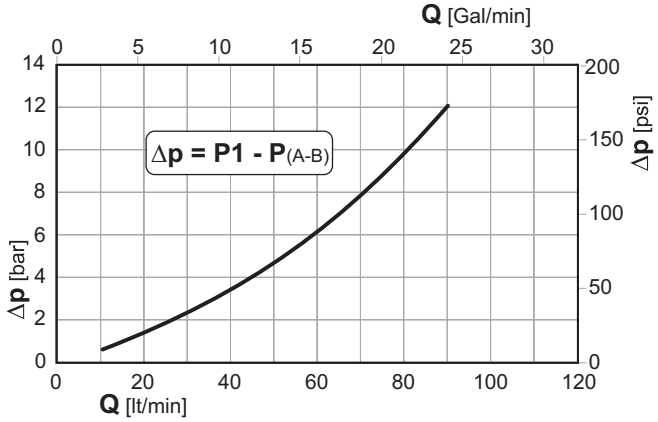
Perdite di carico con il cursore in posizione di lavoro

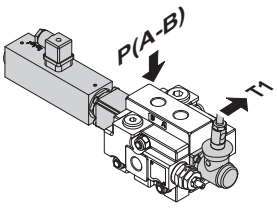
(Δp in funzione del numero di sezioni attraversate)

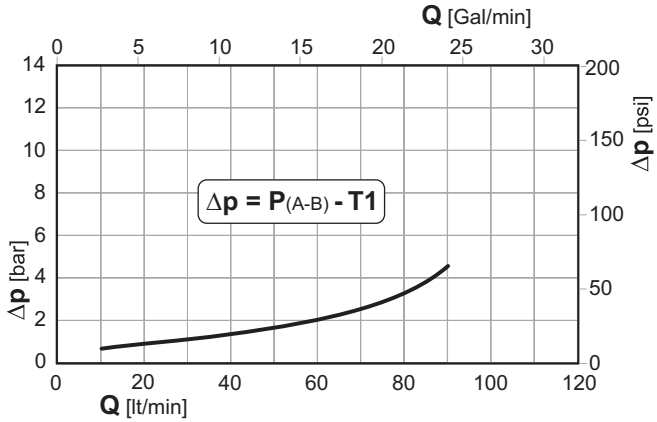
Pressure drop with spool in working position

(*Δp depending on the number of the crossed sections*)









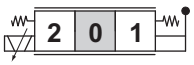
N.B. Le curve sono ricavate con cursore 103 / *NOTE. Performance curves measured using spool 103 type.*

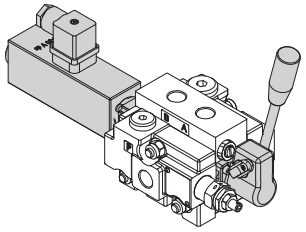
Sezione di lavoro e/o elemento intermedio — *Working section and/or intermediate section*

Q30	—	F7S	R250	MSE	—	E50	R250	—	2x	103	H1	V30	R250	V01	—	F3D	—	12V	—	2E+1
1		2	3	4		5	6			7	8	10	11	12		13		16		17

A1/DP

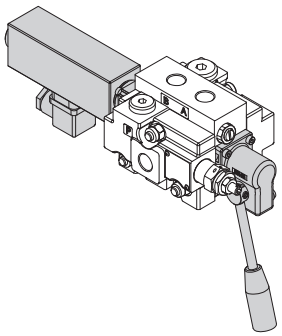
Comando elettrico diretto doppio con magnete proporzionale e ritorno a molla in posizione 0
Double direct electrical control with proportional solenoid and spring centred in 0

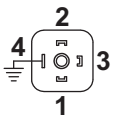


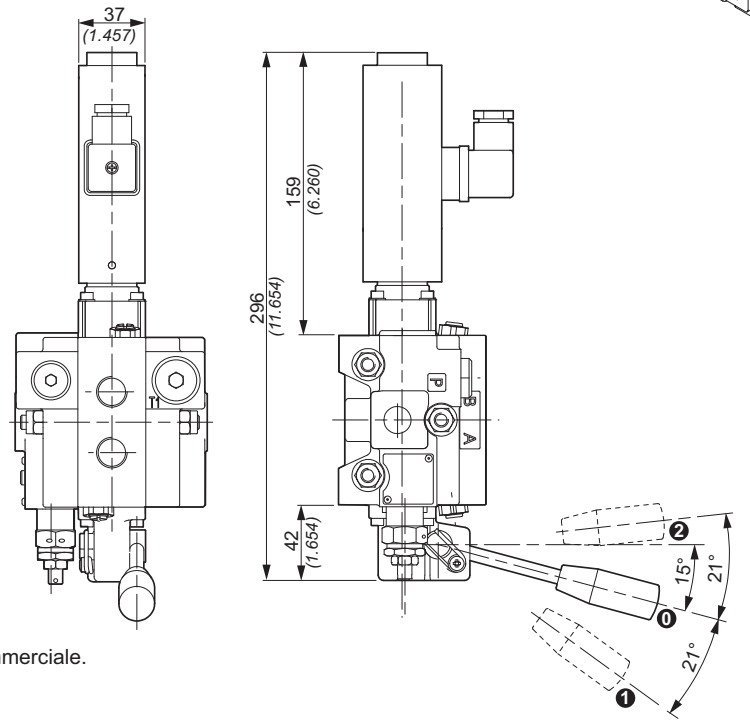


A2/DP

Comando elettrico diretto doppio con magnete proporzionale ruotato di 180° e ritorno a molla in posizione 0
180° rotated double direct electrical control with proportional solenoid and spring centred in 0



Connessione *Connection*		
	**1 - 2**	Effetto **A** *Port* **A**
	1 - 3	Effetto **B** *Port* **B**



Per l'elettronica di comando contattare l'ufficio commerciale.
For electronic control unit contact the sales office.

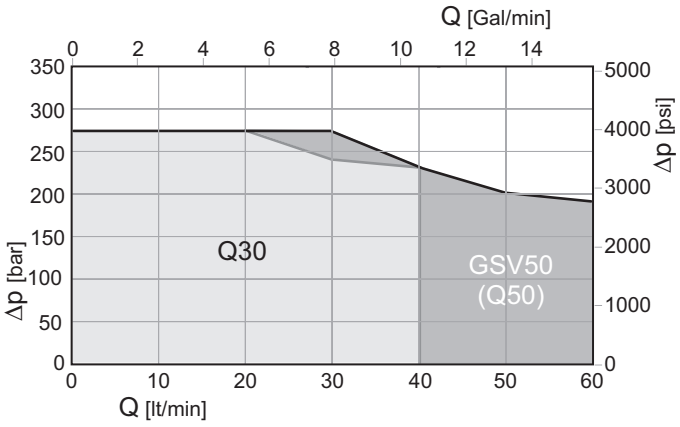
Dimensioni in / *Dimensions in:* mm *(inch)*

Caratteristiche tecniche elettromagnete / *Electromagnet technical features*		
Tipo distributore / *Valve type*	**Q30**	**GSV50 (Q50)**
Attacco magnete / *Magnet connection*	Tipo/*Type* DIN 43650 (vers. A)	
Tipo protezione / *Protection type*	IP65	
Classe d'isolamento / *Coil insulation class*	H	
Tensione di alimentazione / *Supply voltage*	12 VDC	*24 VDC*
Corrente di regolazione massima / *Current maximum range*	5 A	2.5 A
PWM frequency	100 Hz	
Caratteristiche tecniche distributore / *Directional control valve characteristics*		
Portata max (lt/min) / *Max. flow (Gal/min)*	50 *(13)*	60 *(16)*
Pressione max di lavoro / Max. working pressure	250 bar	
Contropressione max sullo scarico / *Max. back outlet pressure*	25 bar	
Manovra di emergenza o in assenza di corrente / *Emergency operation or in case of power failure*	Con leva / *With lever*	
Trafilamento max di A e B in T a 100 bar con viscosità 35 mm^2/s *Max. spool leakage of A and B ports to T port at 1450 bar with viscosity 35 mm^2/s*	5 cm^3/min	

Sezione di lavoro e/o elemento intermedio

Working section and/or intermediate section

Limiti d'impiego / *Use limits*

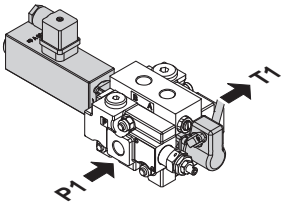


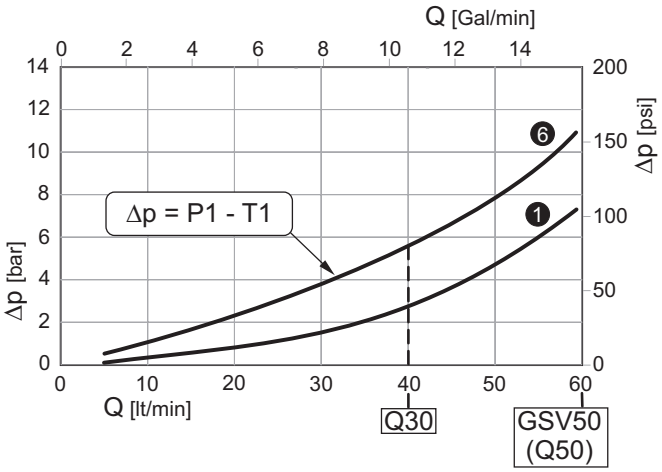
Perdite di carico con il cursore in posizione neutra

(Δp in funzione del numero di sezioni attraversate)

Pressure drop with spool in neutral position

(*Δp depending on the number of the crossed sections*)

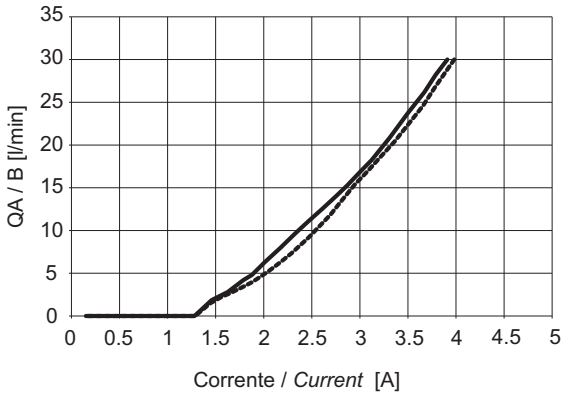




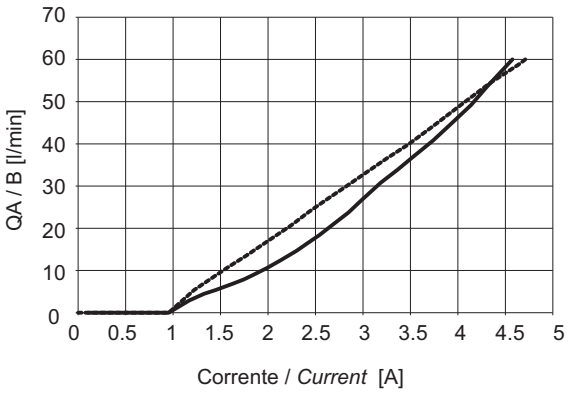
N.B. Le curve sono ricavate con cursore 103 / *NOTE. Performance curves measured using spool 103 type.*

❶ ❻ Sezioni / *Sections*

Curve di metering corrente bassa portata Qin 30 l/min
Metering curve current low delivery Qin 30 l/min



Curve di metering corrente alta portata Qin 60 l/min
Metering curve current high delivery Qin 60 l/min



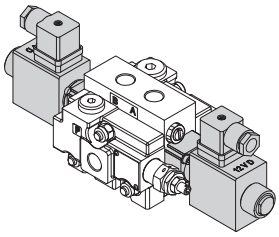
Cursore 111 / Spool 111 type
Cursore 103 / Spool 103 type

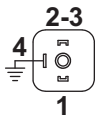
Sezione di lavoro e/o elemento intermedio | ***Working section and/or intermediate section***

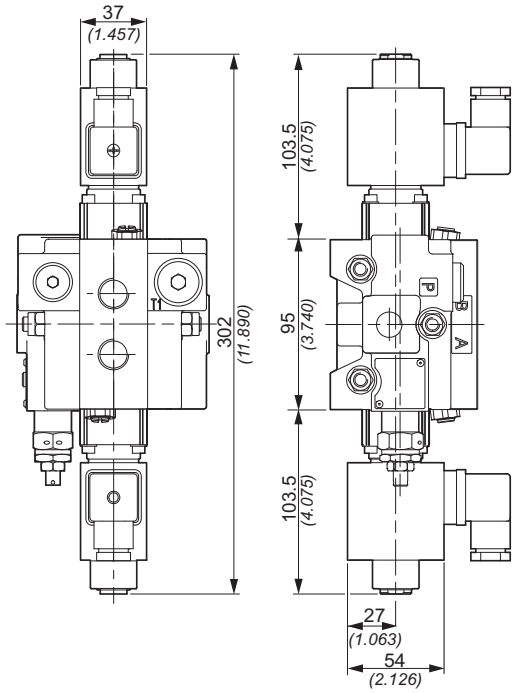
Q30	—	F7S	R250	MSE	—	E50	R250	—	2x	103	H1	V30	R250	V01	—	F3D	—	12V	—	2E+1
1		2	3	4		5	6			7	8	10	11	12		13		16		17

D9

Comando elettrico diretto doppio ON/OFF con ritorno a molla in posizione 0
ON/OFF double direct electrical control with spring centred in 0



Connessione *Connection*		
	**1 - 2**	Effetto **A** *Port* **A**
	1 - 3	Effetto **B** *Port* **B**



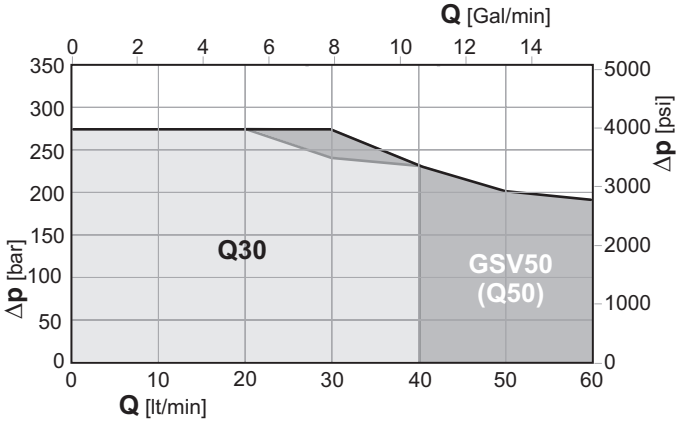
Dimensioni in / *Dimensions in:* mm *(inch)*

Caratteristiche tecniche elettromagnete / *Electromagnet technical features*		
Tipo distributore / *Valve type*	**Q30**	**GSV50 (Q50)**
Attacco magnete / *Magnet connection*	Tipo/*Type* DIN 43650 (vers. A)	
Tipo protezione / *Protection type*	IP65	
Classe d'isolamento / *Coil insulation class*	H	
Tensione di alimentazione / *Supply voltage*	12V D.C./24V D.C.	
Variazione di tensione max / *Maximum voltage tolerance*	±10%	
Potenza assorbita / *Absorbed power supply*	58W	
Rapporto di massimo utilizzo / *Maximum utilization ratio*	100%	
Caratteristiche tecniche distributore / *Directional control valve characteristics*		
Portata max / *Max. flow*	50	60
Pressione max di lavoro / Max. working pressure	275 bar	
Contropressione max sullo scarico / *Max. back outlet pressure*	25 bar	
Manovra di emergenza o in assenza di corrente / *Emergency operation or in case of power failure*	A pulsante in spinta / *Push type*	
Trafilamento max di A e B in T a 100 bar con viscosità 35 mm^2/s / *Max. spool leakage of A and B ports to T port at 100 bar with viscosity 35 mm^2/s*	5 cm^3/min	

Sezione di lavoro e/o elemento intermedio

Working section and/or intermediate section

Limiti d'impiego / *Use limits*

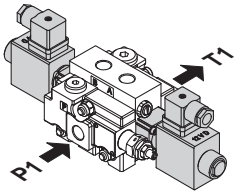


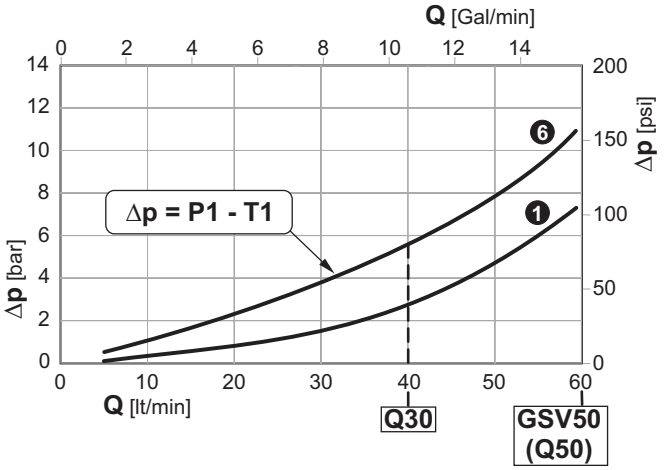
Perdite di carico con il cursore in posizione neutra

(Δp in funzione del numero di sezioni attraversate)

Pressure drop with spool in neutral position

(*Δp depending on the number of the crossed sections*)



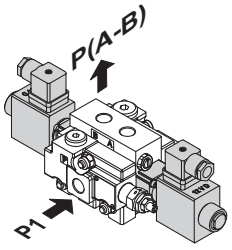


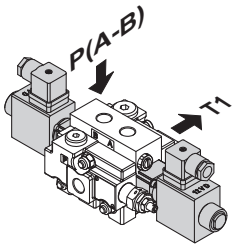
Perdite di carico con il cursore in posizione di lavoro

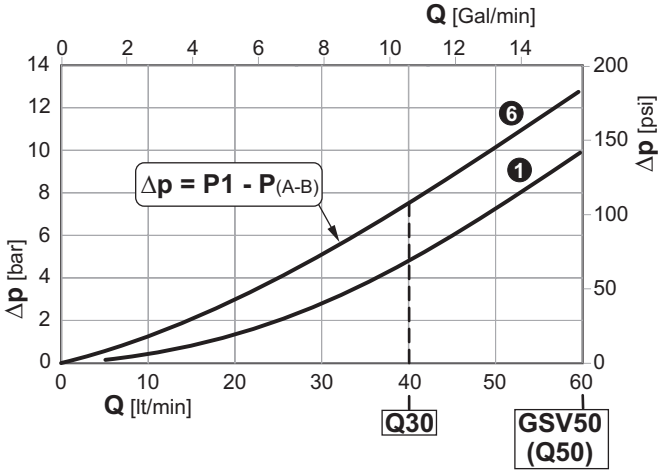
(Δp in funzione del numero di sezioni attraversate)

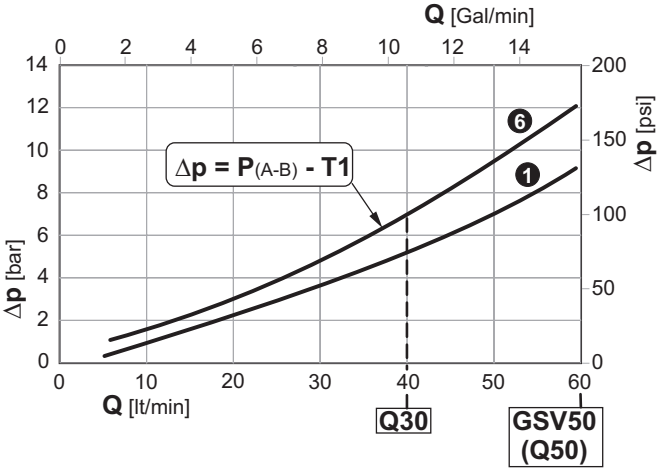
Pressure drop with spool in working position

(*Δp depending on the number of the crossed sections*)









❶ ❻ Sezioni / *Sections*

N.B. Le curve sono ricavate con cursore 103 */ NOTE. Performance curves measured using spool 103 type.*

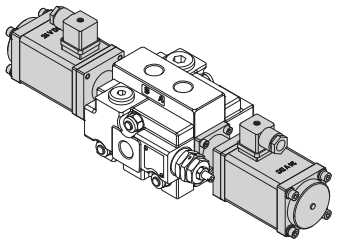
Sezione di lavoro e/o elemento intermedio

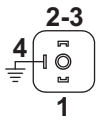
Working section and/or intermediate section

Q80	—	F7S	R250	MSE	—	E50	R250	—	2x	103	A1	M1	V30	R250	V01	—	F3D	—	12V	—	2E+1
1		2	3	4		5	6			7	8	9	10	11	12		13		16		17

D9

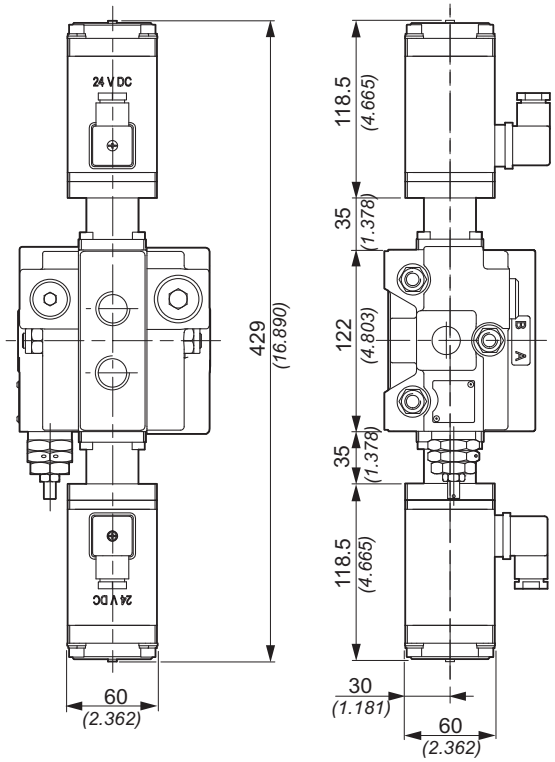
Comando elettrico diretto doppio ON/OFF
con ritorno a molla in posizione 0
ON/OFF double direct electrical control
with spring centred in 0



Connessione *Connection*		
	**1 - 2**	Effetto **A** *Port* **A**
	1 - 3	Effetto **B** *Port* **B**

Nota:
Per 2 o più sezioni di lavoro, aggiungere elemento intermedio cod E61 (spessore) tra due sezioni contigue.

Note:
For 2 or more sections, should add the intermediate element code E61 (thikness 46) between the 2 sections.



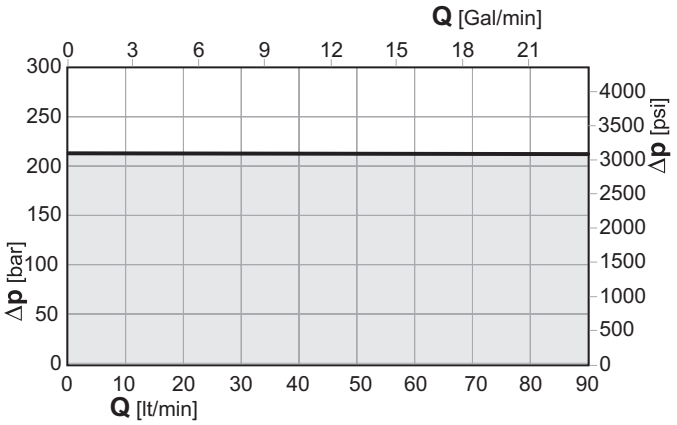
Dimensioni in / *Dimensions in:* mm *(inch)*

Caratteristiche tecniche elettromagnete / *Electromagnet technical features*		
Tipo distributore / *Valve type*	**Q80**	
Attacco magnete / *Magnet connection*	Tipo/*Type* DIN 43650 (vers. A)	
Tipo protezione / *Protection type*	IP65	
Classe d'isolamento / *Coil insulation class*	H	
Tensione di alimentazione / *Supply voltage*	12V D.C./24V D.C.	
Variazione di tensione max / *Maximum voltage tolerance*	±10%	
Potenza assorbita / *Absorbed power supply*	80W	
Rapporto di massimo utilizzo / *Maximum utilization ratio*	100%	
Caratteristiche tecniche distributore / *Directional control valve characteristics*		
Portata max / *Max. flow*	90	120
Pressione max di lavoro / Max. working pressure	210 bar	
Contropressione max sullo scarico / *Max. back outlet pressure*	25 bar	
Manovra di emergenza o in assenza di corrente / *Emergency operation or in case of power failure*	A pulsante in spinta / *Push type*	
Trafilamento max di A e B in T a 100 bar con viscosità 35 mm^2/s / *Max. spool leakage of A and B ports to T port at 100 bar with viscosity 35 mm^2/s*	7 cm^3/min	

Sezione di lavoro e/o elemento intermedio

Working section and/or intermediate section

Limiti d'impiego / *Use limits*

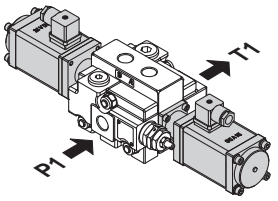


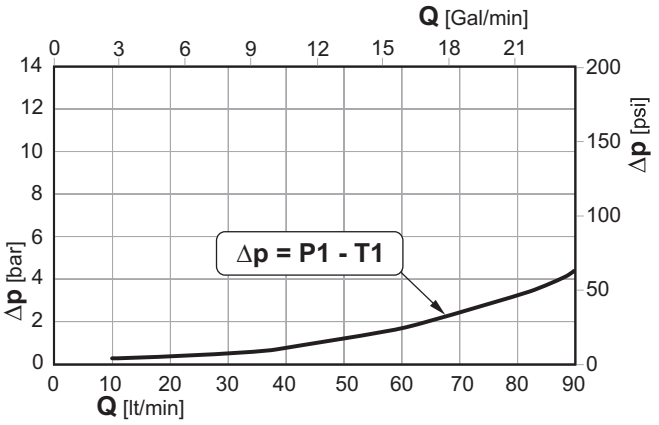
Perdite di carico con il cursore in posizione neutra

(Δp in funzione del numero di sezioni attraversate)

Pressure drop with spool in neutral position

(*Δp depending on the number of the crossed sections*)



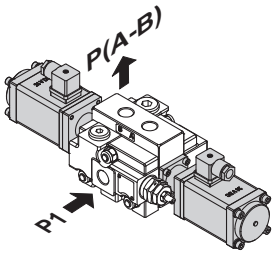


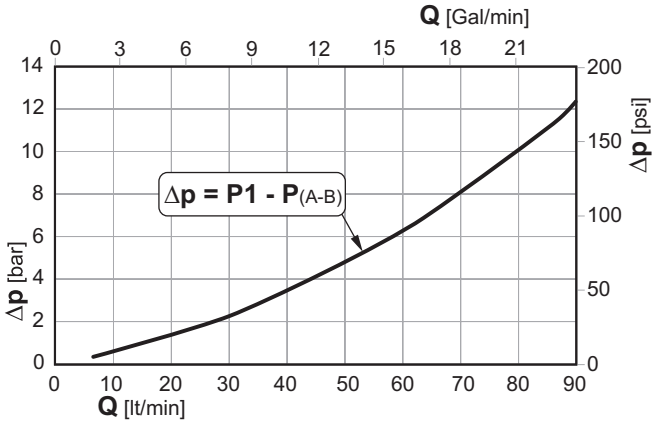
Perdite di carico con il cursore in posizione di lavoro

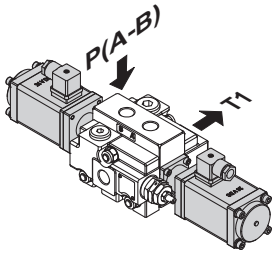
(Δp in funzione del numero di sezioni attraversate)

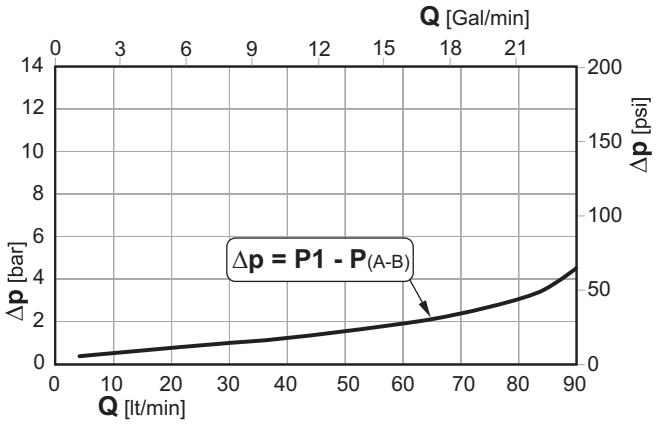
Pressure drop with spool in working position

(*Δp depending on the number of the crossed sections*)









N.B. Le curve sono ricavate con cursore 103 */ NOTE. Performance curves measured using spool 103 type.*

Sezione di lavoro e/o elemento intermedio | ***Working section and/or intermediate section***

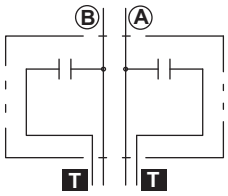
Q30	F7S	R250	MSE	E50	R250	2x	103	A1	M1	V30	R250	V01	F3D	12V	2E+1
1	2	3	4	5	6		7	8	9	10	11	12	13	16	17

10 - Tipo valvole a cartuccia / *Type of built-in cartridge valves*

			Q30	GSV50 (Q50)	Q80	Q130
VC	Tappo di chiusura per corpo distributore predisposto per valvole antiurto e/o anticavitazione	*Closing plug for directional control valve body preset for shock and/or anticavitation valves*	•	•	•	•
V30	Valvola limitatrice di pressione (o antiurto), registrabile, su effetto A (per le tarature vedere par. 11)	*Pressure limiting valve (or antishock), adjustable, on A port (for the setting see par. 11)*	•	•	•	•
V31	Valvola limitatrice di pressione (o antiurto), registrabile, su effetto B (per le tarature vedere par. 11)	*Pressure limiting valve (or antishock), adjustable, on B port (for the setting see par. 11)*	•	•	•	•
V32	Valvola limitatrice di pressione (o antiurto), registrabile, su effetto A e B (per le tarature vedere par. 11)	*Pressure limiting valve (or antishock), adjustable, on A and B port (for the setting see par. 11)*	•	•	•	•
V33	Valvola limitatrice di pressione (o antiurto), registrabile, con anticavitazione, su effetto A (per le tarature vedere par. 11)	*Pressure limiting valve (or antishock), adjustable, with anticavitation, on A port (for the setting see par. 11)*	•	•	•	•
V34	Valvola limitatrice di pressione (o antiurto), registrabile, con anticavitazione, su effetto B (per le tarature vedere par. 11)	*Pressure limiting valve (or antishock), adjustable, with anticavitation, on B port (for the setting see par. 11)*	•	•	•	•
V35	Valvola limitatrice di pressione (o antiurto), registrabile, con anticavitazione, su effetto A e B (per le tarature vedere par. 11)	*Pressure limiting valve (or antishock), adjustable, with anticavitation, on A and B port (for the setting see par. 11)*	•	•	•	•
V40	Valvola limitatrice di pressione (o antiurto), registrabile su effetto A e antiocavitazione su effetto B (per le tarature vedere par. 11)	*Pressure limiting valve (or antishock), adjustable on A port and anticavitation on B port (for thr setting see par. 11)*	•	•	•	•
V41	Valvola anticavitazione su effetto A e valvola limitatrice di pressione (o antiurto), registrabile su effetto B (per le tarature vedere par. 11)	*Anticavitation valve on A port and pressure limiting valve (or antishock), adjustable on B port (for the setting see the par. 11)*	•	•	•	•
V04	Valvola anticavitazione su effetto A	*Anticavitation valve on A port*	•	•	•	•
V05	Valvola anticavitazione su effetto B	*Anticavitation valve on B port*	•	•	•	•
V06	Valvola anticavitazione doppia su effetti A e B	*Anticavitation valve, double-acting on A and B ports*	•	•	•	•

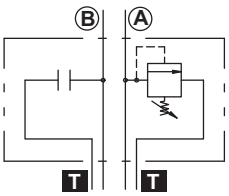
VC

Tappo di chiusura per corpo distributore predisposto per valvole antiurto e/o anticavitazione.
Closing plug for directional control valve body preset for shock and/or anticavitation valves.



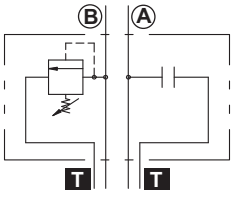
V30

Valvola limitatrice di pressione (o antiurto), registrabile, su effetto A (per le tarature vedere pagina seguente.
Pressure limiting valve (or antishock), adjustable, on A port (for the setting see next page).



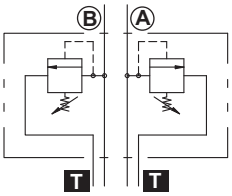
V31

Valvola limitatrice di pressione (o antiurto), registrabile, su effetto B (per le tarature vedere pagina seguente.
Pressure limiting valve (or antishock), adjustable, on B port (for the setting see next page).



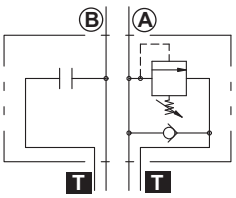
V32

Valvola limitatrice di pressione (o antiurto), registrabile, su effetto A e B (per le tarature vedere pagina seguente.
Pressure limiting valve (or antishock), adjustable, on A and B port (for the setting see next page).



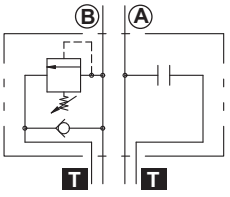
V33

Valvola limitatrice di pressione (o antiurto), registrabile, con anticavitazione, su effetto A (per le tarature vedere pagina seguente.
Pressure limiting valve (or antishock), adjustable, with anticavitation, on A port (for the setting see next page).



V34

Valvola limitatrice di pressione (o antiurto), registrabile, con anticavitazione, su effetto B (per le tarature vedere pagina seguente.
Pressure limiting valve (or antishock), adjustable, with anticavitation, on B port (for the setting see next page).

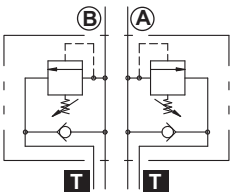


Sezione di lavoro e/o elemento intermedio

Working section and/or intermediate section

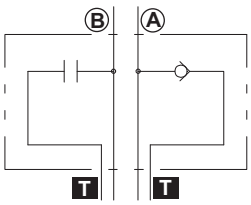
V35

Valvola limitatrice di pressione (o antiurto), registrabile, con anticavitazione, su effetto A e B (per le tarature vedere *par. 11*.
Pressure limiting valve (or antishock), adjustable, with anticavitation, on A and B port (for the setting see par. 11).



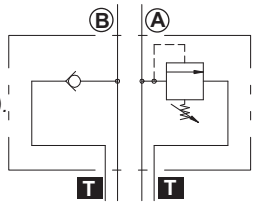
V04

Valvola anticavitazione su effetto A.
Anticavitation valve on A port.



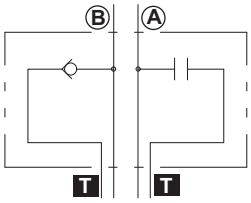
V40

Valvola limitatrice di pressione (o antiurto), registrabile su effetto A e antiocavitazione su effetto B (per le tarature vedere par. 11).
Pressure limiting valve (or antishock), adjustable on A port and anticavitation on B port (for the setting see par. 11).



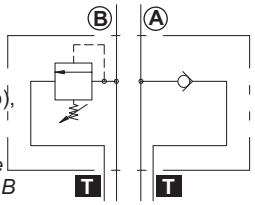
V05

Valvola anticavitazione su effetto B.
Anticavitation valve on B port.



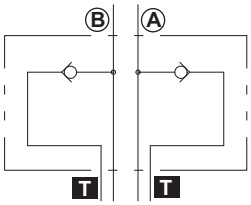
V41

Valvola anticavitazione su effetto A e valvola limitatrice di pressione (o antiurto), registrabile su effetto B (per le tarature vedere *par. 11*).
Anticavitation valve on A port and pressure limiting valve (or antishock), adjustable on B port (for the setting see par. 11).



V06

Valvola anticavitazione doppia su effetti A e B.
Anticavitation valve, double-acting on A and B ports.



11 - Tipo molla e taratura valvola

Dove è presente la valvola VLP (V30 - V31 - V32 - V33 - V34 - V35 - V40 - V41), deve essere specificato il tipo di molla (**B, N, G o R**) e la sua pressione di taratura; **se quest'ultima viene omessa, verrà messa la molla N tarata a 120 bar**.

11 - *Type of spring and valve setting*

*If valve VLP is installed (*V30 - V31 - V32 - V33 - V34 - V35 - V40 - V41*), specify the type of spring (**B, N, G or R**) and its pressure setting. If omitted, **spring N with a 120 bar setting will be installed**.*

			molla bianca *white spring*	molla nera *black spring*	molla gialla *yellow spring*	molla rossa *red spring*
R	Tipo di molla per la VLP *Type of spring for relief valve*		**B**	**N**	**G**	**R**
			Campi di taratura / *Calibration fields* *bar (psi)*			
250	Taratura della VLP *VLP Setting*	**Q30 - GSV50 (Q50)**	30 ÷ 80 *(435 ÷ 1160)*	81 ÷ 200 *(1175 ÷ 2900)*	201 ÷ 300 *(2915 ÷ 4350)*	301 ÷ 400 *(4365 ÷ 5800)*
		Q80	30 ÷ 80 *(435 ÷ 1160)*	81 ÷ 200 *(1175 ÷ 2900)*	—	201 ÷ 370 *(2915 ÷ 5365)*
		Q130	30 ÷ 80 *(435 ÷ 1160)*	81 ÷ 200 *(1175 ÷ 2900)*	—	201 ÷ 350 *(2915 ÷ 5075)*
			Il range completo si ottiene mediante l'aggiunta di spessori *The complete range can be obtained with additional thickness*			

Q30	—	F7S	R250	MSE	—	E50	R250	—	2x	103	A1	M1	V30	R250	V01	—	F3D	—	12V	—	2E+1
1		2	3	4		5	6			7	8	9	10	**11**	12		13		16		17

Sezione di lavoro e/o elemento intermedio	*Working section and/or intermediate section*

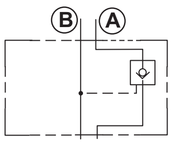
Q30	—	F7S	R250	MSE	—	E50	R250	—	2x	103	A1	M1	V30	R250	V01	—	F3D	—	12V	—	2E+1
1		2	3	4		5	6			7	8	9	10	11	**12**		13		16		17

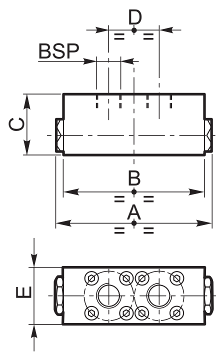
12 - Tipo valvole a pannello / *Panel valves type*

			Q30	GSV50 (Q50)	Q80	Q130
V01	Valvola di ritegno pilotata singola su effetto A (*)	*Single piloted check valve on A port (*)*	•		•	•
V02	Valvola di ritegno pilotata singola su effetto B (*)	*Single piloted check valve on B port (*)*	•		•	•
V03	Valvola di ritegno pilotata singola su effetti A e B (*)	*Single piloted check valve on A and B ports (*)*	•		•	•
VP	Corpo distributore predisposto per valvola a pannello	*Control valve body preset for panel-mounted valve*	•		•	•
VPC	Corpo distributore predisposto per valvola antiurto o anticavitazione e per valvola a pannello	*Control valve body preset for antishock valve or anticavitation and for panel-mounted valve*	•		•	•
VPFE	Corpo distributore predisposto per valvola di flottante elettrico a pannello	*Control valve body preset for electric floating valve, panel mounted*	•			
VFE	Valvola per flottante elettrico. Da utilizzare su cursori con utilizzi A e/o B chiusi in pos. 0 per creare elettricamente la posizione di flottante. Specificare al tensione: **12 V.DC. - 24 V.DC.**	*Valve for electric floating. To use on spool with A and/or B ports closed in 0 position and for generating electrically the floating position. Specify the voltage:* ***12 V.DC. - 24 V.DC.***	•			

V01

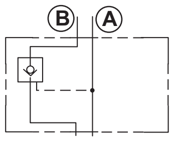
Valvola di ritegno pilotata singola su effetto A (*).
Single piloted check valve on A port (*).





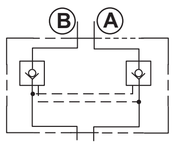
V02

Valvola di ritegno pilotata singola su effetto B (*).
Single piloted check valve on B port (*).



V03

Valvola di ritegno pilotata singola su effetti A e B (*).
Single piloted check valve on A and B ports (*).



	A	B	C	D	E	BSP
Q30	105 *(4.134)*	95 *(3.740)*	41 *(1.614)*	34 *(1.339)*	37.5 *(1.476)*	3/8"
Q80	130 *(5.118)*	122 *(4.803)*	50 *(1.969)*	43 *(1.693)*	45 *(1.772)*	1/2"
Q130	173 *(6.811)*	165 *(6.496)*	65 *(2.559)*	76 *(2.992)*	47 *(1.850)*	3/4"

	* Rapporto di pilotaggio *Piloting ratio*	Coppia di serraggio delle viti di fissaggio *Fastening screw tightening*
Q30	1 : 2.42	8 Nm 2 Nm - solo per viti VFE / *only for VFE screws*
Q80	1 : 3.25	10 Nm
Q130	1 : 2.80	10 Nm

Dimensioni in / *Dimensions in:* mm *(inch)*

Sezione di lavoro e/o elemento intermedio

Working section and/or intermediate section

VP

Corpo distributore predisposto per valvola a pannello.
Control valve body preset for panel-mounted valve.

VPC

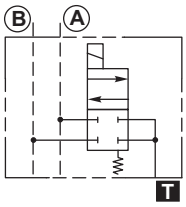
Corpo distributore predisposto per valvola antiurto
o anticavitazione e per valvola a pannello.
Control valve body preset for antishock valve or anticavitation and for panel-mounted valve.

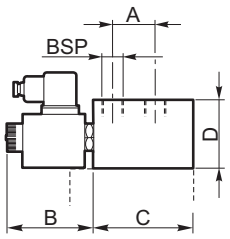
VPFE

Corpo distributore predisposto per valvola di flottante elettrico a pannello.
Control valve body preset for electric floating valve, panel mounted.

VFE

Valvola per flottante elettrico.
Da utilizzare su cursori con utilizzi A e/o B chiusi in pos. 0 per creare elettricamente la posizione di flottante.
Specificare al tensione: **12 V.DC. - 24 V.DC.**
Valve for electric floating.
To use on spool with A and/or B ports closed in 0 position and for generating electrically the floating position.
Specify the voltage: ***12 V.DC. - 24 V.DC.***





	A	B	C	D	BSP
Q30	34 *(1.339)*	69 *(2.717)*	80 *(3.150)*	80 *(3.150)*	3/8"

Dimensioni in / *Dimensions in:* mm *(inch)*

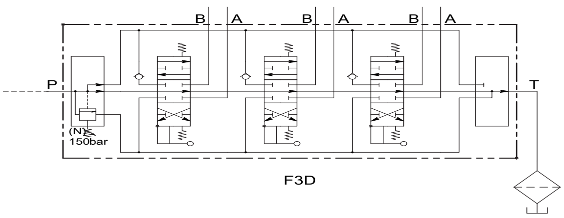
Fiancata di scarico												*Outlet section*		
Q30	F7S	R250	MSE	E50	R250	2x 103	A1	M1	V30	R250	V01	**F3D**	12V	2E+1
1	2	3	4	5	6	7	8	9	10	11	12	**13**	16	17

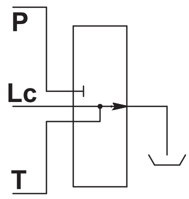
13 - Tipo fiancata di scarico / *Outlet section type*

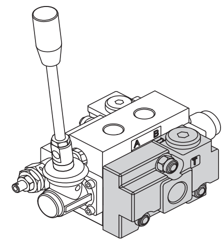
			Q30	GSV50 (Q50)	Q80	Q130
F3D	Fiancata di scarico	*Outlet section*	•	•	•	•
F6D	Fiancata di scarico con alimentazione in pressione per altri componenti (carry-over)	*Outlet section and high pressure (carry-over)*	•	•	•	•
F16D	Fiancata di scarico destro per centro chiuso	*Right outlet section for through passage closed*	•	•	•	•

F3D

Fiancata di scarico
Outlet section

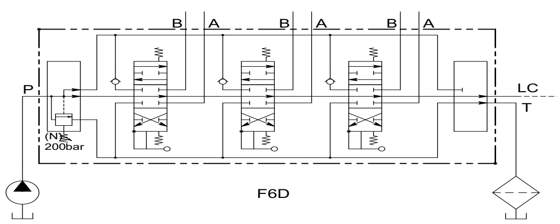


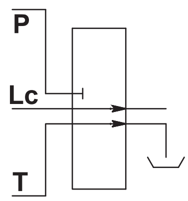


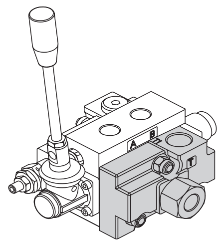


F6D

Fiancata di scarico con alimentazione in pressione per altri componenti (carry-over)
Outlet section and high pressure (carry-over)

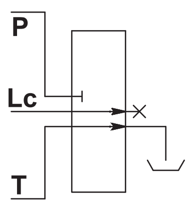


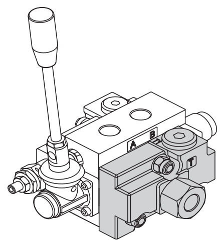




F16D

Fiancata di scarico destro per centro chiuso
Right outlet section for through passage closed





Fiancata di ingresso supplementare

13 - Ingresso supplementare

I seguenti ingressi supplementari, dotati di due ingressi laterali e uno scarico centrale, possono essere utilizzati in sostituzione della fiancata di scarico utilizzando come scarico l'elemento intermedio **E51** (vedi par. 5, pag. G-18).
La designazione verrà modificata come segue:

Additional inlet section

13 - Additional inlet section

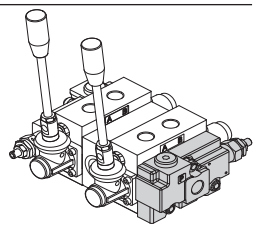
*The following additional inlet sections, fitted with two lateral inlets and with a central outlet can be used as a replacement of the outlet section by using the intermediate element **E51** (see par. 5, page G-18) as relief.*
The designation will be modified as follows:

Q30	—	F7S	R250	MSE	—	103	A1	M1	—	E51	—	103	A1	M1	V30	R250	—	F7D	R250	MSE	—	12V	—	2E+1
1		2	3	4		7	8	9		5		7	8	9	10	11		13	14	15		16		17

			Q30	GSV50 (Q50)	Q80	Q130
F7D	Collettore di entrata destro con valvola limitatrice di pressione VLP	*Right inlet section with relief valve VLP*	•	•	•	•
F17D	Collettore di entrata destro con valvola limitatrice di pressione VLP e attacco T3	*Right inlet section with relief valve VLP and T3 porting*		•		•
F7DP	Collettore di entrata destro con valvola limitatrice di pressione pilotata	*Right inlet section with pilot relief valve VLPP*				•
F17DP	Collettore di entrata destro con valvola limitatrice di pressione pilotata e attacco T3	*Right inlet section with pilot relief valve VLPP and T3 porting*				•
F8D	Collettore di entrata destro senza valvole	*Right inlet section without valves*	•	•	•	•
F18D	Collettore di entrata destro senza valvole e attacco T3	*Right inlet section without valves and T3 porting*		•		•

F7D F17D

Collettore di entrata destro con valvola limitatrice di pressione VLP
Right inlet section with relief valve VLP



14 - Tipo molla e taratura valvola

Dove è presente la valvola VLP (fiancate F7D e F7DP), deve essere specificato il tipo di molla (**B, N o R**) e la sua pressione di taratura; se quest'ultima viene omessa la valvola verrà tarata a **150** bar.

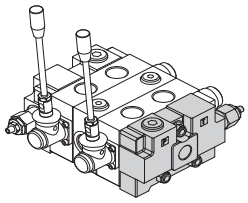
14 - *Outlet section type*

*If valve VLP is installed (inlet section F7D and F7DP), specify the type of spring (**B, N or R**) and its pressure setting. If this latter is omitted, spring N with a **150** bar setting will be installed..*

		molla bianca *white spring*	molla nera *black spring*	molla rossa *red spring*
R	Tipo di molla per la VLP *Type of spring for relief valve*	**B**	**N**	**R**
		Campi di taratura / *Calibration fields* bar (psi)		
250	Taratura della VLP *VLP Setting*	10 ÷ 80 *(145 ÷ 1160)*	81 ÷ 200 *(1175 ÷ 2900)*	201 ÷ 380 *(2915 ÷ 5510)*

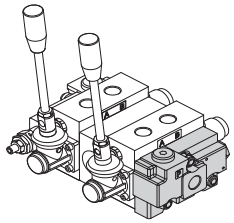
F7DP F17DP

Collettore di entrata sinistro con valvola limitatrice di pressione pilotata
Inlet sections with check valve VR



F8D F18D

Collettore di entrata destro senza valvole
Right inlet section without valves



Fiancata di scarico e/o ingresso supplementare | ***Outlet section or additional inlet section***

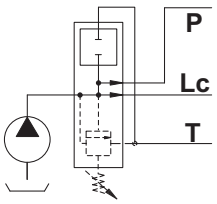
Q30	—	F7S	R250	MSE	—	103	A1	M1	—	E51	—	103	A1	M1	V30	R250	—	F7D	R250	MSE	—	12V	—	2E+1
1		2	3	4		7	8	9		5		7	8	9	10	11		13	14	15		16		17

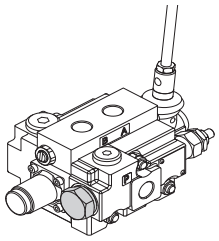
15 - Valvole aggiuntive alla fiancata / *Additional valves on the inlet section*

			Q30	GSV50 (Q50)	Q80	Q130
PMS	Collettore di entrata con predisposizione per valvola di messa a scarico elettrica (indiretta) o idraulica	*Inlet section presets for electrical outlet release valve (indirect) or hydraulic*	•	•	•	•
MSI	Collettore di entrata con valvola di messa a scarico idraulica	*Inlet section with hydraulic outlet release valve*	•	•	•	•
MSE	Collettore di entrata con valvola di messa a scarico elettrica (indiretta)	*Inlet section with electrical outlet release valve (indirect)*	•	•	•	•

PMS

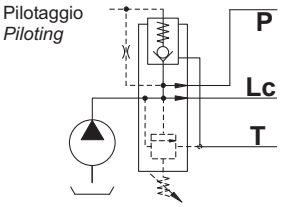
Collettore di entrata con predisposizione per valvola di messa a scarico elettrica (indiretta) o idraulica
Inlet section presets for electrical outlet release valve (indirect) or hydraulic

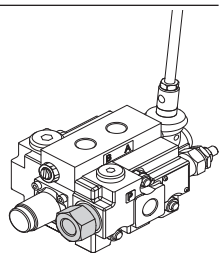




MSI

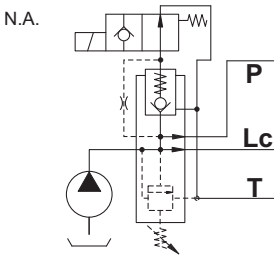
Collettore di entrata con valvola di messa a scarico idraulica
Inlet section with hydraulic outlet release valve

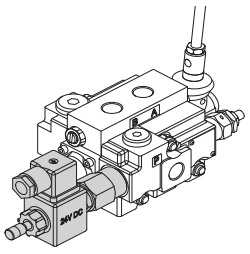




MSE

Collettore di entrata con valvola di messa a scarico elettrica (indiretta)
Inlet section with electrical outlet release valve (indirect)





N.B.
Specificare tensione e schema dell'elettrovalvola
Specify voltage and scheme of the solenoid operated valve

Tensione *Voltage*
12 V.DC
24 V.DC

Schema *Scheme*		
N.C.	Normalmente chiusa *Usually closed*	
N.A.	Normalmente aperta *Usually open*	

Note aggiuntive / *Additional notes*

Q30	—	F7S	R250	MSE	—	E50	R250	—	2x	103	A1	M1	V30	R250	V01	—	F3D	—	12V	—	2E+1
1		2	3	4		5	6			7	8	9	10	11	12		13		**16**		**17**

16 - Note aggiuntive / *Additional notes*

12V, 24V
S Alluminio (pag. G-6 ... G-10)

Codice **asta di comando** (vedi tabella seguente)

16 - *Additional notes*

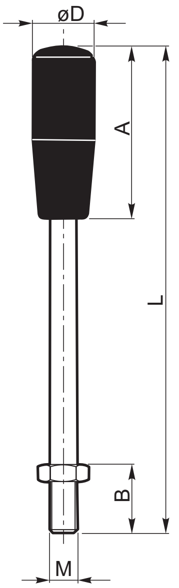
12V, 24V
S Aluminium *(page G-6 ... G-10)*

*Control **lever code** (see next table)*

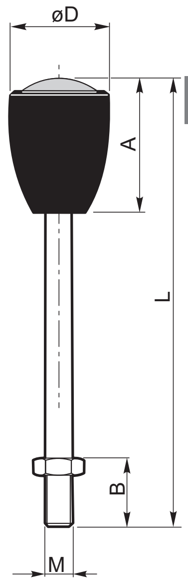
Dimensioni in / *Dimensions in:* mm *(inch)*

Codice / *Code*		Versione / *Version*	M	L	D	A	B	Colore / *Color*
Q30 - GSV50 - (Q50)								
06.029.22862	1	Standard / *Standard*	M8	164 *(6.457)*	20 *(0.787)*	57 *(2.244)*	20 *(0.787)*	Nero / *Black*
06.029.30335	1	Standard / *Standard*	M8	164 *(6.457)*	20 *(0.787)*	57 *(2.244)*	20 *(0.787)*	Rosso / *Red*
06.029.30528	1	Lunga tipo A / *Long version type A*	M8	184 *(7.244)*	20 *(0.787)*	57 *(2.244)*	20 *(0.787)*	Nero / *Black*
06.029.30492	1	Lunga tipo A / *Long version type A*	M8	184 *(7.244)*	20 *(0.787)*	57 *(2.244)*	20 *(0.787)*	Rosso / *Red*
06.029.28922	1	Lunga / *Long version*	M8	204 *(8.031)*	20 *(0.787)*	57 *(2.244)*	20 *(0.787)*	Nero / *Black*
06.029.30336	1	Lunga / *Long version*	M8	204 *(8.031)*	20 *(0.787)*	57 *(2.244)*	20 *(0.787)*	Rosso / *Red*
06.029.27421	1	Extra lunga / *Extra-long*	M8	324 *(12.756)*	20 *(0.787)*	57 *(2.244)*	20 *(0.787)*	Nero / *Black*
06.029.22876	1	Extra corta / *Extra-short*	M8	82 *(3.228)*	18 *(0.709)*	50 *(1.969)*	20 *(0.787)*	Nero / *Black*
06.029.29451	2	Standard con oblo'/ *Standard with lens*	M8	174 *(6.850)*	32 *(1.260)*	46 *(1.811)*	20 *(0.787)*	Nero / *Black*
06.029.29423	2	Lunga con oblo' / *Long with lens*	M8	214 *(8.425)*	32 *(1.260)*	46 *(1.811)*	20 *(0.787)*	Nero / *Black*
Q80 - Q130								
06.029.27013	1	Standard / *Standard*	M10	209 *(8.228)*	20 *(0.787)*	57 *(2.244)*	28 *(1.102)*	Nero / *Black*
06.029.28148	1	Lunga / *Long version*	M10	357 *(14.055)*	20 *(0.787)*	57 *(2.244)*	28 *(1.102)*	Nero / *Black*
06.029.27344	1	Corta / *Short version*	M10	154 *(6.063)*	20 *(0.787)*	57 *(2.244)*	28 *(1.102)*	Nero / *Black*
06.029.27635	1	Extra corta / *Extra-short*	M10	66 *(2.598)*	26 *(1.024)*	42 *(1.654)*	22 *(0.866)*	Nero / *Black*
06.029.29866	2	Standard con oblo' *Standard with lens*	M10	219 *(8.622)*	32 *(1.260)*	46 *(1.811)*	28 *(1.102)*	Nero / *Black*
06.029.30295	2	Lunga con oblo' *Long with lens*	M10	367 *(14.449)*	32 *(1.260)*	46 *(1.811)*	28 *(1.102*	Nero / *Black*
Per comando elettrico / *For electric control* Q30 - GSV50 - (Q50)								
06.029.28945	1	Standard / *Standard*	Ø7	133 *(5.236)*	20 *(0.787)*	57 *(2.244)*	15 *(0.591)*	Nero / *Black*
06.029.29349	1	Lunga / *Long version*	Ø7	201 *(7.913)*	20 *(0.787)*	57 *(2.244)*	15 *(0.591)*	Nero / *Black*
06.029.30951	2	Standard con oblo' *Standard with lens*	Ø7	143 *(5.630)*	32 *(1.260)*	46 *(1.811)*	15 *(0.591)*	Nero / *Black*

Dimensioni in / *Dimensions in:* mm *(inch)*



1



2

Note aggiuntive / *Additional notes*

Q30	—	F7S	R250	MSE	—	E50	R250	—	2x	103	A1	M1	V30	R250	V01	—	F3D	—	12V	—	2E+1
1		2	3	4		5	6			7	8	9	10	11	12		13		**16**		**17**

17 - Numero sezioni di lavoro

Specificare il numero delle sezioni di lavoro (es. 2E) e il numero degli elementi intermedi (es. +1) utilizzati tenendo sempre in considerazione che la somma dei due non potrà superare il limite massimo di 10.

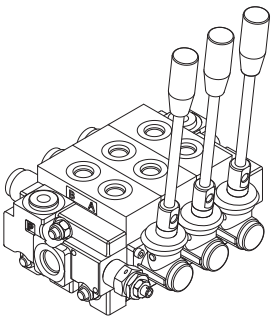
17 - Number of working sections

Specify the number of working sections (for ex. 2E) and the number of intermediate elements (for ex. +1) used, always taking into account that the sum of the two will not have to exceed the maximum limit of 10.

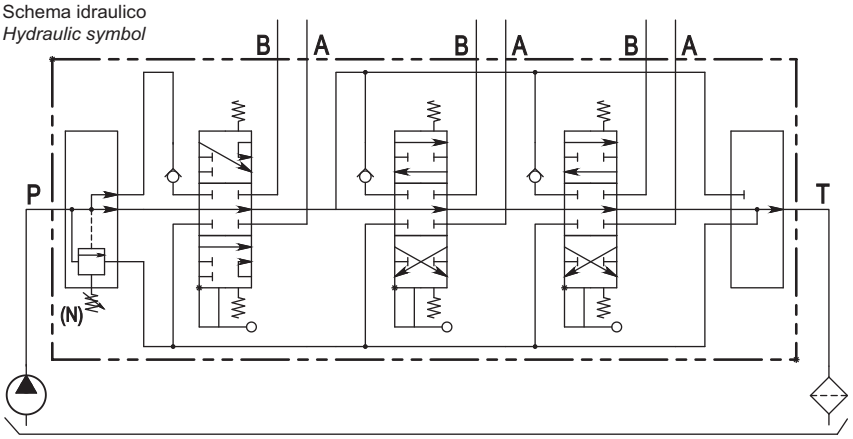
ESEMPI DI ORDINAZIONE IN CODICE
ORDERING CODE EXAMPLES

Q30 - F7SN - 403/A1/M1 - 2x103/A1/M1 - F3D - S - SAE - 3E

F	G			H	I	L
1	2	3	4	5 - 6 - 7 - 8 - 9 - 10 - 11 - 12	13	16 - 17
Q30	F7S	N200		403/A1/M1	F3D	S - SAE - 3E
				2x 103/A1/M1		

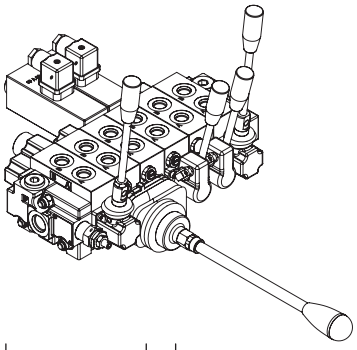


Schema idraulico
Hydraulic symbol

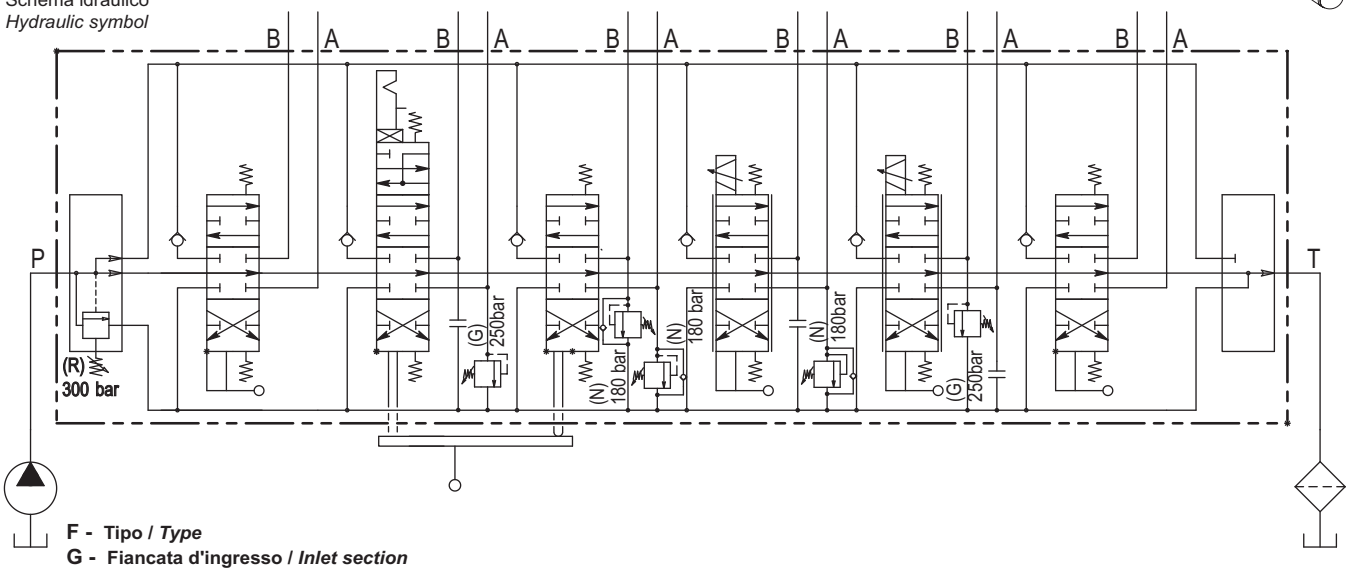


Q30 - F7S R(300) - 103/A1/M1 - 126/A353/R10-Z1/V30 G(250) - 103/M1/V35 N(180) - 103/A1/DP/V33 N(180) - 103/A1/DP/V31 G(250) - 103/A1/M1 - F3D - 12V - 6E

F	G			H	I	L
1	2	3	4	5 - 6 - 7 - 8 - 9 - 10 - 11 - 12	13	16 - 17
Q30	F7S	R300		103/A1/M1	F3D	12V - 6E
				126/A353/R10-Z1/V30 G(250)		
				103/M1/V35 N(180)		
				103/A1/DP/V33 N(180)		
				103/A1/DP/V31 G(250)		
				103/A1/M1		



Schema idraulico
Hydraulic symbol

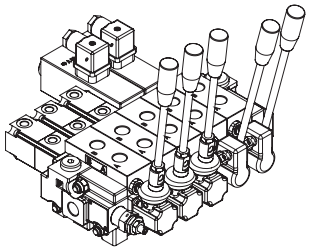


F - Tipo / *Type*
G - Fiancata d'ingresso / *Inlet section*
H - Sezione di lavoro e/o elemento intermedio / *Working section and/or intermediate section*
I - Fiancata di scarico o ingresso supplementare / *Outlet section or additional inlet section*
L - Note aggiuntive / *Additional notes*

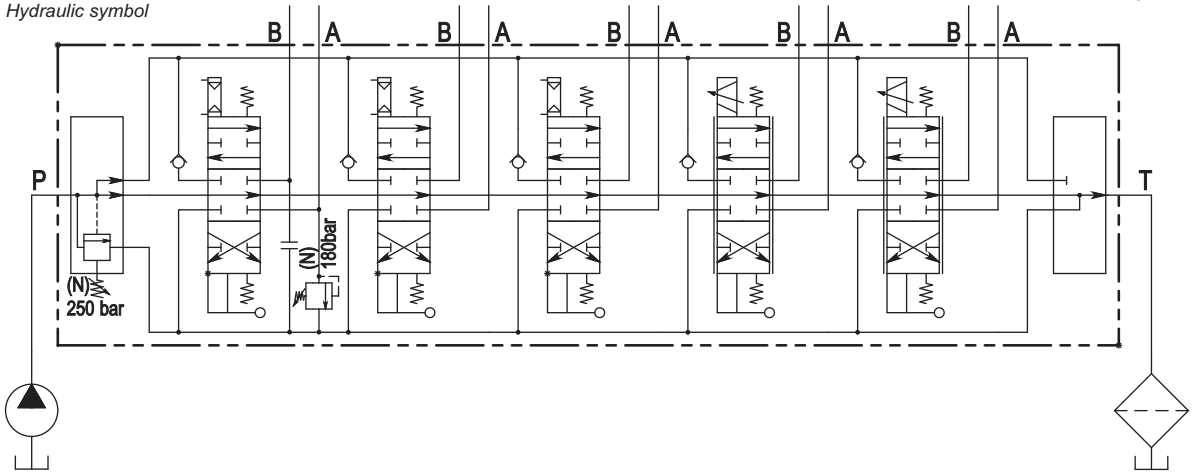
ESEMPI DI ORDINAZIONE IN CODICE
ORDERING CODE EXAMPLES

Q30 - F7S N(250) - 103/A1/P1-N/V30 N(180) - 2x103/A1/P1-N - 2x103/A1/DP - F3D - 5E

F	G			H	I	L
1	2	3	4	5 - 6 - 7 - 8 - 9 - 10 - 11 - 12	13	16 - 17
Q30	F7S	N250		103/A1/P1-N/V30 N(180)	F3D	5E
				2x 103/A1/P1-N		
				2x 103/A1/DP		

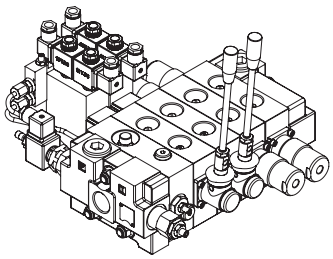


Schema idraulico
Hydraulic symbol

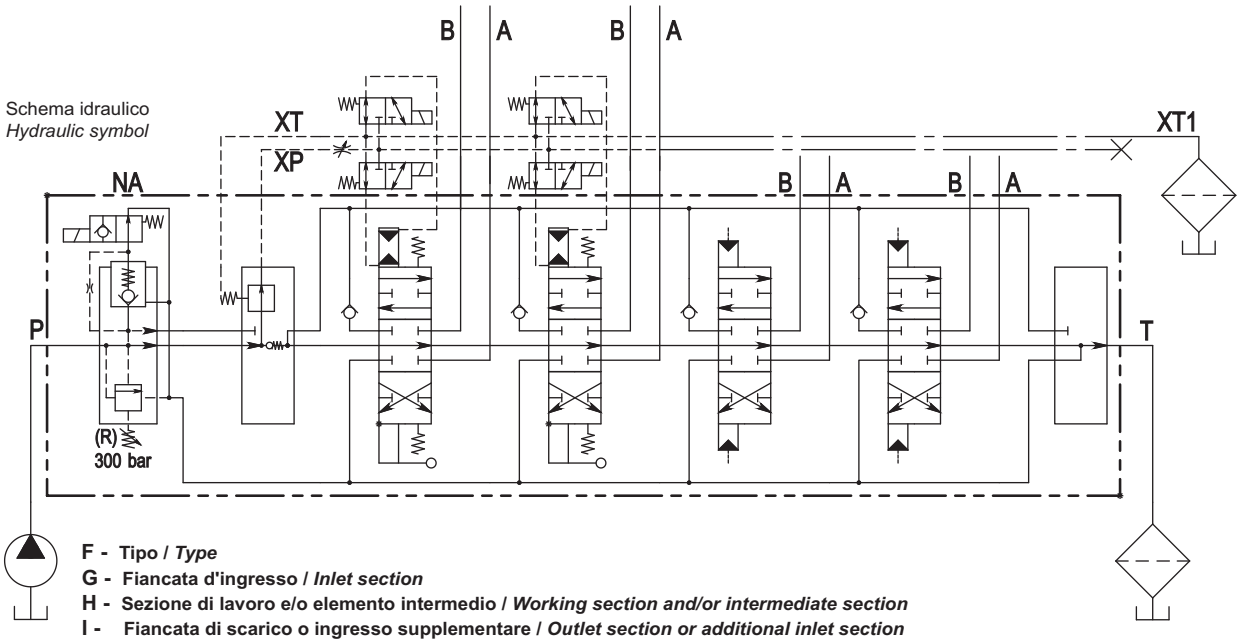


Q130 F7S R(300) MSE (NA) - E62 - 103/A1/D2-1R - 103/A1/D2-2R - 2x103/H1 - F3D - 12V - 4E+1

F	G			H	I	L
1	2	3	4	5 - 6 - 7 - 8 - 9 - 10 - 11 - 12	13	16 - 17
Q130	F7S	R300	MSE(NA)	E62	F3D	12V - 4E+1
				103/A1/D2-1R		
				103/A1/D2-2R		
				2x 103/H1		



Schema idraulico
Hydraulic symbol

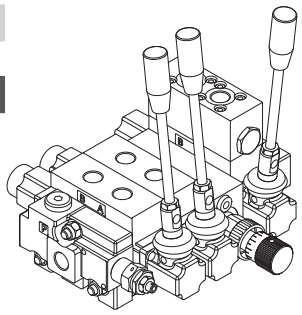


F - Tipo / *Type*
G - Fiancata d'ingresso / *Inlet section*
H - Sezione di lavoro e/o elemento intermedio / *Working section and/or intermediate section*
I - Fiancata di scarico o ingresso supplementare / *Outlet section or additional inlet section*
L - Note aggiuntive / *Additional notes*

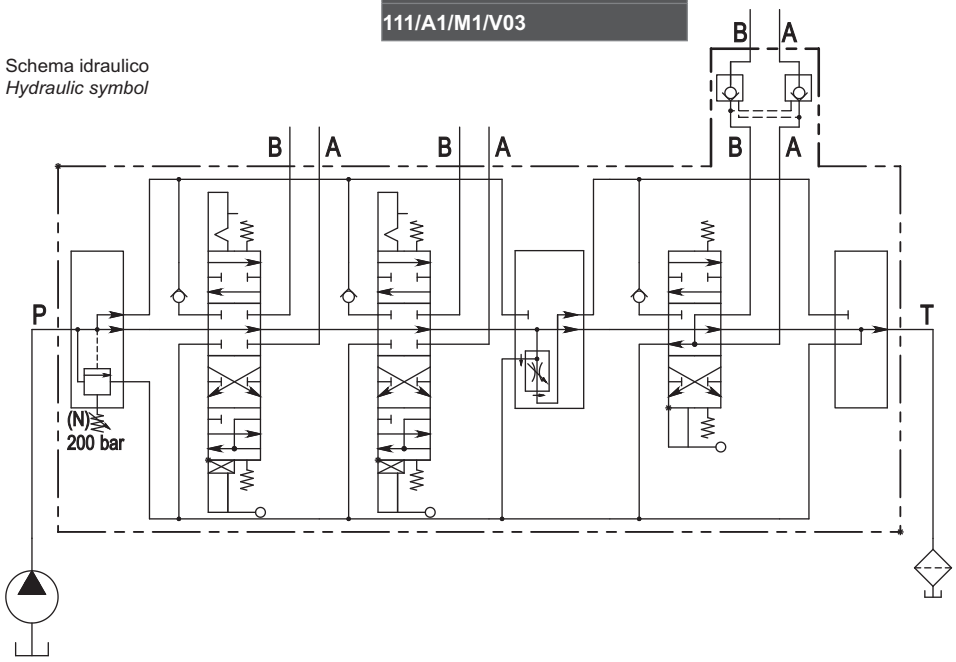
ESEMPI DI ORDINAZIONE IN CODICE
ORDERING CODE EXAMPLES

Q30 - F7S(N) - 2x116/A1-Z1/R8 - E68 - 111/A1/M1/V03 - F3D - 4E

F		G			H		I	L
1		2	3	4	5 - 6 - 7 - 8 - 9 - 10 - 11 - 12		13	16 - 17
Q30	—	F7S	N200		2x 116/A1-Z1/R8	—	F3D	— 4E
					E68			
					111/A1/M1/V03			

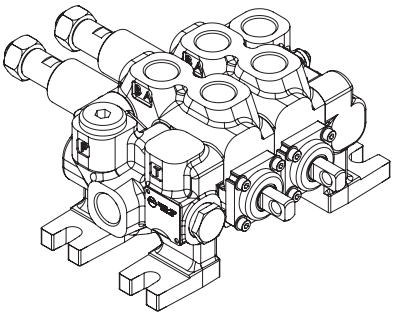


Schema idraulico
Hydraulic symbol

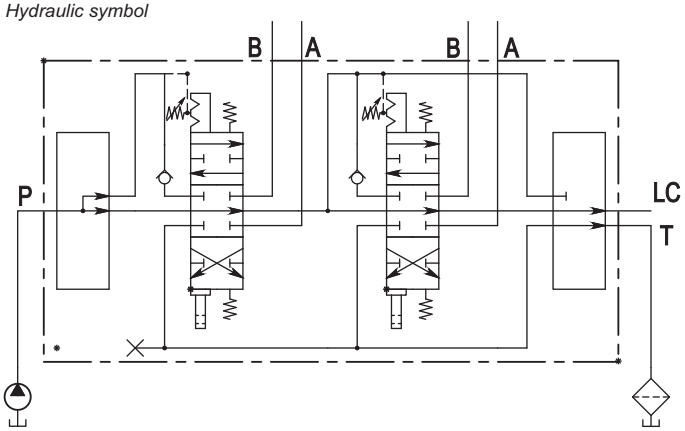


GSV50 - F8S - 203/A6H/R3K - 103/A6H/R3K - F6D - 2E

F		G			H		I	L
1		2	3	4	5 - 6 - 7 - 8 - 9 - 10 - 11 - 12		13	16 - 17
GSV50	—	F8S			203/A6H/R3K	—	F6D	— 2E
					103/A6H/R3K			



Schema idraulico
Hydraulic symbol



F - Tipo / *Type*
G - Fiancata d'ingresso / *Inlet section*
H - Sezione di lavoro e/o elemento intermedio / *Working section and/or intermediate section*
I - Fiancata di scarico o ingresso supplementare / *Outlet section or additional inlet section*
L - Note aggiuntive / *Additional notes*

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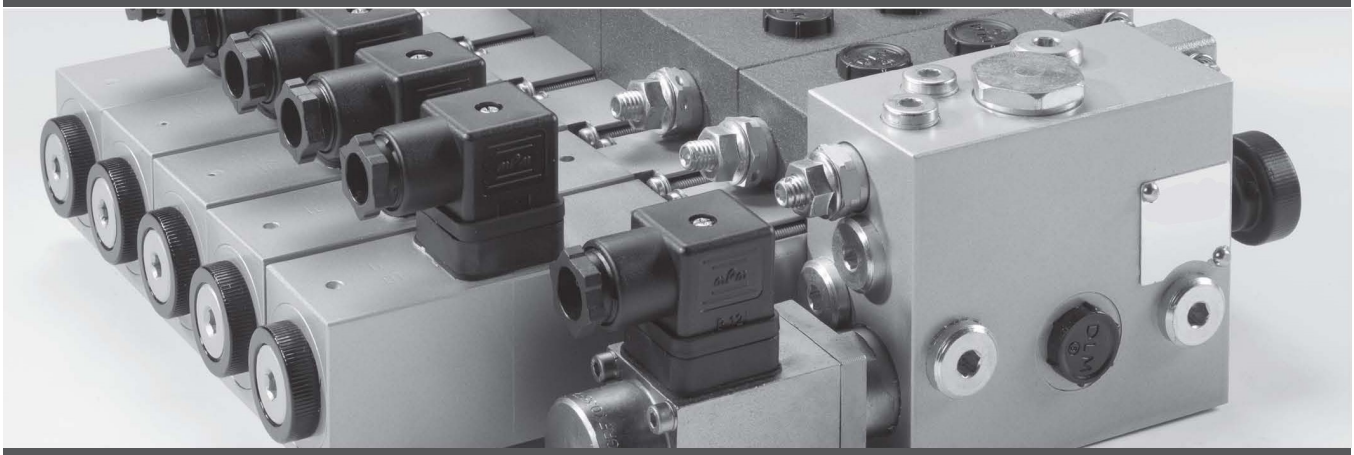
DISTRIBUTORI A COMANDO ELETTRICO DIRETTO CON FIANCATA PROPORZIONALE
DIRECTIONAL CONTROL VALVE WITH DIRECT ELECTRICAL CONTROL AND PROPORTIONAL SECTION

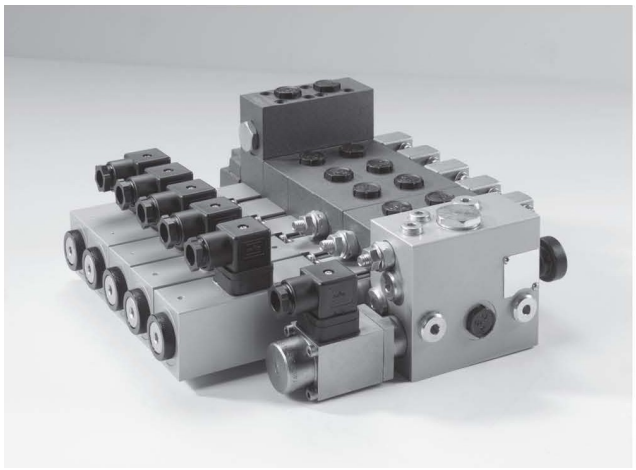


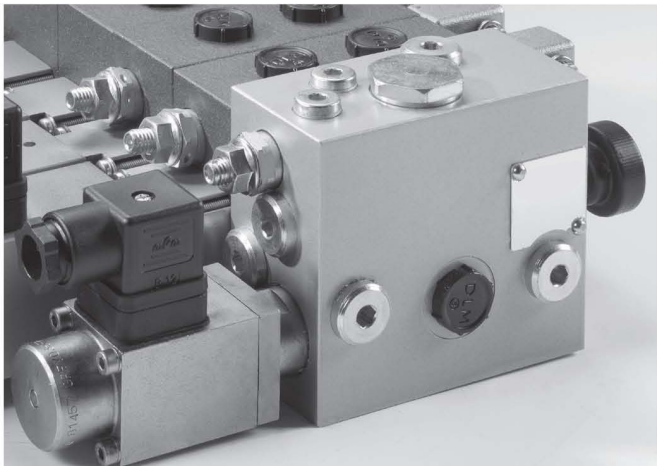
DISTRIBUTORI A COMANDO ELETTRICO DIRETTO CON FIANCATA PROPORZIONALE F7SPR

- Sono un'ulteriore estensione dei distributoria comando elettrico ON-OFF, con applicazione su Q30 e GSV50 (Q50).
- Operano con una sezione per volta con proporzionalità ottenuta elettronicamente.
- Ogni sezione mantiene, inoltre, il comando manuale.
- I distributori proporzionali sono composti da: una fiancata di entrata, da elementi in quantità variabile da 1 a 10 a comando elettrico ON-OFF e da una fiancata di scarico.
- Nella fiancata di entrata, sono alloggiati: la valvola proporzionale, la quale permette di modulare la portata agli elementi ON-OFF; il compensatore a tre vie, la valvola di massima pressione e la valvola di sicurezza (manuale o elettrica) che permette di operare anche in mancanza di tensione.
- Sono particolarmente adatti nelle applicazioni in cui si effettuano manovre non contemporanee e in cui è fondamentale la sicurezza e la sensibilità dei movimenti, come, ad es. piattaforme sollevabili con operatori a bordo.

DIRECTIONAL CONTROL VALVE WITH DIRECT ELECTRICAL CONTROL AND PROPORTIONAL SECTION F7SPR

- *Proportional control valves arefurther step in the field of control valves with ON-OFF electrical control, with application on Q30 and Q50 control valves.*
- *These contrai valves operate with only one section at a time and its proportionality is obtained by an electronic drive.*
- *Each section keeps hand control.*
- *Proportional contrai valves consist of: inlet section, working sections (consisting of a variable number of 1-10 electrical ON-OFF elements) and outlet section.*
- *The inlet section is carriyng a proportional valve tuning flow to the ON-OFF elements a three-way compensator, a maximum relief valve, a safety valve (either manual or electrical) allows operation also during blackout.*
- *Proportional control alves are particularly suited for applications with not contemporary operations, where security and sensivity of mouvements becomes of basic importance, such as on lifting platforms with operator on board.*





AVVERTENZA PER L'INSTALLAZIONE DEI DISTRIBUTORI

- I quattro piedini dei distributori devono sempre appoggiare su una superficie perfettamente piana
- Non manomettere i dadi dei tiranti in quanto comprometterebbero il normale funzionamento del distributore.
- Non utilizzare raccordi conici su filetti cilindrici.
- Per pulire il distributore, prima della verniciatura, non utilizzare diluenti/solventi o qualsiasi prodotto che possa intaccare le parti in gomma.

NOTES FOR DIRECTIONAL CONTROL VALVES ASSEMBLY

- *The valve must always and perfectly rest on a 180° flat surface.*
- *Do not tamper the tie rod nuts so they might impair the standard working of the valve.*
- *No conical nipples with JIC thread must be used.*
- *Before painting the control valve, do not use diluent or any products that could damage rubber parts.*

Caratteristiche tecniche elettrovalvola proporzionale
Characteristics proportional solenoid valve

	Q30	GVS50 (Q50)
Attacco magnete *Magnet connection*	Tipo DIN 43650 (versione A) *Type DIN 43650 (version A)*	
Tipo di protezione *Protection type*	IP 65	
Classe d'isolamento *Coil insulation class*	F	
Tensione di alimentazione *Supply voltage*	12 V D.C. 24 V D.C.	
Variazione di tensione max. *Maximum voltage tolerance*	÷ 10%	
Isteresi *Hysteresis*	÷ 5%	
Tempo di risposta valvola proporzionale *Response time proportional valve*	10% ÷ 90% = 40ms	
Tempo di risposta valvola proporzionale *Response time proportional valve*	90% ÷ 10% = 50ms	
Corrente valvola proporz. alimentazione 12V D.C. *Current proportional valve 12V D.C. supply*	0 ÷ 1 A	
Corrente valvola proporz. alimentazione 24V D.C. *Current proportional valve 24V D.C. supply*	0 ÷ 1 .4A	

Caratteristiche tecniche distributore
Directional control valve characteristics

	Q30	GVS50 (Q50)
Portata max. (lt/min) *Max. flow*	15 - 30 - 40 lt/min	
Pressione max. di lavoro *Max. working pressure*	250 bar	
Contropressione max. sullo scarico *Max. back outlet pressure*	25 bar	
Limiti temperatura olio *Oil range temperature*	-30 °C ÷ 80 °C	
Temperatura olio consigliata *Recommended oil temperature*	30 °C ÷ 60 °C	
Filtraggio consigliato *Recommended filtering*	19/16 ISO DIS 4406	
Fluido consigliato *Recommended fluid*	olio minerale *minerai oil*	
Viscosità *Viscosity*	10 ÷ 400 mm ^{2}/s	
Manovra di emergenza o manovra in assenza di corrente *Emergency operation or in case of power break*	Con leva e valvola di sicurezza manuale o elettrica *By hamd lever and manual or electrical safety valve*	
Trafilamento max. di A e B tu T a 100 bar con viscosità 35 mm^2/s *Max. spool leakage of A and B ports to T port at 100 bar with viscosity 35 mm ^{2}/s*	5 cm ^{2}/min	

ESEMPIO DI ORDINAZIONE IN CODICE
ORDERING CODE EXAMPLE

Tipo *Type*	Fiancata d'ingresso *Inlet section*				Sezione di lavoro e/o elemento intermedio *Working section and/or intermediate section*						Fiancata di scarico *Outlet section*	Note aggiuntive *Additional notes*	
Q30	F7SPR	N120	30	M	2x	103	A1/D41	V30	R250	V01	F3D	12V	2E
1	2	3	4	5		7	8	10	11	12	13	16	17

1 - Tipo

Q30, GSV50, Q50 (ad esaurimento)**.**
Indica il tipo di distributore; le caratteristiche dimensionali sono riportate da pag. xx a pag. xx

1 - Type

Q30,* GSV50, *Q50 *(phasing out)**.***
Indicates the type of directional control valve. The dimensional specifications are given from page F6 to page F15.

Fiancata di ingresso proporzionale

Proportional inlet section

2 - Tipo fiancata d'ingresso proporzionale

2 - Type of proportional inlet section

F7SPR

Fiancata di ingresso proporzionale
Proportional inlet section

3 - Taratura valvola VLP

Per la valvola VLP, deve essere specificato il tipo di molla (**B, N, G o R**) e la sua pressione di taratura; **se quest'ultima viene omessa, verrà messa la molla N tarata a 120 bar**.

3 - VLP Valve setting

*For VLP valve specify the type of spring (**B, N, G or R**) and its pressure setting. If omitted, **spring N with a 120 bar setting will be installed**.*

			molla bianca *white spring*	molla nera *black spring*	molla gialla *yellow spring*	molla rossa *red spring*
N	Tipo di molla per la VLP *Type of spring for relief valve*		**B**	**N**	**G**	**R**
			Campi di taratura / *Calibration fields bar (psi)*			
120	Taratura della VLP *VLP Setting*	**Q30 - GSV50 (Q50)**	30 ÷ 80 *(435 ÷ 1160)*	81 ÷ 200 *(1175 ÷ 2900)*	201 ÷ 300 *(2915 ÷ 4350)*	301 ÷ 400 *(4365 ÷ 5800)*
			Il range completo si ottiene mediante l'aggiunta di spessori *The complete range can be obtained with additional thickness*			

Fiancata di ingresso proporzionale

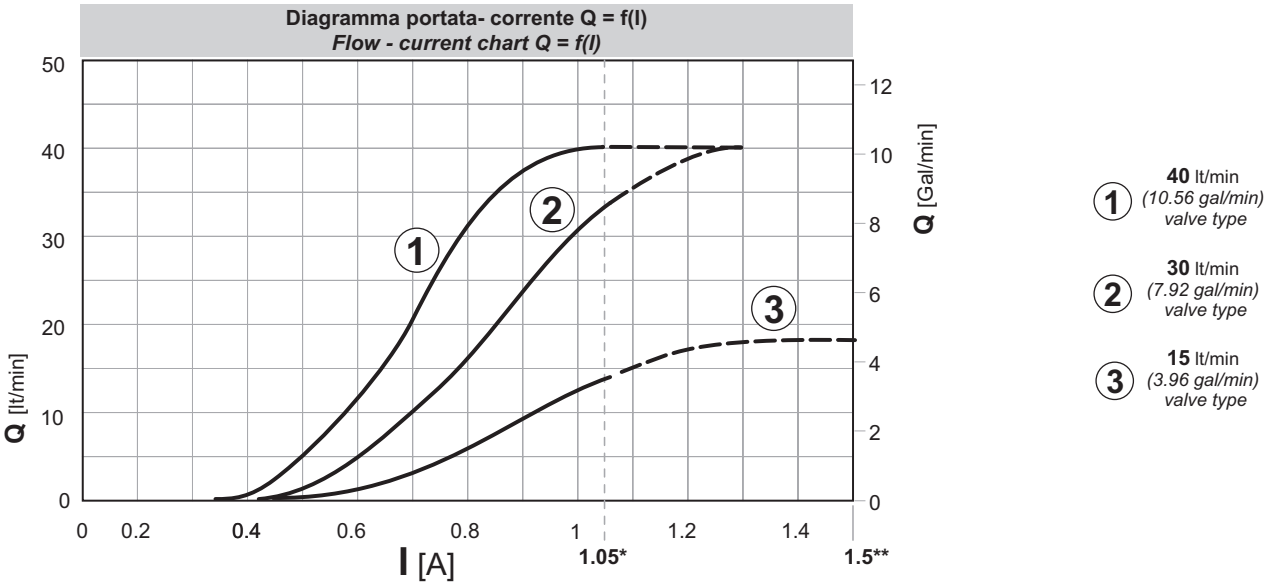
Proportional inlet section

4 - Portata valvola proporzionale

Portate disponibili: **15**, **30** e **40** l/min.
I 40 l/min (10.56 gal/min) si possono avere solo con tensioni di 12 V D.C.

4 - Proportional control valve flow

*Available flow: **15**, **30** e **40** l/min.*
40 l/min (*10.56 gal/min) are only possible with 12 V D.C. supply.*



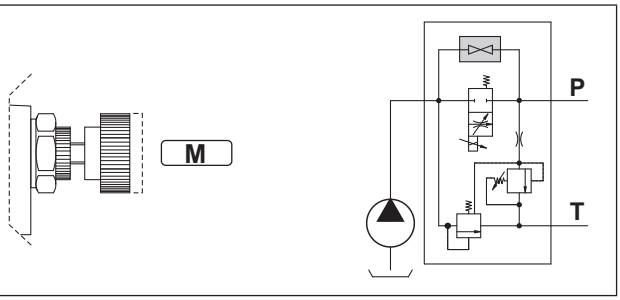
* Nel funzionamento a 12 V DC il valore max. di corrente per funzionamento continuo è di 1.05 A.
** Nel funzionamento a 24 V DC il valore max. di corrente per funzionamento continuo è di 1.5 A.
Prove eseguite con olio minerale avente viscosità 35 mm^2 /s alla temperatura di 80 °C. Tolleranza sulla portata ± 5 %.

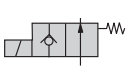
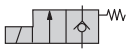
* *The maximum current for continous operation with 12 V DC is 1.05 A.*
** *The maximum current for continous operation with 24 V DC is 1.5 A.*
All tests were performed with minerai oil, viscosity 35 mm^2 /sec., at a temperature of 80 °C. Flow tolerance ± 5 %.

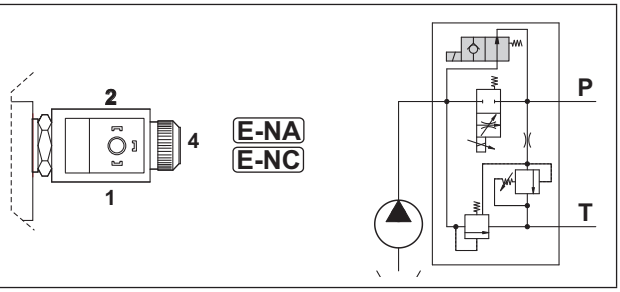
5 - Dispositivo di emergenza

5 - Safety device

M	**Emergenza manuale** ***Manual safety device***	



	Emergenza elettrica ***Electrical safety device***	
E-NA	Sicurezza elettrica normalmente aperta *Electrical safety device - normally opened*	
E-NC	Sicurezza elettrica normalmente chiusa *Electrical safety device - normally closed*	



Sezione di lavoro e/o elemento intermedio

Working section and/or intermediate section

Q30	—	F7SPR	N120	30	M	—	2x	103	A1/D41	V30	R250	V01	—	F3D	—	12V	—	2E
1		2	3	4	5			7	8	10	11	12		13		16		17

I campi da 7 a 12 sono da ripetere per ogni sezione. Nel caso in cui due sezioni contigue siano identiche, è sufficiente descriverne solo una anteponendo **2x** al campo 7.

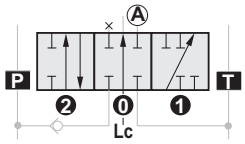
*Fields 7 to 12 must be repeated for each section. If two adjacent sections are identical, just describe one and put **2x** before field 7.*

7 - Tipo cursore / *Spool type*

			Q30	GSV50 (Q50)
101	Semplice effetto in A	*Single acting in A port*	•	•
102	Semplice effetto in B	*Single acting in B port*	•	•
103	Doppio effetto, A e B chiusi in posizione 0	*Double acting A and B closed in 0 position*	•	•
107	Doppio effetto, A in T e B chiuso in posizione 0	*Double acting, A to T and B closed in 0 position*	•	•
108	Doppio effetto, B in T e A chiuso in posizione 0	*Double acting, B to T and A closed in 0 position*	•	•
109	Semplice effetto in A, A in T in posizione 0	*Single acting in A, A to T in 0 position*	•	•
110	Semplice effetto in B, B in T in posizione 0	*Single acting in B, B to T in 0 position*	•	•
111	Doppio effetto, A e B in T in posizione 0	*Double acting, A and B to T in 0 position*	•	•

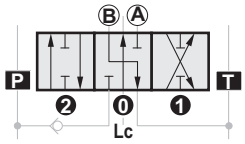
101

Semplice effetto in A
Single acting in A port



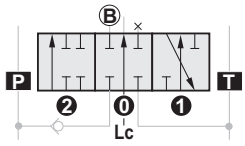
108

Doppio effetto, B in T e A chiuso in posizione 0
Double acting, B to T and A closed in 0 position



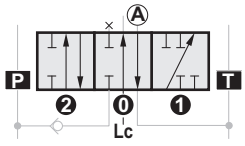
102

Semplice effetto in B
Single acting in B port



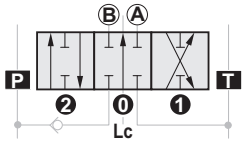
109

Semplice effetto in A, A in T in posizione 0
Single acting in A, A to T in 0 position



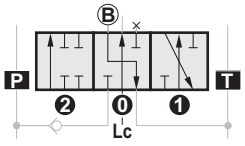
103

Doppio effetto, A e B chiusi in posizione 0
Double acting, A and B closed in 0 position



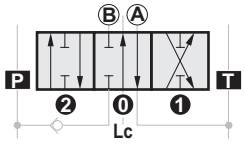
110

Semplice effetto in B, B in T in posizione 0
Single acting in B, B to T in 0 position



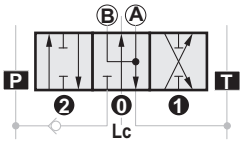
107

Doppio effetto, A in T e B chiuso in posizione 0
Double acting, A to T and B closed in 0 position



111

Doppio effetto, A e B in T in posizione 0
Double acting, A and B to T in 0 position



Q30	—	F7SPR	N120	30	M	—	2x	103	A1/D41	V30	R250	V01	—	F3D	—	12V	—	2E+1
1		2	3	4	5			7	8	10	11	12		13		16		17

8 - Comando completo A1/D41

Vedere pag. G-44.

8 - Complete controls A1/D41

See page G-44.

Sezione di lavoro e/o elemento intermedio — ***Working section and/or intermediate section***

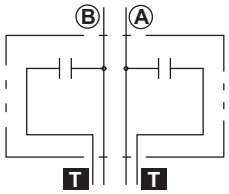
Q30	—	F7SPR	N120	30	M	—	2x	103	A1/D41	V30	R250	V01	—	F3D	—	12V	—	2E
1		2	3	4	5			7	8	**10**	11	12		13		16		17

10 - Tipo valvole a cartuccia / *Type of built-in cartridge valves*

			Q30	GSV50 (Q50)
VC	Tappo di chiusura per corpo distributore predisposto per valvole antiurto e/o anticavitazione	*Closing plug for directional control valve body preset for shock and/or anticavitation valves*	•	•
V30	Valvola limitatrice di pressione (o antiurto), registrabile, su effetto A (per le tarature vedere par. 11)	*Pressure limiting valve (or antishock), adjustable, on A port (for the setting see par. 11)*	•	•
V31	Valvola limitatrice di pressione (o antiurto), registrabile, su effetto B (per le tarature vedere par. 11)	*Pressure limiting valve (or antishock), adjustable, on B port (for the setting see par. 11)*	•	•
V32	Valvola limitatrice di pressione (o antiurto), registrabile, su effetto A e B (per le tarature vedere par. 11)	*Pressure limiting valve (or antishock), adjustable, on A and B port (for the setting see par. 11)*	•	•
V33	Valvola limitatrice di pressione (o antiurto), registrabile, con anticavitazione, su effetto A (per le tarature vedere par. 11)	*Pressure limiting valve (or antishock), adjustable, with anticavitation, on A port (for the setting see par. 11)*	•	•
V34	Valvola limitatrice di pressione (o antiurto), registrabile, con anticavitazione, su effetto B (per le tarature vedere par. 11)	*Pressure limiting valve (or antishock), adjustable, with anticavitation, on B port (for the setting see par. 11)*	•	•
V35	Valvola limitatrice di pressione (o antiurto), registrabile, con anticavitazione, su effetto A e B (per le tarature vedere par. 11)	*Pressure limiting valve (or antishock), adjustable, with anticavitation, on A and B port (for the setting see par. 11)*	•	•
V40	Valvola limitatrice di pressione (o antiurto), registrabile su effetto A e antiocavitazione su effetto B (per le tarature vedere par. 11)	*Pressure limiting valve (or antishock), adjustable on A port and anticavitation on B port (for thr setting see par. 11)*	•	•
V41	Valvola anticavitazione su effetto A e valvola limitatrice di pressione (o antiurto), registrabile su effetto B (per le tarature vedere par. 11)	*Anticavitation valve on A port and pressure limiting valve (or antishock), adjustable on B port (for the setting see the par. 11)*	•	•
V04	Valvola anticavitazione su effetto A	*Anticavitation valve on A port*	•	•
V05	Valvola anticavitazione su effetto B	*Anticavitation valve on B port*	•	•
V06	Valvola anticavitazione doppia su effetti A e B	*Anticavitation valve, double-acting on A and B ports*	•	•

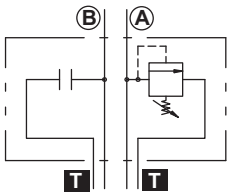
VC

Tappo di chiusura per corpo distributore predisposto per valvole antiurto e/o anticavitazione.
Closing plug for directional control valve body preset for shock and/or anticavitation valves.



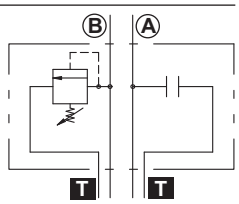
V30

Valvola limitatrice di pressione (o antiurto), registrabile, su effetto A (per le tarature vedere pagina seguente.
Pressure limiting valve (or antishock), adjustable, on A port (for the setting see next page).



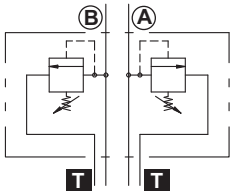
V31

Valvola limitatrice di pressione (o antiurto), registrabile, su effetto B (per le tarature vedere pagina seguente.
Pressure limiting valve (or antishock), adjustable, on B port (for the setting see next page).



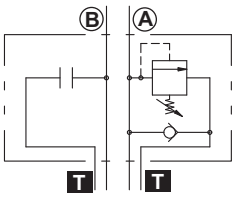
V32

Valvola limitatrice di pressione (o antiurto), registrabile, su effetto A e B (per le tarature vedere pagina seguente.
Pressure limiting valve (or antishock), adjustable, on A and B port (for the setting see next page).



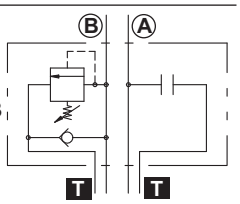
V33

Valvola limitatrice di pressione (o antiurto), registrabile, con anticavitazione, su effetto A (per le tarature vedere pagina seguente.
Pressure limiting valve (or antishock), adjustable, with anticavitation, on A port (for the setting see next page).



V34

Valvola limitatrice di pressione (o antiurto), registrabile, con anticavitazione, su effetto B (per le tarature vedere pagina seguente.
Pressure limiting valve (or antishock), adjustable, with anticavitation, on B port (for the setting see next page).

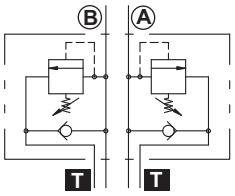


Sezione di lavoro e/o elemento intermedio

Working section and/or intermediate section

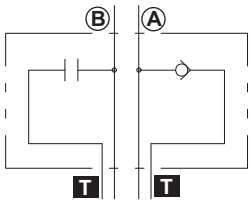
V35

Valvola limitatrice di pressione (o antiurto), registrabile, con anticavitazione, su effetto A e B (per le tarature vedere *par. 11*.
Pressure limiting valve (or antishock), adjustable, with anticavitation, on A and B port (for the setting see par. 11).



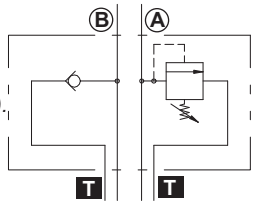
V04

Valvola anticavitazione su effetto A.
Anticavitation valve on A port.



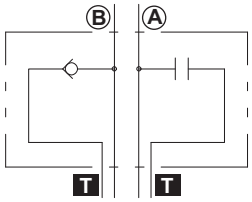
V40

Valvola limitatrice di pressione (o antiurto), registrabile su effetto A e antiocavitazione su effetto B (per le tarature vedere par. 11).
Pressure limiting valve (or antishock), adjustable on A port and anticavitation on B port (for the setting see par. 11).



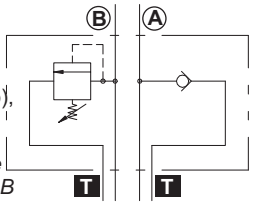
V05

Valvola anticavitazione su effetto B.
Anticavitation valve on B port.



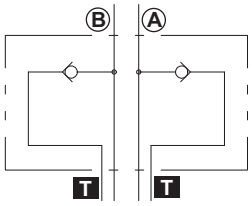
V41

Valvola anticavitazione su effetto A e valvola limitatrice di pressione (o antiurto), registrabile su effetto B (per le tarature vedere *par. 11*).
Anticavitation valve on A port and pressure limiting valve (or antishock), adjustable on B port (for the setting see par. 11).



V06

Valvola anticavitazione doppia su effetti A e B.
Anticavitation valve, double-acting on A and B ports.



11 - Tipo molla e taratura valvola

Dove è presente la valvola VLP (V30 - V31 - V32 - V33 - V34 - V35 - V40 - V41), deve essere specificato il tipo di molla (**B, N, G o R**) e la sua pressione di taratura; **se quest'ultima viene omessa, verrà messa la molla N tarata a 120 bar**.

11 - *Type of spring and valve setting*

*If valve VLP is installed (*V30 - V31 - V32 - V33 - V34 - V35 - V40 - V41*), specify the type of spring (**B, N, G or R**) and its pressure setting. If omitted, **spring N with a 120 bar setting will be installed**.*

			molla bianca *white spring*	molla nera *black spring*	molla gialla *yellow spring*	molla rossa *red spring*
R	Tipo di molla per la VLP *Type of spring for relief valve*		**B**	**N**	**G**	**R**
			Campi di taratura / *Calibration fields* *bar (psi)*			
250	Taratura della VLP *VLP Setting*	**Q30 - GSV50 (Q50)**	30 ÷ 80 *(435 ÷ 1160)*	81 ÷ 200 *(1175 ÷ 2900)*	201 ÷ 300 *(2915 ÷ 4350)*	301 ÷ 400 *(4365 ÷ 5800)*
			Il range completo si ottiene mediante l'aggiunta di spessori *The complete range can be obtained with additional thickness*			

Q30	—	F7SPR	N120	30	M	—	2x	103	A1/D41	V30	R250	V01	—	F3D	—	12V	—	2E+1
1		2	3	4	5			7	8	10	**11**	12		13		16		17

Dimensioni in / *Dimensions in:* mm *(inch)*

Sezione di lavoro e/o elemento intermedio | ***Working section and/or intermediate section***

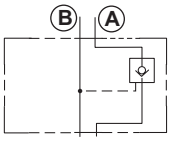
Q30	—	F7SPR	N120	30	M	—	2x	103	A1/D41	V30	R250	V01	—	F3D	—	12V	—	2E
1		2	3	4	5			7	8	10	11	**12**		13		16		17

12 - Tipo valvole a pannello / *Panel valves type*

			Q30	GSV50 (Q50)
V01	Valvola di ritegno pilotata singola su effetto A (*)	*Single piloted check valve on A port (*)*	•	
V02	Valvola di ritegno pilotata singola su effetto B (*)	*Single piloted check valve on B port (*)*	•	
V03	Valvola di ritegno pilotata singola su effetti A e B (*)	*Single piloted check valve on A and B ports (*)*	•	
VP	Corpo distributore predisposto per valvola a pannello	*Control valve body preset for panel-mounted valve*	•	
VPC	Corpo distributore predisposto per valvola antiurto o anticavitazione e per valvola a pannello	*Control valve body preset for antishock valve or anticavitation and for panel-mounted valve*	•	
VPFE	Corpo distributore predisposto per valvola di flottante elettrico a pannello	*Control valve body preset for electric floating valve, panel mounted*	•	
VFE	Valvola per flottante elettrico. Da utilizzare su cursori con utilizzi A e/o B chiusi in pos. 0 per creare elettricamente la posizione di flottante. Specificare al tensione: **12 V.DC. - 24 V.DC.**	*Valve for electric floating. To use on spool with A and/or B ports closed in 0 position and for generating electrically the floating position. Specify the voltage:* ***12 V.DC. - 24 V.DC.***	•	

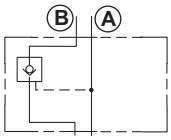
V01

Valvola di ritegno pilotata singola su effetto A (*).
Single piloted check valve on A port (*).



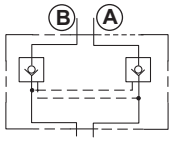
V02

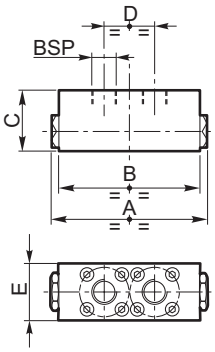
Valvola di ritegno pilotata singola su effetto B (*).
Single piloted check valve on B port (*).



V03

Valvola di ritegno pilotata singola su effetti A e B (*).
Single piloted check valve on A and B ports (*).





	A	B	C	D	E	BSP
Q30	105 *(4.134)*	95 *(3.740)*	41 *(1.614)*	34 *(1.339)*	37.5 *(1.476)*	3/8"

	* Rapporto di pilotaggio *Piloting ratio*	Coppia di serraggio delle viti di fissaggio *Fastening screw tightening*
Q30	1 : 2.42	8 Nm 2 Nm - solo per viti VFE / *only for VFE screws*

Dimensioni in / *Dimensions in:* mm *(inch)*

Sezione di lavoro e/o elemento intermedio

Working section and/or intermediate section

VP

Corpo distributore predisposto per valvola a pannello.
Control valve body preset for panel-mounted valve.

VPC

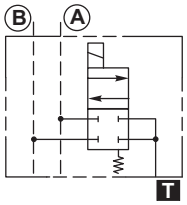
Corpo distributore predisposto per valvola antiurto o anticavitazione e per valvola a pannello.
Control valve body preset for antishock valve or anticavitation and for panel-mounted valve.

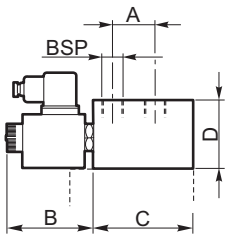
VPFE

Corpo distributore predisposto per valvola di flottante elettrico a pannello.
Control valve body preset for electric floating valve, panel mounted.

VFE

Valvola per flottante elettrico.
Da utilizzare su cursori con utilizzi A e/o B chiusi in pos. 0 per creare elettricamente la posizione di flottante.
Specificare al tensione: **12 V.DC. - 24 V.DC.**
Valve for electric floating.
To use on spool with A and/or B ports closed in 0 position and for generating electrically the floating position.
Specify the voltage: ***12 V.DC. - 24 V.DC.***





	A	B	C	D	BSP
Q30	34 *(1.339)*	69 *(2.717)*	80 *(3.150)*	80 *(3.150)*	3/8"

Fiancata di scarico

Outlet section

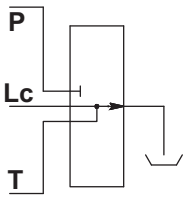
Q30	—	F7SPR	N120	30	M	—	2x	103	A1/D41	V30	R250	V01	—	F3D	—	12V	—	2E
1		2	3	4	5			7	8	10	11	12		13		16		17

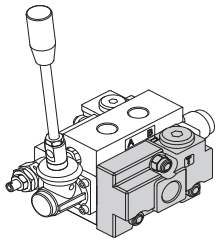
13 - Tipo fiancata di scarico / *Outlet section type*

			Q30	GSV50 (Q50)
F3D	Fiancata di scarico	*Outlet section*	•	•
F6D	Fiancata di scarico con alimentazione in pressione per altri componenti (carry-over)	*Outlet section and high pressure (carry-over)*	•	•

F3D

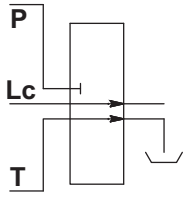
Fiancata di scarico
Outlet section

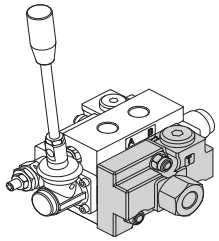




F6D

Fiancata di scarico con alimentazione in pressione per altri componenti (carry-over)
Outlet section and high pressure (carry-over)





Dimensioni in / *Dimensions in:* mm *(inch)*

Note aggiuntive / *Additional notes*

Q30	—	F7SPR	N120	30	M	—	2x	103	A1/D41	V30	R250	V01	—	F3D	—	**12V**	—	2E
1		2	3	4	5			7	8	10	11	12		13		**16**		17

16 - Note aggiuntive / *Additional notes*

12V, 24V
S Alluminio (pag. G-6 ... G-10)

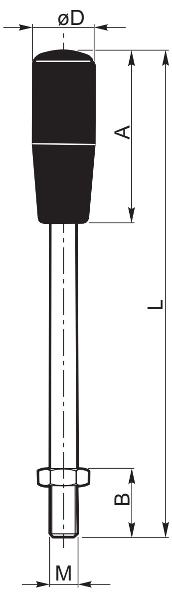
Codice **asta di comando** (vedi tabella seguente)

16 - *Additional notes*

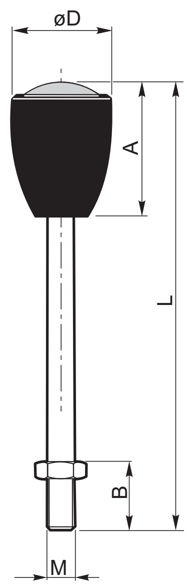
12V, 24V
***S Aluminium** (page G-6 ... G-10)*

*Control **lever code** (see next table)*

Codice / *Code*	Versione / *Version*		M	L	D	A	B	Colore / *Color*
Per comando elettrico / *For electric control* **Q30 - GSV50 - (Q50)**								
06.029.28945	1	Standard / *Standard*	Ø7	133 *(5.236)*	20 *(0.787)*	57 *(2.244)*	15 *(0.591)*	Nero / *Black*
06.029.29349	1	Lunga / *Long version*	Ø7	201 *(7.913)*	20 *(0.787)*	57 *(2.244)*	15 *(0.591)*	Nero / *Black*
06.029.30951	2	Standard con oblo' *Standard with lens*	Ø7	143 *(5.630)*	32 *(1.260)*	46 *(1.811)*	15 *(0.591)*	Nero / *Black*



1



2

Note aggiuntive / *Additional notes*

Q30	—	F7SPR	N120	30	M	—	2x	103	A1/D41	V30	R250	V01	—	F3D	—	12V	—	**2E**
1		2	3	4	5			7	8	10	11	12		13		16		**17**

17 - Numero sezioni di lavoro

Specificare il numero delle sezioni di lavoro (es. 2E) utilizzate tenendo sempre in considerazione che il limite massimo è 10.

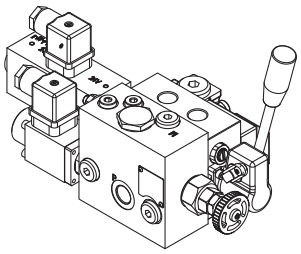
17 - *Number of working sections*

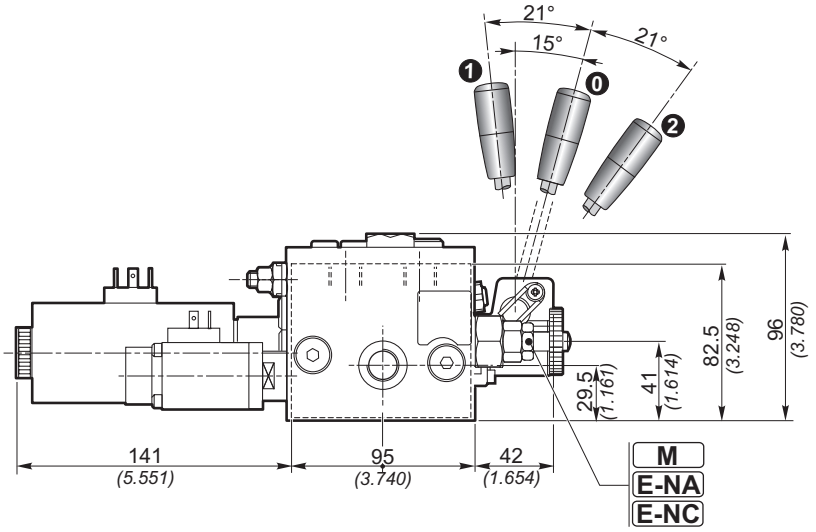
Specify the number of working sections (for ex. 2E) used, always taking into account the maximum limit of 10.

Dimensioni in / *Dimensions in:* mm *(inch)*

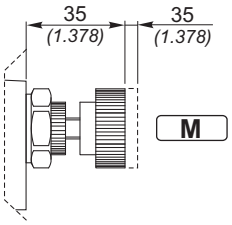
Q30

DISTRIBUTORI A COMANDO ELETTRICO DIRETTO CON FIANCATA PROPORZIONALE F7SPR
DIRECTIONAL CONTROL VALVE WITH DIRECT ELECTRICAL CONTROL AND PROPORTIONAL SECTION F7SPR

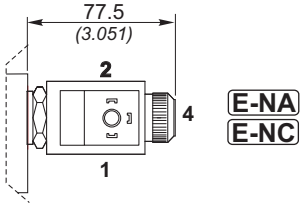


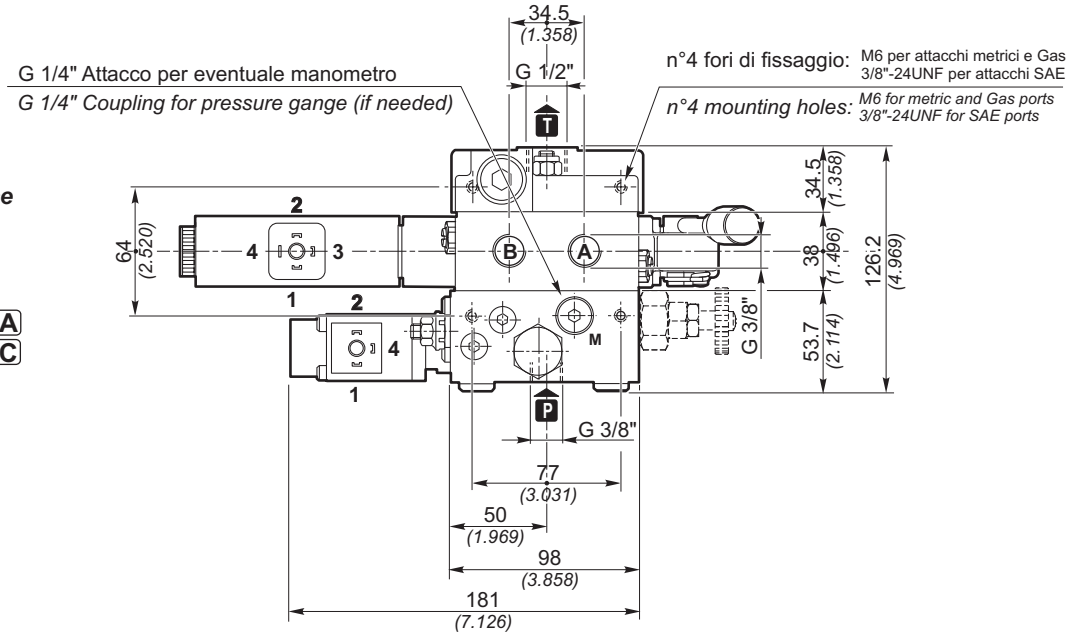


Sicurezza manuale
Manual safety device



Sicurezza elettrica
Electrical safety device



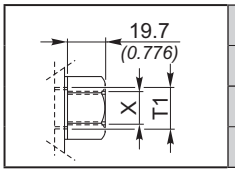


Q30	—	F7SPR	N120	30	M	—	2x	103	A1/D41	V30	R250	V01	—	F3D	—	12V	—	2E
1		2	3	4	5			7	8	10	11	12		13		16		17

Filettature disponibili / *Available ports*

Bocche *Ports*	**BSP** (standard)	**SAE**
P1	G 3/8"	3/4" - 16UNF (SAE 8)
P2	G 3/8"	3/4" - 16UNF (SAE 8)
A-B	G 3/8"	9/16" - 18UNF (SAE 6)
T1	G 1/2"	7/8" - 14UNF (SAE 10)
T2	G 1/2"	3/4" - 16UNF (SAE 8)

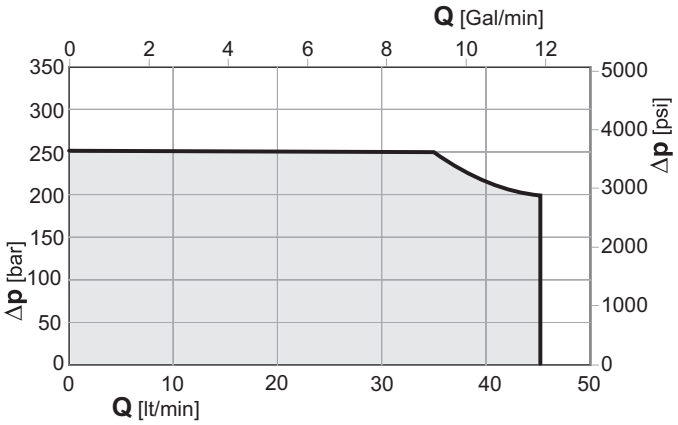
Tappo per carry-over (su uscita T1)
Carry-over plug (on T1 port)



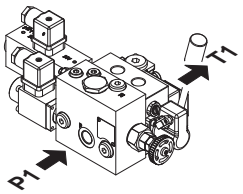
T1	G 1/2"
X	G 3/8" - G 1/2"
T1	7/8"-14UNF (SAE 10)
X	3/4" - 16UNF (SAE 8)

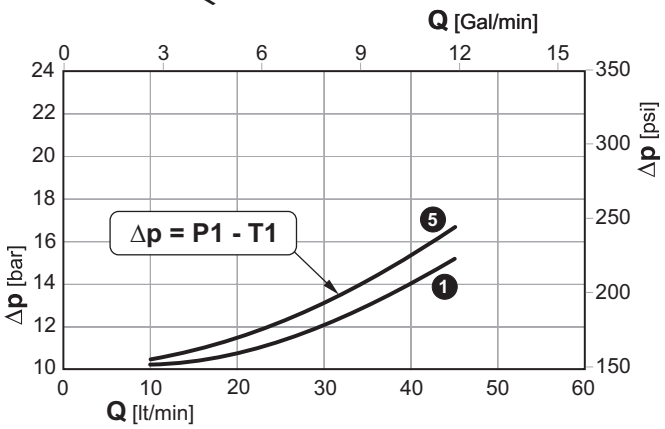
Dimensioni in / *Dimensions in:* mm *(inch)*

Limiti d'impiego / *Use limits*

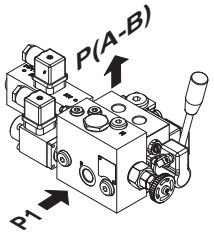


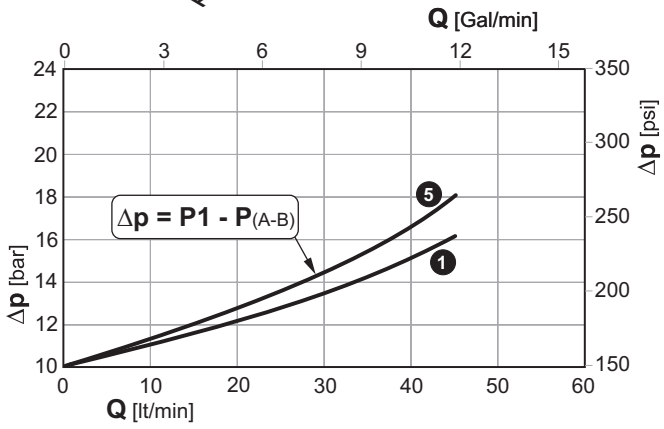
Perdite di carico con il cursore in posizione neutra
(Δp in funzione del numero di sezioni attraversate)
Pressure drop with spool in neutral position
(*Δp depending on the number of the crossed sections*)

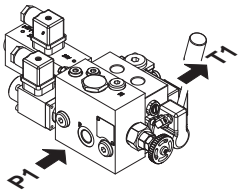


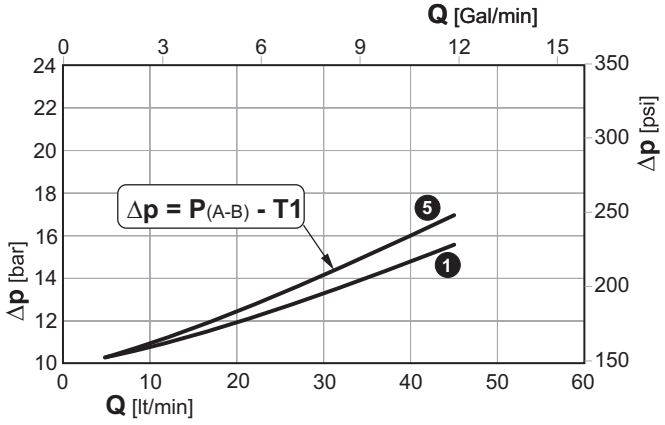


Perdite di carico con il cursore in posizione di lavoro
(Δp in funzione del numero di sezioni attraversate)
Pressure drop with spool in working position
(*Δp depending on the number of the crossed sections*)







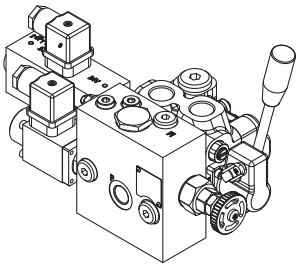


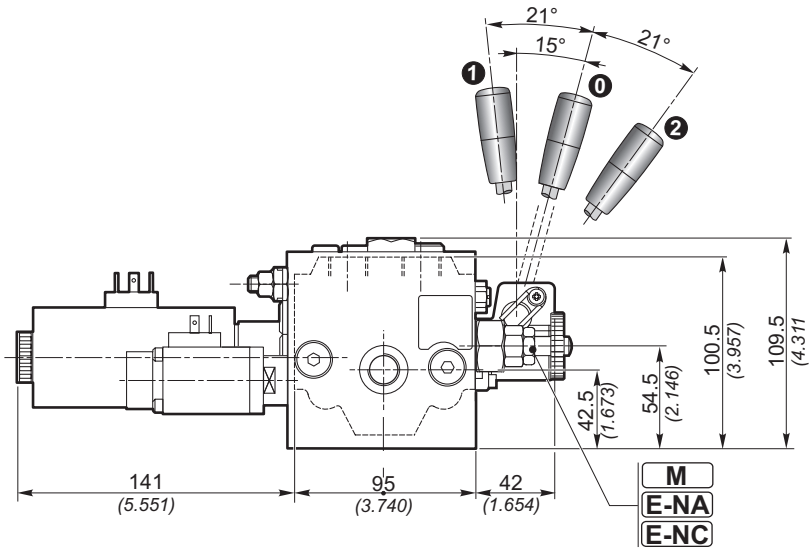
❶ ❺ Sezioni / *Sections*

N.B. Le curve sono ricavate con cursore 103 / *NOTE. Performance curves measured using spool 103 type.*

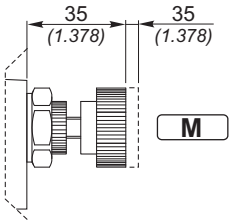
GSV50

DISTRIBUTORI A COMANDO ELETTRICO DIRETTO CON FIANCATA PROPORZIONALE F7SPR
DIRECTIONAL CONTROL VALVE WITH DIRECT ELECTRICAL CONTROL AND PROPORTIONAL SECTION F7SPR





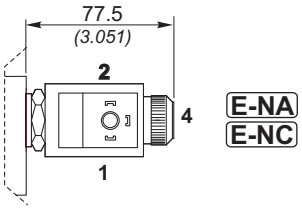
Sicurezza manuale
Manual safety device

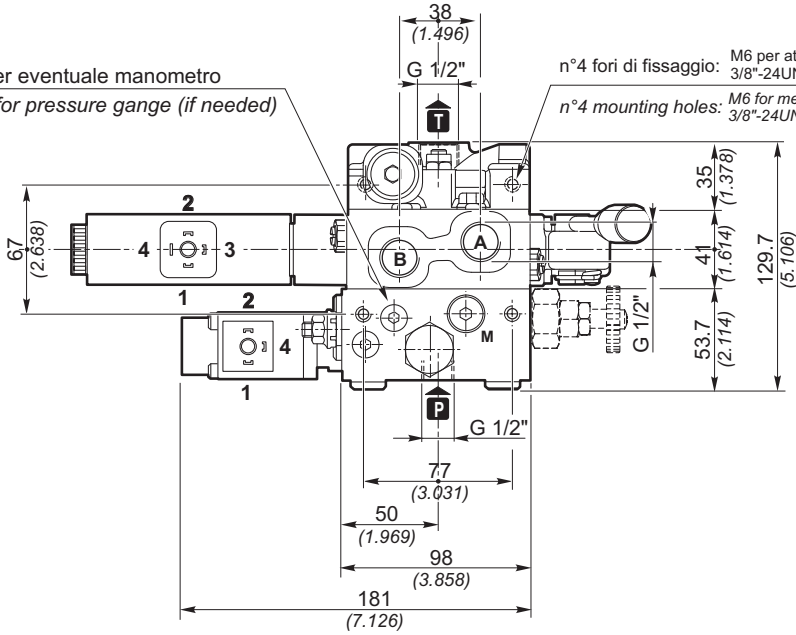


G 1/4" Attacco per eventuale manometro
G 1/4" Coupling for pressure gange (if needed)

n°4 fori di fissaggio: M6 per attacchi metrici e Gas 3/8"-24UNF per attacchi SAE
n°4 mounting holes: M6 for metric and Gas ports 3/8"-24UNF for SAE ports

Sicurezza elettrica
Electrical safety device





GSV50	—	F7SPR	N120	30	M	—	2x	103	A1/D41	V30	R250	V01	—	F3D	—	12V	—	2E
1		2	3	4	5			7	8	10	11	12		13		16		17

Filettature disponibili / *Available ports*

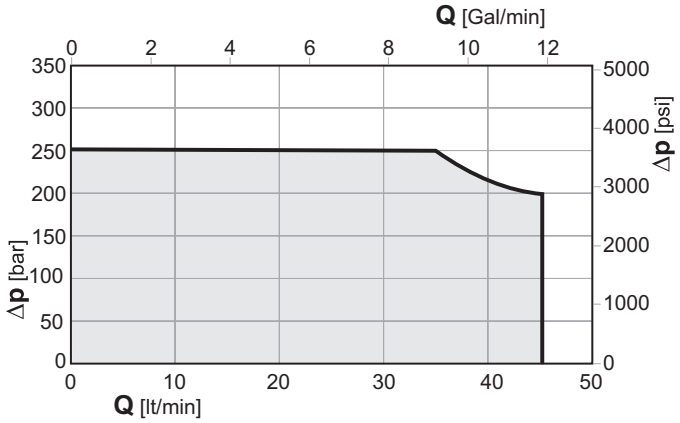
Bocche *Ports*	**BSP** (standard)	**SAE**
P1	G 1/2"	3/4" - 16UNF (SAE 8)
P2	G 1/2"	3/4" - 16UNF (SAE 8)
A-B	G 1/2"	3/4" - 16UNF (SAE 8)
T1	G 1/2"	7/8" - 14UNF (SAE 10)
T2	G 1/2"	3/4" - 16UNF (SAE 8)

Tappo per carry-over (su uscita T1)
Carry-over plug (on T1 port)

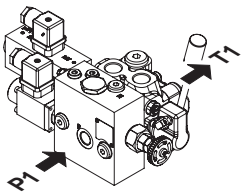
T1	G 1/2"
X	G 3/8" - G 1/2"
T1	7/8"-14UNF (SAE 10)
X	3/4" - 16UNF (SAE 8) 7/8"-14UNF (SAE 10)

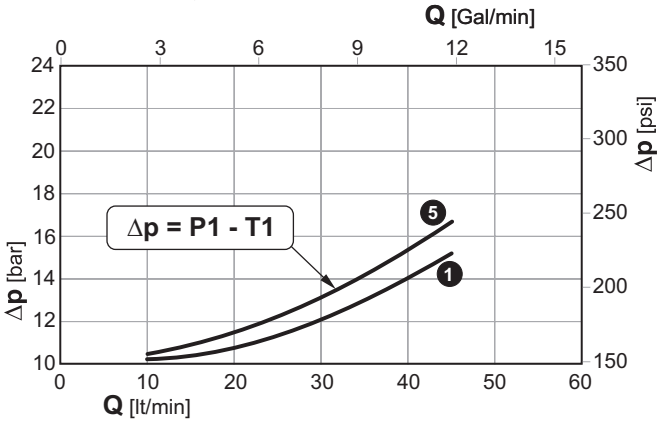
Dimensioni in / *Dimensions in:* mm *(inch)*

Limiti d'impiego / *Use limits*

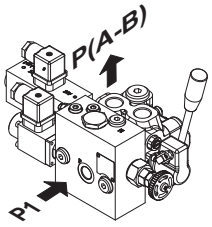


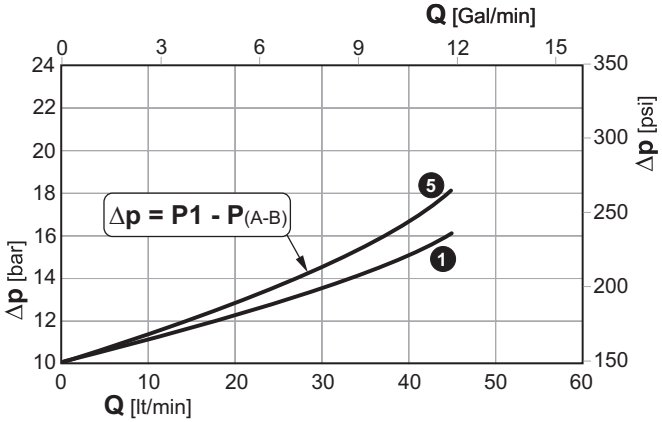
Perdite di carico con il cursore in posizione neutra
(Δp in funzione del numero di sezioni attraversate)
Pressure drop with spool in neutral position
(*Δp depending on the number of the crossed sections*)

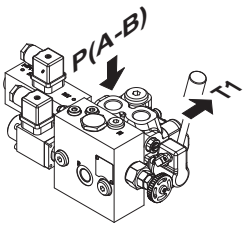


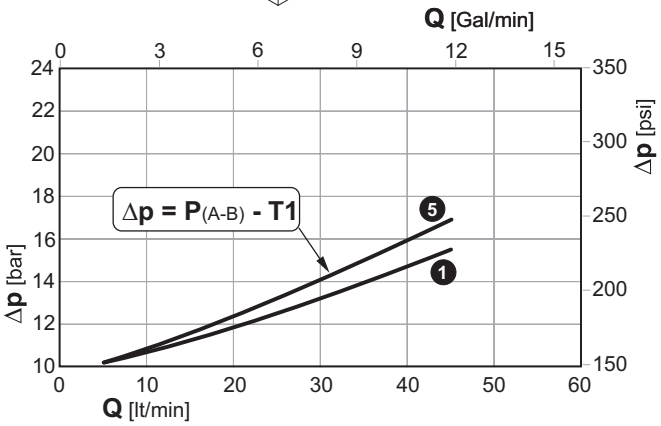


Perdite di carico con il cursore in posizione di lavoro
(Δp in funzione del numero di sezioni attraversate)
Pressure drop with spool in working position
(*Δp depending on the number of the crossed sections*)









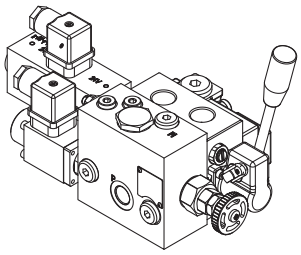
❶ ❺ Sezioni / *Sections*

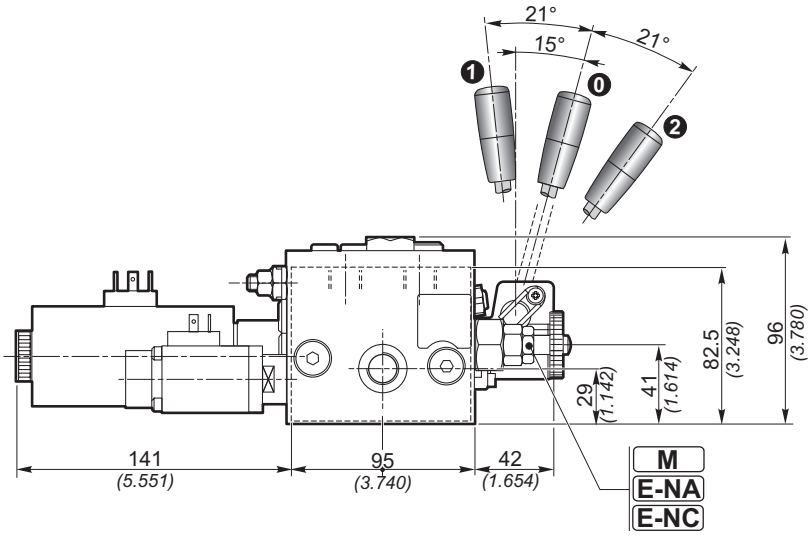
N.B. Le curve sono ricavate con cursore 103 / *NOTE. Performance curves measured using spool 103 type.*

Q50

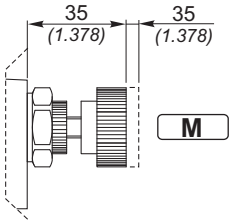
DISTRIBUTORI A COMANDO ELETTRICO DIRETTO CON FIANCATA PROPORZIONALE F7SPR
DIRECTIONAL CONTROL VALVE WITH DIRECT ELECTRICAL CONTROL AND PROPORTIONAL SECTION F7SPR

Ad esaurimento / Phasing-out





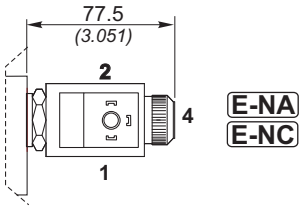
Sicurezza manuale
Manual safety device

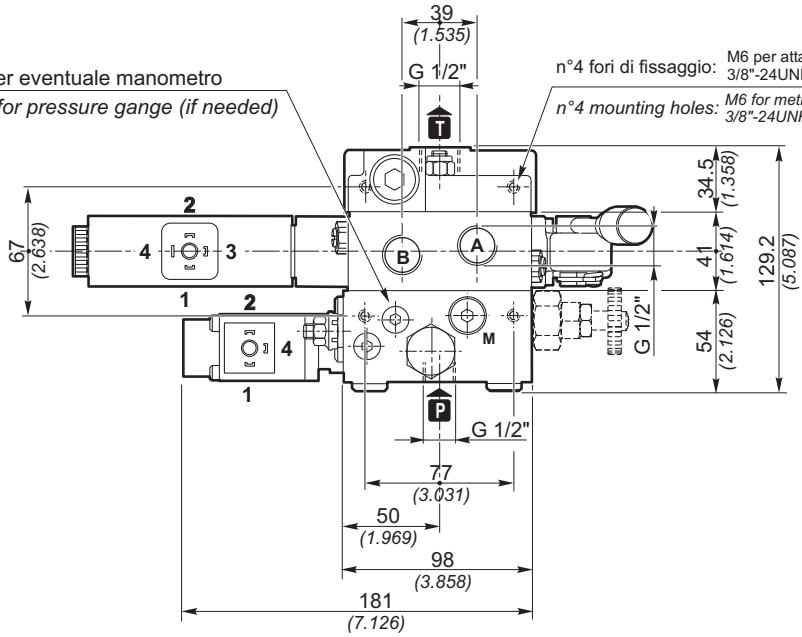


G 1/4" Attacco per eventuale manometro
G 1/4" Coupling for pressure gange (if needed)

n°4 fori di fissaggio: M6 per attacchi metrici e Gas 3/8"-24UNF per attacchi SAE
n°4 mounting holes: M6 for metric and Gas ports 3/8"-24UNF for SAE ports

Sicurezza elettrica
Electrical safety device



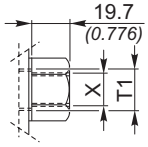


Q50	—	F7SPR	N120	30	M	—	2x	103	A1/D41	V30	R250	V01	—	F3D	—	12V	—	2E
1		2	3	4	5			7	8	10	11	12		13		16		17

Filettature disponibili / *Available ports*

Bocche *Ports*	**BSP** (standard)	**SAE**
P1	G 1/2"	3/4" - 16UNF (SAE 8)
P2	G 1/2"	3/4" - 16UNF (SAE 8)
A-B	G 1/2"	3/4" - 16UNF (SAE 8)
T1	G 1/2"	7/8" - 14UNF (SAE 10)
T2	G 1/2"	3/4" - 16UNF (SAE 8)
Y* [mm]	2.5	1.5

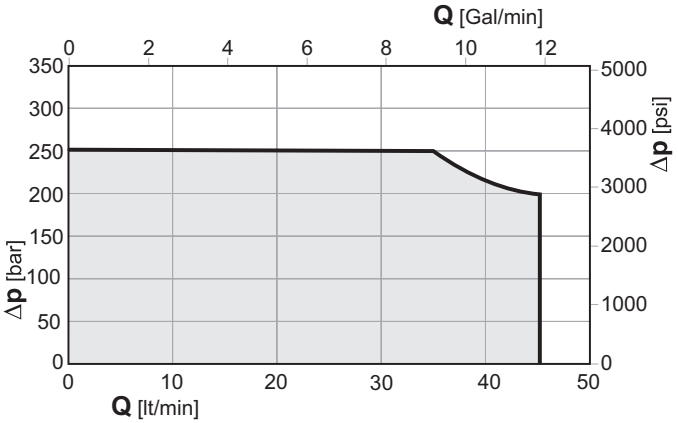
Tappo per carry-over (su uscita T1)
Carry-over plug (on T1 port)



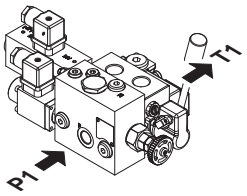
T1	G 1/2"
X	G 3/8" - G 1/2"
T1	7/8"-14UNF (SAE 10)
X	3/4" - 16UNF (SAE 8) 7/8"-14UNF (SAE 10)

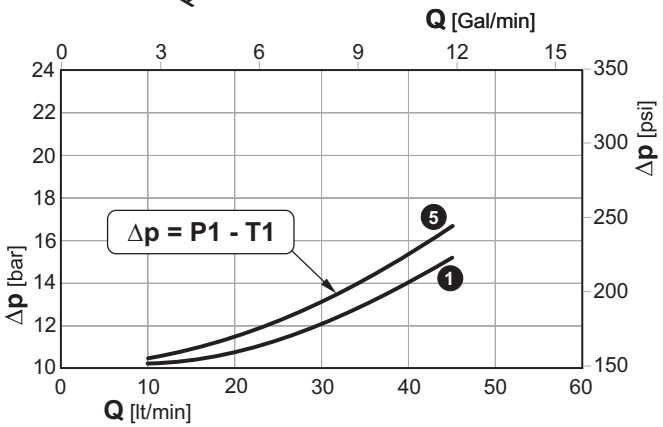
Dimensioni in / *Dimensions in:* mm *(inch)*

Limiti d'impiego / *Use limits*

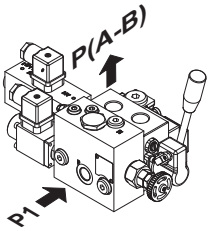


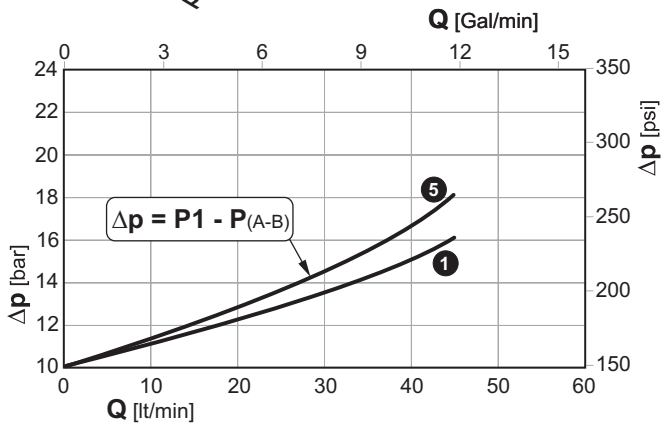
Perdite di carico con il cursore in posizione neutra
(Δp in funzione del numero di sezioni attraversate)
Pressure drop with spool in neutral position
(*Δp depending on the number of the crossed sections)*

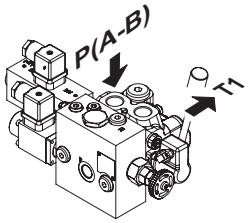


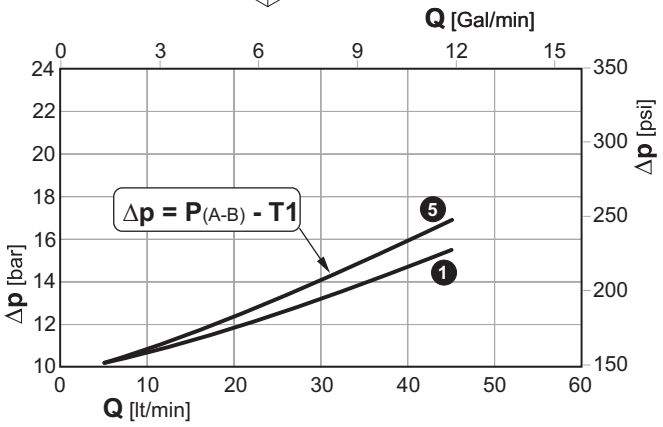


Perdite di carico con il cursore in posizione di lavoro
(Δp in funzione del numero di sezioni attraversate)
Pressure drop with spool in working position
(*Δp depending on the number of the crossed sections)*









❶ ❺ Sezioni / *Sections*

N.B. Le curve sono ricavate con cursore 103 / *NOTE. Performance curves measured using spool 103 type.*

ELETTRONICA DI COMANDO ELP 30

- L'elettronica di comando ELP 30 e composta da una scatola di comando con assemblati: il joystick potenziometrico unico per tutte le sezioni, il pulsante di emergenza collegato in modo tale da togliere l'alimentazione elettrica ai solenoidi ON-OFF, con conseguente arresto delle funzioni, i joysticks ON-OFF per le corrispondenti sezioni di lavoro e la scheda elettronica di comando.
- Viene inoltre fornita una scatola di derivazione per l'alimentazione elettrica (tensione 12 o 24 V B.C.) completa dei cavi e dei connettori.
- Tutti i valori della portata sono programmabili al valore desiderate e in ogni singolo effetto con apparecchiature già installate. È così possibile verificare direttamente sulla macchina già funzionante le velocità delle singole manovre ed effettuare aggiustamenti successivi fino alla scelta dei valori ottimali (per esempio, se una sezione di lavoro effettua la manovra di "salita-discesa", la portata sull'effetto "salita" può essere fissata ad un valore diverse dalla portata sull'effetto "discesa").
- La programmazione dei valori di portata si effettua tramite operazioni semplici mediante la scheda elettronica.

I valori scelti e fissati restano memorizzati anche in assenza di alimentazione elettrica e fino ad un'eventuale futura riprogrammazione.

CONTROL ELECTRONICS ELP 30

- *ELP 30 is provided with control box an electronic equipped with: the only potentiometric joystick for all working sections, safety button (with due connections to cut power off the ON-OFF solenoids to grant immediate functional stop), ON-OFF joysticks, for corresponding working sections and electronic card.*
- *A branching box is also provided with all cables and connections (power supply 12-24 V D.C. cable included).*
- *All oil flow values can be programmed on desider value on each single port with already installed equipment. In this way, it is possible to check directly on working machine single drivings speeds and making further settlements up to final choice of optimum values. For example, if a working section makes "up-down" operations, oil flow on "up" port can be fixed to a different value of oil flow on "down" port.*
- *Oil flow value programming is made by means of simple operations through the electronic card.*
- *All choosed and fixed values remain stored even with lack of electrical supply and up to a future reprogramming.*

Esempio di ordinazione in codice / *Example of ordering code*

ELP 30	12	4	10

ELP 30	Tipo elettronica di comando *Type of control*	**ELP 30**
12	Tensione di alimentazione *Power supply voltage*	**12 V D.C.** **24 V D.C.**
4	n° elementi *nr. of working sections*	**4**
10	Lunghezza cavo *Cable length*	L1 (m)

AVVERTENZA PER L'INSTALLAZIONE DEI DISTRIBUTORI

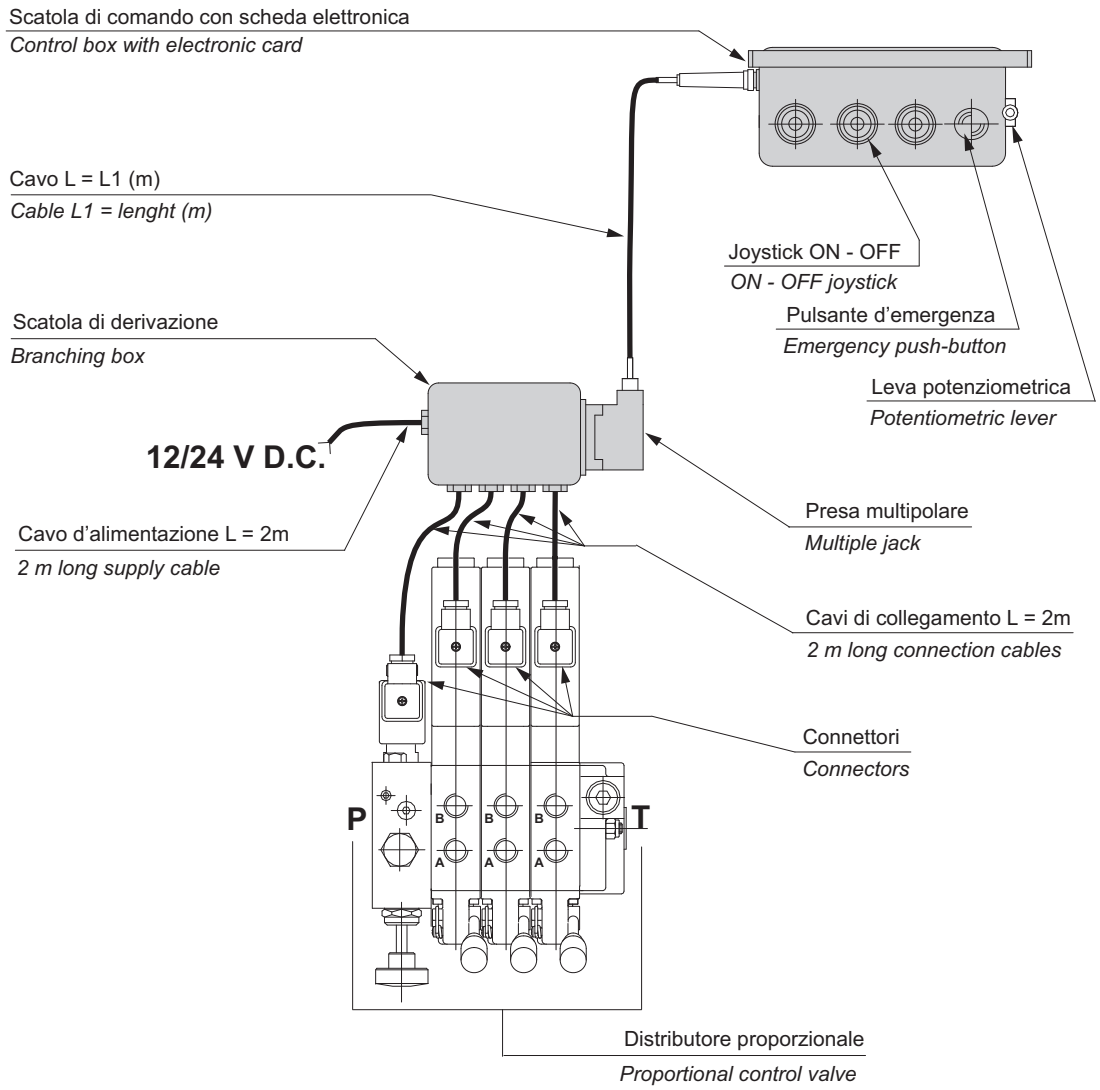
- I quattro e/o tre piedini dei distributori devono sempre appoggiare su una superficie perfettamente piana
- Non manomettere i dadi dei tiranti (distributori componibili) in quanto comprometterebbero il norma-le funzionamento del distributore.
- Non utilizzare raccordi conici su filetti cilindrici.
- Per pulire il distributore, prima della verniciatura, non utilizzare diluenti/solventi o qualsiasi prodotto che possa intaccare le parti in gomma.

NOTES FOR DIRECTIONAL CONTROL VALVES ASSEMBLY

- *The four feet e/o three feet of the valve must always and perfectly rest on a plane surface.*
- *Do not tamper the tie rod nuts (sectional directional control valves) so they might impair the standard working of the valve.*
- *No conical nipples with cylindical thread must be used.*
- *For cleaning a directional control valve, do not use of diluent or any product able to etch rubber parts before the painting.*

ELP 30

ELETTRONICA DI COMANDO
CONTROL ELECTRONICS



ELETTRONICA DI COMANDO EJS 30

- L'elettronica di comando EJS 30 è composta da una scatola di comando con assemblati: i joysticks potenziometrici (corrispondenti alle proprie sezioni di lavoro), il pulsante di emergenza collegato in modo tale da togliere l'alimentazione elettrica ai solenoidi ON-OFF, con conseguente arresto delle funzioni, la scheda elettronica di comando ed il joystick di "uomo presente".
- Viene inoltre fornita una scatola di derivazione per l'alimentazione elettrica (tensione 12 o 24 V B.C.) completa dei cavi e del contenitore.
- Tutti i valori della portata sono programmabili al valore desiderate e in ogni singolo effetto con apparecchiature già installate. È così possibile verificare direttamente sulla macchina già funzionante le velocità delle singole manovre ed effettuare aggiustamenti successivi fino alla scelta dei valori ottimali (per esempio, se una sezione di lavoro effettua la manovra di "salita-discesa", la portata sull'effetto "salita" può essere fissata ad un valore diverse dalla portata sull'effetto "discesa").
- La programmazione dei valori di portata si effettua tramite operazioni semplici mediante la scheda elettronica.
- I valori scelti e fissati restano memorizzati anche in assenza di alimentazione elettrica e fino ad un'eventuale futura riprogrammazione.

CONTROL ELECTRONICS EJS 30

- *EJS 30 control electronic is provided with a control box equipped with potentiometric joy stick for corresponding working sections, a safety push-button duely connected to cut power off the ON-OFF solenoids stopping all functions, an electronic card and a "dead man" safety joystick.*
- *Each electronic is also equipped with branching box duely allowing for power supply inlet hole (12 or 24 V D.C.). Connection of the valve to the main socked is performed by means of waterproof multiple jack.*
- *A branching box is also provided with all cables and connections (power supply 12-24 V D.C. cable included).*
- *All oil flow values can be programmed on desider value on each single port with already installed equipment. In this way, it is possible to check directly on working machine single drivings speeds and making further settlements up to final choice of optimum values. For example, if a working section makes "up-down" operations, oil flow on "up" port can be fixed to a different value of oil flow on "down" port.*
- *Oil flow value programming is made by means of simple operations through the electronic card.*
- *All choosed and fixed values remain stored even with lack of electrical supply and up to a future reprogramming.*

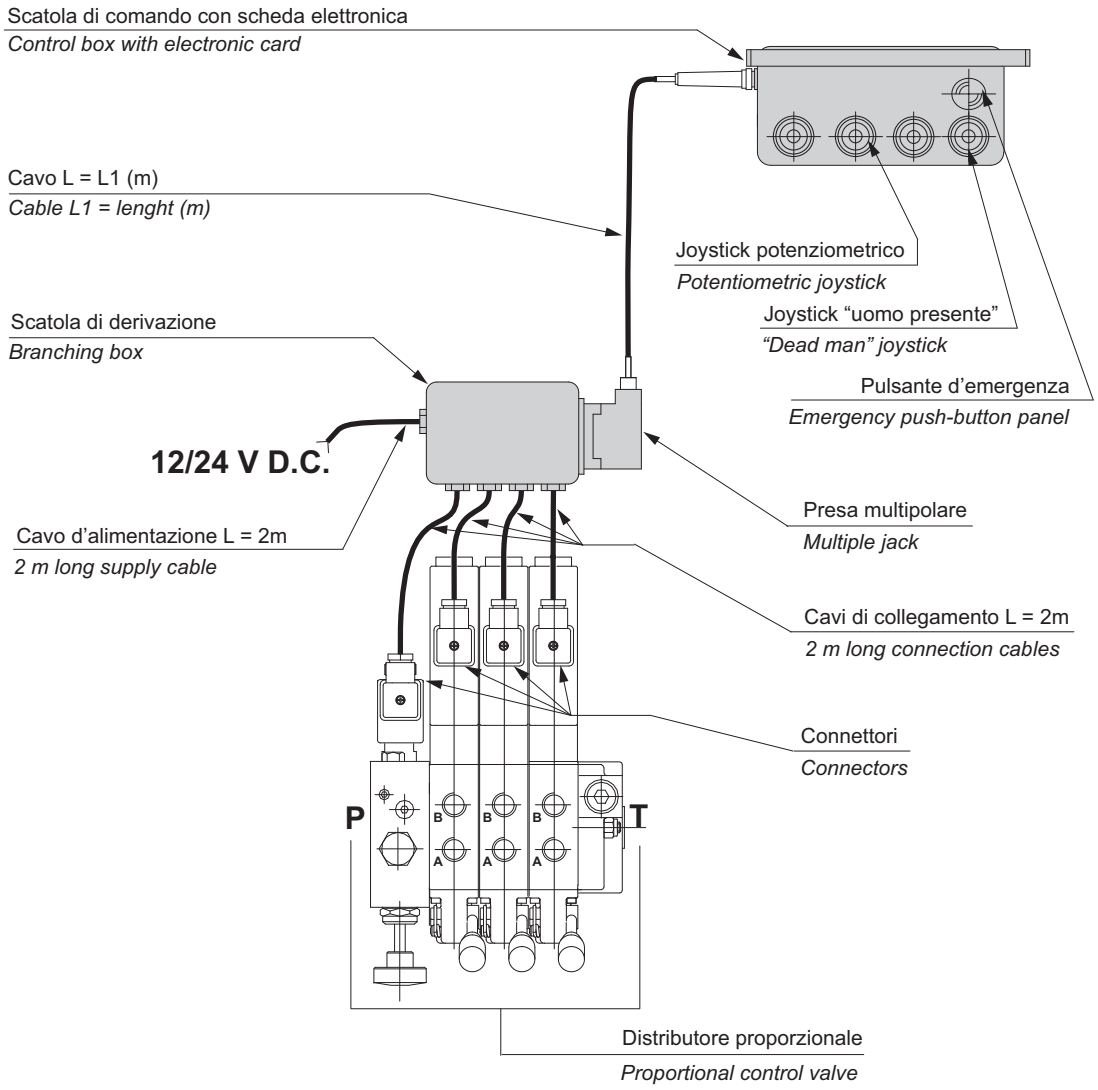
Esempio di ordinazione in codice / *Example of ordering code*

EJS 30	12	4	10

EJS 30	Tipo elettronica di comando *Type of control*	**EJS30**
12	Tensione di alimentazione *Power supply voltage*	**12 V D.C.** **24 V D.C.**
4	n° elementi *nr. of working sections*	**4**
10	Lunghezza cavo *Cable length*	L1 (m)

EJS 30

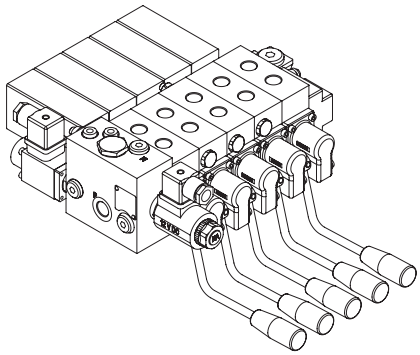
ELETTRONICA DI COMANDO
CONTROL ELECTRONICS



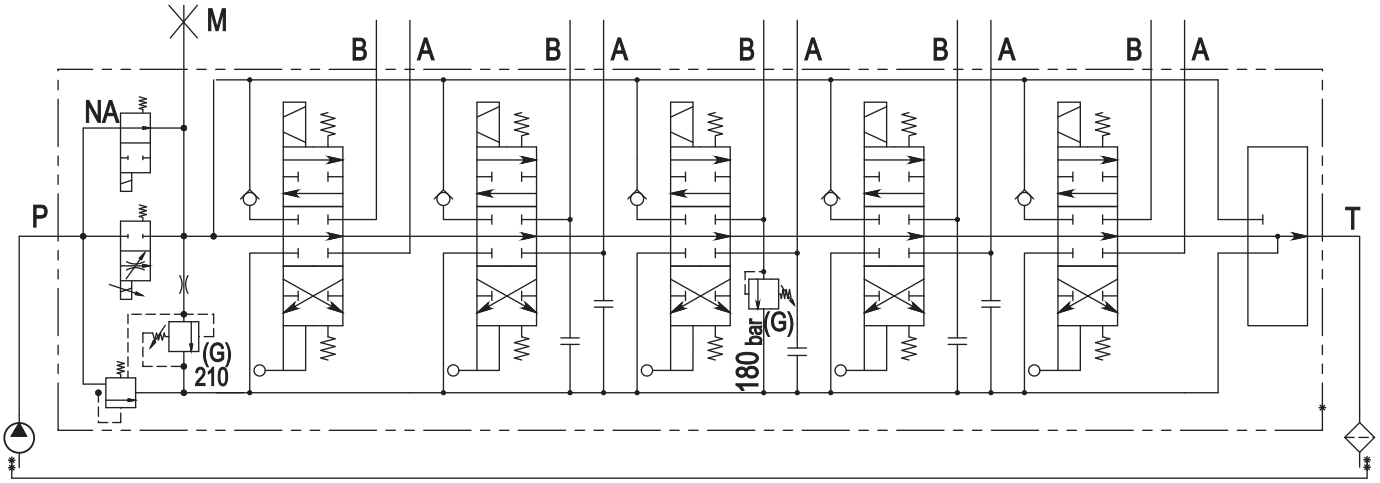
ESEMPI DI ORDINAZIONE IN CODICE
ORDERING CODE EXAMPLES

Q30 - F7S - PR(G)/15/E(NA) - 10315/A2/D4 - 10315/A2/D4/VC - 10315/A2/D4/V31PM(G) - 10315/A2/D4/VC - 10315/A2/D4 - F3D - 5E

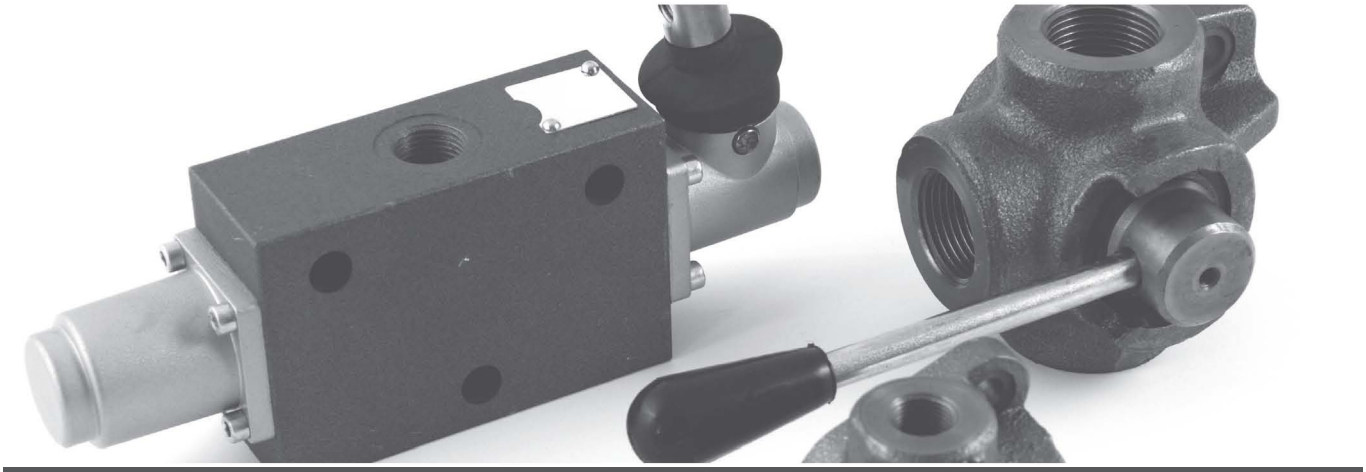
F	G	H	I	L
1	2 - 3 - 4	5 - 6 - 7 - 8 - 9 - 10 - 11 - 12	13	16 - 17
Q30	F7S-PR(G)/15/E(NA)	10315/A2/D4	F3D	5E
		10315/A2/D4/VC		
		10315/A2/D4/V31PM(G)		
		10315/A2/D4/VC		
		10315/A2/D4		



Schema idraulico
Hydraulic symbol

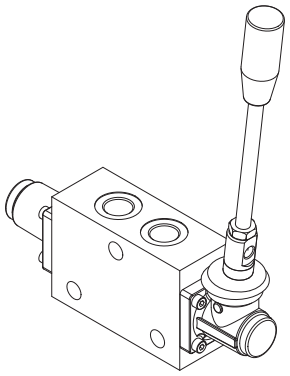


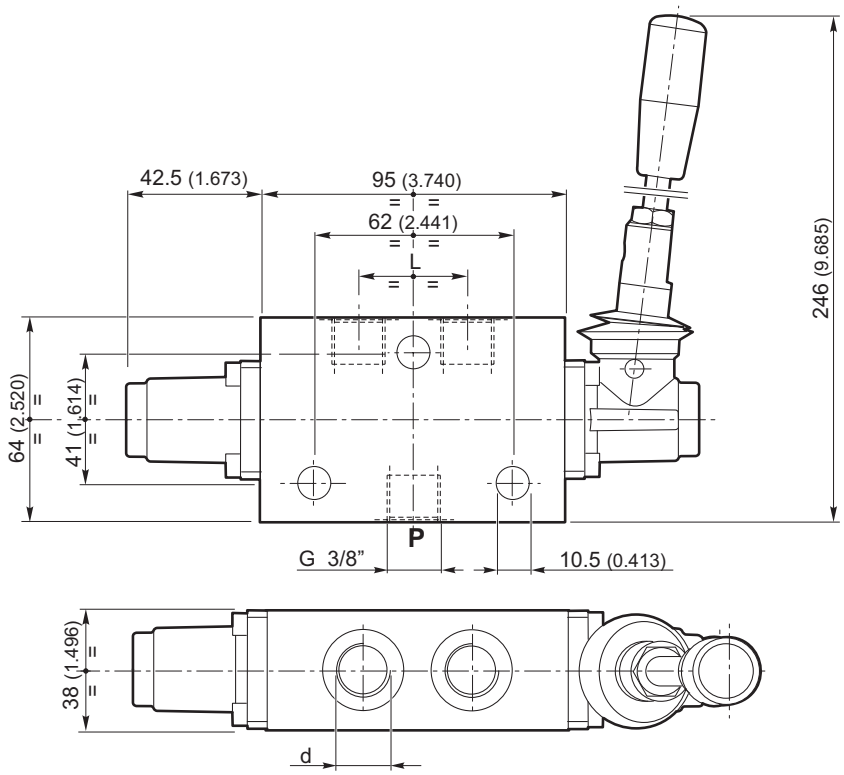
DEVIATORI DI FLUSSO
FLOW DIVERTERS



IF

DEVIATORI DI FLUSSO / *FLOW DIVERTERS*





Tipo *Type*	Portata max. *Max flow rate* [lt/min] *(Gal/min)*	Pressione max. *Max. pressure* [bar] *(PSI)*	L	d
IF 3/8"	35 *(9.25)*	300 *(4350)*	34	G 3/8"
IF 9/16" - 18UNF				SAE 9/16" - 18UNF

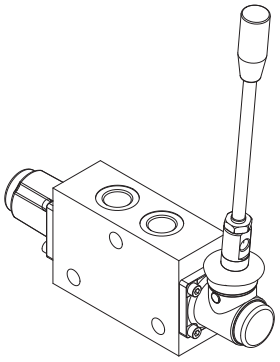
Esempio di ordinazione in codice / *Ordering code example*

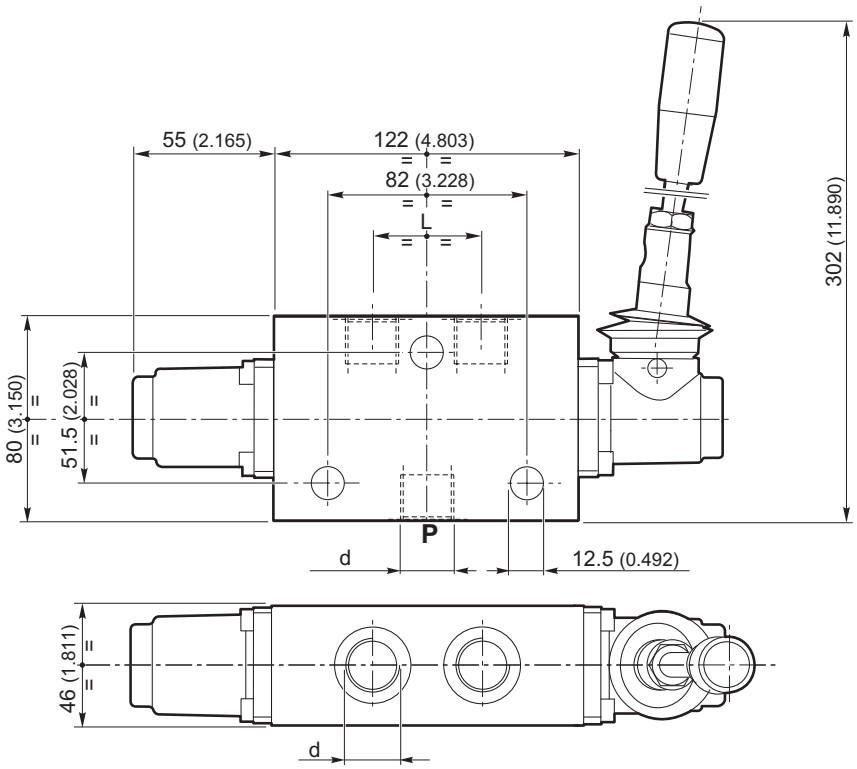
IF 3/8"	1	A5	M4 (2-1)

IF 3/8"	Tipo / *Type*
1	Tipo cursore / *Spool type*
A5	Tipo di comando / *Control type*
M4 (2-1)	Posizionatore / *Positioner*

IF

DEVIATORI DI FLUSSO / *FLOW DIVERTERS*





Tipo *Type*	Portata max. *Max flow rate* [lt/min] (Gal/min)	Pressione max. *Max. pressure* [bar] *(PSI)*	**L** [mm] *(inch)*	**d**
IF 1/2"	70 *(18.49)*	300 *(4350)*	43 *(1.693)*	G 1/2"
IF 7/8" - 14UNF				SAE 7/8" - 14UNF
IF 3/4"	120 *(31.68)*	300 *(4350)*	54 *(2.126)*	G 3/4"
IF 1" 1/16" - 12UNF				SAE 1" 1/16" - 12UNF

Esempio di ordinazione in codice / *Ordering code example*

IF 1/2"	**1**	**A5**	**M4 (2-1)**

IF 3/8"	Tipo / *Type*
1	Tipo cursore / *Spool type*
A5	Tipo di comando / *Control type*
M4 (2-1)	Posizionatore / *Positioner*

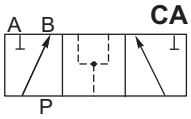
IF

DEVIATORI DI FLUSSO / *FLOW DIVERTERS*

Tipo cursore / *Spool type*

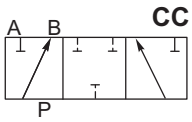
1

Cursore tipo 1 (a centro aperto)
Spool type 1



2

Cursore tipo 2 (a centro chiuso)
Spool type 2

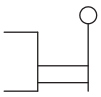


Tipo di comando / *Control type*

			IF3/8"	IF1/2"	IF3/4"
A1	Comando manuale con leva standard	*Hand control with standard lever*	•	•	•
A2	Comando manuale con leva standard ruotata di 180°	*Hand control with standard lever mounted rotated 180°*	•	•	•
A4	Attacco diretto sul cursore per rinvio a distanza rigido	*Direct control connection on spool for stiff remote control*	•	•	•
A5	Attacco diretto sul cursore con terminale sferico (da utilizzare solo con il posizionamento M4 (2-1))	*Direct control connection on spool with spherical end (Control to be used for positioning M4 (2-1))*	•	•	•
C3	Cavo flessibile	*Flexible cable*	•	•	•

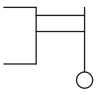
A1

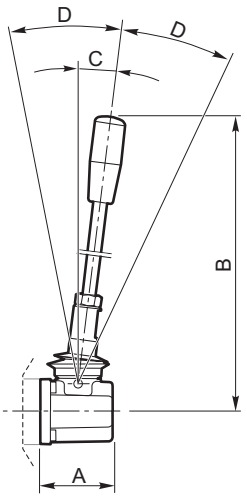
A1: Comando manuale con leva standard
A1: Hand control with standard lever



A2

A2: Comando manuale con leva standard ruotata di 180°
A2: Hand control with standard lever rotated 180°





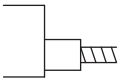
	A	B	C	D
IF3/8"	42 *(1.654)*	205 *(8.071)*	7°	18°
IF1/2" - IF3/4"	55 *(2.165)*	260 *(10.236)*	6°	19°

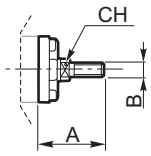
IF

DEVIATORI DI FLUSSO / *FLOW DIVERTERS*

A4

A4: Attacco diretto sul cursore
per rinvio a distanza rigido
A4: Direct control connection on spool
for stiff remote control

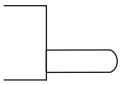


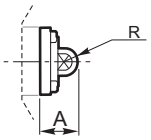


	A	B	CH	Corsa *Stroke*
IF3/8"	39 *(1.535)*	M8	9 *(0.354)*	±5 *(0.197)*
IF1/2" - IF3/4"	53 *(2.087)*	M10	14 *(0.551)*	±7 *(0.276)*

A5

Attacco diretto sul cursore
con terminale sferico
(da utilizzare solo
con il posizionamento M4 (2-1)
Direct control connection
on spool with spherical end
(Control to be used
for positioning M4 (2-1))0

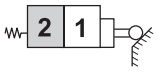


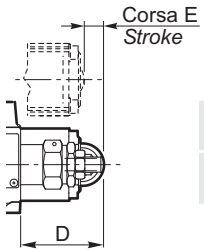


	A	R	Corsa *Stroke*
IF3/8"	22 *(0.866)*	6.85 *(0.270)*	±5 *(0.197)*
IF1/2" - IF3/4"	33 *(1.299)*	8.75 *(0.344)*	±7 *(0.276)*

C3*

Comando a camme, 2 posizioni
estreme 2-1, con ritorno
a molla in pos. 2
Cam control, 2 end
positions 2-1,
spring centred in 2 position





	D	E
IF3/8"	43 *(1.693)*	10 *(0.394)*
IF1/2" - IF3/4"	51 *(2.008)*	14 *(0.551)*

* Comando a camme da utilizzare solo con il posizionamento M4 2-1
* *Controls to be used for positioning M4 2-1 only*

Posizionatori / *Positioner*

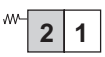
			IF3/8"	IF1/2"	IF3/4"
M4(1-2)	Due posizioni estreme ritorno a molla in pos.1	*Two end positions spring back in 1*	•	•	•
M4(2-1)	Due posizioni estreme ritorno a molla in pos.2	*Two end positions spring back in 2*	•	•	•
R6	*Due posizioni in detent 1-2*	*Two positions detent 1-2*		•	•

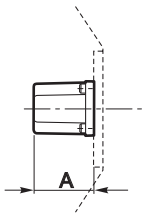
M4 (1-2)

Due posizioni estreme ritorno a molla in pos.1
Two end positions spring back in 1

M4 (2-1)

Due posizioni estreme ritorno a molla in pos.2
Two end positions spring back in 2

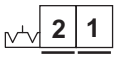


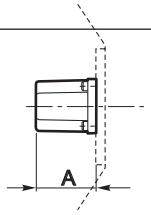


	A
IF3/8"	42 *(1.654)*
IF1/2" - IF3/4"	55 *(2.165)*

R6

Due posizioni in detent 1-2
Two positions detent 1-2

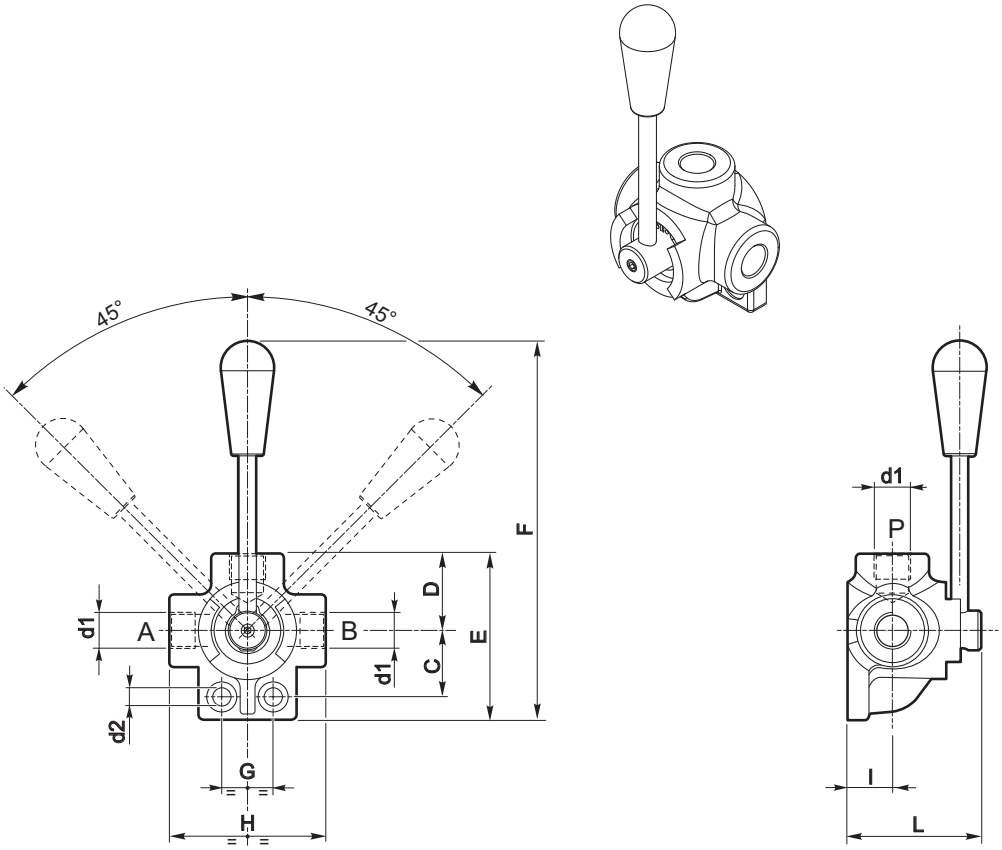




	A
IF3/8"	42 *(1.654)*
IF1/2" - IF3/4"	55 *(2.165)*

D3V

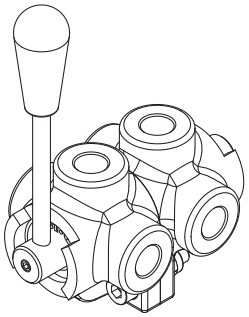
DEVIATORI DI FLUSSO ROTATIVI / *ROTARY FLOW DIVERTERS*
A 3 VIE / *3 WAYS VALVES*

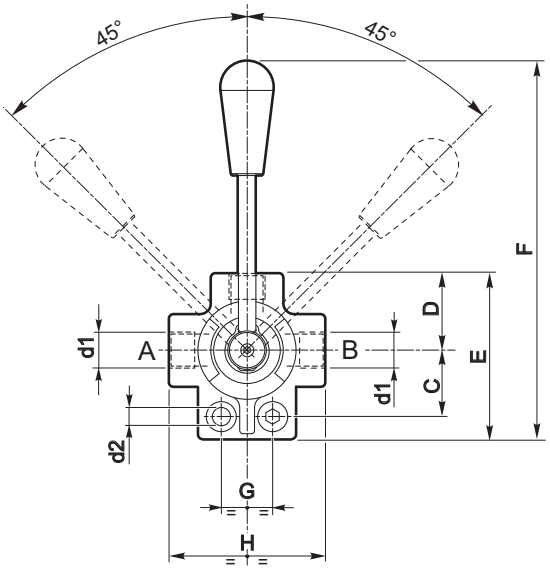


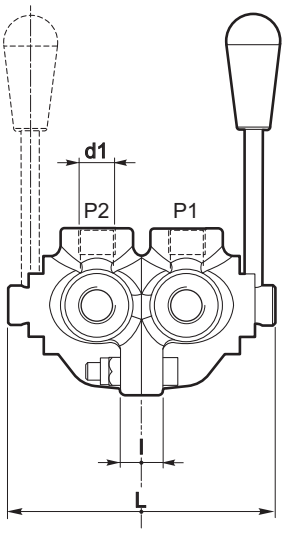
Tipo *Type*	Portata max. *Max flow rate* [lt/min] (Gal/min)	Pressione max. *Max. pressure* [bar] (PSI)	Dimensioni [mm] *Dimensions (inch)*										Schema idraulico *Hydraulic symbol*
			d1	d2	C	D	E	F	G	H	I	L	
D3V 3/8"	60 *(15.84)*	315 *(4568)*	G 3/8"	8.5 *(0.335)*	31 *(1.220)*	36 *(1.417)*	78 *(3.071)*	167 *(6.575)*	24 *(0.945)*	73 *(2.874)*	21 *(0.827)*	62 *(2.441)*	**CA**
D3V 1/2"	90 *(23.76)*	280 *(4060)*	G 1/2"	11 *(0.433)*	36 *(1.417)*	43 *(1.693)*	96 *(3.780)*	178 *(7.008)*	30 *(1.181)*	85 *(3.346)*	24 *(0.945)*	70 *(2.756)*	
D3V 3/4"	120 *(31.68)*	250 *(3625)*	G 3/4"	11 *(0.433)*	41 *(1.614)*	47 *(1.850)*	105 *(4.134)*	183 *(7.205)*	32 (1.260)	91 *(3.583)*	28 *(1.102)*	80 *(3.150)*	**CC**
D3V 1"	180 *(47.52)*	250 *(3625)*	G 1"	11 *(0.433)*	50 *(1.969)*	51 *(2.008)*	115 *(4.528)*	224 *(8.819)*	32 (1.260)	98 *(3.858)*	31.5 *(1.240)*	90 *(3.543)*	

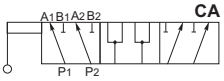
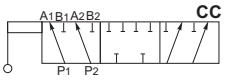
D6V

DEVIATORI DI FLUSSO ROTATIVI / *ROTARY FLOW DIVERTERS*
A 6 VIE / *6 WAYS VALVES*



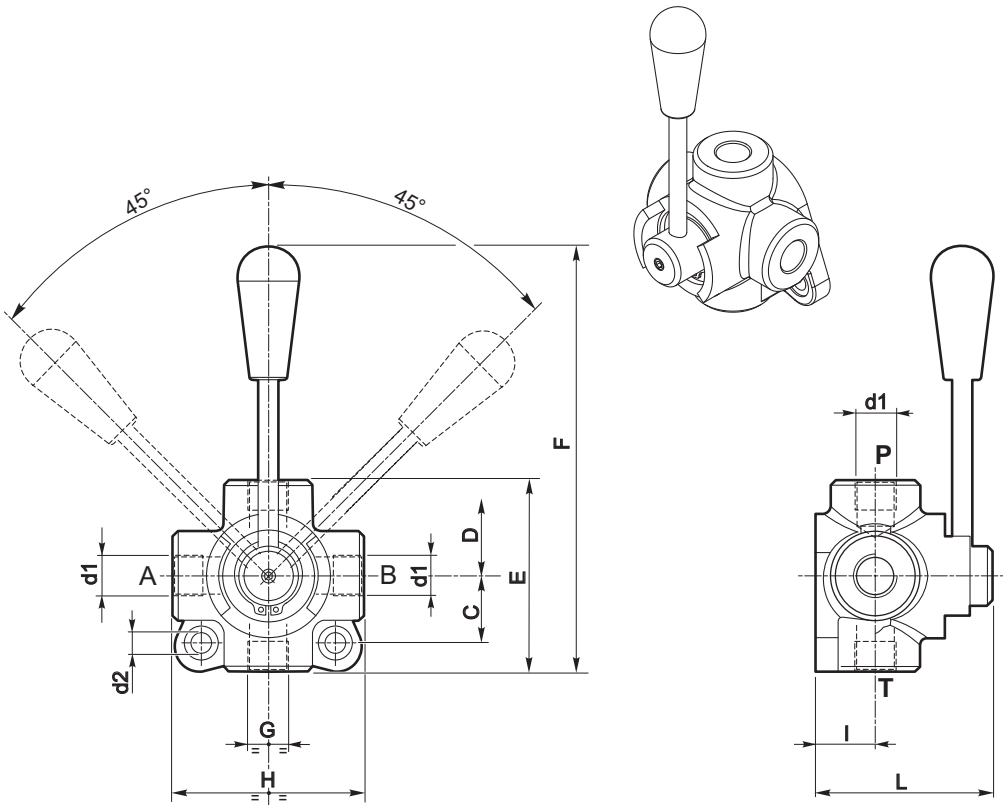


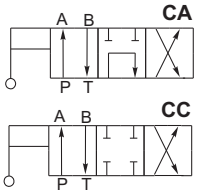


Tipo *Type*	Portata max. *Max flow rate* [lt/min] *(Gal/min)*	Pressione max. *Max. pressure* [bar] *(PSI)*	Dimensioni [mm] *Dimensions (inch)*										Schema idraulico *Hydraulic symbol*
			d1	d2	C	D	E	F	G	H	I	L	
D6V 3/8"	60 *(15.84)*	315 *(4568)*	G 3/8"	8.5 *(0.335)*	31 *(1.220)*	36 *(1.417)*	78 *(3.071)*	167 *(6.575)*	24 *(0.945)*	73 *(2.874)*	42 *(1.654)*	124 *(4.882)*	
D6V 1/2"	90 *(23.76)*	280 *(4060)*	G 1/2"	11 *(0.433)*	36 *(1.417)*	43 *(1.693)*	96 *(3.780)*	178 *(7.008)*	30 *(1.181)*	85 *(3.346)*	48 *(1.890)*	140 *(5.512)*	

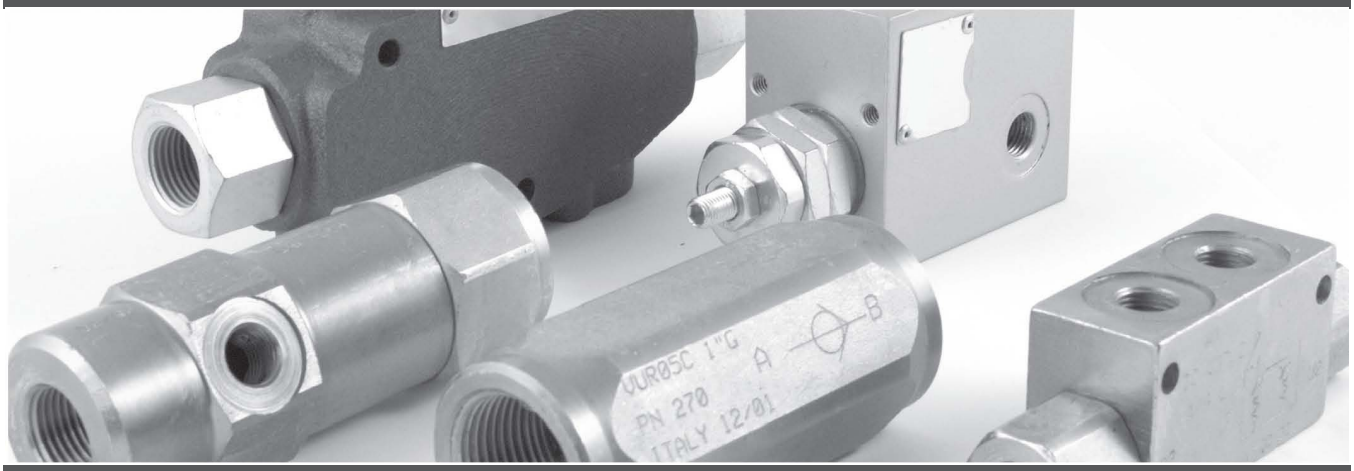
D4V

DEVIATORI DI FLUSSO ROTATIVI / *ROTARY FLOW DIVERTERS*
A 4 VIE / *4 WAYS VALVES*



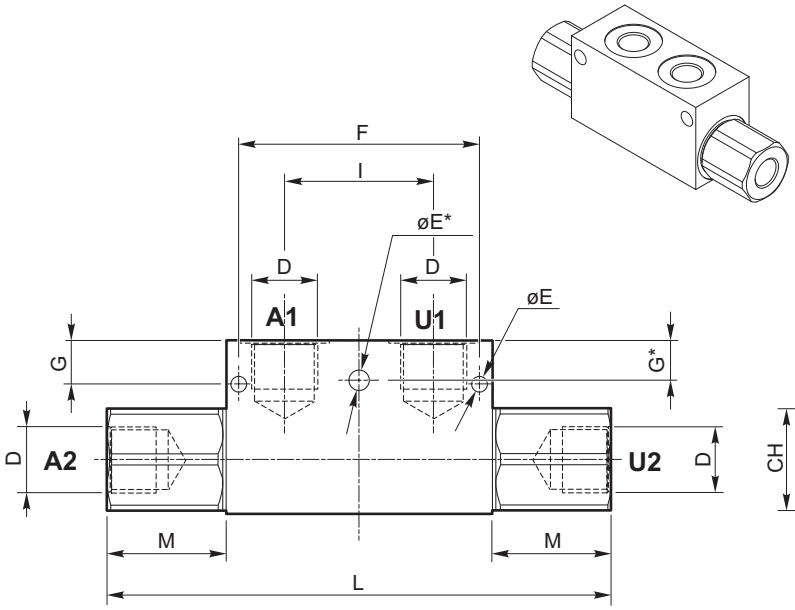
Tipo *Type*	Portata max. *Max flow rate* [lt/min] (Gal/min)	Pressione max. *Max. pressure* [bar] (PSI)	Dimensioni [mm] *Dimensions (inch)*										Schema idraulico *Hydraulic symbol*
			d1	d2	C	D	E	F	G	H	I	L	
D4V 3/8"	35 *(9.25)*	250 *(3625)*	G 3/8"	8.5 *(0.335)*	27 *(1.063)*	38.5 *(1.516)*	77 *(3.031)*	163.5 *(6.437)*	54 *(2.126)*	77 *(3.031)*	24 *(0.945)*	71 *(2.795)*	
D4V 1/2"	50 *(13.21)*	250 *(3625)*	G 1/2"	8.5 *(0.335)*	32 *(1.260)*	45 *(1.772)*	90 *(3.543)*	170 *(6.693)*	68 *(2.677)*	90 *(3.543)*	28 *(1.102)*	80 *(3.150)*	
D4V 3/4"	90 *(23.78)*	220 *(3190)*	G 3/4"	8.5 *(0.335)*	38 *(1.496)*	45.5 *(1.791)*	93 *(3.661)*	172.5 *(6.791)*	74 *(2.913)*	95 *(3.740)*	32 *(1.260)*	93 *(3.661)*	

VALVOLE AUSILIARIE
AUXILIARIES VALVES

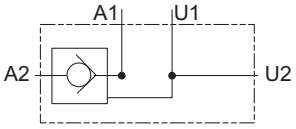


IS VBP

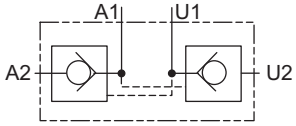
VALVOLE DI BLOCCO PILOTATE DOPPIE
DOUBLE PILOT-OPERATED CHECK



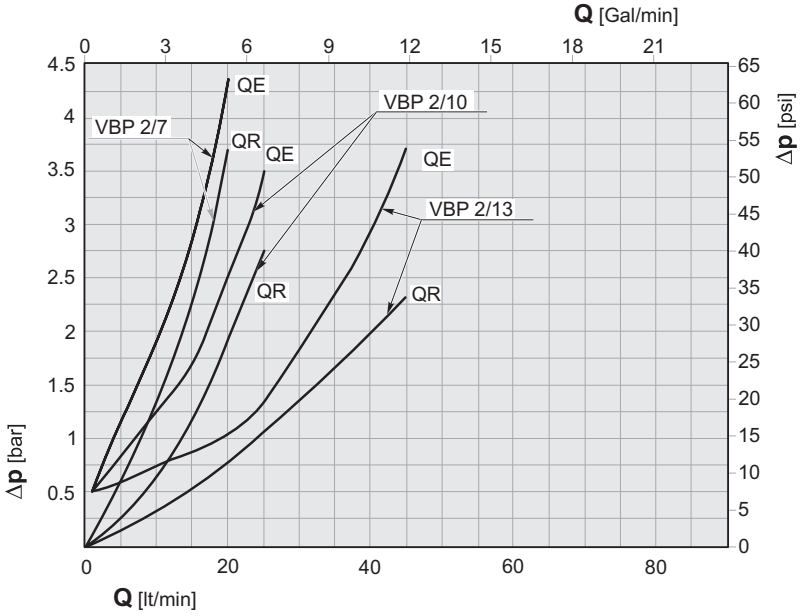
Versione 1 (singola)
1 Version (single)



Versione 2 (doppia)
2 Version (double)



Perdite di carico / *Pressure drops*



QE

A1 → A2
U1 → U2

QR

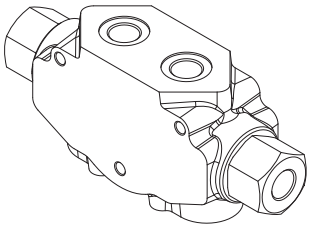
A2 → A1
U2 → U1

Tipo *Type*		Portata max. *Max flow rate* [lt/min] *(Gal/min)*	Pressione max. *Max. pressure* [bar] *(PSI)*	Press. di apertura *Opening pressure* [bar] *(PSI)*	Rapporto di pilotaggio *Piloting ratio*	Peso *Mass* [Kg] *(lbs)*
IS VBP 1/7	**IS VBP 2/7**	20 *(5.28)*	350 *(5075)*	4 *(58)* (standard)	1 : 4.5	0.75 *(1.7)*
IS VBP 1/10	**IS VBP 2/10**	20 *(5.28)*	350 *(5075)*		1 : 4.5	0.71 *(1.6)*
IS VBP 1/13	**IS VBP 2/13**	80 *(21.12)*	300 *(4350)*		1 : 4	1.9 *(4.2)*
IS VBP 1/19	**IS VBP 2/19**	120 *(31.68)*	300 *(4350)*		1 : 4	3.5 *(7.7)*

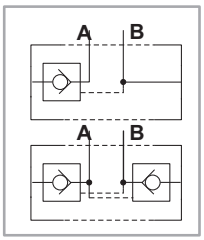
Tipo *Type*	D	E [mm] *(inch)*	E* [mm] *(inch)*	F [mm] *(inch)*	G [mm] *(inch)*	G* [mm] *(inch)*	H [mm] *(inch)*	I [mm] *(inch)*	L [mm] *(inch)*	M [mm] *(inch)*	S [mm] *(inch)*	CH [mm] *(inch)*
IS VBP .../7	G 1/4"	6.5 *(0.256)*	—	60 *(2.362)*	8 *(0.315)*	—	40 *(1.575)*	30 *(1.181)*	120 *(4.724)*	25 *(0.984)*	30 *(1.181)*	24 *(0.945)*
IS VBP .../10	G 3/8"	6.5 *(0.256)*	—	60 *(2.362)*	8 *(0.315)*	—	40 *(1.575)*	30 *(1.181)*	120 *(4.724)*	25 *(1.575)*	30 *(1.181)*	24 *(0.945)*
IS VBP .../13	G 1/2"	8 *(0.315)*	—	75 *(2.953)*	17 *(0.669)*	—	60 *(2.362)*	40 *(1.575)*	170 *(6.693)*	40 *(1.575)*	40 *(1.575)*	30 *(1.181)*
IS VBP .../19	G 3/4"	6.5 *(0.256)*	8.5 *(0.335)*	97 *(3.819)*	17 *(0.669)*	16 *(0.630)*	70 *(2.756)*	60 *(2.362)*	203 *(7.992)*	48 *(1.890)*	50 *(1.969)*	41 *(1.614)*

VRP

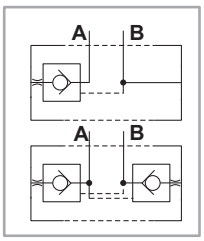
VALVOLE DI BLOCCO PILOTATE CON PREVALVOLA
PILOT-OPERATED CHECK VALVES WITH PRE-VALVE

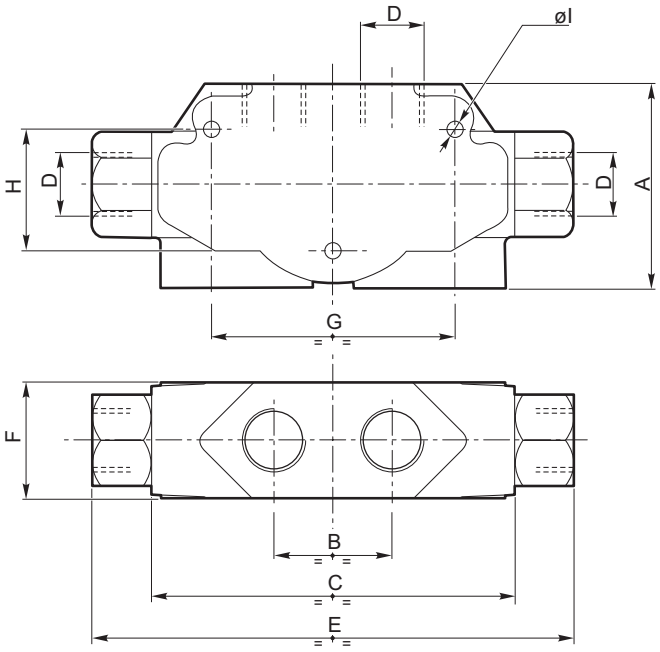


Normale/ *Normal*



Controllata/ *Speed controlled*





Tipo *Type*	A [mm] *(inch)*	B [mm] *(inch)*	C [mm] *(inch)*	D	E [mm] *(inch)*	F [mm] *(inch)*	G [mm] *(inch)*	H [mm] *(inch)*	I [mm] *(inch)*	Portata max. *Max flow rate* [lt/min] (Gal/min)	Pressione max. *Max. pressure* [bar] *(PSI)*	Rapporto di pilotaggio *Piloting ratio*
VRP... G 3/8"	74 *(2.913)*	43 *(1.693)*	132 *(5.197)*	G 3/8"	177 *(6.969)*	49 *(1.929)*	83 *(3.268)*	45 *(1.772)*	6.5 *(0.256)*	40 *(10.57)*	350 *(5075)*	1 : 16
VRP... G 1/2"	74 *(2.913)*	43 *(1.693)*	132 *(5.197)*	G 1/2"	177 *(6.969)*	49 *(1.929)*	83 *(3.268)*	45 *(1.772)*	6.5 *(0.256)*	70 *(18.49)*		1 : 16
VRP... G 3/4"	78 *(3.071)*	51 *(2.008)*	154 *(6.063)*	G 3/4"	214 *(8.425)*	56 *(2.205)*	108 *(4.252)*	48 *(1.890)*	8.5 *(0.335)*	100 *(26.42)*		1 : 12
VRP... G 1"	98 *(3.858)*	61 *(2.402)*	191 *(7.520)*	G 1"	254 *(10.000)*	59 *(2.323)*	124 *(4.882)*	64 *(2.520)*	8.5 *(0.335)*	170 *(44.91)*		1 : 8

Ad esaurimento / Phasing-out

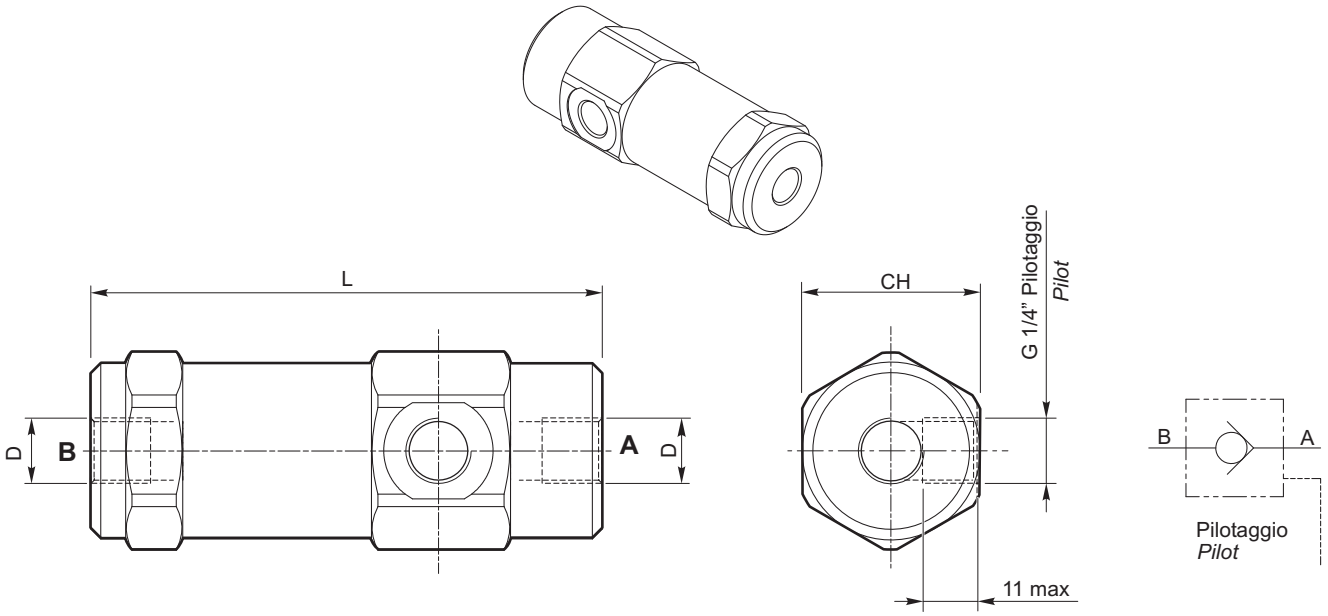
Esempio di ordinazione in codice (solo per VRP) **/ *Ordering code example*** *(VRP only)*

VRPD	G1/2"	NL

VRPD	D= Versione con doppio ritegno / *Double check version* S= Versione con unico ritegno / *Single check version*
G 1/2"	Tipo di valvola / *Valve type*
NL	NL= Versione normale / *Normal version* CL= Versione controllata (Disponibile solo nella verisone G1/2") / *Speed controlied version (Available only G 1/2" version)*

IS VBPS

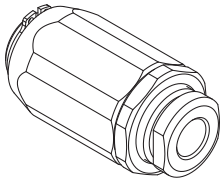
VALVOLE DI BLOCCO PILOTATE SEMPLICI
SINGLE PILOT-OPERATED CHECK VALVES

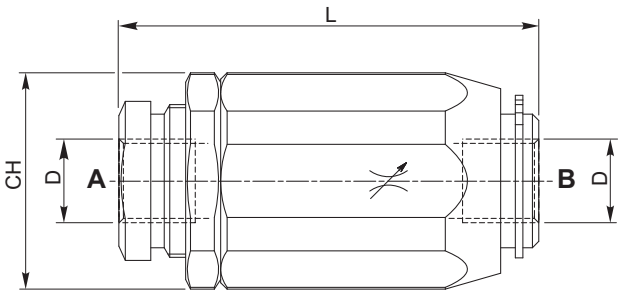


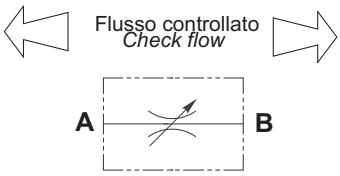
Tipo *Type*	Portata max. *Max flow rate* [lt/min] *(Gal/min)*	Pressione max. *Max. pressure* [bar] *(PSI)*	Rapporto di pilotaggio *Piloting ratio*	**L** [mm] *(inch)*	**D** **BSP**	**CH** [mm] *(inch)*	Peso *Mass* [Kg] *(lbs)*
IS VBPS 7	15 *(3.96)*	320 *(4640)*	1 : 9.5	103 *(4.055)*	G 1/4"	36 *(1.417)*	0.70 *(1.5)*
IS VBPS 10	35 *(9.24)*	320 *(4640)*	1 : 6	111 *(4.370)*	G 3/8"	40 *(1.575)*	0.90 *(2.1)*
IS VBPS 13	45 *(11.88)*	300 *(4350)*	1 : 4.3	120 *(4.724)*	G 1/2"	42 *(1.654)*	1.1 *(2.4)*
IS VBPS 19	80 *(21.12)*	250 *(3625)*	1 : 4.4	135 *(5.315)*	G 3/4"	55 *(2.165)*	2.4 *(5.2)*

IS SB

VALVOLE REGOLATRICI DI FLUSSO
FLOW CONTROL VALVES

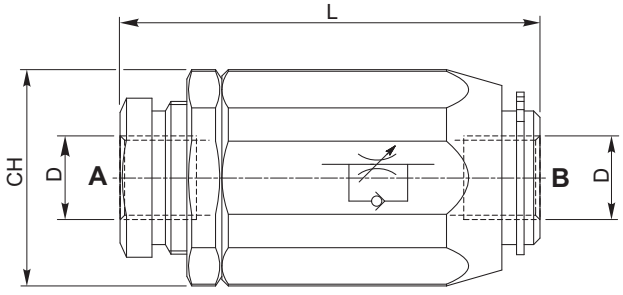


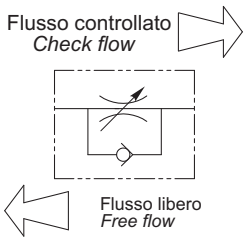




Tipo *Type*	Portata max. *Max flow rate* [lt/min] *(Gal/min)*	Pressione max. *Max. pressure* [bar] *(PSI)*	**D BSP**	**L** [mm] *(inch)*	**CH** [mm] *(inch)*	Peso *Mass* [Kg] *(lbs)*
IS SB 7	15 *(3.96)*	350 *(5075)*	G 1/4"	66 *(2.598)*	32 *(1.260)*	0.30 *(0.7)*
IS SB 10	30 *(7.93)*	350 *(5075)*	G 3/8"	77.5 *(3.051)*	38 *(1.496)*	0.48 *(1.1)*
IS SB 13	45 *(11.89)*	350 *(5075)*	G 1/2"	83 *(3.268)*	41 *(1.614)*	0.59 *(1.3)*
IS SB 19	80 *(21.14)*	300 *(4350)*	G 3/4"	103.5 *(4.075)*	55 *(2.165)*	1.3 *(2.9)*
IS SB 25	150 *(39.63)*	230 *(3335)*	G 1"	118 *(4.646)*	65 *(2.559)*	2.2 *(4.9)*

IS SR

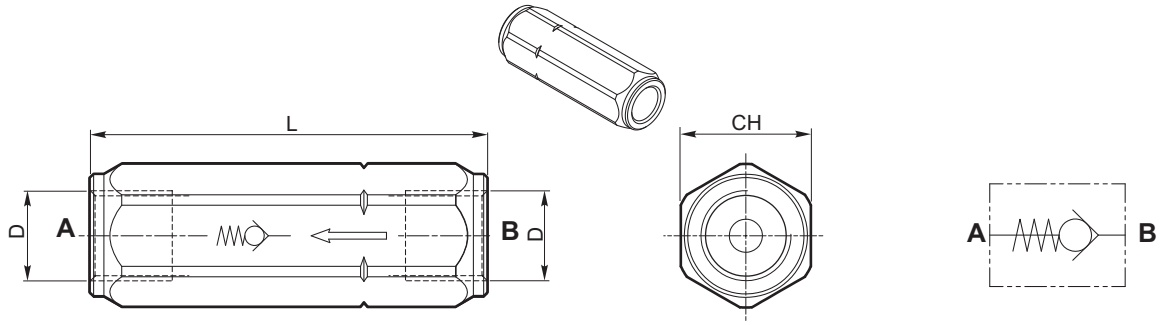




Tipo *Type*	Portata max. *Max flow rate* [lt/min] *(Gal/min)*	Pressione max. *Max. pressure* [bar] *(PSI)*	Pressione di apertura *Opening pressure* [bar] *(PSI)*	**F BSP**	**L** [mm] *(inch)*	**CH** [mm] *(inch)*	Peso *Mass* [Kg] *(lbs)*
IS SR 7	15 *(3.96)*	350 *(5075)*	0.5 *(7)*	G 1/4"	66 *(2.598)*	32 *(1.260)*	0.30 *(0.7)*
IS SR 10	30 *(7.93)*	350 *(5075)*		G 3/8"	77.5 *(3.051)*	38 *(1.496)*	0.48 *(1.1)*
IS SR 13	45 *(11.89)*	350 *(5075)*		G 1/2"	83 *(3.268)*	41 *(1.614)*	0.59 *(1.3)*
IS SR 19	80 *(21.14)*	300 *(4350)*		G 3/4"	103.5 *(4.075)*	55 *(2.165)*	1.3 *(2.9)*
IS SR 25	110 *(29.04)*	250 *(3625)*		G 1"	118 *(4.646)*	65 *(2.559)*	2.2 *(4.9)*

IS RU

VALVOLE UNIDIREZIONALI
UNIDIRECTIONAL CHECK VALVES

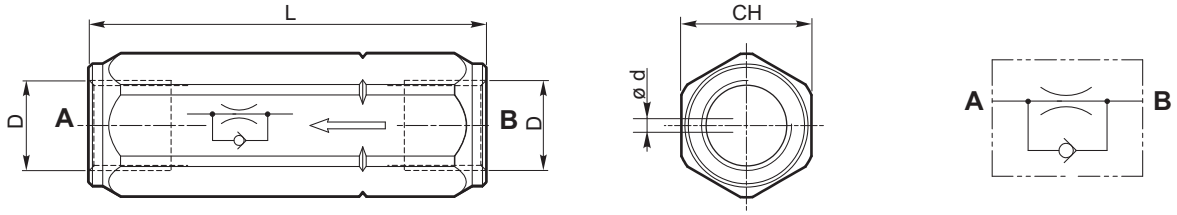


Tipo *Type*	Portata max. *Max flow rate* [lt/min] (Gal/min)	Pressione max. *Max. pressure* [bar] *(PSI)*	Pressione di apertura *Opening pressure* [bar] *(PSI)*	**D****	**L** [mm] *(inch)*	**CH** [mm] *(inch)*	Peso *Mass* [Kg] *(lbs)*
IS RU 7	25 *(6.60)*	400 *(5800)*	0.5 *(7)* (standard)*	G 1/4"	58 *(2.283)*	19 *(0.748)*	0.10 *(0.22)*
IS RU 10	40 *(10.56)*	400 *(5800)*		G 3/8"	62 *(2.441)*	24 *(0.945)*	0.18 *(0.40)*
IS RU 13	80 *(21.12)*	350 *(5075)*		G 1/2"	71 *(2.795)*	30 *(1.181)*	0.31 *(0.68)*
IS RU 19	110 *(29.04)*	300 *(4350)*		G 3/4"	83 *(3.268)*	36 *(1.417)*	0.56 *(1.2)*
IS RU 25	140 *(36.99)*	270 *(3915)*		G 1"	106 *(4.173)*	45 *(1.772)*	0.91 *(2.0)*
IS RU 32	200 *(52.84)*	250 *(3625)*		G 1 1/4"	127 *(5.000)*	55 *(2.165)*	1.5 *(3.3)*
IS RU 38	300 *(79.26)*	200 *(2900)*		G 1 1/2"	138 *(5.433)*	65 *(2.559)*	2.4 *(5.2)*

* Specificare il valore di apertura se diverso dallo standard. Consultare la nostra società per la disponibilità di tarature diverse da quelle indicate.
For different valves specity them. Contact our company for the available calibrations (not standard).
*** Disponibili anche con filettature SAE e NP / Available also with SAE and NPT threads*

IS SU

VALVOLE REGOLATRICI DI FLUSSO CON STROZZAMENTO *FISSO FLOW CONTROL VALVES WITH FIXED THROTTLE*

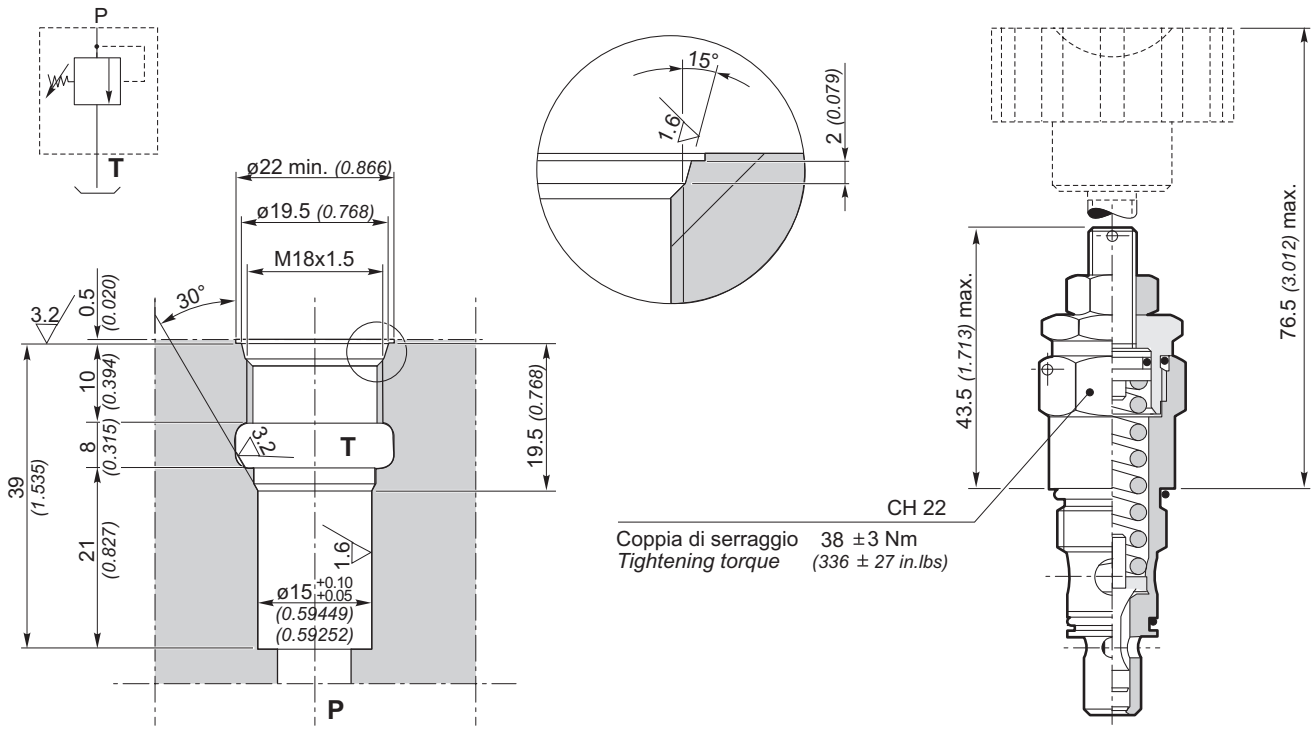


Tipo *Type*	Portata max. *Max flow rate* [lt/min] (Gal/min)	Pressione max. *Max. pressure* [bar] *(PSI)*	**D***	**L** [mm] *(inch)*	**CH** [mm] *(inch)*	Peso *Mass* [Kg] *(lbs)*
IS SU 7/d	25 *(6.60)*	400 *(5800)*	G 1/4"	58 *(2.283)*	19 *(0.748)*	0.10 *(0.22)*
IS SU 10/d	40 *(10.56)*	400 *(5800)*	G 3/8"	62 *(2.441)*	24 *(0.945)*	0.18 *(0.40)*
IS SU 13/d	80 *(21.12)*	350 *(5075)*	G 1/2"	71 *(2.795)*	30 *(1.181)*	0.31 *(0.68)*
IS SU 19/d	110 *(29.04)*	300 *(4350)*	G 3/4"	94 *(3.701)*	36 *(1.417)*	0.56 *(1.2)*
IS SU 25/d	140 *(36.99)*	270 *(3915)*	G 1"	106 *(4.173)*	45 *(1.772)*	0.91 *(2.0)*
IS SU 32/d	200 *(52.84)*	250 *(3625)*	G 1 1/4"	127 *(5.000)*	55 *(2.165)*	1.5 *(3.3)*
IS SU 38/d	300 *(79.26)*	200 *(2900)*	G 1 1/2"	138 *(5.433)*	65 *(2.559)*	2.4 *(5.2)*

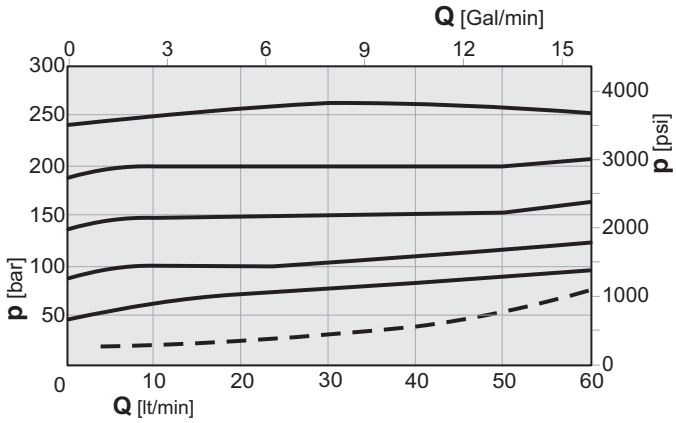
La "d" che compare nel codice indica il diametro del foro di strozzamento che va da un minimo di 0.5 a un massimo di 4 mm, di 0.5 in 0.5.
The "d" showed in the code means "diam. of throttle hole" which goes from a minimum of 0.02 to a max. of 0.157 inch, and increases of 0.02 on.
* Disponibili anche con filettature SAE e NPT / *Available also with SAE and NPT threads*

VLP 35S

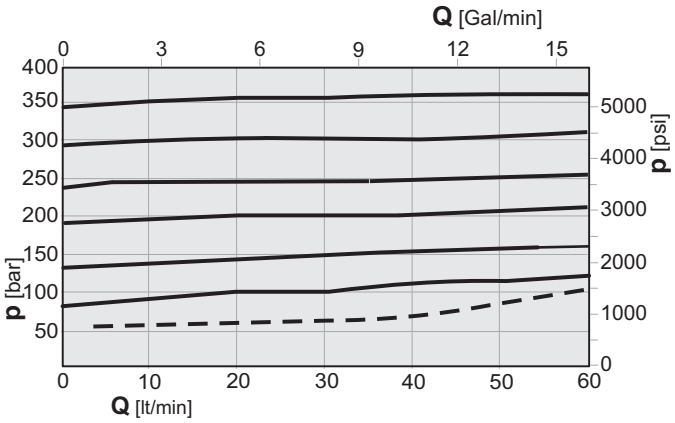
VALVOLA LIMITATRICE DI PRESSIONE / *PRESSURE RELIEF VALVE*
(Q25 - Q30 - Q35 - Q45 - Q50 - GSV50)



Curve caratteristiche VLP 35S (molla nera)
Performances curves VLP 35S (black spring)



Curve caratteristiche VLP 35S (molla rossa)
Performances curves VLP 35S (red spring)



— — Valore minimo di taratura
Minimum setting value

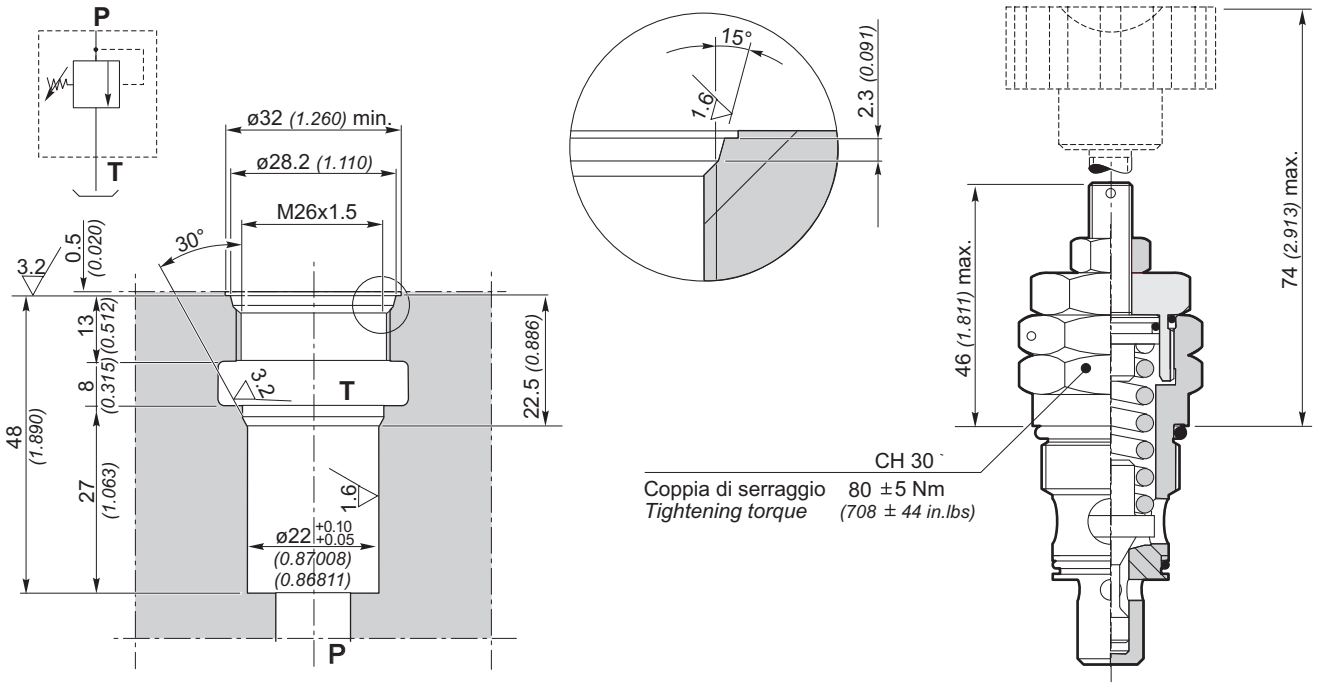
Esempio di ordinazione in codice / *Ordering code example*

VLP	-	V	35S	-	N120

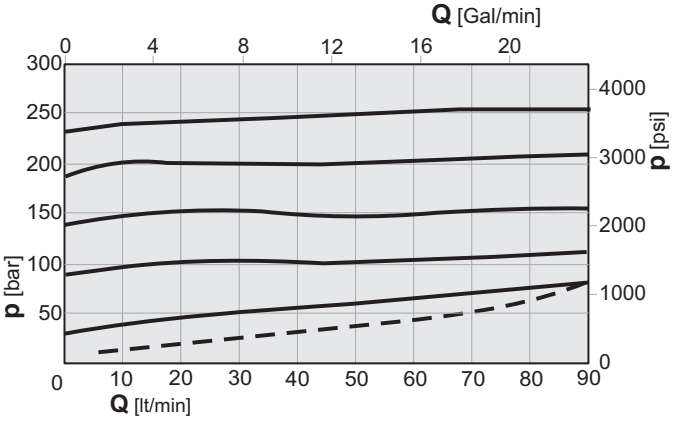
VLP	Valvola limitatrice di pressione / *Pressure relief valve*			
V	Regolazione a volantino (a richiesta) / *Adjusting with handwheel (optional)*			
35S	Tipo di valvola / *Valve type*			
		molla bianca *white spring*	molla nera *black spring*	molla rossa *red spring*
N	Tipo di molla / *Spring type*	**B**	**N**	**R**
		Campi di taratura / *Calibration fields* bar (psi)		
120	Taratura / *Setting*	15 ÷ 100 (218 ÷ 1450)	30 ÷ 280 (435 ÷ 4060)	80 ÷ 380 (1160 ÷ 5510)

VLP 65S

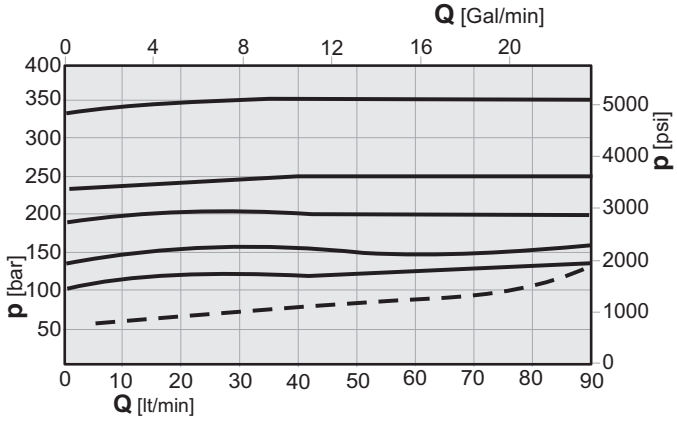
VALVOLA LIMITATRICE DI PRESSIONE / *PRESSURE RELIEF VALVE*
(Q65 - Q75 - Q80 - Q95)



Curve caratteristiche VLP 65S (molla nera)
Performances curvesVLP 65S (black spring)



Curve caratteristiche VLP 65S (molla rossa)
Performances curves VLP 65S (red spring)



— — Valore minimo di taratura
Minimum setting value

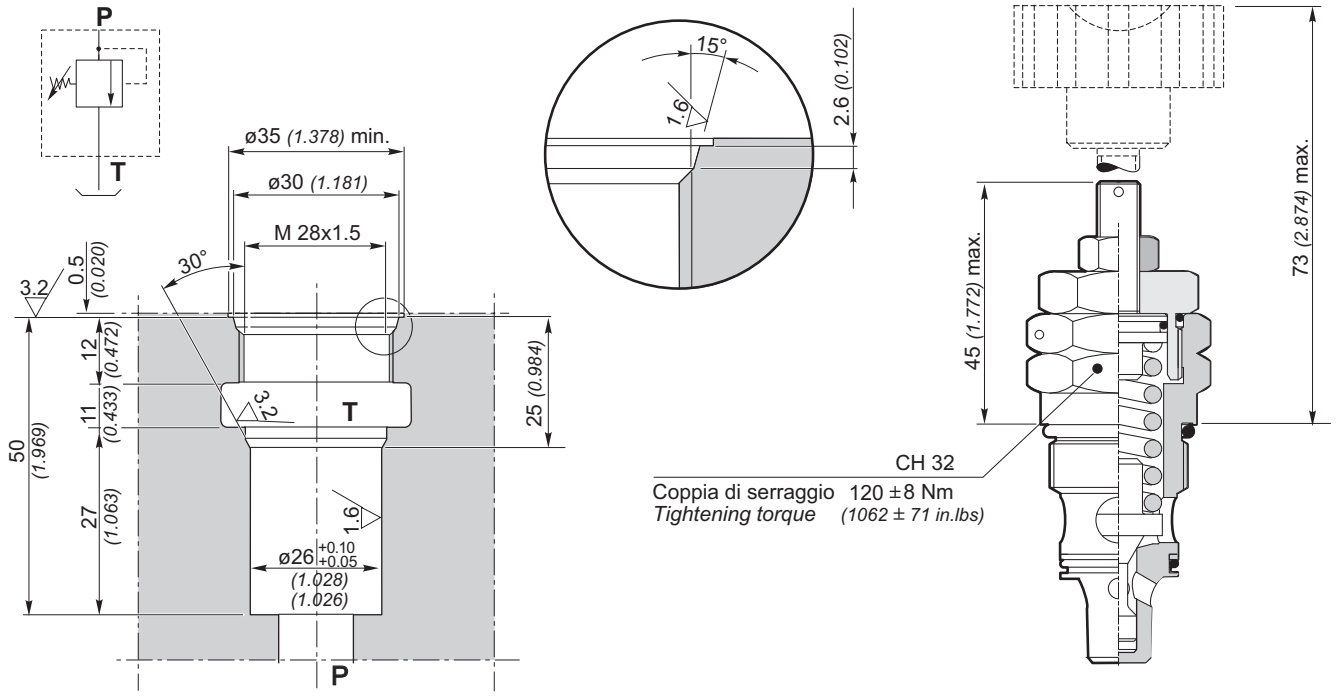
Esempio di ordinazione in codice / *Ordering code example*

VLP	-	V	65S	-	N120

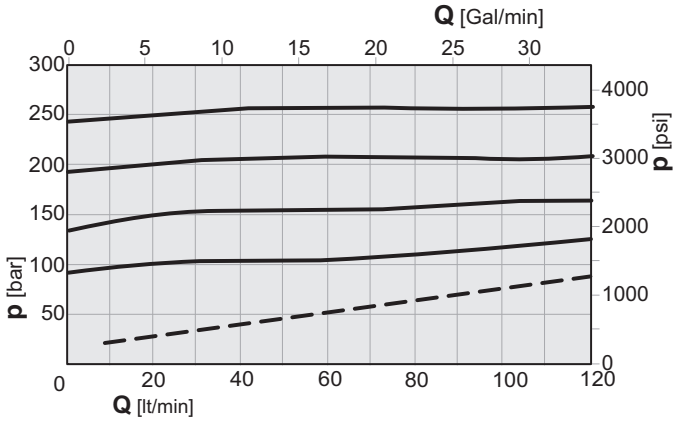
VLP	Valvola limitatrice di pressione / *Pressure relief valve*			
V	Regolazione a volantino (a richiesta) / *Adjusting with handwheel (optional)*			
65S	Tipo di valvola / *Valve type*			
		molla bianca *white spring*	molla nera *black spring*	molla rossa *red spring*
N	Tipo di molla / *Spring type*	**B**	**N**	**R**
		Campi di taratura / *Calibration fields* bar (psi)		
120	Taratura / *Setting*	15 ÷ 100 (218 ÷ 1450)	30 ÷ 280 (435 ÷ 4060)	80 ÷ 380 (1160 ÷ 5510)

VLP 105S

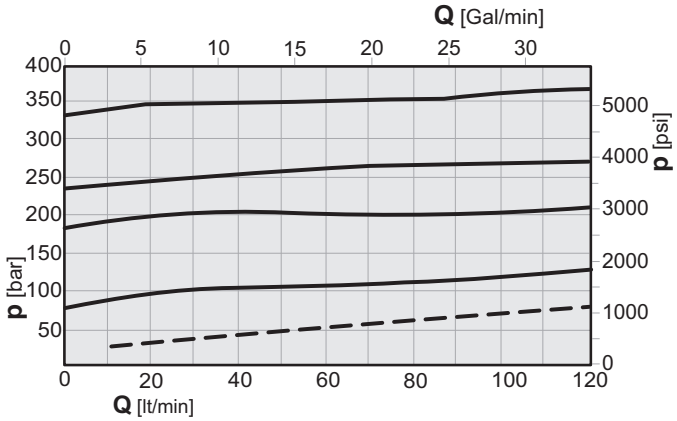
VALVOLA LIMITATRICE DI PRESSIONE / *PRESSURE RELIEF VALVE* (Q130)



Curve caratteristiche VLP 105S (molla nera)
Performances curvesVLP 105S (black spring)



Curve caratteristiche VLP 105S (molla rossa)
Performances curves VLP 105S (red spring)



— — Valore minimo di taratura
Minimum setting value

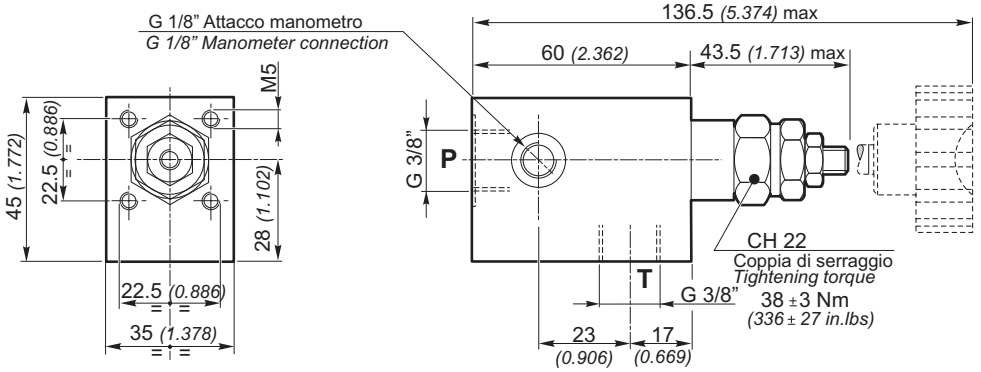
Esempio di ordinazione in codice / *Ordering code example*

VLP	-	V	105S	-	N120

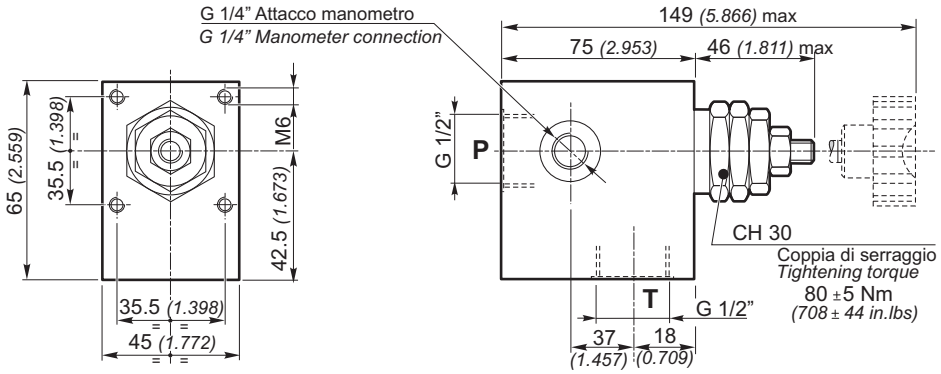
VLP	Valvola limitatrice di pressione / *Pressure relief valve*			
V	Regolazione a volantino (a richiesta) / *Adjusting with handwheel (optional)*			
105S	Tipo di valvola / *Valve type*			
		molla bianca *white spring*	molla nera *black spring*	molla rossa *red spring*
N	Tipo di molla / *Spring type*	**B**	**N**	**R**
		Campi di taratura / *Calibration fields* bar (psi)		
120	Taratura / *Setting*	15 ÷ 100 (218 ÷ 1450)	30 ÷ 280 (435 ÷ 4060)	80 ÷ 380 (1160 ÷ 5510)

B-VLP 35S

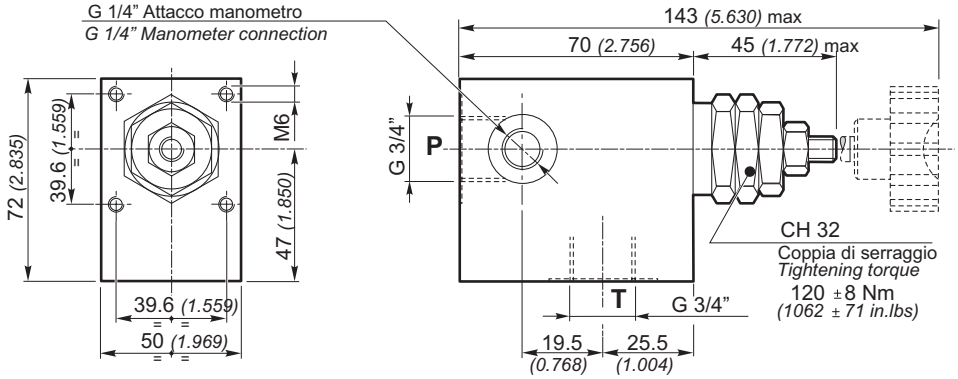
VALVOLA LIMITATRICE DI PRESSIONE IN BILLETTA
BILLET PRESSURE RELIEF VALVE



B-VLP 65S



B-VLP 105S



Esempio di ordinazione in codice / *Ordering code example*

B-VLP	-	V	105S	-	N120

B-VLP	Valvola limitatrice di pressione in billetta / Billet *pressure relief valve*			
V	Regolazione a volantino (a richiesta) / *Adjusting with handwheel (optional)*			
65S	Tipo di valvola / *Valve type*			
		molla bianca *white spring*	molla nera *black spring*	molla rossa *red spring*
N	Tipo di molla / *Spring type*	**B**	**N**	**R**
		Campi di taratura / *Calibration fields* bar (psi)		
120	Taratura / *Setting*	15 ÷ 100 (218 ÷ 1450)	30 ÷ 280 (435 ÷ 4060)	80 ÷ 380 (1160 ÷ 5510)

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Certified Company
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Share Capital: € 300.000,00
VAT Number: IT01167360369
REA Number: MO-225785