

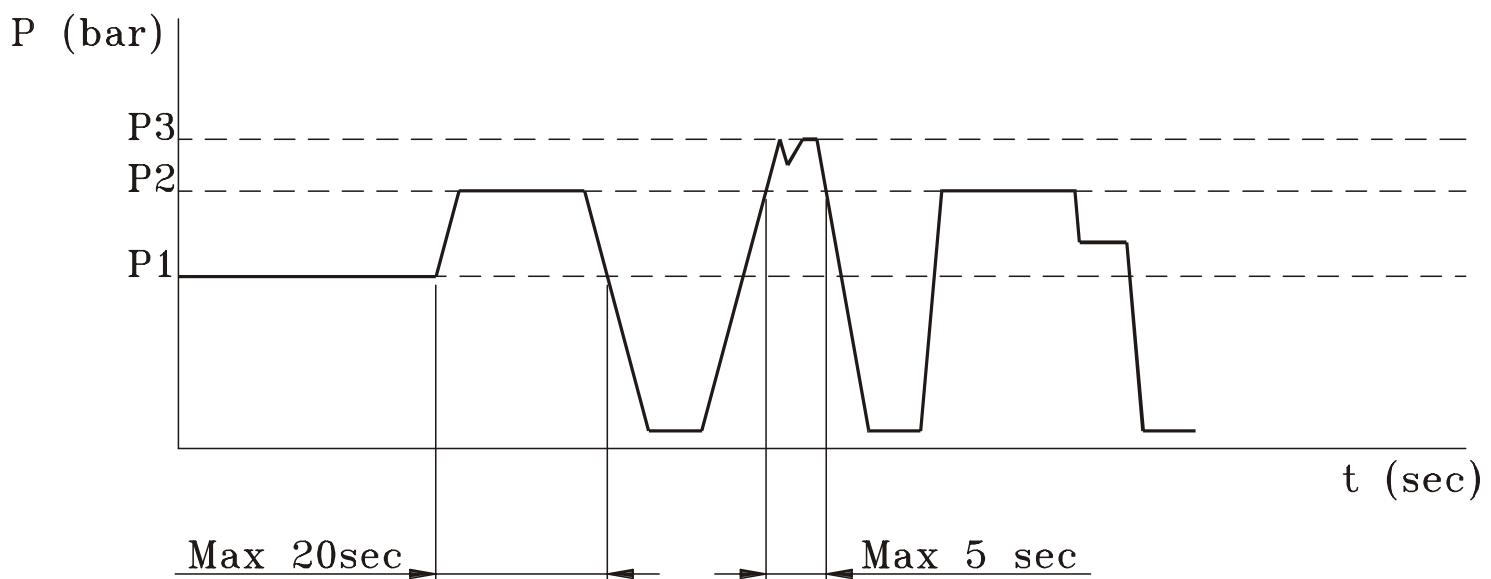
# **DISTRIBUTORI COMPONIBILI**

## **SECTIONAL DIRECTIONAL CONTROL VALVES**

<b>Distributori componibili Q 30</b> <i>Sectional directional control valves Q 30</i>	Pag. 4
<b>Distributori componibili Q 50</b> <i>Sectional directional control valves Q 50</i>	Pag. 6
<b>Distributori componibili Q 80</b> <i>Sectional directional control valves Q 80</i>	Pag. 8
<b>Distributori componibili Q 130</b> <i>Sectional directional control valves Q 130</i>	Pag. 10
<b>Cursori</b> <i>Spools</i>	Pag. 12
<b>Colettori di Entrata / Uscita</b> <i>Inlet /Outlet sections</i>	Pag. 15
<b>Comandi</b> <i>Controls</i>	Pag. 17
<b>Posizionamenti</b> <i>Positionings</i>	Pag. 23
<b>Comandi con posizionamento</b> <i>Controls with positioning</i>	Pag. 25
<b>Comandi completi</b> <i>Complete controls</i>	Pag. 30
<b>Elementi intermedi</b> <i>Intermediate sections</i>	Pag. 31
<b>Valvole</b> <i>Valves</i>	Pag. 32

## LEGENDA

- VLP      **Valvola limitatrice di pressione**  
*Pressure relief valve*
- VR        **Valvola di ritegno**  
*Check valve*
- A; B      **Effetti**  
*Ports*
- P         **Linea in pressione**  
*Pressure line*
- LC        **Libera circolazione**  
*Through passage*
- T         **Scarico**  
*Tank return line*



- P1      **Pressione massima di lavoro (continua)**  
*Max. continuous pressure*
- P2      **Pressione massima di esercizio (intermittente)**  
*Max. intermittent pressure*
- P3      **Pressione massima di punta (picco)**  
*Max. peak pressure*

I grafici del seguente catalogo si riferiscono a prove effettuate con olio minerale di viscosità 35 mm<sup>2</sup>/s alla temperatura di 60 °C.

The diagrams of the following catalogue refer to test made with mineral oil viscosity 35 mm<sup>2</sup>/s at the temperature of 60 °C.

## DISTRIBUTORI COMPONIBILI

- 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 antishock, 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

### SECTIONAL CONTROL VALVES

- Higher versatility compared to monoblock control valves and higher performances.
- Standard execution with check valves on each element.
- Protection on single elements with auxiliary antishock, anticavitation 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 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 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 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 cylindrical 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.

Numero massimo di elementi / Max working sections	10			
Limite temperatura olio / Oil range temperature	-30 ÷ 80 °C			
Temperatura olio consigliata / Recommended oil temperature	30 ÷ 60 °C			
Filtraggio consigliato / commended filtering	26/23 ISO DIS 4406			
Fluido / Hydraulic fluid	Olio minerale / Mineral oil			
Viscosità / Viscosity	10 ÷ 400 mm <sup>2</sup> /s			
Massa / Mass Kg	Q30	Q50	Q80	Q130
Fiancata d' ingresso + elemento + fiancata di scarico Inlet + working + outlet section	3.9	3.9	7.1	15
Elemento aggiuntivo Add mass for each section	1.8	1.8	3	4.9

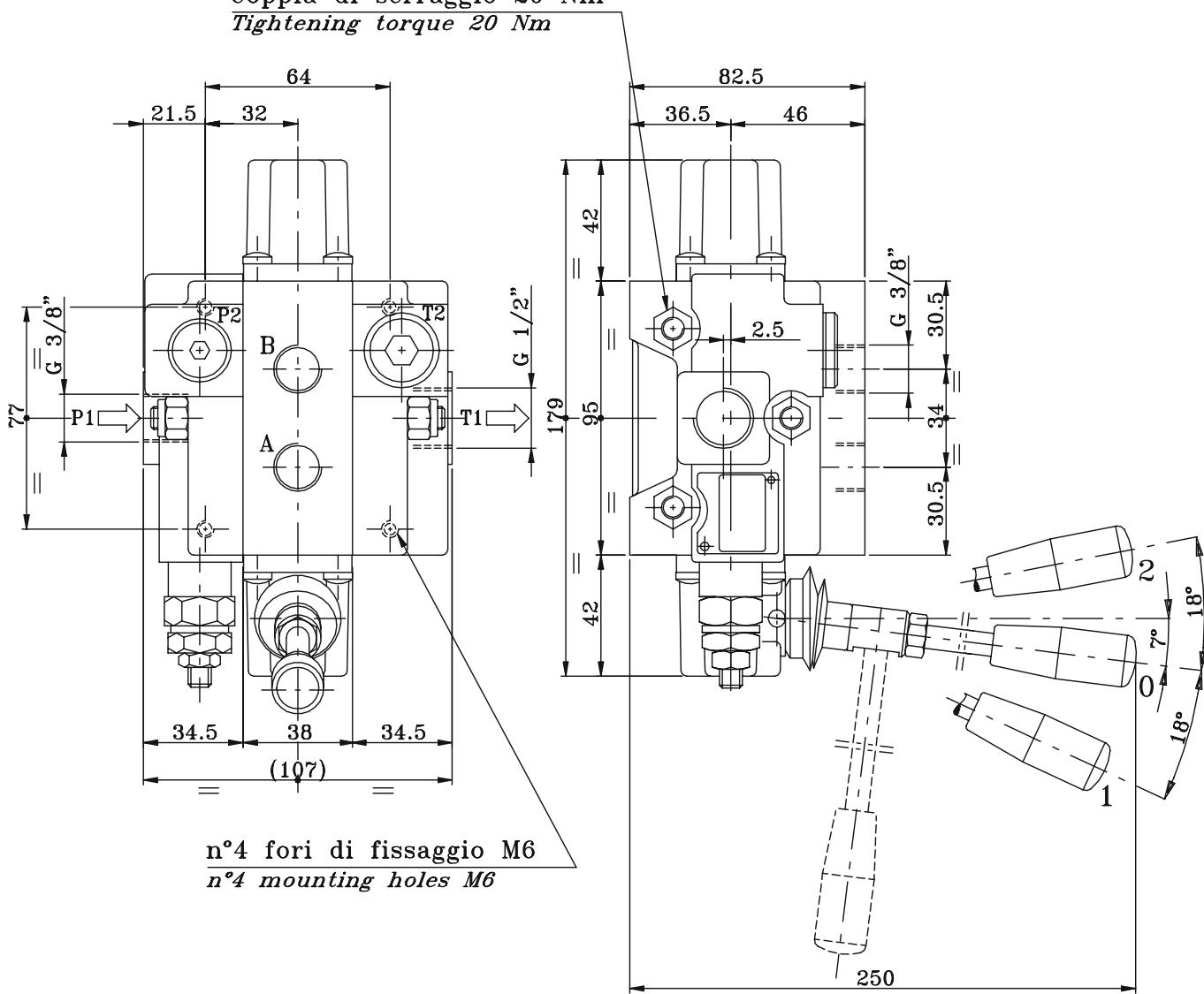
#### PRESSIONI MASSIME DI LAVORO bar / MAX WORKING PRESSURE bar

da 1 a 3 elementi from 1 up to 3 working section	375	375	350	375
da 4 a 6 elementi from 4 up to 6 working section	350	350	320	350
da 7 a 10 sezioni di lavoro from 7 up to working section	325	325	300	325
Pressione max. sullo scarico Max. back pressure	25			

# **DISTRIBUTORI COMPOBILI** **DIRECTIONAL CONTROL VALVE**

**Q 30**

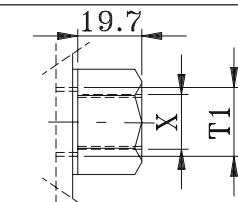
Coppia di serraggio 20 Nm  
*Tightening torque 20 Nm*



## **FILETTATURE DISPONIBILI** *AVAILABLE THREADS*

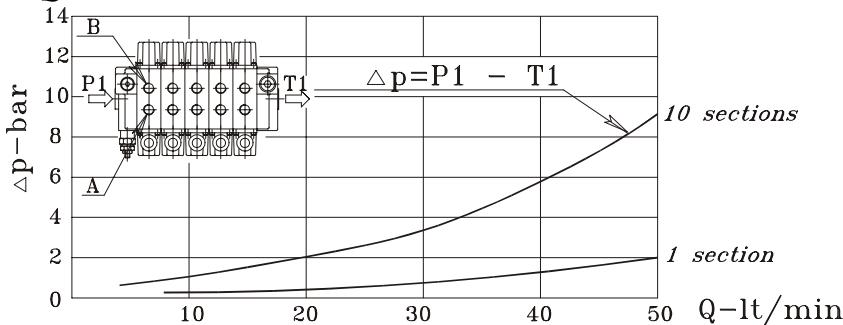
<b>BOCCHE PORTS</b>	<b>BSP (standard)</b>	<b>SAE</b>
P1	G 3/8"	3/4"-16UNF
P2	G 3/8"	3/4"-16UNF
A-B	G 3/8"	9/16"-18UNF
T1	G 1/2"	7/8"-14UNF
T2	G 1/2"	3/4"-16UNF

## **TAPPO PER CARRY-OVER (su uscita T1)** *CARRY-OVER PLUG (on T1 port)*

	<b>T1</b>	<b>X</b>	<b>T1</b>	<b>X</b>
	G 1/2"	G 3/8" G 1/2"	7/8"-14UNF	3/4"-16UNF

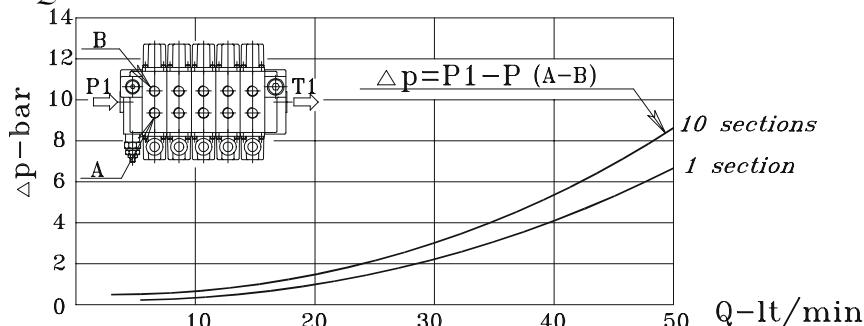
### Q30-PERDITE DI CARICO CON IL CURSORE IN POSIZIONE NEUTRA

*Q30-PRESSURE DROP WITH SPOOL IN NEUTRAL POSITION*



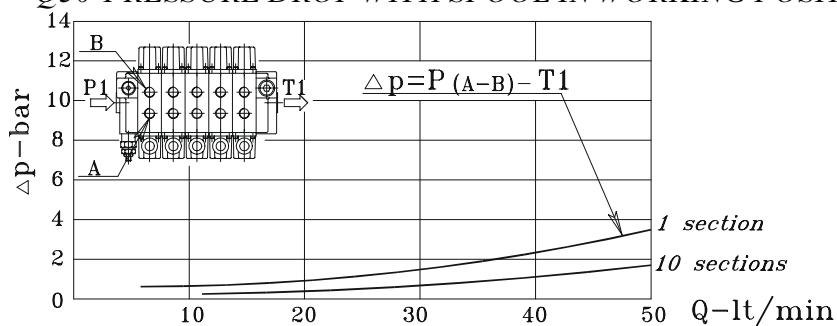
### Q30-PERDITE DI CARICO CON IL CURSORE IN POSIZIONE DI LAVORO

*Q30-PRESSURE DROP WITH SPOOL IN WORKING POSITION*



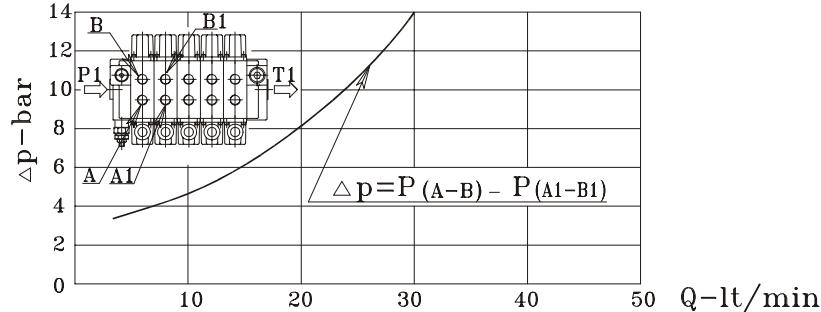
### Q30-PERDITE DI CARICO CON IL CURSORE IN POSIZIONE DI LAVORO

*Q30-PRESSURE DROP WITH SPOOL IN WORKING POSITION*



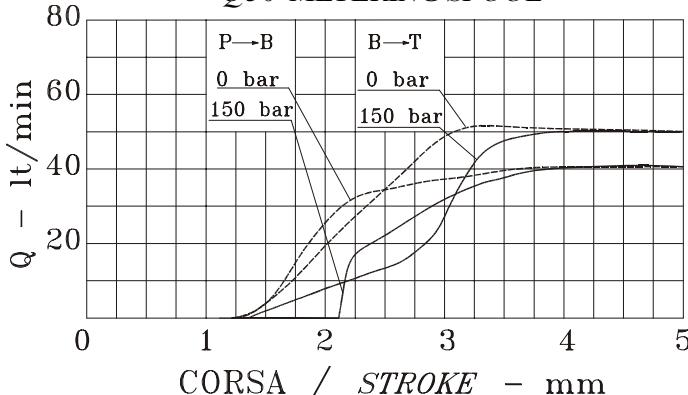
### Q30-PERDITE DI CARICO TRA DUE ELEMENTI IN SERIE

*Q30-PRESSURE DROP THROUGH TWO SECTIONS CONNECTED IN SERIES*



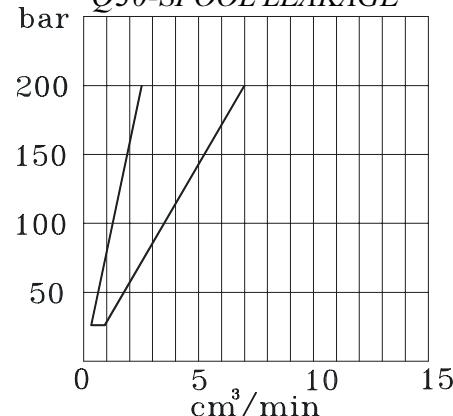
### Q30-CURVE DI PROGRESSIVITÀ

*Q30-METERING SPOOL*



### Q30-TRAFILEAMENTI SUL CURSORE

*Q30-SPOOL LEAKAGE*

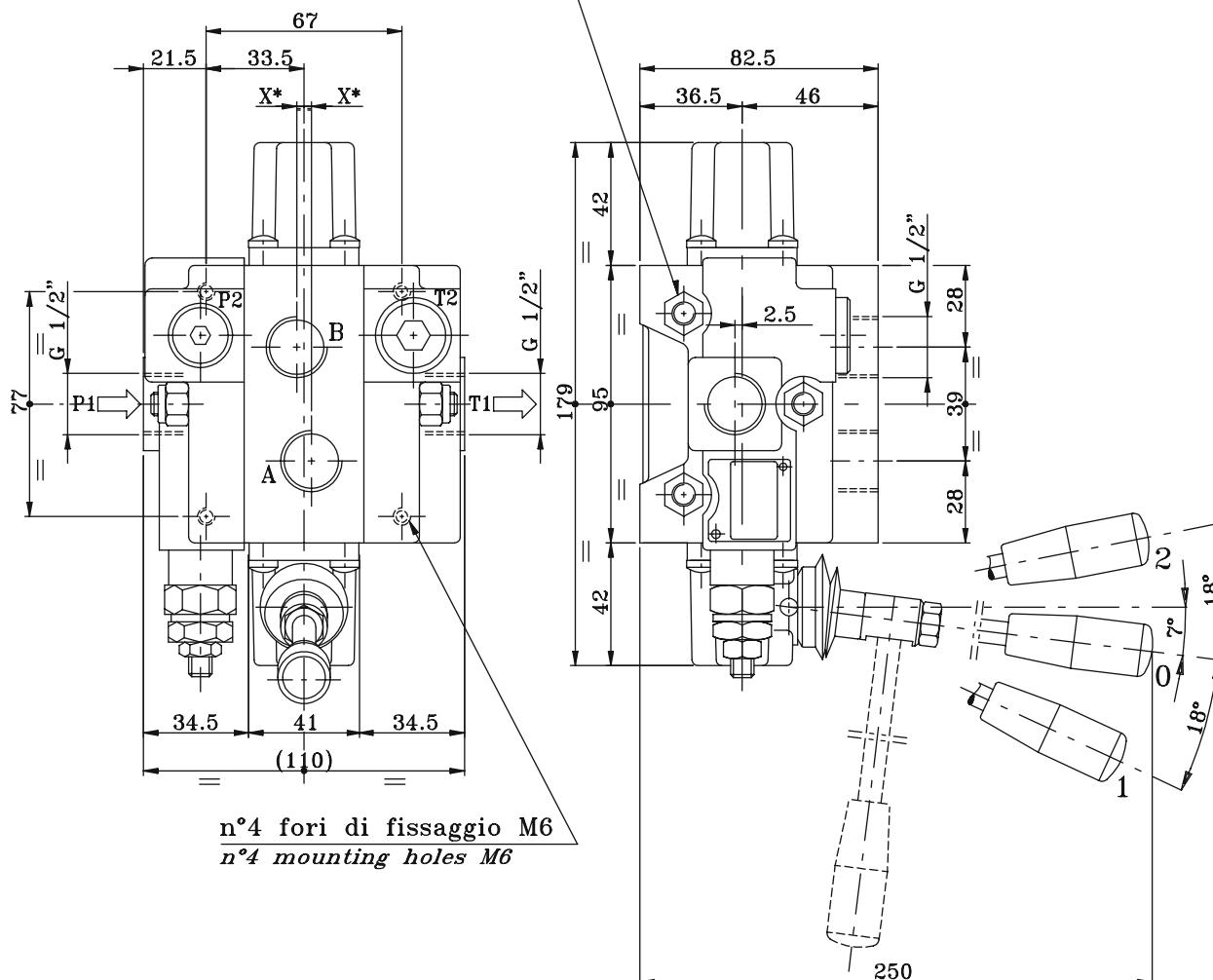


# **DISTRIBUTORI COMPONIBILI**

## **DIRECTIONAL CONTROL VALVE**

**Q 50**

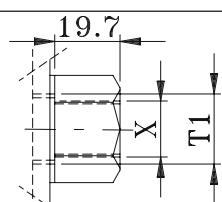
Coppia di serraggio 20 Nm  
*Tightening torque 20 Nm*



### **FILETTATURE DISPONIBILI** *AVAILABLE THREADS*

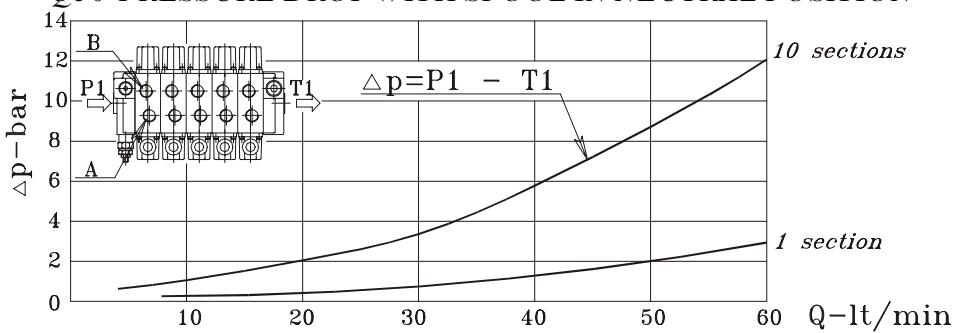
<b>BOCCHE PORTS</b>	<b>BSP (standard)</b>	<b>SAE</b>
<b>P1</b>	<b>G 1/2"</b>	<b>3/4"-16UNF</b>
<b>P2</b>	<b>G 1/2"</b>	<b>3/4"-16UNF</b>
<b>A-B</b>	<b>G 1/2"</b>	<b>3/4"-16UNF</b>
<b>T1</b>	<b>G 1/2"</b>	<b>7/8"-14UNF</b>
<b>T2</b>	<b>G 1/2"</b>	<b>3/4"-16UNF</b>
<b>Quota X*</b> <i>X* Dimension (mm)</i>	<b>2.5</b>	<b>1.5</b>

### **TAPPO PER CARRY-OVER (su uscita T1)** *CARRY-OVER PLUG (on T1 port)*

<b>T1</b>	<b>X</b>	<b>T1</b>	<b>X</b>
	<b>G 1/2"</b>	<b>G 3/8" G 1/2"</b>	<b>7/8"-14UNF</b> <b>3/4"-16UNF 7/8"-14UNF</b>

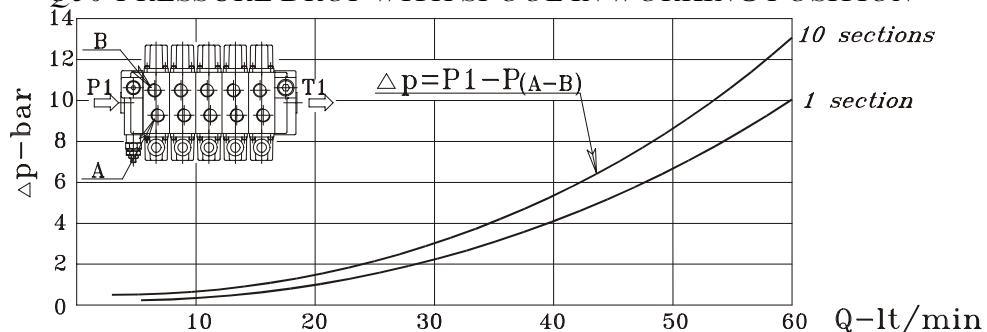
### Q50-PERDITE DI CARICO CON IL CURSORE IN POSIZIONE NEUTRA

*Q50-PRESSURE DROP WITH SPOOL IN NEUTRAL POSITION*



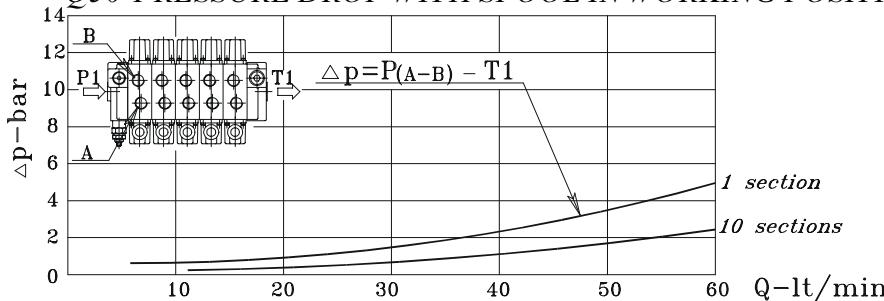
### Q50-PERDITE DI CARICO CON IL CURSORE IN POSIZIONE DI LAVORO

*Q50-PRESSURE DROP WITH SPOOL IN WORKING POSITION*



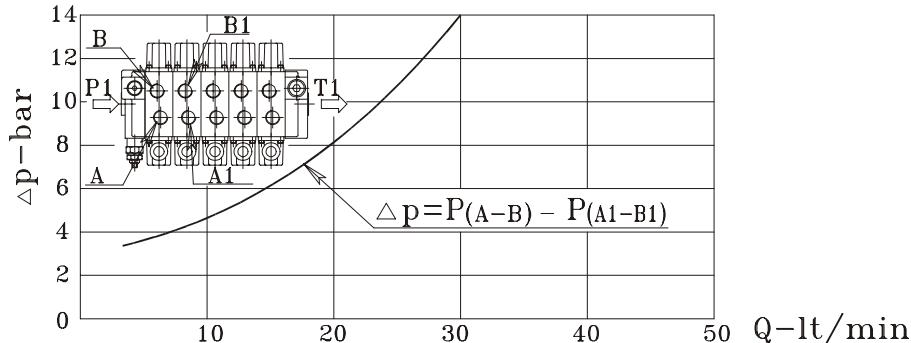
### Q50-PERDITE DI CARICO CON IL CURSORE IN POSIZIONE DI LAVORO

*Q50-PRESSURE DROP WITH SPOOL IN WORKING POSITION*



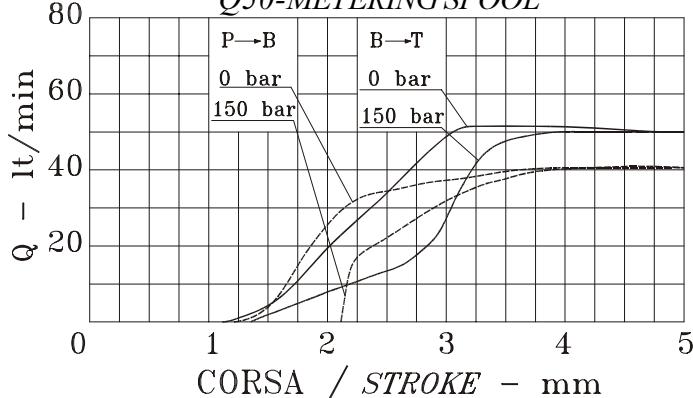
### Q50-PERDITE DI CARICO TRA DUE ELEMENTI IN SERIE

*Q50-PRESSURE DROP THROUGH TWO SECTIONS CONNECTED IN SERIES*



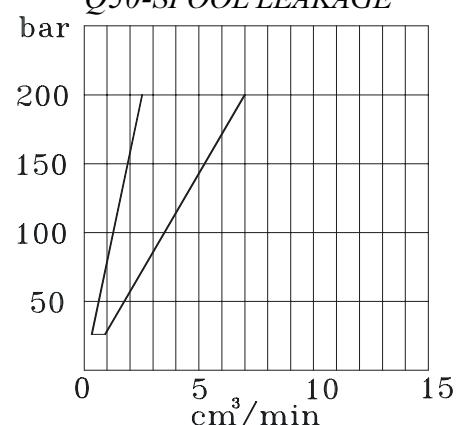
### Q50-CURVE DI PROGRESSIVITÀ

*Q50-METERING SPOOL*



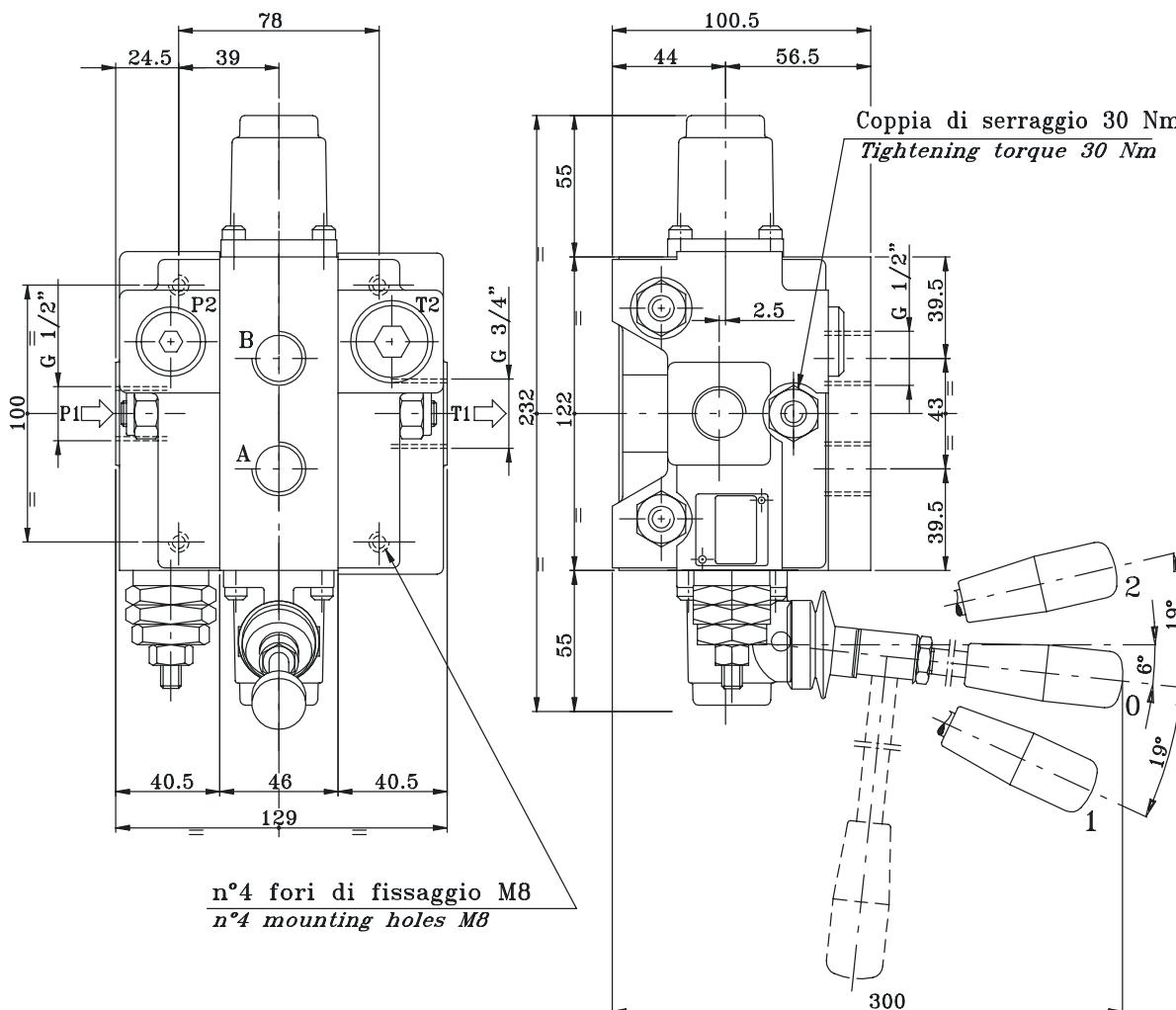
### Q50-TRAFILEMENTI SUL CURSORE

*Q50-SPOOL LEAKAGE*



# **DISTRIBUTORI COMPONIBILI** **DIRECTIONAL CONTROL VALVE**

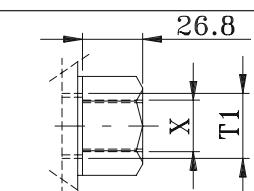
**Q 80**



## **FILETTATURE DISPONIBILI** *AVAILABLE THREADS*

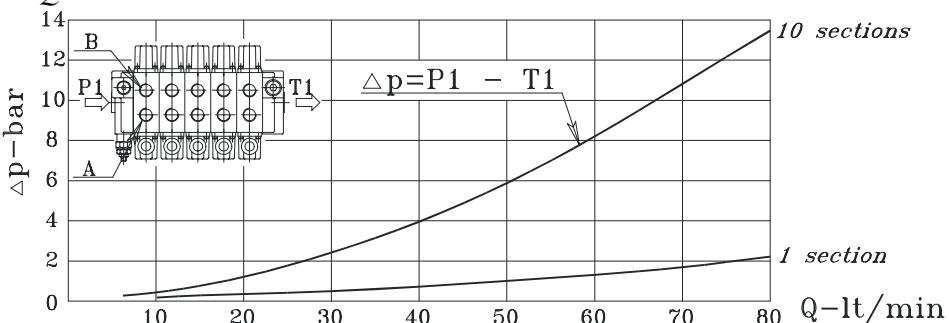
<b>BOCCHE PORTS</b>	<b>BSP (standard)</b>	<b>SAE</b>	<b>BSP G 3/4"</b>
<b>P1</b>	<b>G 1/2"</b>	<b>7/8"-14UNF</b>	<b>G 3/4"</b>
<b>P2</b>	<b>G 1/2"</b>	<b>7/8"-14UNF</b>	<b>G 3/4"</b>
<b>A-B</b>	<b>G 1/2"</b>	<b>3/4"-16UNF</b>	<b>G 3/4"</b>
<b>T1</b>	<b>G 3/4"</b>	<b>1"1/16-12UN</b>	<b>G 3/4"</b>
<b>T2</b>	<b>G 3/4"</b>	<b>7/8"-14-UNF</b>	<b>G 3/4"</b>

## **TAPPO PER CARRY-OVER (su uscita T1)** *CARRY-OVER PLUG (on T1 port)*

	<b>T1</b>	<b>X</b>	<b>T1</b>	<b>X</b>	<b>T1</b>	<b>X</b>
	<b>G 3/4"</b>	<b>G 1/2" G 3/4"</b>	<b>1"1/16-12UN</b>	<b>7/8"- 14UNF</b>	<b>G 3/4"</b>	<b>G 3/4"</b>

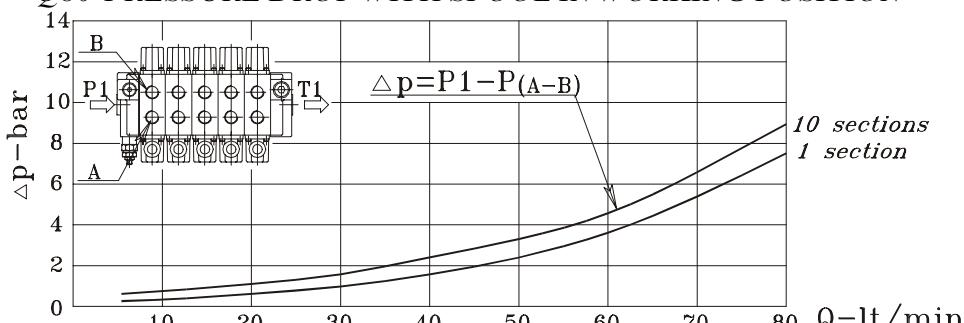
### **Q80-PERDITE DI CARICO CON IL CURSORE IN POSIZIONE NEUTRA**

*Q80-PRESSURE DROP WITH SPOOL IN NEUTRAL POSITION*



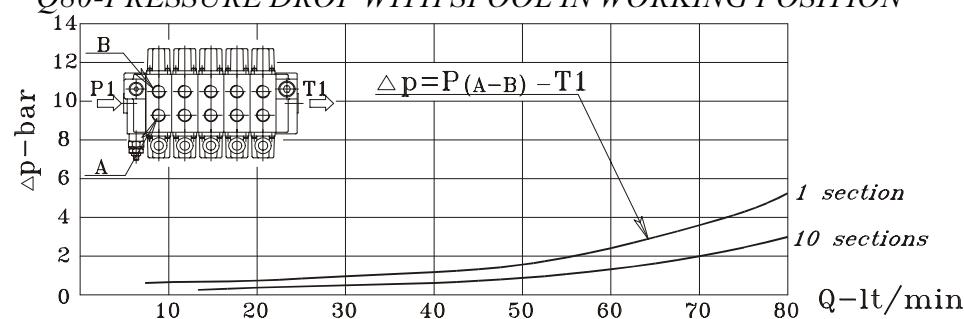
### **Q80-PERDITE DI CARICO CON IL CURSORE IN POSIZIONE DI LAVORO**

*Q80-PRESSURE DROP WITH SPOOL IN WORKING POSITION*



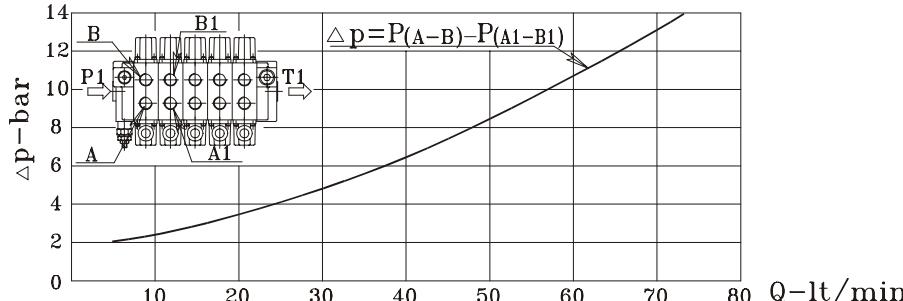
### **Q80-PERDITE DI CARICO CON IL CASSETTO IN POSIZIONE DI LAVORO**

*Q80-PRESSURE DROP WITH SPOOL IN WORKING POSITION*



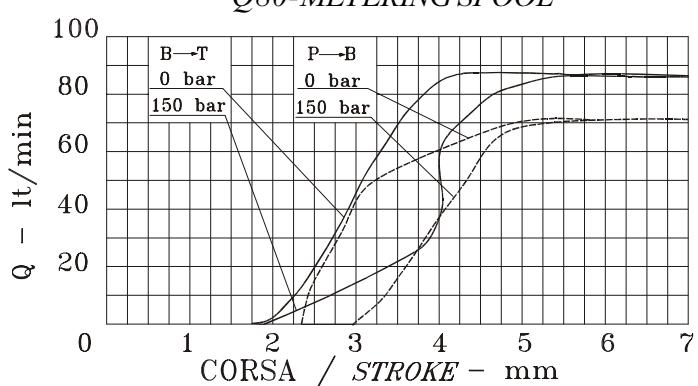
### **Q80-PERDITE DI CARICO TRA DUE ELEMENTI IN SERIE**

*Q80-PRESSURE DROP THROUGH TWO SECTIONS CONNECTED IN SERIES*



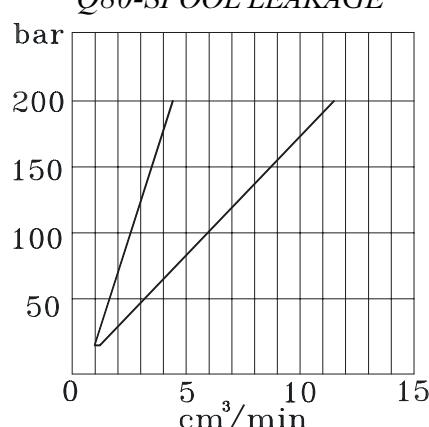
### **Q80-CURVE DI PROGRESSIVITÀ**

*Q80-METERING SPOOL*



### **Q80-TRAFILEAMENTI SUL CURSORE**

*Q80-SPOOL LEAKAGE*

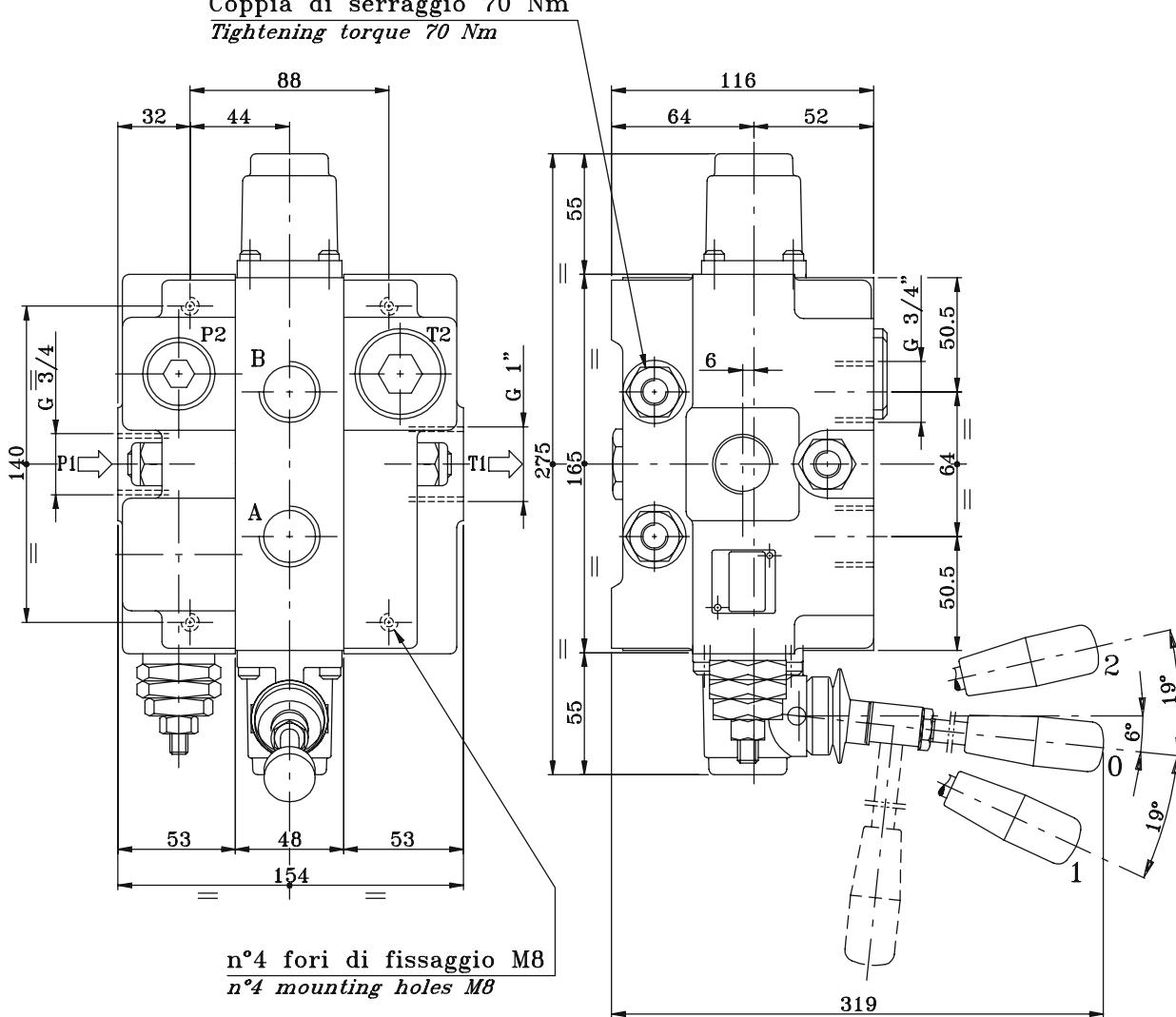


# DISTRIBUTORI COMPONIBILI

## DIRECTIONAL CONTROL VALVE

# Q 130

Coppia di serraggio 70 Nm  
Tightening torque 70 Nm

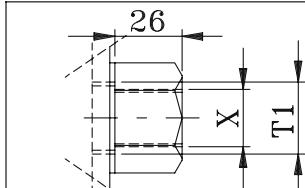


### FILETTATURE DISPONIBILI AVAILABLE THREADS

BOCCHE PORTS	BSP (standard)	BSP G 1"	SAE
P1	G 3/4"	G 1"	1"5/16-12UN
P2	G 3/4"	G 1"	1"5/16-12UN
A-B	G 3/4"	G 1"	1"1/16-12UN
T1	G 1"	G 1"	1"5/16-12UN
T2	G 1"	G 1"	1"5/16-12UN

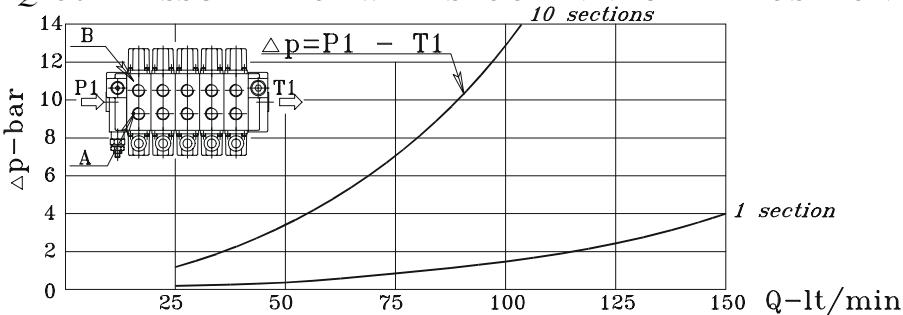
### TAPPO PER CARRY-OVER (su uscita T1) CARRY-OVER PLUG (on T1 port)

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



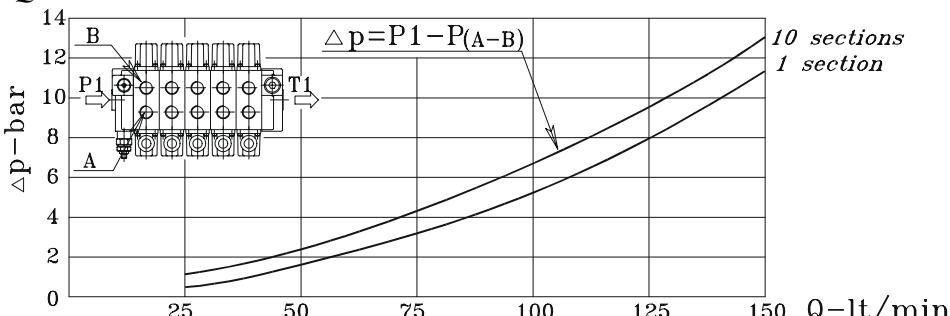
**Q130-PERDITE DI CARICO CON IL CURSORE IN POSIZIONE NEUTRA**

*Q130-PRESSURE DROP WITH SPOOL IN NEUTRAL POSITION*



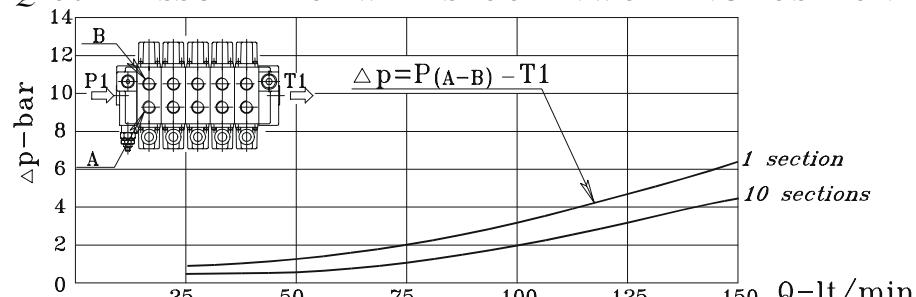
**Q130-PERDITE DI CARICO CON IL CURSORE IN POSIZIONE DI LAVORO**

*Q130-PRESSURE DROP WITH SPOOL IN WORKING POSITION*



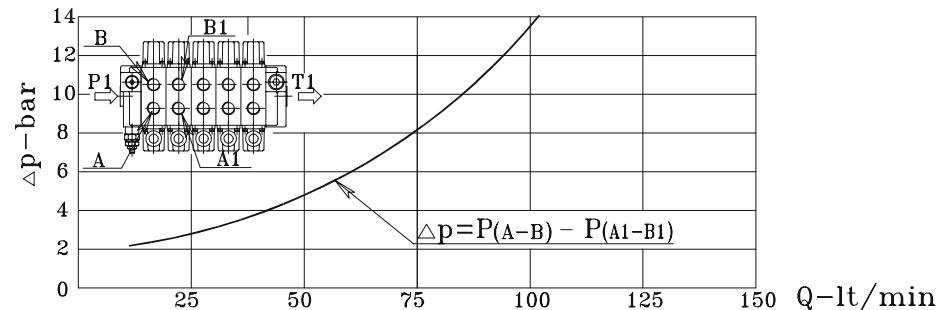
**Q130-PERDITE DI CARICO CON IL CURSORE IN POSIZIONE DI LAVORO**

*Q130-PRESSURE DROP WITH SPOOL IN WORKING POSITION*



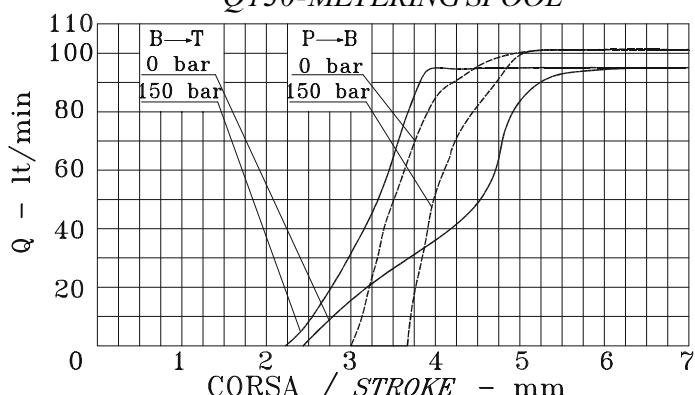
**Q130-PERDITE DI CARICO TRA DUE ELEMENTI IN SERIE**

*Q130-PRESSURE DROP THROUGH TWO SECTIONS CONNECTED IN SERIES*



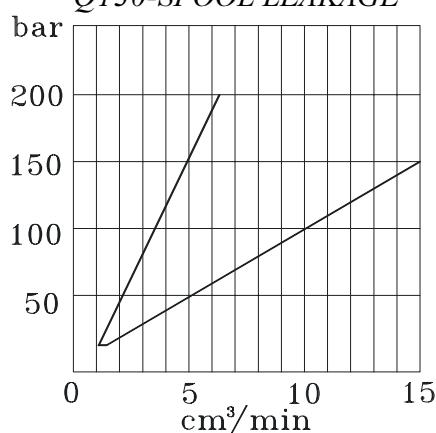
**Q130-CURVE DI PROGRESSIVITÀ**

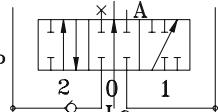
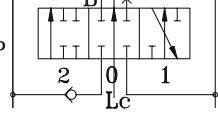
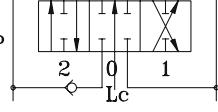
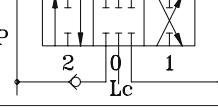
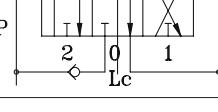
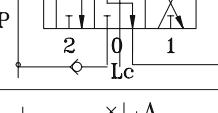
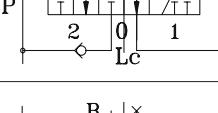
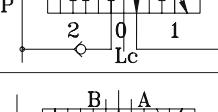
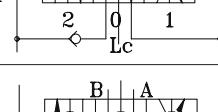
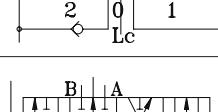
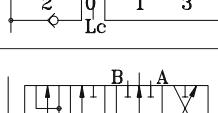
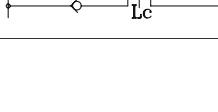
*Q130-METERING SPOOL*

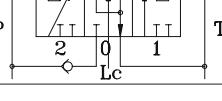
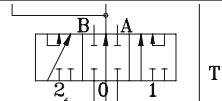
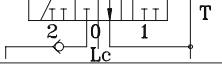
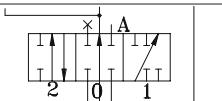
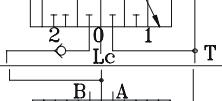
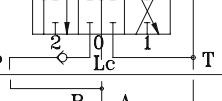
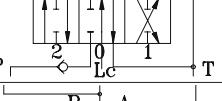
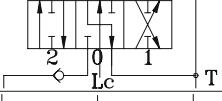
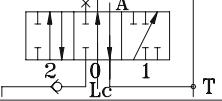
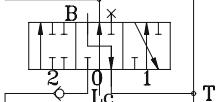
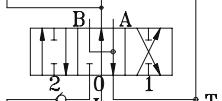
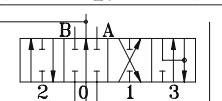
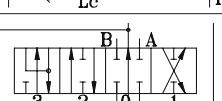


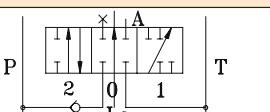
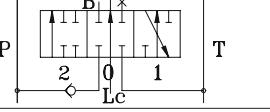
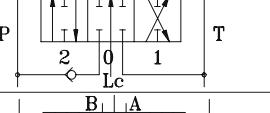
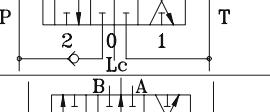
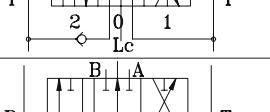
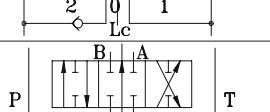
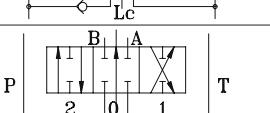
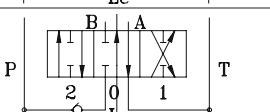
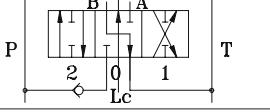
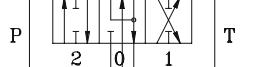
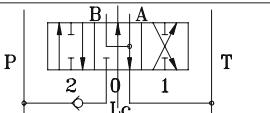
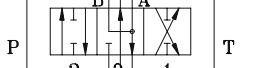
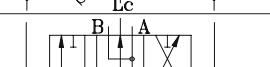
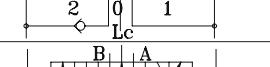
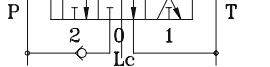
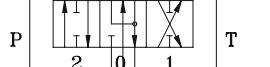
**Q130-TRAFILEAMENTI SUL CURSORE**

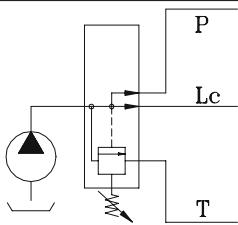
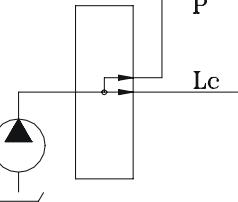
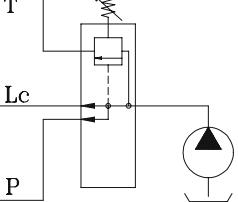
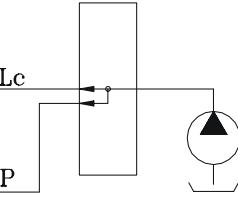
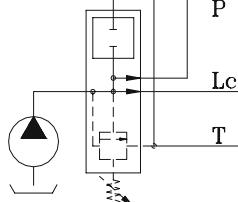
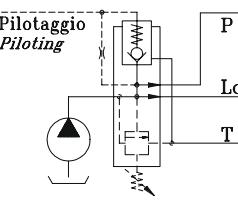
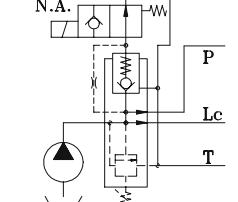
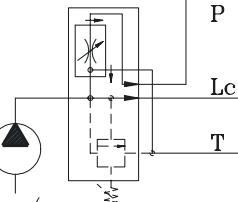
*Q130-SPOOL LEAKAGE*

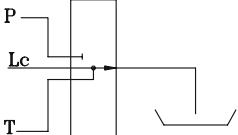
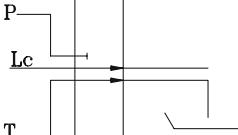
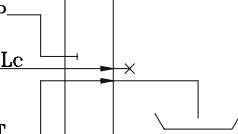


CURSORI PARALLELO / PARALLEL SPOOL			Q30 Q50	Q80	Q130
CODICE CODE	SIMBOLO IDRAULICO HYDRAULIC SYMBOL	DESCRIZIONE DESCRIPTION			
101		<b>Semplice effetto in A.</b> <i>Single acting in A port.</i>	*	*	*
102		<b>Semplice effetto in B.</b> <i>Single acting in B port.</i>	*	*	*
103		<b>Doppio effetto.</b> <i>Double acting.</i>	*	*	*
106		<b>Doppio effetto, passaggi chiusi in posizione 0.</b> <i>Double acting, ports closed in 0 position.</i>	*	*	*
107		<b>Doppio effetto, A in T e B chiuso in posizione 0.</b> <i>Double acting, A to T and B closed in 0 position.</i>	*	*	*
108		<b>Doppio effetto, B in T e A chiuso in posizione 0.</b> <i>Double acting, B to T and A closed in 0 position.</i>	*	*	*
109		<b>Semplice effetto in A, A in T in posizione 0.</b> <i>Single acting in A, A to T in 0 position.</i>	*	*	*
110		<b>Semplice effetto in B, B in T in posizione 0.</b> <i>Single acting in B, B to T in 0 position.</i>	*	*	*
111		<b>Doppio effetto, A e B in T in posizione 0.</b> <i>Double acting, A and B to T in 0 position.</i>	*	*	*
114		<b>Doppio effetto, A e B in T e Lc chiuso in posizione 0.</b> <i>Double acting, A and B to T and through passage closed in 0 position.</i>	*	*	*
116		<b>Doppio effetto con 4^ posizione flottante.</b> <i>Double acting with 4th position floating.</i>	*	*	*
126		<b>Doppio effetto con 4^ posizione flottante.</b> <i>Double acting with 4th position floating.</i>	*	*	

<b>CURSORI SERIE - PARALLELO / SERIE - PARALLEL SPOOLS</b>				<b>Q30 Q50</b>	<b>Q80</b>	<b>Q130</b>
<b>CODICE CODE</b>	<b>SIMBOLO IDRAULICO HYDRAULIC SYMBOL</b>	<b>DESCRIZIONE DESCRIPTION</b>				
<b>303</b>		<b>Doppio effetto SERIE-PARALLELO</b> <i>Double acting SERIE-PARALLEL</i>		*	*	*
<b>311</b>		<b>Doppio effetto SERIE-PARALLELO, A e B in T in pos.0</b> <i>Double acting SERIE-PARALLEL, A and B to T in 0 position</i>		*	*	*
<b>CURSORI SERIE / SERIE SPOOLS</b>						
<b>403</b>		<b>Doppio effetto SERIE</b> <i>Double acting SERIE</i>		*	*	*
<b>411</b>		<b>Doppio effetto SERIE, A e B in T in pos. 0</b> <i>Double acting SERIE, A and B to T in 0 position</i>		*	*	*
<b>CURSORI SINGOLI / SINGLE SPOOLS</b>						
<b>201</b>		<b>Semplice effetto in A</b> <i>Single acting in A port</i>		*	*	*
<b>202</b>		<b>Semplice effetto in B</b> <i>Single acting in B port</i>		*	*	*
<b>203</b>		<b>Doppio effetto</b> <i>Double acting</i>		*	*	*
<b>207</b>		<b>Doppio effetto, A in T e B chiuso in posizione 0</b> <i>Double acting, A to T and B closed in 0 position</i>		*	*	*
<b>208</b>		<b>Doppio effetto, B in T e A chiuso in posizione 0</b> <i>Double acting, B to T and A closed in 0 position</i>		*	*	*
<b>209</b>		<b>Semplice effetto in A, A in T in posizione 0</b> <i>Single acting in A, A to T in 0 position</i>		*	*	*
<b>210</b>		<b>Semplice effetto in B, B in T in posizione 0</b> <i>Single acting in B, B to T in 0 position</i>		*	*	*
<b>211</b>		<b>Doppio effetto, A e B in T in posizione 0</b> <i>Double acting, A and B to T in 0 position</i>		*	*	*
<b>216</b>		<b>Doppio effetto con 4^ posizione flottante</b> <i>Double acting with 4th position floating</i>		*	*	*
<b>226</b>		<b>Doppio effetto con 4^ posizione flottante</b> <i>Double acting with 4th position floating</i>		*	*	

<b>CURSORI SENSIBILIZZATI / SENSITIVE SPOOL</b>				<b>Q30</b>	<b>Q80</b>
<b>CODICE</b> <b>CODE</b>	<b>SIMBOLO IDRAULICO</b> <b>HYDRAULIC SYMBOL</b>	<b>DESCRIZIONE</b> <b>DESCRIPTION</b>			
<b>101.20</b>	P    T	<b>Semplice effetto in A.</b> <i>Single acting in A port.</i>		*	
<b>102.20</b>	P    T	<b>Semplice effetto in B.</b> <i>Single acting in B port.</i>		*	
<b>103.05</b>	P    T	<b>Doppio effetto.</b> <i>Double acting.</i>		*	
<b>103.10</b>	P    T	<b>Doppio effetto.</b> <i>Double acting.</i>			*
<b>103.20</b>	P    T	<b>Doppio effetto.</b> <i>Double acting.</i>		*	
<b>103.25</b>	P    T	<b>Doppio effetto.</b> <i>Double acting.</i>		*	
<b>103.30</b>	P    T	<b>Doppio effetto.</b> <i>Double acting.</i>			*
<b>103.40</b>	P    T	<b>Doppio effetto.</b> <i>Double acting.</i>		*	
<b>107.20</b>	P    T	<b>Doppio effetto, A in T e B chiuso in posizione 0.</b> <i>Double acting, A to T and B closed in 0 position.</i>		*	
<b>108.20</b>	P    T	<b>Doppio effetto, B in T e A chiuso in posizione 0.</b> <i>Double acting, B to T and A closed in 0 position.</i>		*	
<b>111.05</b>	P    T	<b>Doppio effetto, A e B in T in posizione 0.</b> <i>Double acting, A and B to T in 0 position.</i>		*	
<b>111.10</b>	P    T	<b>Doppio effetto, A e B in T in posizione 0.</b> <i>Double acting, A and B to T in 0 position.</i>		*	*
<b>111.20</b>	P    T	<b>Doppio effetto, A e B in T in posizione 0.</b> <i>Double acting, A and B to T in 0 position.</i>		*	
<b>111.25</b>	P    T	<b>Doppio effetto, A e B in T in posizione 0.</b> <i>Double acting, A and B to T in 0 position.</i>		*	
<b>111.30</b>	P    T	<b>Doppio effetto, A e B in T in posizione 0.</b> <i>Double acting, A and B to T in 0 position.</i>			*
<b>111.40</b>	P    T	<b>Doppio effetto, A e B in T in posizione 0.</b> <i>Double acting, A and B to T in 0 position.</i>		*	

COLLETTORI DI ENTRATA / INLET SECTIONS			Q30 Q50	Q80 Q130
CODICE CODE	SIMBOLO IDRAULICO HYDRAULIC SYMBOL	DESCRIZIONE DESCRIPTION		
F7S		<b>Collettore di entrata sinistro con valvola limitatrice di pressione VLP (* vedi pag. seguente)</b> <i>Left inlet section with relief valve (* see next page )</i>	*	*
F8S		<b>Collettore di entrata sinistro senza valvole</b> <i>Left inlet section without valves</i>	*	*
F7D		<b>Collettore di entrata destro con valvola limitatrice di pressione VLP (* vedi pag. seguente)</b> <i>Right inlet section with relief valve (* see next page )</i>	*	*
F8D		<b>Collettore di entrata destro senza valvole</b> <i>Right inlet section without valves</i>	*	*
F...PMS		<b>Collettore di entrata con predisposizione per valvola di messa a scarico elettrica (indiretta) o idraulica</b> <i>Inlet section presets for electrical outlet release valve (indirect) or hydraulic</i>	*	
F...MSI		<b>Collettore di entrata con valvola di messa a scarico idraulica</b> <i>Inlet section with hydraulic outlet release valve</i>	*	
F...MSE		<b>Collettore di entrata con valvola di messa a scarico elettrica (indiretta) (** vedi pag. seguente)</b> <i>Inlet section with electrical outlet release valve (indirect) (** see next page )</i>	*	
F...VRF		<b>Collettore di entrata con valvola regolatrice di flusso</b> <i>Inlet section flow regulator valve</i>	*	

COLLETTORI DI SCARICO/ OUTLET SECTIONS			<b>Q30</b>	<b>Q80</b> <b>Q130</b>
CODICE CODE	SIMBOLO IDRAULICO HYDRAULIC SYMBOL	DESCRIZIONE DESCRIPTION		
<b>F3D</b>		<b>Collettore di scarico</b> <i>Outlet section</i>	*	*
<b>F6D</b>		<b>Collettore di scarico con alimentazione in pressione per altri componenti (carry-over)</b> <i>Outlet section and high pressure carry-over</i>	*	*
<b>F16D</b>		<b>Collettore di scarico destro per centro chiuso</b> <i>Right outlet section for through passage closed</i>	*	*

(\*) Taratura o campo di taratura della valvola limitatrice di pressione (VLP) da specificare in bar nell'ordine:

"B" = molla bianca per tarature da 10 a 100 bar.

"N" = molla nera (standard) per tarature da 40 a 200 bar

"R" = molla rossa per tarature da 180 a 350 bar

N.B.: in caso di omissione del valore di taratura, esso sarà inteso standard a 150 bar

(\*) Calibration fields of the pressure relief valve to specify during the purchase order (in bar):

"B" = white spring for calibration field ranging between 10 and 100 bar

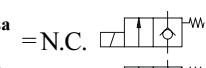
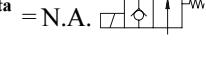
"N" = black spring (standard) for calibration field ranging between 40 and 200 bar

"R" = red spring for calibration field ranging between 180 and 350 bar

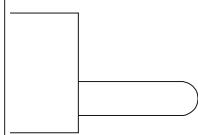
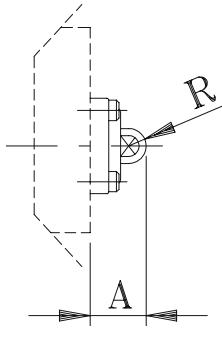
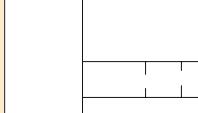
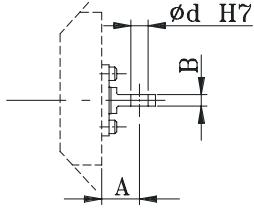
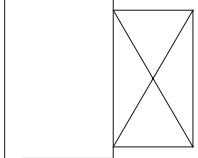
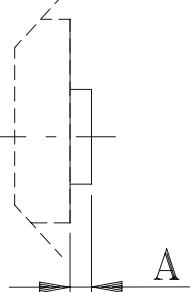
N.B.: If this details is not mentioned in the order, calibration will be set at the standard level of 150 bar.

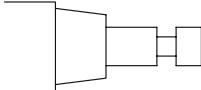
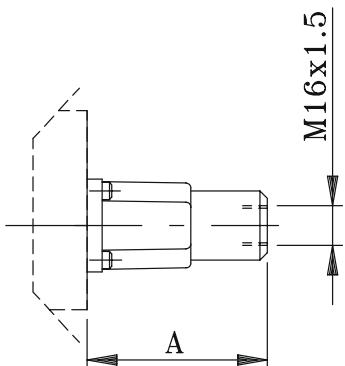
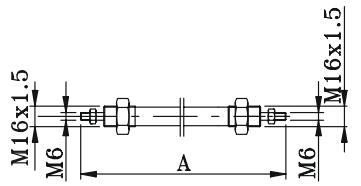
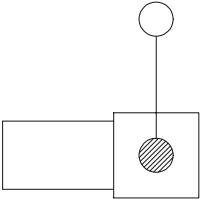
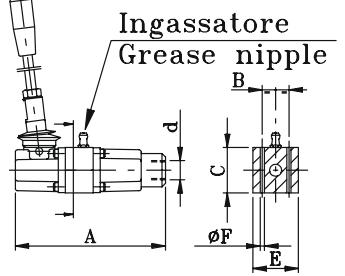
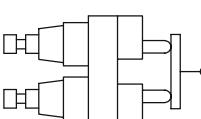
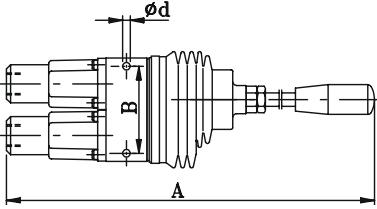
(\*\*) Specificare tensione e schema dell'elettrovalvola

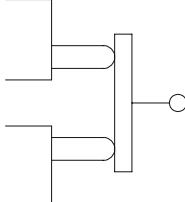
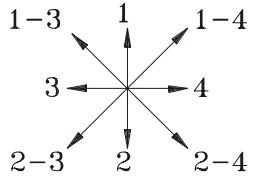
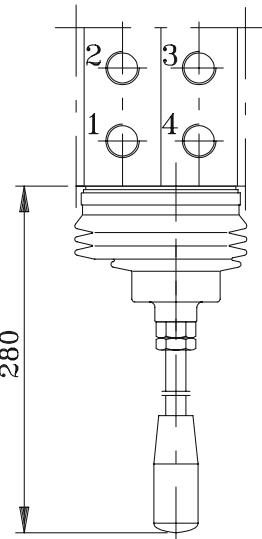
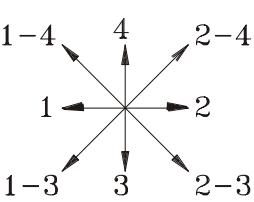
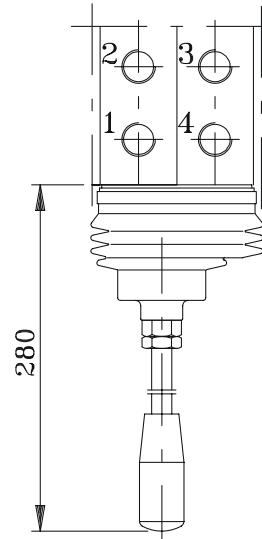
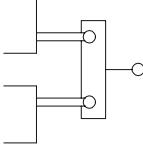
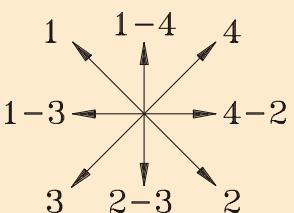
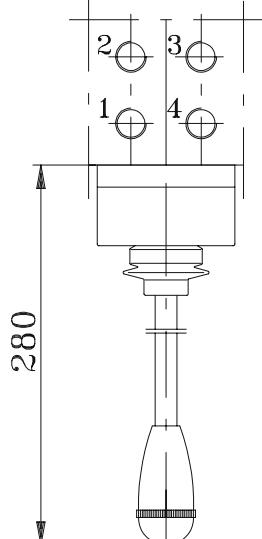
(\*\*) Specify voltage and scheme of the solenoid operated valve

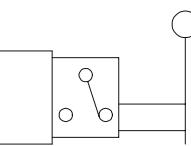
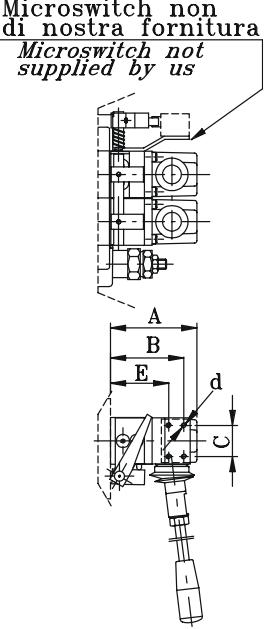
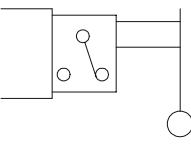
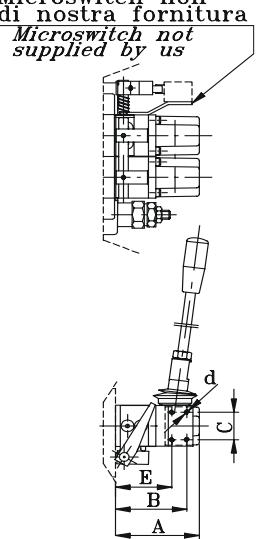
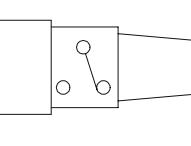
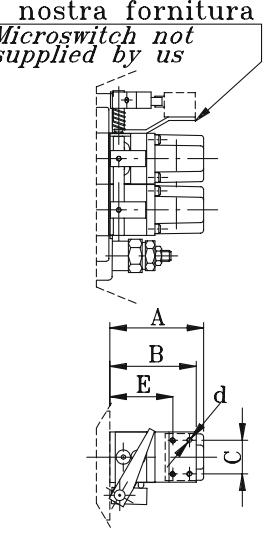
<input type="checkbox"/> 12 V.DC <input type="checkbox"/> 24 V.DC	Normalmente chiusa <i>Usually closed</i> = N.C. 
	Normalmente aperta <i>Usually open</i> = N.A. 

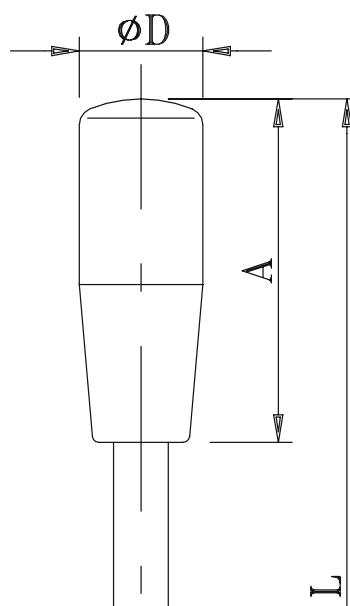
COMANDI / CONTROLS				Q25	Q30	Q75	Q80
CODICE CODE	SIMBOLO IDRAULICO HYDRAULIC SYMBOL	DESCRIZIONE DESCRIPTION		Q45	Q50	Q95	Q130
A1		<b>Comando manuale con leva standard.</b> <i>Hand control with standard lever.</i>		A	42	55	
A2		<b>Comando manuale con leva standard ruotata di 180°.</b> <i>Hand control with standard lever mounted rotated 180°.</i>		B	205	260	
A12		<b>Comando manuale con leva di sicurezza del tipo "uomo morto"</b> <i>Hand control with safety "dead man" type lever.</i>		A	42	55	
A13		<b>Comando manuale con leva di sicurezza del tipo "uomo morto" ruotata di 180°</b> <i>Hand control with safety "dead man" type lever. mounted rotated 180°</i>		B	273.5	288	
A3		<b>Scatola di protezione in sostituzione del comando manuale con leva.</b> <i>Proof cap replacing hand control with lever.</i>		C	7°	6°	
A4		<b>Attacco diretto sul cursore per rinvio a distanza rigido.</b> <i>Direct control connection on spool for stiff remote control.</i>		D	18°	19°	
				A	42	55	
				B	39	53	
				CH	M8	M10	
				B	9	14	
				CORSA ± STROKE	5	7	

COMANDI / CONTROLS				Q25 Q45	Q30 Q50	Q75 Q95	Q80 Q130
CODICE CODE	SIMBOLO IDRAULICO HYDRAULIC SYMBOL	DESCRIZIONE DESCRIPTION					
A5		<b>Attacco diretto sul cursore con terminale sferico. ( da utilizzare solo con il posizionamento M4 (2-1) )</b> <i>Direct control connection on spool with spherical end. ( Control to be used for positioning M4 (2-1) ).</i>		A	22	33	
				R	6.85	8.75	
				CORSA ± STROKE	5	7	
A6		<b>Attacco diretto sul cursore con terminale ad occhio fisso.</b> <i>Direct control connection on spool eye end.</i>		A	20	27	
				B	6	7	
				d	9	11	
				CORSA ± STROKE	5	7	
Z1		<b>Kit ausiliario da montare sul lato comando per cursori con 4^ posizione e posizionatore R8.</b> <i>Auxiliary kit to be mounted on control side for spool with 4th position and positioning R8.</i>		A	8.5	13.5	

COMANDI / CONTROLS				Q25 Q45	Q30 Q50	Q75 Q95	Q80 Q130			
CODICE CODE	SIMBOLO IDRAULICO HYDRAULIC SYMBOL	DESCRIZIONE DESCRIPTION								
A8		<b>Attacco diretto sul cursor per cavo flessibile rinvio a distanza.</b> <i>Direct connection on spool for remote flexible control.</i>		A	73	77				
C1		<b>Cavo flessibile.</b> <i>Flexible cable.</i>		A	<b>Massima lunghezza cavo consigliata 4000 mm</b> <b>Raggio min. di curvatura: 200 mm</b> <i>Max. recommended lenght 4000 mm</i> <i>Minimum radius curve 200 mm</i>					
SL		<b>Comando a distanza.</b> <i>Remote control.</i>		A	135	172				
SLA15		<b>Comando a cloche per controllo simultaneo di due cursori a distanza.</b> <i>Remote cloche lever control for simultaneous operation of two spools.</i>		A	358					
				B	77					
				$\varnothing d$	6.5					
					Q25 Q45	Q30 Q50	Q75 Q95			
					Q80 Q130					

COMANDI / CONTROLS			Q25 Q45	Q30	Q50	Q75 Q95	Q80 Q130
CODICE CODE	SIMBOLO IDRAULICO HYDRAULIC SYMBOL	DESCRIZIONE DESCRIPTION					
A15		<b>A15S</b> <b>Con fulcro a sinistra.</b> <i>With fulcrum on the left.</i>  <b>Leva a cloche per il comando singolo o simultaneo di due cursori, come a schema sottoindicato.</b>  <i>Cloche lever for simultaneous or single control of two spools, as from the scheme here below.</i>  	 <p>280</p>	*	*	*	*
		<b>A15D</b> <b>Con fulcro a destra.</b> <i>With fulcrum on the right.</i>  <b>Leva a cloche per il comando singolo o simultaneo di due cursori, come a schema sottoindicato.</b>  <i>Cloche lever for simultaneous or single control of two spools, as from the scheme here below.</i>  	 <p>280</p>	*	*	*	*
A16		<b>Leva a cloche per il controllo singolo o simultaneo di due cursori come a schema sotto-indicato.</b>  <i>Cloche lever for single or simultaneous control of two spools as from the scheme here below.</i>  	 <p>280</p>	*	*		

COMANDI / CONTROLS				Q25 Q45	Q30 Q50	Q75 Q5	Q80 Q130
CODICE CODE	SIMBOLO IDRAULICO HYDRAULIC SYMBOL	DESCRIZIONE DESCRIPTION					
<b>N1-A1</b> <b>N1A-A1</b> <b>N1B-A1</b>		<p>Comando manuale con attivazione del contatto elettrico del microswitch centralizzato.</p> <p>N1-A1: Per doppio effetto N1A-A1: Per semplice effetto in pos 1 N1B-A1: Per semplice effetto in pos 2</p> <p><i>Hand control with ON-OFF centralized microswitch operation.</i></p> <p><i>N1-A1: Double acting N1A-A1: Single acting in 1 position N1B-A1: Single acting in 2 position</i></p>	<p><b>Microswitch non di nostra fornitura</b> <i>Microswitch not supplied by us</i></p> 	A	70	84	
				B	59		
				C	25		
				E	49		
				d	M4		
<b>N1-A2</b> <b>N1A-A2</b> <b>N1B-A2</b>		<p>Comando manuale ruotato di 180° con attivazione del contatto elettrico del microswitch centralizzato.</p> <p>N1-A2: Per doppio effetto N1A-A2: Per semplice effetto in pos 1 N1B-A2: Per semplice effetto in pos 2</p> <p><i>180° rotated hand control with ON-OFF centralized microswitch operation.</i></p> <p><i>N1-A2: Double acting N1A-A2: Single acting in 1 position N1B-A2: Single acting in 2 position</i></p>	<p><b>Microswitch non di nostra fornitura</b> <i>Microswitch not supplied by us</i></p> 	A	70	84	
				B	59		
				C	25		
				E	49		
				d	M4		
<b>N1-A3</b> <b>N1A-A3</b> <b>N1B-A3</b>		<p>Comando microswitch centralizzato.</p> <p>N1-A3: Per doppio effetto N1A-A3: Per semplice effetto in pos 1 N1B-A3: Per semplice effetto in pos 2</p> <p><i>Centralized microswitch control.</i></p> <p><i>N1-A3: Double acting N1A-A3: Single acting in 1 position N1B-A3: Single acting in 2 position</i></p>	<p><b>Microswitch non di nostra fornitura</b> <i>Microswitch not supplied by us</i></p> 	A	70	84	
				B	59		
				E	49		
				C	25		
				d	M4		

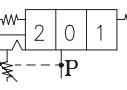
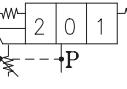
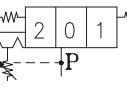
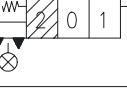
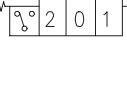
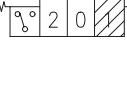
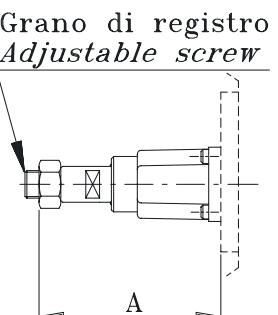
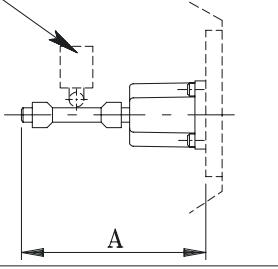
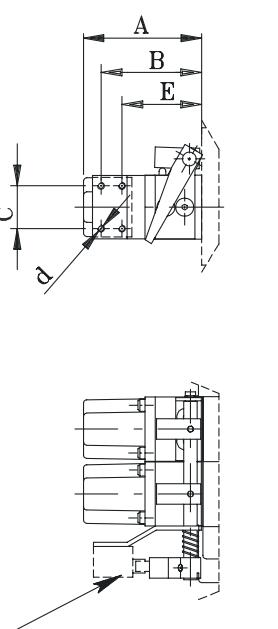
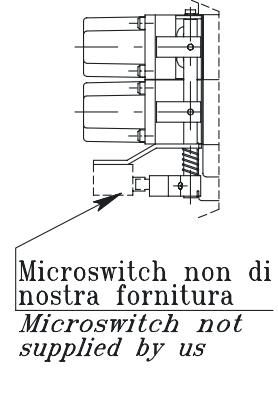
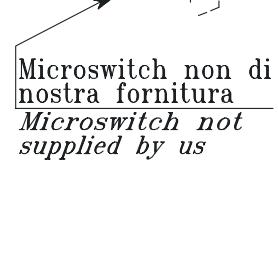
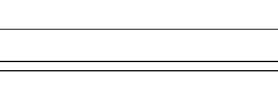
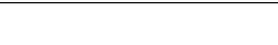
ASTE DI COMANDO / CONTROL LEVERS		Q25	Q30	Q75	Q80
CODICE CODE	DESCRIZIONE DESCRIPTION	Q45	Q50	Q95	Q130
<b>M8: 06.029.22862</b> <b>M8: 06.029.30335(*)</b>	<b>Versione standard</b> <i>Standard version</i>				
<b>M10: 06.029.27013</b>			<b>M</b>	<b>M8</b>	<b>M10</b>
<b>M8: 06.029.30528</b> <b>M8: 06.029.30492(*)</b>	<b>Versione lunga tipo "A"</b> <i>Long version type "A"</i>		<b>L</b>	<b>164</b>	<b>210</b>
<b>M8: 06.029.28922</b> <b>M8: 06.029.30336(*)</b>	<b>Versione lunga</b> <i>Long version</i>		<b>øD</b>	<b>20</b>	
<b>M10: 06.029.28148</b>			<b>A</b>	<b>57</b>	
<b>M8: 06.029.27421</b> <b>M10: 06.029.27020</b>	<b>Versione extra lunga</b> <i>Extra-long version</i>		<b>B</b>	<b>20</b>	<b>28</b>
<b>M10: 06.000.27344</b>	<b>Versione corta</b> <i>Short version</i>		<b>M</b>	<b>M8</b>	<b>M10</b>
<b>M8: 06.029.22876</b> <b>M10: 06.029.27635</b>	<b>Versione extra corta</b> <i>Extra-short version</i>		<b>L</b>	<b>328</b>	<b>507</b>
<b>M10: 06.000.29451</b> <b>M10: 06.000.29866</b>	<b>Versione con oblò</b> <i>Handle with lens</i>		<b>øD</b>	<b>25</b>	<b>22</b>
<b>M8: 06.000.29423</b> <b>M10: 06.000.30295</b>	<b>Versione lunga con oblò</b> <i>Long version handle with lens</i>		<b>A</b>	<b>57</b>	<b>61</b>
			<b>B</b>	<b>20</b>	<b>28</b>
			<b>M</b>	<b>/</b>	<b>M10</b>
			<b>L</b>	<b>/</b>	<b>156</b>
			<b>øD</b>	<b>/</b>	<b>22</b>
			<b>A</b>	<b>/</b>	<b>61</b>
			<b>B</b>	<b>/</b>	<b>28</b>
			<b>M</b>	<b>M8</b>	<b>M10</b>
			<b>L</b>	<b>73</b>	<b>66</b>
			<b>øD</b>	<b>18</b>	<b>22</b>
			<b>A</b>	<b>50</b>	<b>61</b>
			<b>B</b>	<b>20</b>	<b>22</b>
			<b>M</b>	<b>M8</b>	<b>M10</b>
			<b>L</b>	<b>175</b>	<b>220</b>
			<b>øD</b>	<b>32</b>	
			<b>A</b>	<b>45</b>	
			<b>B</b>	<b>20</b>	<b>28</b>
			<b>M</b>	<b>M8</b>	<b>M10</b>
			<b>L</b>	<b>215</b>	<b>367</b>
			<b>øD</b>	<b>32</b>	
			<b>A</b>	<b>45</b>	
			<b>B</b>	<b>20</b>	<b>28</b>

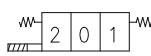
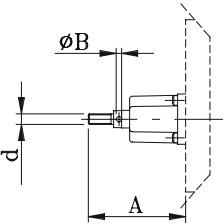
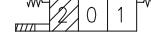
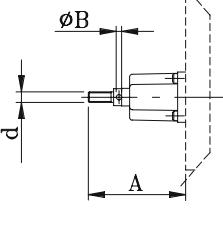
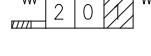
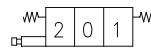
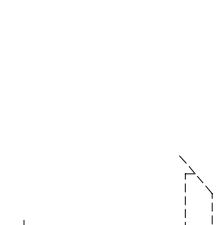
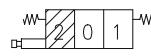
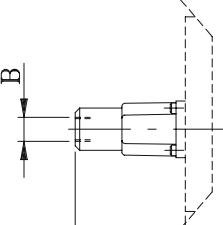
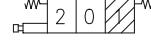
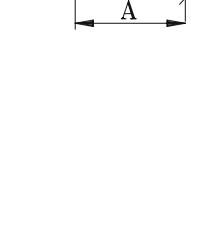
(\*): Versione con pomolo di colore Rosso

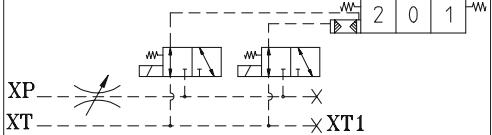
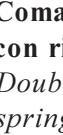
*Version with red knob*

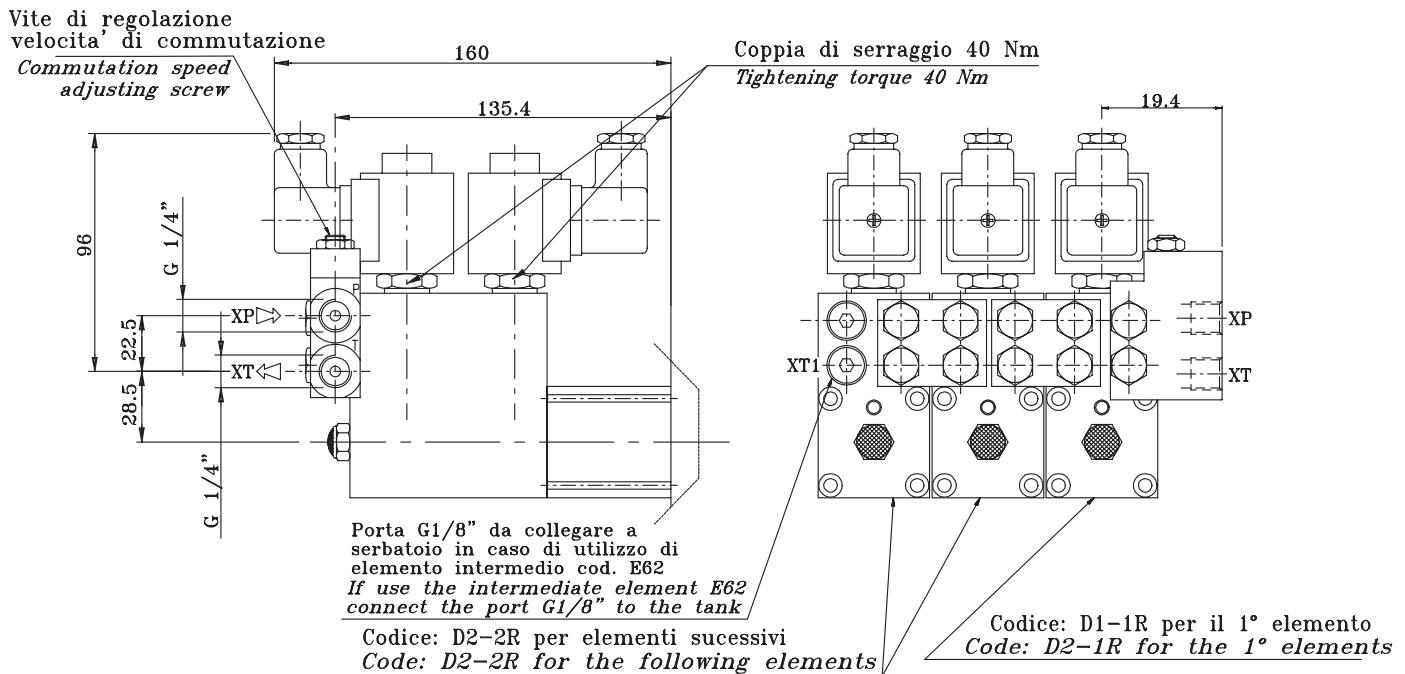
POSIZIONAMENTI / POSITIONINGS			Q25 Q45	Q30 Q50	Q75 Q95	Q80	Q130	
CODICE CODE	SIMBOLO IDRAULICO HYDRAULIC SYMBOL	DESCRIZIONE DESCRIPTION						
<b>M1</b>		Tre posizioni ritorno a molla in pos.0. <i>Three spring positions centred in 0.</i>				42	55	
<b>M2</b>		Due posizioni 0-1 ritorno a molla in pos.0. <i>Two spring positions 0-1 centred in 0.</i>				42	55	
<b>M3</b>		Due posizioni 0-2 ritorno a molla in pos.0. <i>Two spring positions 0-2 centred in 0.</i>				42	55	
<b>M4 2-1</b>		Due posizioni estreme ritorno a molla in pos.2. <i>Two end positions spring back in 2.</i>				42	55	
<b>R1</b>		Tre posizioni ritorno a molla in pos.0, detent in pos.1. <i>Three spring positions centred in 0, detent in 1.</i>				52	70	
<b>R2</b>		Tre posizioni ritorno a molla in pos.0, detent in pos.2. <i>Three spring positions centred in 0, detent in 2.</i>				54	68.5	
<b>R3</b>		Tre posizioni in detent. <i>Three detent positions.</i>				42	55	
<b>R4</b>		Due posizioni in detent 0-1. <i>Two detent positions 0-1.</i>						
<b>R5</b>		Due posizioni in detent 0-2. <i>Two detent positions 0-2.</i>				42	55	
<b>R6</b>		Due posizioni in detent 1-2. <i>Two detent positions 1-2.</i>						
<b>R8</b>		Due posizioni (1 e 2) con ritorno a molla in pos. 0; Pos. 3: 4° posizione flottante con detent. ( Da montare con Z1 lato comando ). <i>Two positions (1 and 2) with spring return centred in 0 position. Position 3, 4th position, floating with detent. (Mounting with Z1 side control).</i>				56.5	75	80
<b>R10/Z1</b>		Due posizioni (1 e 2) con ritorno a molla in pos. 0, Pos. 3: 4^ posizione flottante con detent. <i>Two positions (1 and 2) with spring return centred in 0, position 3: 4th position floating with detent.</i>	R10 Z1	A		70	92	/

**POSIZIONAMENTI / POSITIONINGS**

CODICE CODE	SIMBOLO IDRAULICO HYDRAULIC SYMBOL	DESCRIZIONE DESCRIPTION	Q25 Q45	Q30 Q50	Q75 Q95	Q80 Q130
<b>R1K</b>		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.				
<b>R2K</b>		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.				
<b>R3K</b>		Comando a 3 posizioni, detent in pos. 1 e 2 con sgancio automatico. 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.				
<b>M1-B1</b>		Tre posizioni ritorno a molla in pos.0 con comando microswitch posteriore. Three spring positions centred in 0 with back microswitch control.				
<b>M2-B1</b>		Due posizioni, 0-1, ritorno a molla in pos.0 con comando microswitch poste-riore. Two position, 0-1, spring centred in 0 with back microswitch control.				
<b>M3-B1</b>		Due posizioni, 0-2, ritorno a molla in pos.0 con comando microswitch poste-riore. Two position, 0-2, spring centred in 0 with back microswitch control.				
<b>M1-N1</b> <b>M1-N1A</b> <b>M1-N1B</b>		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 spring positions 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				
<b>M2-N1</b>		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.				
<b>M3-N1</b>		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	91.5	106	
			A	82	102	
			A	70	84	
			B	59		
			E	49		
			C	25		
			d	M4		

COMANDI CON POSIZIONAMENTO / CONTROLS WHIT POSITIONING				Q25	Q30	Q75	Q80
CODICE CODE	SIMBOLO IDRAULICO HYDRAULIC SYMBOL	DESCRIZIONE DESCRIPTION		Q45	Q50	Q95	Q130
M1-U1		<p>Tre posizioni con ritorno a molla in pos.0, attacco diretto sul cursore per rinvio a distanza rigido.</p> <p><i>Three spring positions centred in 0, with direct control connection on spool, cap side, for stiff remote control.</i></p>		A	73	96	
M2-U1		<p>Due posizioni, 0-1, con ritorno a molla in pos.0, attacco diretto sul cursore per rinvio a distanza rigido.</p> <p><i>Two positions, 0-1, spring centred in 0, with direct control connection on spool, cap side, for stiff remote control.</i></p>		B	4	5	
M3-U1		<p>Due posizioni, 0-2, con ritorno a molla in pos.0, attacco diretto sul cursore per rinvio a distanza rigido.</p> <p><i>Two positions, 0-2, spring centred in 0, with direct control connection on spool, cap side, for stiff remote control.</i></p>		d	M8	M10	
M1-U2		<p>Tre posizioni con ritorno a molla in pos.0, attacco diretto sul cursore per cavo flessibile rinvio a distanza.</p> <p><i>Three spring positions centred in 0, direct control connection on spool, cap side, for flexible remote control.</i></p>		A	73	77	
M2-U2		<p>Due posizioni, 0-1, ritorno a molla in pos.0, attacco diretto sul cursore per cavo flessibile rinvio a distanza.</p> <p><i>Two positions, 0-1, spring centred in 0, direct control connection on spool, cap side, for flexible remote control.</i></p>		B			
M3-U2		<p>Due posizioni, 0-2, ritorno a molla in pos.0, attacco diretto sul cursore per cavo flessibile rinvio a distanza.</p> <p><i>Two positions, 0-2, spring centred in 0, direct control connection on spool, cap side, for flexible remote control.</i></p>		B		M16x1.5	

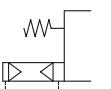
COMANDI CON POSIZIONAMENTO / CONTROLS WITH POSITIONING			Q25 Q45	Q30 Q50	Q95 Q75	Q80 Q130
CODICE CODE	SIMBOLI IDRAULICO HYDRAULIC SYMBOL	DESCRIZIONE DESCRIPTION				
<b>D2</b>	 	<b>Comando elettroidraulico doppio con ritorno in pos. 0</b> <i>Double electro-hydraulic control, spring centred in 0.</i>			*	*

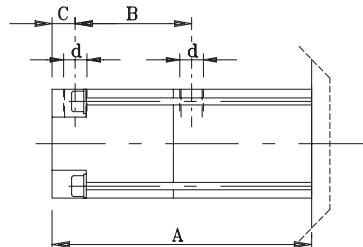


Pressione di pilotaggio in XP Pilot pressure in XP	Contropressione max. su XT Maximum back pressure on XT	Portata minima per ogni elemento Minimum flow for each section	Volume di pilotaggio per elemento Piloting volume for each section
Max. 35 bar	Min. 20 bar	4 bar	0.5 lt/min 5.5cm³

### CARATTERISTICHE TECNICHE ELETTROMAGNETE TIPO "H" ELECTROMAGNET CHARACTERISTICS TYPE "H"

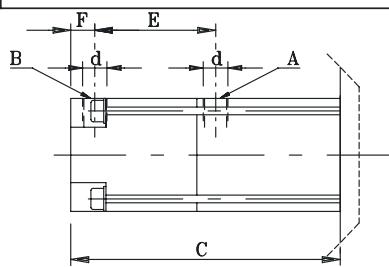
Attacco magnete Magnet connection	Tipo DIN 43650 (versione A) Type DIN 43650 (A version)
Tipo di protezione Protection type	IP 65
Classe d' isolamento Coil insulation class	H 180 VDE 0580
Tensione di alimentazione Supply voltage	D.C.: 12, 24V A.C. 50 Hz: 110, 220 V
Variazione di tensione max. Maximum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

COMANDI CON POSIZIONAMENTO/ CONTROL WITH POSITIONING			Q25 Q45	Q30 Q50	Q75 Q95	Q80 Q130
CODICE CODE	SIMBOLO IDRAULICO HYDRAULIC SYMBOL	DESCRIZIONE DESCRIPTION				
<b>P1-N</b>	 	<b>Comando pneumatico a tre posizioni, ritorno in posizione 0</b> <i>Three pneumatic control positions, spring centred in 0</i>	A	90.5	107	
			B	43	48	
			C	10	10.5	
			d	G 1/8"		

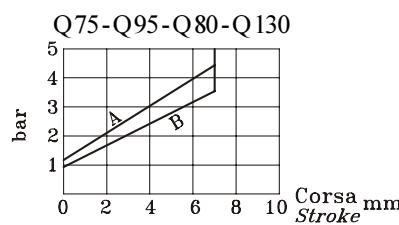
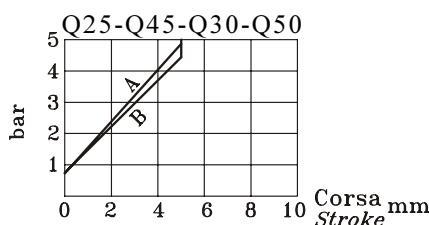


<b>Pressione di pilotaggio / Piloting pressure</b>	Min.	5 bar
	Max.	30 bar
<b>Volume pilotaggio / Piloting volume</b>	Q25-Q45-Q30-Q50	4 cm³
	Q75-Q95-Q80-Q130	9 cm³

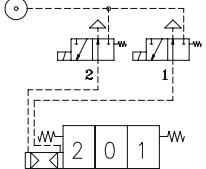
COMANDI CON POSIZIONAMENTO/ CONTROL WITH POSITIONING			Q25 Q45	Q30 Q50	Q75 Q95	Q80 Q130
CODICE CODE	SIMBOLO IDRAULICO HYDRAULIC SYMBOL	DESCRIZIONE DESCRIPTION				
<b>P1-NP</b>	 	<b>Comando pneumatico progressivo a tre posizioni, ritorno in posizione 0 per azionamento con manipolatore</b> <i>Three positions progressive pneumatic control, spring centred in 0 for remote control.</i>	C	90.5	107	
			E	43	48	
			F	10	10.5	
			d	G 1/8"		



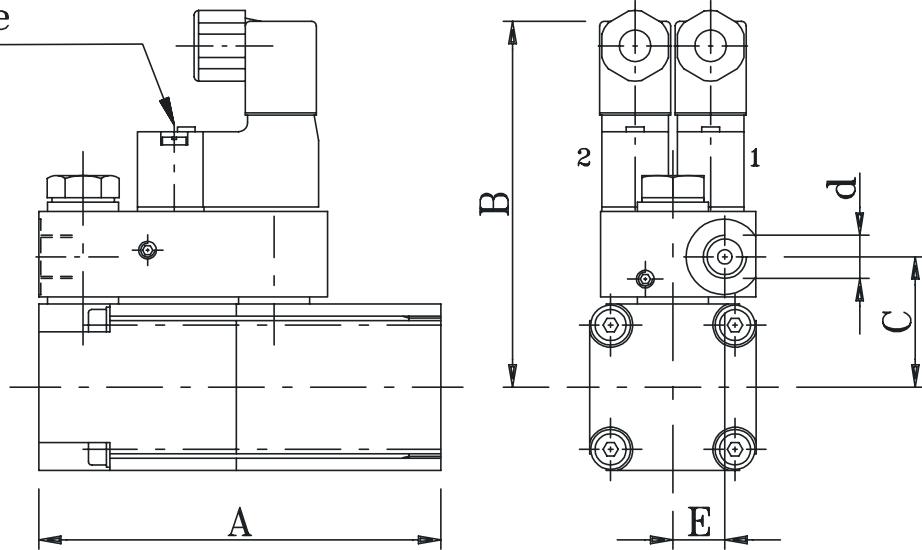
**DIAGRAMMA PRESSIONE DI PILOTAGGIO / CORSA SPOOL**  
*PILOTING PRESSURE DIAGRAM / SPOOL STROKE*



<b>Pressione di pilotaggio / Piloting pressure</b>	Min.	5 bar
	Max.	30 bar
<b>Volume pilotaggio / Piloting volume</b>	Q25-Q45-Q30-Q50	4 cm³
	Q75-Q95-Q80-Q130	9 cm³

COMANDI CON POSIZIONAMENTO / CONTROLS WITH POSITIONING			Q25	Q30	Q75	Q80
CODICE CODE	SIMBOLO IDRAULICO HYDRAULIC SYMBOL	DESCRIZIONE DESCRIPTION	Q45	Q50	Q95	Q130
<b>D3</b>	 	<b>Comando elettropneumatico a tre posizioni, ritorno in posizione 0.</b> <i>Three electro-pneumatic control positions, spring centred in 0</i>	A	90.5	107	
			B	82.4	86.1	
			C	29.4	33.1	
			d	G 1/8"		
			E	11.7	12	

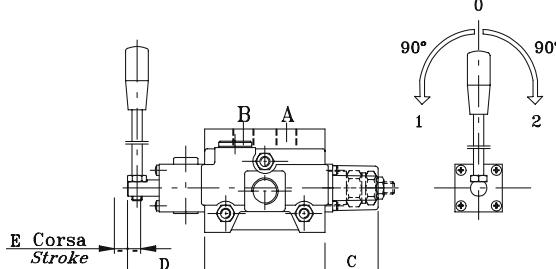
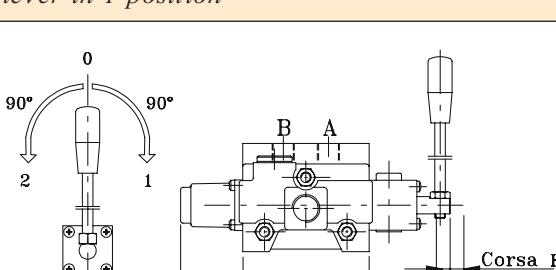
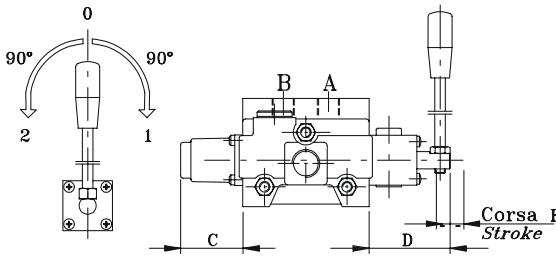
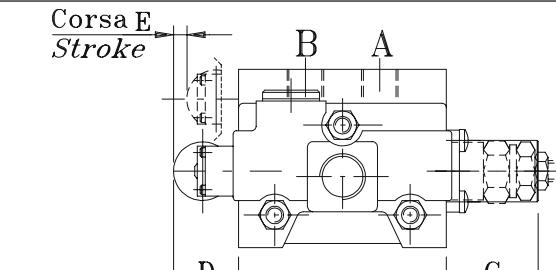
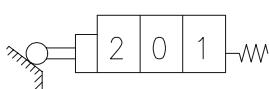
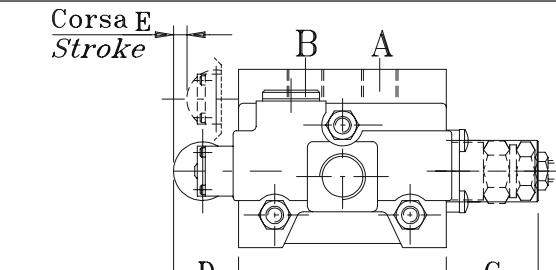
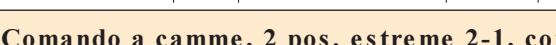
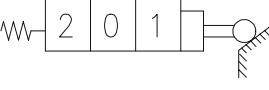
**Emergenza manuale a spinta**  
Push manual override



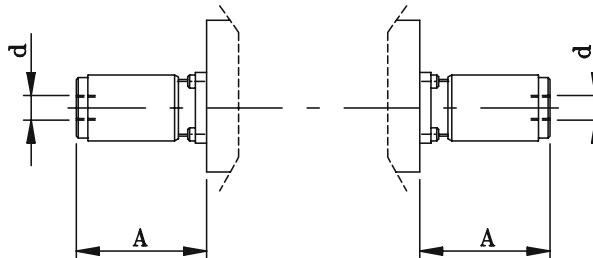
<b>Pressione di plottaggio / Piloting pressure</b>	Min. 5 bar
	Max. 10 bar
<b>Volume pilotaggio / Piloting volume</b>	Q25 - Q45 - Q30 - Q50 4 cm³
	Q75 - Q95 - Q80 - Q130 9 cm³

### **CARATTERISTICHE TECNICHE ELETTROMAGNETE** *ELECTROMAGNET CHARACTERISTICS*

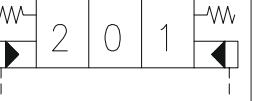
<b>Attacco magnete</b> <i>Magnet connection</i>	Tipo DIN 43650 (versione C ) PG7 <i>Type DIN 43650 (C version) - PG7</i>
<b>Tipo di protezione</b> <i>Protection type</i>	IP 65
<b>Classe d' isolamento</b> <i>Coil insulation class</i>	F 155°C
<b>Tensione di alimentazione</b> <i>Supply voltage</i>	D.C.: 12, 24V A.C. 50 Hz: 24, 110, 230 V
<b>Variazione di tensione max.</b> <i>Maximum voltage tolerance</i>	-15% ÷ + 10%
<b>Potenza assorbita</b> <i>Absorbed power supply</i>	A.C. : 2.5 VA D.C. : 2.5 W
<b>Rapporto di max. utilizzo</b> <i>Maximum utilization ratio</i>	100%
<b>Temperatura max.</b> <i>Max. temperature</i>	-10° ÷ 50°C

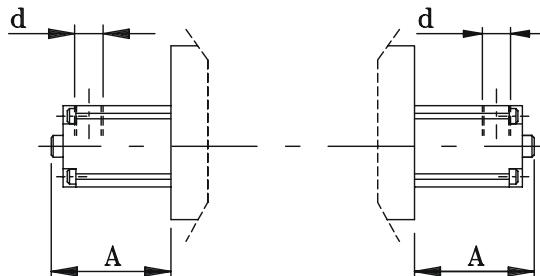
COMANDI CON POSIZIONAMENTO / CONTROLS WITH POSITIONING			Q25 Q45	Q30 Q50	Q95 Q75	Q80 Q130
CODICE CODE	SIMBOLO IDRAULICO HYDRAULIC SYMBOL	DESCRIZIONE DESCRIPTION				
RTL-s		Tre posizioni con comando rotativo frizionato, tacca in pos. 0, leva in pos. 2. <i>Three positions with cluched rotary control, lever in 2 positio.</i>	C	42	55	
		 <p>Diagram illustrating the RTL-s valve mechanism. It shows a cam-controlled rotary valve assembly. The lever is positioned at position 2. The valve has three main positions (0, 1, 2) indicated by arrows. Dimensions D and C are shown. Labels A and B identify specific valve components.</p>	D	61	72.5	
		 <p>Diagram illustrating the RTL-s valve mechanism in a different configuration. The lever is positioned at position 1. The valve has three main positions (0, 1, 2) indicated by arrows. Dimensions D and E are shown. Labels A and B identify specific valve components.</p>	E	10 (5 + 5)	14 (7 + 7)	
RTL-d		Tre posizioni con comando rotativo frizionato, tacca in pos. 0, leva in pos. 1. <i>Three positions with cluched rotary control 0, lever in 1 position</i>	C	15	20	
		 <p>Diagram illustrating the RTL-d valve mechanism. The lever is positioned at position 1. The valve has three main positions (0, 1, 2) indicated by arrows. Dimensions D and E are shown. Labels A and B identify specific valve components.</p>	D	61	72.5	
		 <p>Diagram illustrating the RTL-d valve mechanism. The lever is positioned at position 0. The valve has three main positions (0, 1, 2) indicated by arrows. Dimensions C and D are shown. Labels A and B identify specific valve components.</p>	E	10 (5 + 5)	14 (7 + 7)	
C2		Comando a camme 2 pos. estreme 1-2, con ritorno a molla in pos. 1. <i>Cam control, 2 end positions 1-2, spring centred in 1 position.</i>	C	42	55	
		 <p>Diagram illustrating the C2 valve mechanism. The valve is controlled by a cam and has two extreme positions (1-2). It features a central spring return to position 1. Dimensions C and D are shown. Labels A and B identify specific valve components.</p>	D	43	51	
		 <p>Diagram illustrating the C2 valve mechanism. The valve is controlled by a cam and has two extreme positions (1-2). It features a central spring return to position 1. Dimensions C and D are shown. Labels A and B identify specific valve components.</p>	E	10	14	
C3		Comando a camme, 2 pos. estreme 2-1, con ritorno a molla in pos. 2. <i>Cam control, 2 end positions 2-1, spring centred in 2 position.</i>	C	42	55	
		 <p>Diagram illustrating the C3 valve mechanism. The valve is controlled by a cam and has two extreme positions (2-1). It features a central spring return to position 2. Dimensions C and D are shown. Labels A and B identify specific valve components.</p>	D	43	51	
		 <p>Diagram illustrating the C3 valve mechanism. The valve is controlled by a cam and has two extreme positions (2-1). It features a central spring return to position 2. Dimensions C and D are shown. Labels A and B identify specific valve components.</p>	E	10	14	

COMANDI COMPLETI / COMPLETE CONTROLS			Q25	Q30	Q75	Q80
CODICE CODE	SIMBOLO IDRAULICO HYDRAULIC SYMBOL	DESCRIZIONE DESCRIPTION	Q45	Q50	Q95	Q130
<b>H1</b>		<b>Comando idraulico ad alta pressione ON-OFF a tre posizioni, ritorno a molla in posizione 0.</b> <i>Three positions whit high-pressure hydraulic control, spring centred in 0 position.</i>	A	70	85	
			d			G 1/4"

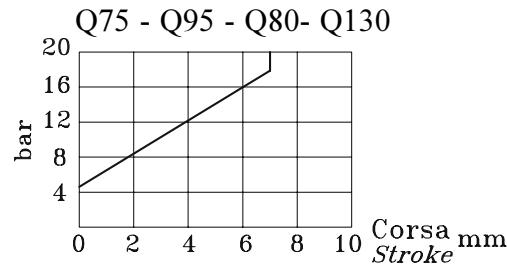
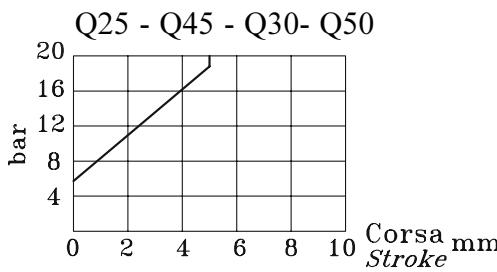


<b>Pressione di plottaggio / Piloting pressure</b>	Min.	16 bar
	Max.	350 bar
<b>Volume pilotaggio / Piloting volume</b>	Q25 - Q45 - Q30 - Q50	2 cm³
	Q75 - Q95 - Q80 - Q130	3 cm³

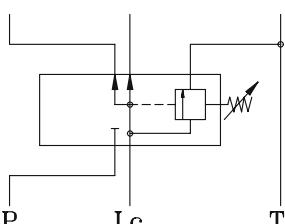
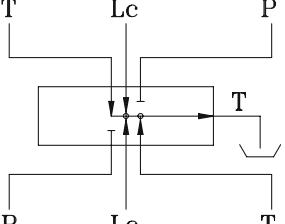
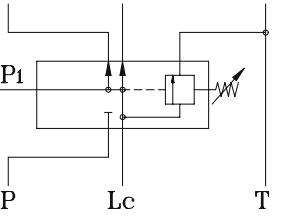
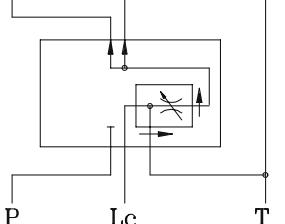
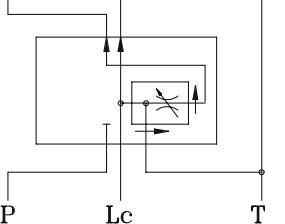
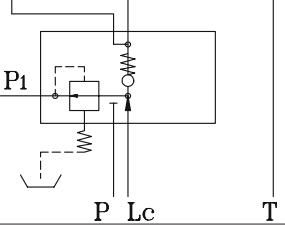
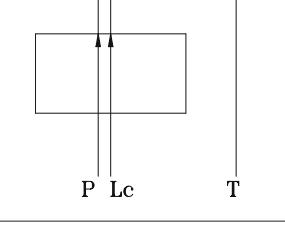
COMANDI COMPLETI / COMPLETE CONTROLS			Q25	Q30	Q75	Q80
CODICE CODE	SIMBOLO IDRAULICO HYDRAULIC SYMBOL	DESCRIZIONE DESCRIPTION	Q45	Q50	Q95	Q130
<b>H5</b>		<b>Comando idraulico a bassa pressione a tre posizioni per manipolatore idraulico, ritorno a molla in posizione 0.</b> <i>Three positions whit low-pressure control for hydraulic remote control, spring centred in 0 position.</i>	A	50	71.5	
			d			G 1/4"

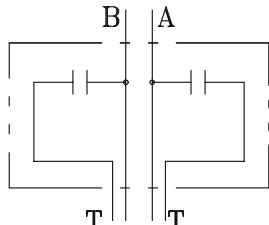
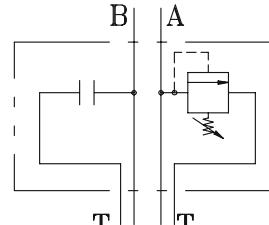
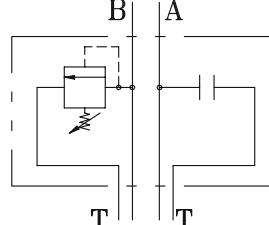
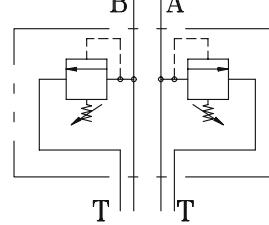
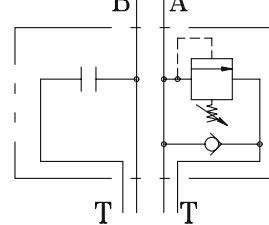
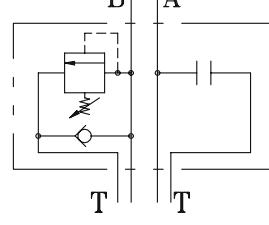
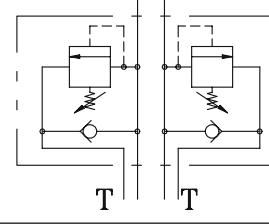


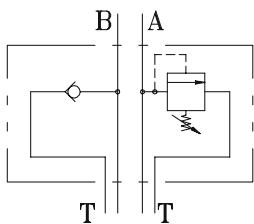
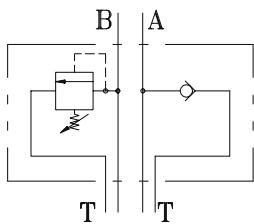
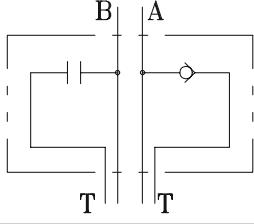
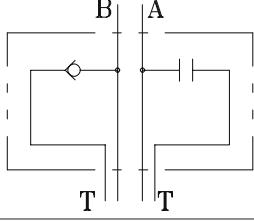
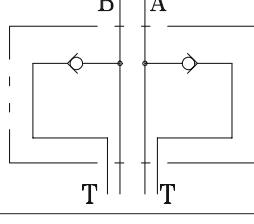
**DIAGRAMMA PRESSIONE DI PIOTTAGGIO / CORSA SPOOL**  
*PILOTING PRESSURE DIAGRAM / SPOOL STROKE*



<b>Pressione di plottaggio / Piloting pressure</b>	Max.	100 bar
	Q25 - Q45 - Q30 - Q50	2 cm³
<b>Volume pilotaggio / Piloting volume</b>	Q75 - Q95 - Q80 - Q130	3 cm³

<b>ELEMENTI INTERMEDI / INTERMEDIATE SECTIONS</b>			<b>Q30 Q50</b>	<b>Q80</b>	<b>Q130</b>
<b>CODICE CODE</b>	<b>SIMBOLO IDRAULICO HYDRAULIC SYMBOL</b>	<b>DESCRIZIONE DESCRIPTION</b>			
<b>E50</b>		<b>Elemento intermedio con VLP.</b> (* per la tarature vedi nota * nella pag. "Collettori di scarico") <i>Intermediate section with relief valve</i> <i>(For the setting see note * in the page of "Outlet sections")</i>	*	*	*
<b>E51</b>		<b>Collettore di uscita intermedio.</b> <i>Intermediate outlet section.</i>	*	*	*
<b>E53</b>		<b>Elemento intermedio per entrata 2^ pumpa con VLP.</b> (* per la tarature vedi nota * nella pag. "Collettori di scarico") <i>Intermediate inlet section for 2nd pump with relief valve.</i> <i>(For the setting see note * in the page of "Outlet sections")</i>	*	*	*
<b>E58</b>		<b>Elemento intermedio con divisore di portata 3 vie compensato registrabile con cacciavite (tipo "C") o con volantino (tipo "V").</b> <i>Intermediate section with 3 way flow divider adjustable and compensated whit screwdriver (type "C") or handwheel (type "V").</i>	*	*	
<b>E68</b>		<b>Elemento intermedio con divisore di portata 3 vie compensato registrabile con cacciavite (tipo "C") o con volantino (tipo "V").</b> <i>Intermediate section with 3 way flow divider adjustable and compensated whit screwdriver (type "C") or handwheel (type "V").</i>	*	*	
<b>E62</b>		<b>Elemento intermedio con valvola riduttrice di pressione per pilotaggio comando elettroidraulico.</b> <i>Intermediate section with pressure reducing valve for piloting electro-hydraulic control.</i>		*	*
<b>E61</b>		<b>Elemento intermedio di spessoramento</b> <i>Intermediate spacer element</i>	*	*	
		<b>Spessore elementi intermedi mm</b> <i>Thickness of the intermediate element</i>	<b>38</b>	<b>46</b>	<b>48</b>

<b>VALVOLE A CARTUCCIA INCORPORATE NELL' ELEMENTO</b> <i>BUILT-IN CARTRIDGE VALVES</i>			<b>Q30 Q50</b>	<b>Q80</b>	<b>Q130</b>
<b>CODICE CODE</b>	<b>SIMBOLO IDRAULICO HYDRAULIC SYMBOL</b>	<b>DESCRIZIONE DESCRIPTION</b>			
<b>VC</b>		<b>Tappo di chiusura per corpo distributore predisposto per valvole antiurto e/o anticavitazione.</b> <i>Closing plug for directional control valve body preset for shock and/or anticavitation valves.</i>	*	*	*
<b>V30</b>		<b>Valvola limitatrice di pressione (o antiurto), registrabile, su effetto A (per le tarature vedere pag. seguente *).</b> <i>Pressure limiting valve (or antishock), adjustable, on A port (for the setting see next page *).</i>	*	*	*
<b>V31</b>		<b>Valvola limitatrice di pressione (o antiurto), registrabile, su effetto B (per le tarature vedere pag. seguente *).</b> <i>Pressure limiting valve (or antishock), adjustable, on B port (for the setting see next page *).</i>	*	*	*
<b>V32</b>		<b>Valvola limitatrice di pressione (o antiurto), registrabile su effetto A e B (per le tarature vedere pag. seguente *).</b> <i>Pressure limiting valve (or antishock), adjustable , on A and B port (for the setting see next page *).</i>	*	*	*
<b>V33</b>		<b>Valvola limitatrice di pressione (o antiurto), registrabile, con anticavitazione, su effetto A (per le tarature vedere pag. seguente *).</b> <i>Pressure limiting valve (or antishock) , adjustable, with anticavitation, on A port (for the setting see next page *).</i>	*	*	*
<b>V34</b>		<b>Valvola limitatrice di pressione (o antiurto), registrabile, con anticavitazione, su effetto B (per le tarature vedere pag. seguente *).</b> <i>Pressure limiting valve (or antishock) , adjustable, with anticavitaion, on B port (for the setting see next page *).</i>	*	*	*
<b>V35</b>		<b>Valvola limitatrice di pressione (o antiurto), registrabile, con anticavitazione, su effetti A e B (per le tarature vedere pag. seguente *).</b> <i>Pressure limiting valve (or antishock) , adjustable, with anticavitaion, on A and B ports (for the setting see next page *).</i>	*	*	*

<b>VALVOLE A CARTUCCIA INCORPORATE NELL' ELEMENTO</b> <i>BUILT-IN CARTRIDGE VALVES</i>			<b>Q30 Q50</b>	<b>Q80</b>	<b>Q130</b>
<b>CODICE CODE</b>	<b>SIMBOLO IDRAULICO HYDRAULIC SYMBOL</b>	<b>DESCRIZIONE DESCRIPTION</b>			
<b>V40</b>		<b>Valvola limitatrice di pressione (o antiurto), registrabile su effetto A e anticavitàzione su effetto B (per le tarature vedere *)</b> <i>Pressure limiting valve (or antishock), adjustable on A port and anticavitation on B port (for the setting see *).</i>	*	*	*
<b>V41</b>		<b>Valvola anticavitàzione su effetto A e valvola limitatrice di pressione (o antiurto), registrabile su effetto B (per le tarature vedere *).</b> <i>Anticavitation valve on A port and pressure limiting valve (or antishock), adjustable on B port (for the setting see *).</i>	*	*	*
<b>V04</b>		<b>Valvola anticavitàzione su effetto A.</b> <i>Anticavitation valve on A port.</i>	*	*	*
<b>V05</b>		<b>Valvola anticavitàzione su effetto B.</b> <i>Anticavitation valve on B port.</i>	*	*	*
<b>V06</b>		<b>Valvola anticavitàzione doppia su effetti A e B.</b> <i>Anticavitation valve, double-acting on A and B ports.</i>	*	*	*

(\*) Taratura o campo di taratura delle valvole ausiliarie da specificare in bar nell'ordine

Calibration fields of the auxiliary valves to specify during the purchase order (bar):

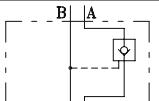
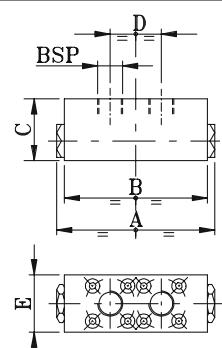
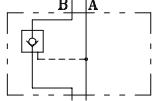
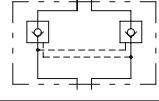
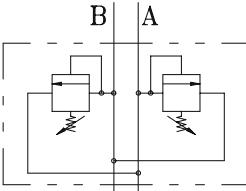
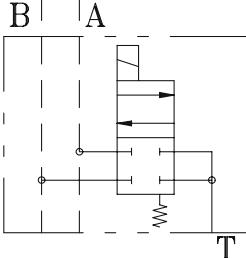
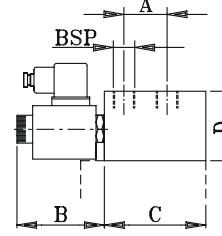
<b>Q30 - Q50</b>		<b>Q80</b>		<b>Q130</b>	
Tipo molla Spring type	Campi di taratura(**) Calibration fields	Tipo molla Spring type	Campi di taratura(**) Calibration fields	Tipo molla Spring type	Campi di taratura Calibration fields
"B"= molla bianca white spring	30 ÷ 80 bar	"B"= molla bianca white spring	30 ÷ 80 bar	"B"= molla bianca white spring	30 ÷ 80 bar
"N"= molla nera black spring	81 ÷ 200 bar	"N"= molla nera black spring	81 ÷ 200 bar	"N"= molla nera black spring	81 ÷ 200 bar
"G"= molla gialla yellow spring	201 ÷ 300 bar	"R"= molla rossa red spring	201 ÷ 370 bar	"R"= molla rossa red spring	201 ÷ 350 bar
"R"= molla rossa red spring	301 ÷ 400 bar				

(\*\*) Il range completo si ottiene mediante l'aggiunta di spessori.

The complete fields can be obtain with additional thickness.

N.B.: in caso di omissione del valore di taratura, esso sarà inteso standard (molla nera) a 120 bar.

without the calibration valve it will be considered as a standard valve (black spring) at 120 bar.

VALVOLE A PANNELLO / PANEL VALVES				Q30	Q80	Q130		
CODICE CODE	SIMBOLO IDRAULICO HYDRAULIC SYMBOL	DESCRIZIONE DESCRIPTION						
V01		Valvola di ritegno pilotata singola su effetto A (*). Single piloted check valve on A port (*).		A	105	130	173	
V02		Valvola di ritegno pilotata singola su effetto B (*). Single piloted check valve on B port (*)		B	95	122	165	
V03		Valvola di ritegno pilotata doppia su effetti A e B (*). Double piloted check valve on A and B. (*)		C	41	50	65	
V36		Valvola limitatrice di pressione (o antiurto) con scarico incrociato registrabile. Pressure limiting valve (or antishock) with adjustable and crossed outlet.		D	34	43	64	
				E	37.5	45	47	
				BSP	3/8"	1/2"	3/4"	
				A	102	/	/	
				B	95	/	/	
				C	41	/	/	
VP		Corpo distributore predisposto per valvola a pannello. Control valve body preset for panel-mounted valve.		D	34	/	/	
VPC		Corpo distributore predisposto per valvola antiurto o anticavitazione e per valvola a pannello. Control valve body preset for antishock valve or cavitation and for panel-mounted valve.		E	25	/	/	
VPFE		Corpo distributore predisposto per valvola di flottante elettrico a pannello. Control valve body preset for electric floating valve, panel mounted.		BSP	3/8"	/	/	
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 la tensione: 12 .DC.- 24V.DC. Valve for electric floating. To use on spools 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.D.C.		A	34	/	/	
				B	69	/	/	
				C	80	/	/	
				D	80	/	/	
				BSP	3/8"	/	/	

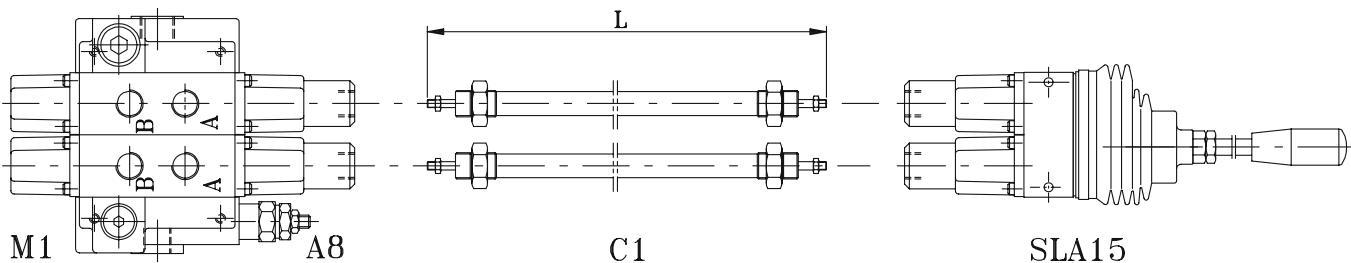
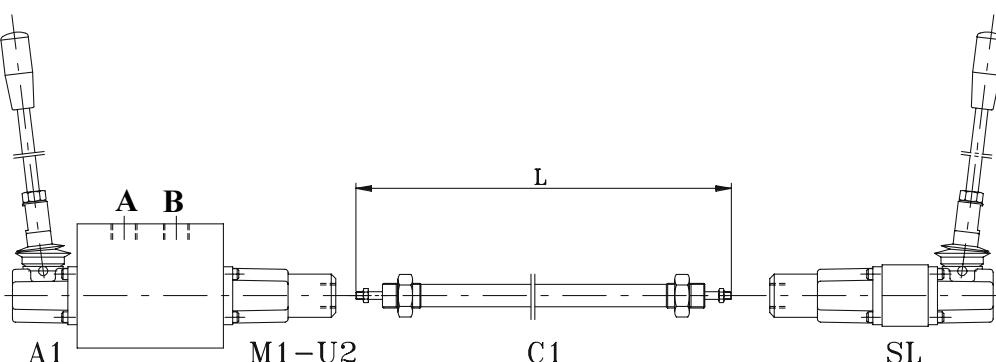
(\*) RAPPORTO DI PIOTAGGIO / (\*) PIOTTING RATIO

Q30	Q80	Q130
1 : 2.42	1 : 3.25	1 : 2.80

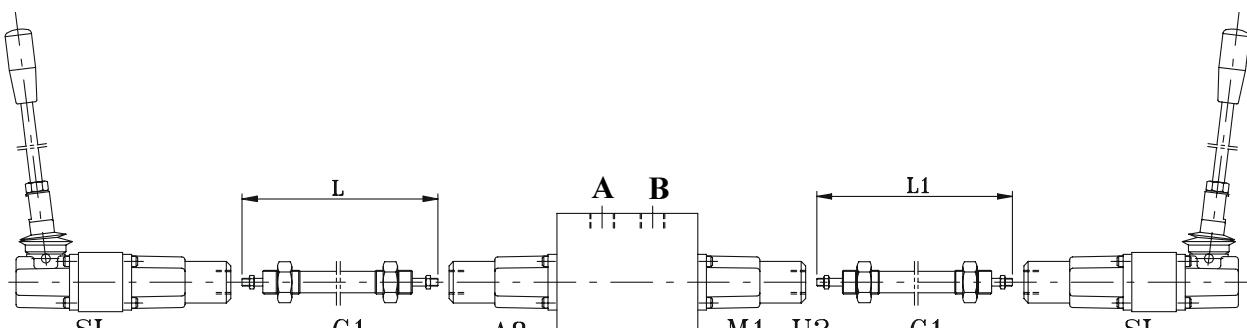
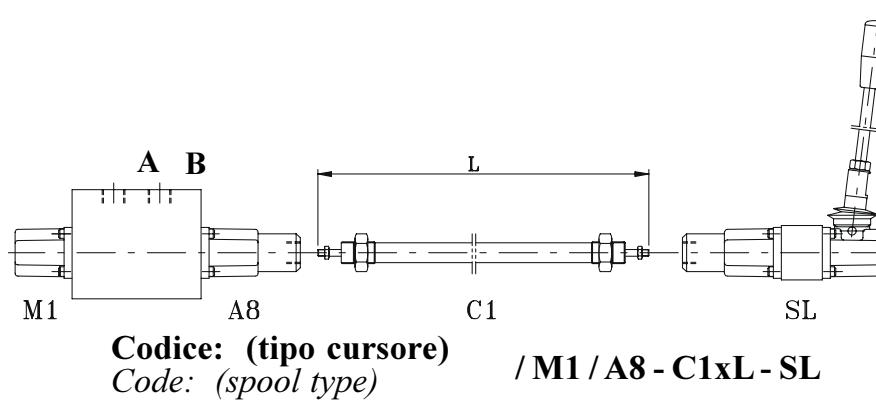
COPPIA DI SERRAGGIO DELLE VITI DI FISSAGGIO / FASTENING SCREW TIGHTENING

Q30	Q80	Q130
8 Nm	10 Nm	10 Nm
*2 Nm	*Solo per viti VFE / *Only for VFE screws	

## COMBINAZIONI POSSIBILI CON CAVO FLESSIBILE *POSSIBLE COMBINATIONS WITH FLEXIBLE REMOTE CONTROL*

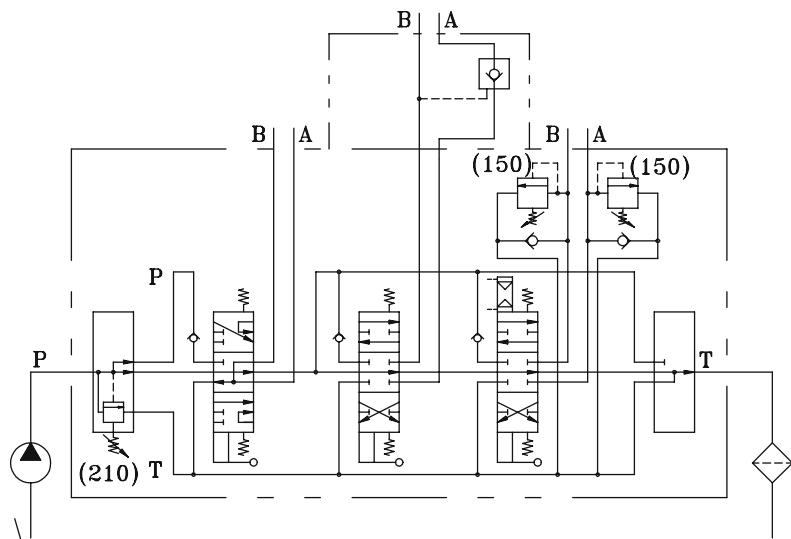
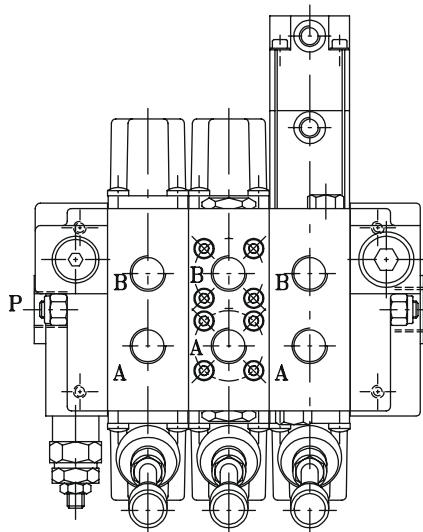


**Codice: (tipo cursore)**  
*Code: (spool type)* / A8 - C1xL - SLA 15/M1 - **(tipo cursore)**  
*(spool type)* / A8 - C1xL - M1



**Codice: (tipo cursore)**  
*Code: (spool type)* / A8 - C1xL - SL / M1 - U2 - C1xL1 - SL

## ESEMPIO DI ORDINAZIONE IN CODICE / EXAMPLE OF ORDERING CODE



**Q30- F7SR (210) - 411 / A1 / M1 - 103 / A1 / M1 / V01 - 103 / A1 / P1 / V35 (150) -F3D**

**Q30**

**Tipo distributore**

*Type of directional control valve*

**F7SR (210)**

**F7S**

**Tipo di collettore di entrata**

*Inlet section type*

**R**

**Tipo di molla per la VLP (rossa, nera o bianca)**

*Spring type for VLP (black, red or white)*

**(210)**

**Taratura della VLP**

*VLP setting*

**411 / A1 / M1**

**411**

**Cursore della prima sezione di lavoro**

*Spool type of first working section*

**A1**

**Comando lato bocca A**

*Control on A port side*

**M1**

**Posizionamento lato bocca B**

*Positioning on B port side*

**103 / A1 / M1 / V01**

**103**

**Cursore della seconda sezione di lavoro**

*Spool type of second working section*

**A1**

**Comando lato bocca A**

*Control on A port side*

**M1**

**Posizionamento lato bocca B**

*Positioning on B port side*

**V01**

**Valvola di ritengo pilotata singola su effetto A**

*Single piloted check valve on A port*

**103 / A1 / P1 / V35 (150)**

**103**

**Cursore della terza sezione di lavoro**

*Spool type of third working section*

**A1**

**Comando lato bocca A**

*Control on A port side*

**P1**

**Comando con posizionamento lato bocca B**

*Control with positioning on B port side*

**V35**

**Valvola limitatrice di pressione registrabile e**

**anticavitazione doppia su effetti A e B**

*Pressure limiting valve, adjustable and anticavitation, double-acting on A and B ports*

**(150)**

**Taratura valvola**

*Valve setting*

**F3D**

**Collettore di scarico**

*Outlet section*

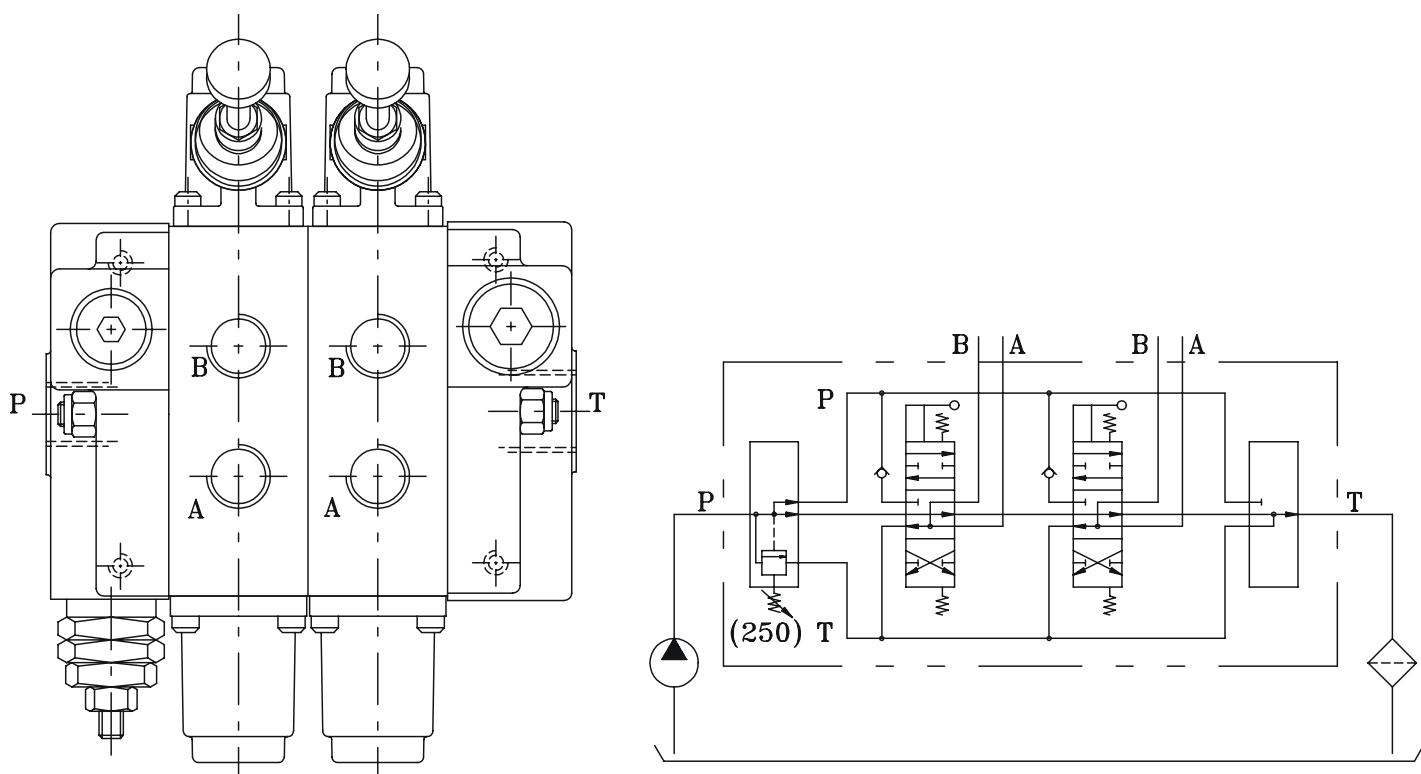
**N.B. per i distributori Q25 - Q45 e Q50 i**

- COMANDI codice A1, A2, A3, A4, A5, A6, A8, SL, N1-A1, N1-A2, N1-A3 ed i  
 - POSIZIONAMENTI codice M1, M2, M3, R1, R2, R3, R4, R5, R6, R8, R10, M1-B1, M2-B1, M3-B1, M1-N1, M2-N1, M3-N1, M1-U1, M2-U1, M3-U1, M1-U2, M2-U2, M3-U2  
 sono disponibili a richiesta nella versione con scatola e cappello in alluminio indicando la dicitura “-S” al termine dell’ ordinazione in codice.

**N.B. for the directional control valves type Q25 - Q45 and Q50 the**

- CONTROLS code A1, A2, A3, A4, A5, A6, A8, SL, N1-A1, N1-A2, N1-A3 and the  
 - POSITIONING code M1, M2, M3, R1, R2, R3, R4, R5, R6, R8, R10, M1-B1, M2-B1, M3-B1, M1-N1, M2-N1, M3-N1, M1-U1, M2-U1, M3-U1, M1-U2, M2-U2, M3-U2  
 are available with aluminium box and cap. Mark “ -S ” at the end of the code show.

## ESEMPIO DI ORDINAZIONE IN CODICE / EXAMPLE OF ORDERING CODE



**Q80 / F7SR (250) - 2x 111 / M1 / A1 - F3D**

**Q80**

**Tipo distributore**

*Type of directional control valve*

**F7S**

**F7SR (250)**

**Tipo di collettore di entrata**

*Inlet section type*

**R**

**Tipo di molla per la VLP (rossa, nera o bianca)**

*Spring type for VLP (black, red or white)*

**(250)**

**Taratura della VLP**

*VLP setting*

**2x 111 / M1 / A1**

**2x**

**Due sezioni di lavoro consecutive uguali**

*Two consecutive and equal working section*

**111**

**Tipo di cursore**

*Spool type*

**M1**

**Posizionamento lato bocca A**

*Positioning on A port side*

**A1**

**Comando lato bocca B**

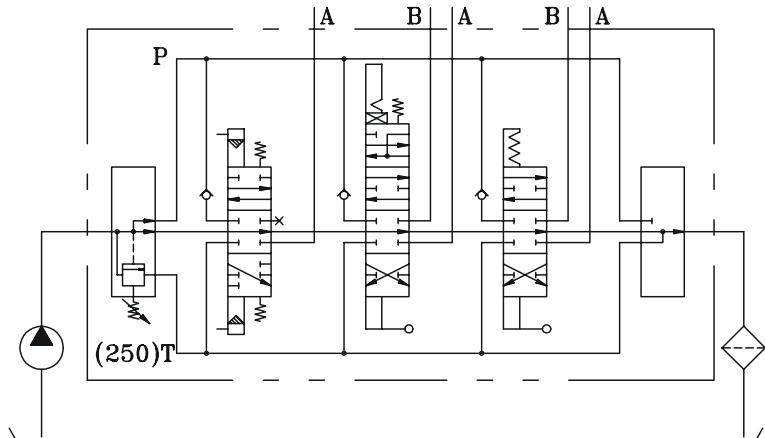
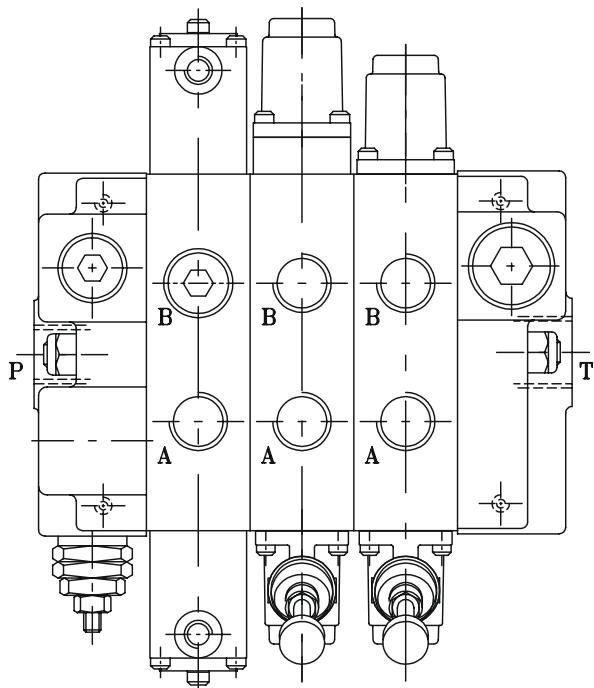
*Control on B port side*

**F3D**

**Collettore di scarico**

*Outlet section*

## ESEMPIO DI ORDINAZIONE IN CODICE / EXAMPLE OF ORDERING CODE



**Q130 - F7SR (250) - 101 / H5 - 126 / A1 / R10 / Z1 - 103 / A1 / R3 - F3D**

**Q130**

**Tipo distributore**

*Type of directional control valve*

**F7SR (250)**

**Tipo di collettore di entrata**

*Inlet section type*

**R**

**Tipo di molla per la VLP (rossa, nera o bianca)**

*Spring type for VLP (black, red or white)*

**(250)**

**Taratura della VLP**

*VLP setting*

**101 / H5**

**101**

**Cursore della prima sezione di lavoro**

*Spool type of first working section*

**H5**

**Comando completo lato bocca A e B**

*Complete control on A and B port side*

**126 / A1 / R10 / Z1**

**126**

**Cursore della seconda sezione di lavoro**

*Spool type of second working section*

**A1**

**Comando lato bocca A**

*Control on A port side*

**R10 / Z1**

**Posizionamento a tacche lato bocca B con variante (Z1) per 4<sup>a</sup> posizione invertita**

*Gate positioning on B port side with change (Z1) for reversed 4th position*

**103 / A1 / R3**

**103**

**Cursore della terza sezione di lavoro**

*Spool type of third working section*

**A1**

**Comando lato bocca A**

*Control on A port side*

**R3**

**Posizionamento lato bocca B**

*Positioning on B port side*

**F3D**

**Collettore di scarico**

*Outlet section*

**Galtech s.p.a.** Via Kennedy, 10 - 42100 Reggio Emilia - Italy  
Tel: +39.0522.300348 Fax: +39.0522.300803  
<http://www.galtech.it> - e-mail: galtech@galtech.it