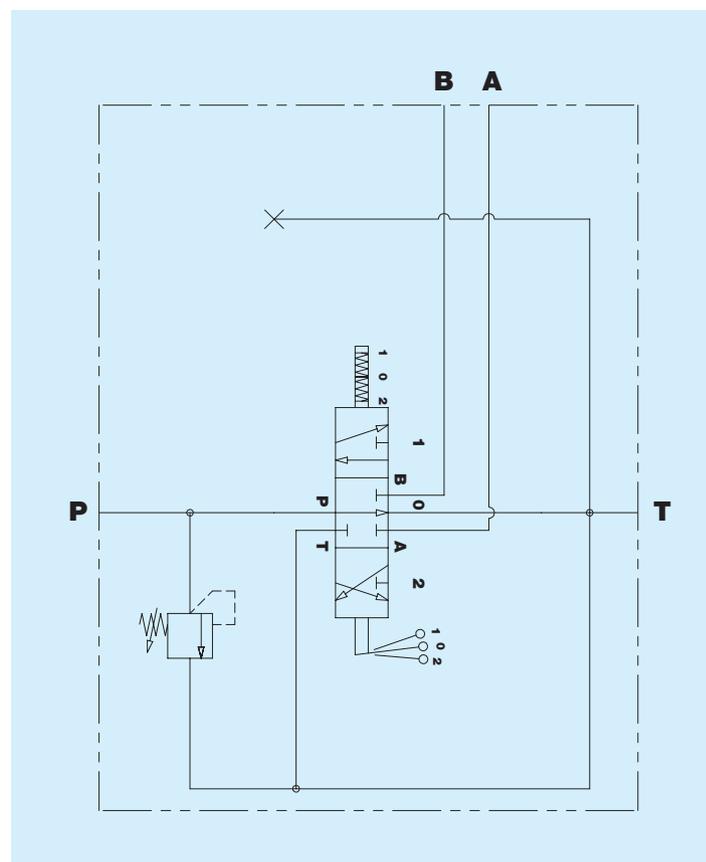


MD1 - Valvola di controllo direzionale

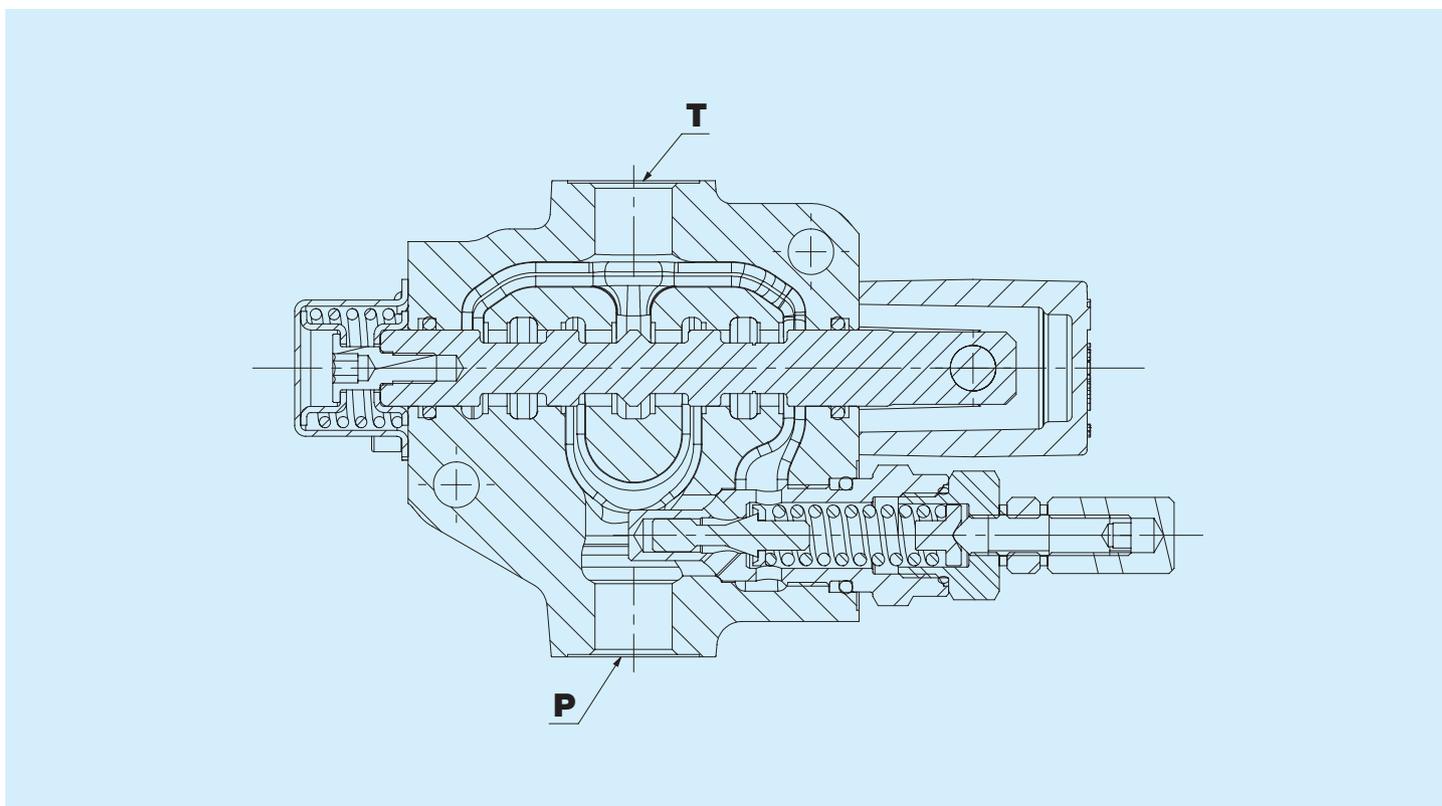


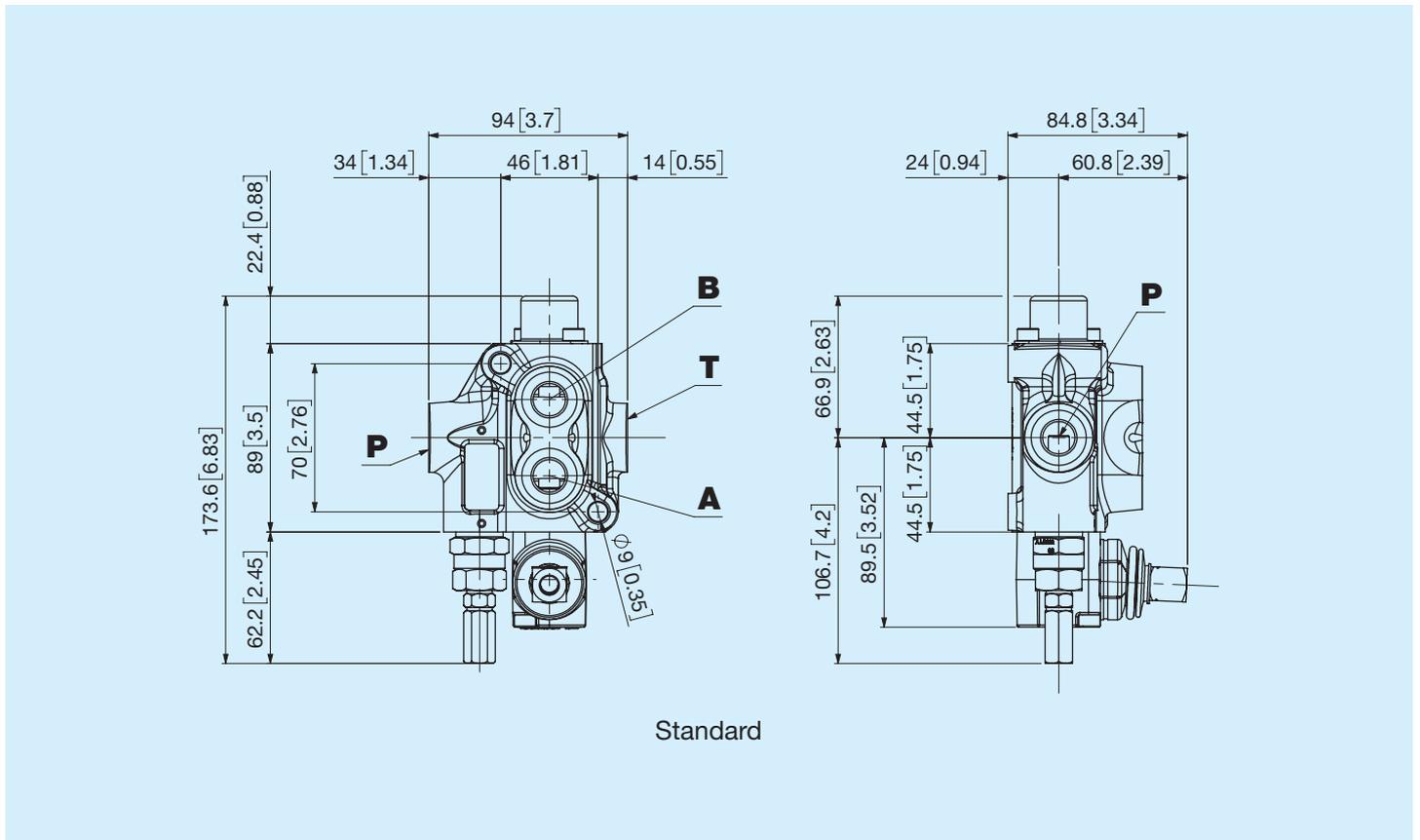
Prima di iniziare l'utilizzo leggere attentamente il documento ISTRUZIONI GENERALI D'IMPIEGO PER LE VALVOLE DI CONTROLLO DIREZIONALE

Portata nominale	35 l/min 9,2 US gpm
Pressione nominale	250 bar 3625 psi
Portata nominale in ingresso con azionamenti elettrici	20 l/min 5,3 US gpm
Pressione massima con azionamenti elettrici	180 bar 2610 psi
Contropressione massima a scarico	50 bar 725 psi
Trafilatura interna (A o B -> P e T) p=100 bar (1450 psi)	8 cm³/min 0,49 in³/min
Temperatura di utilizzo	-20°C +85°C NBR seals (max peak +100°C) -20°C + 130°C HNBR seals
Viscosità olio d'esercizio	da 15 mm²/s a 90 mm²/s (15 cSt a 90 cSt)
Fluido	Fluidi idraulici definiti dalla norma ISO 6743-4



Sezionato

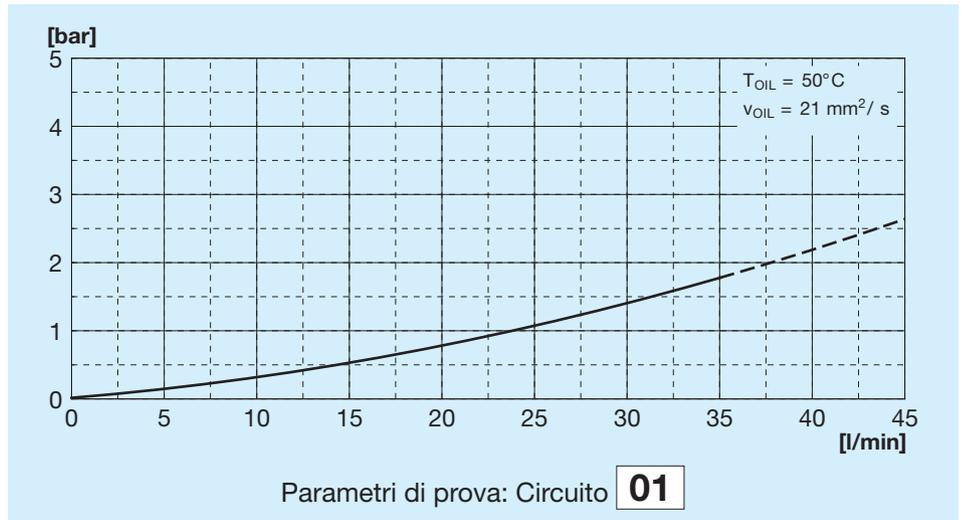
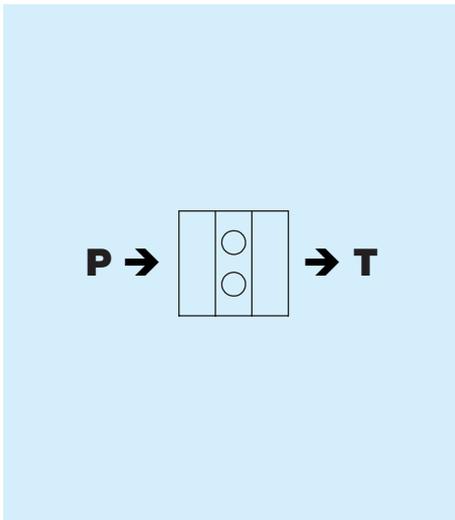




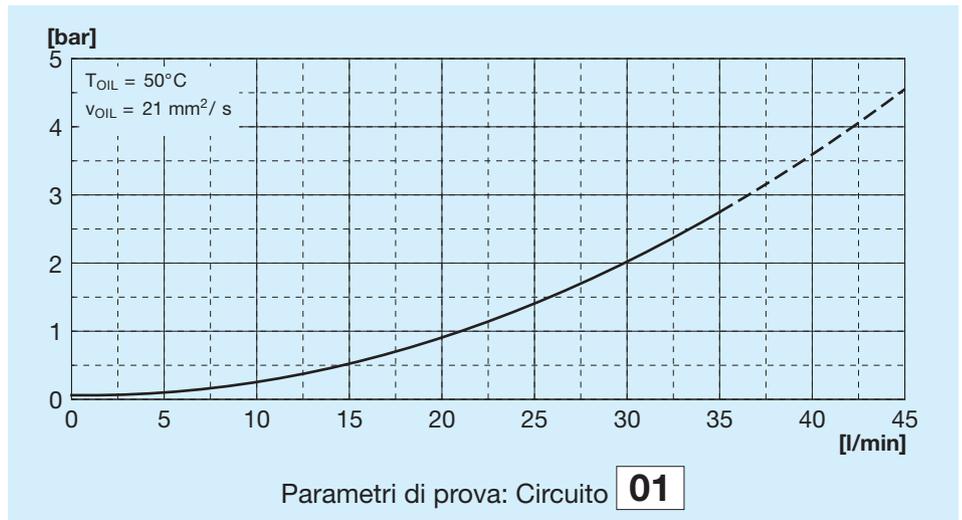
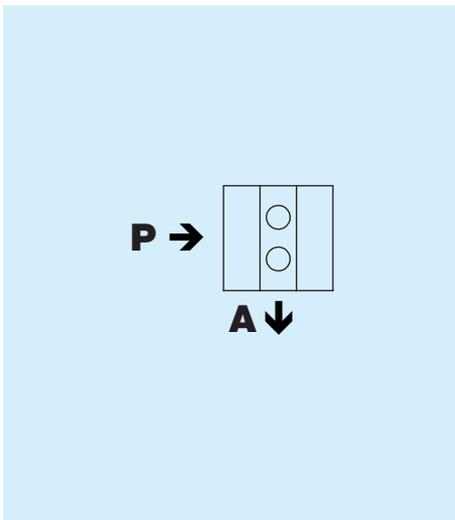
Dimensioni per numero di sezioni

Codice	N° sezioni	L		Massa	
		mm	in	kg	lb
1	1	46	1,8	2,2	4,8

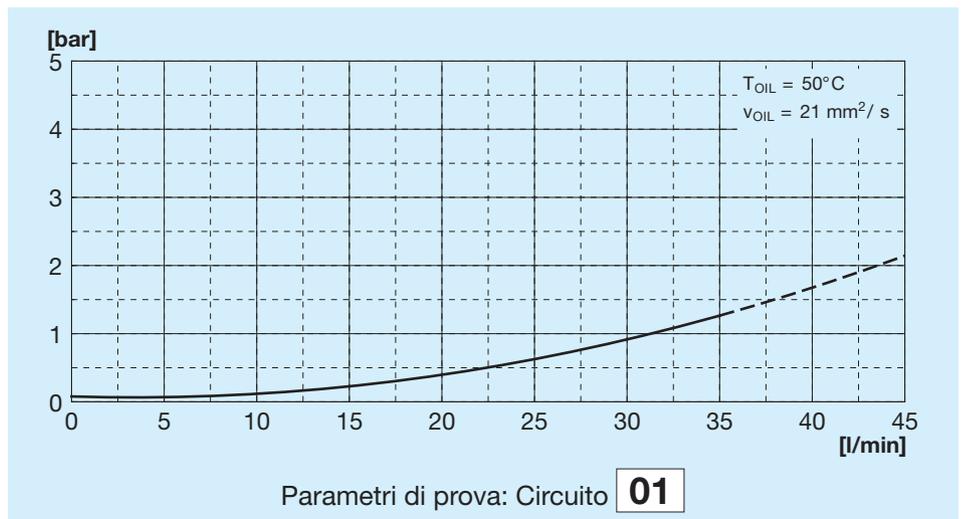
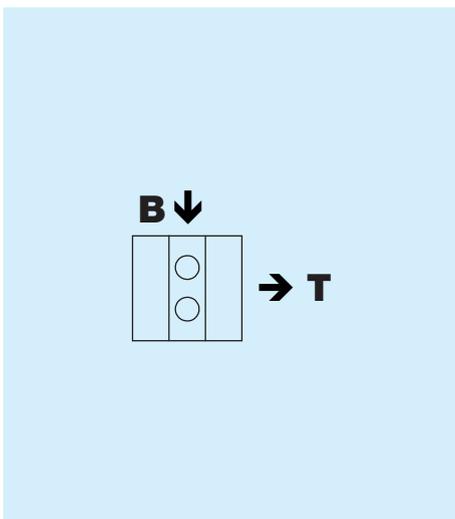
Curva caratteristica P-T

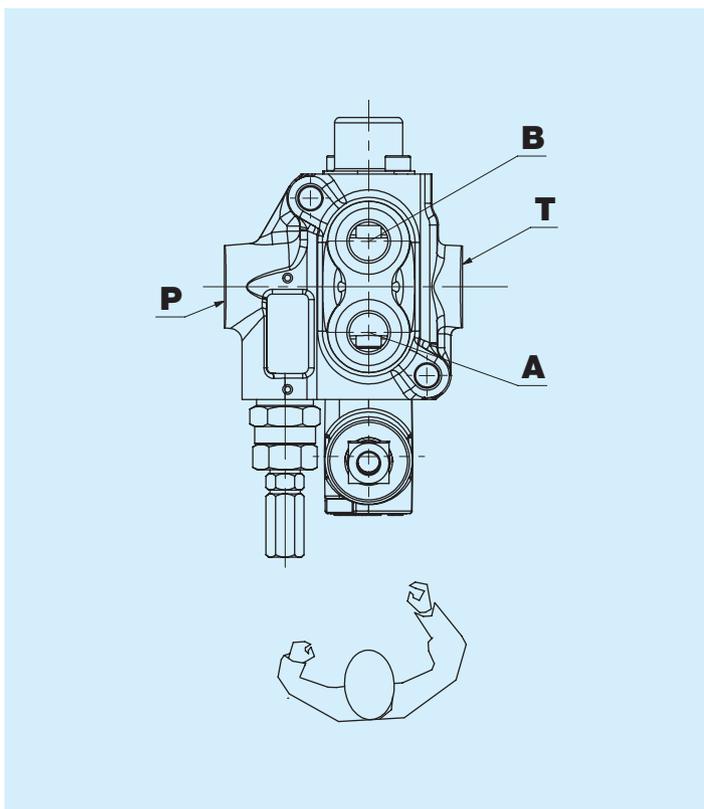
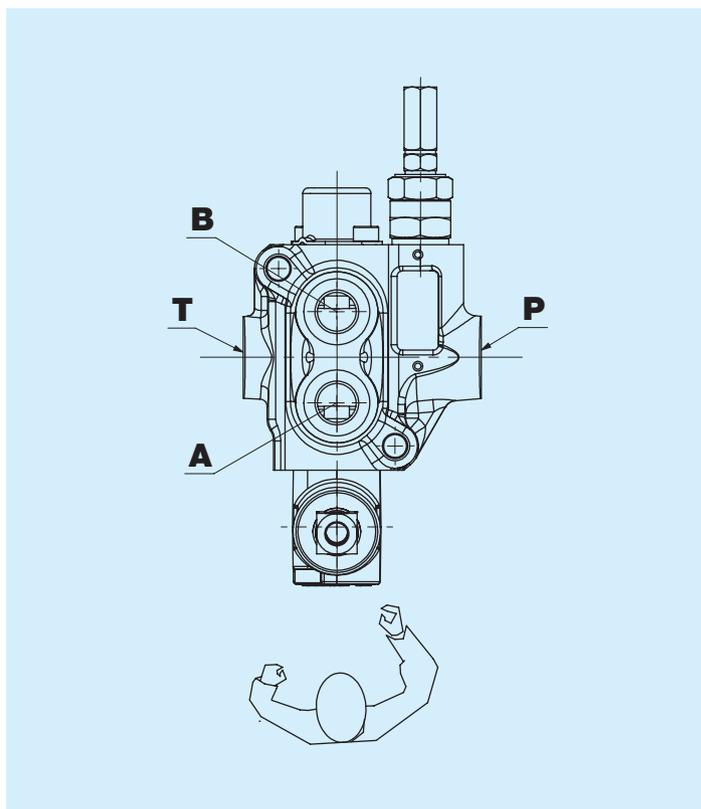


Curva caratteristica P-A



Curva caratteristica B-T



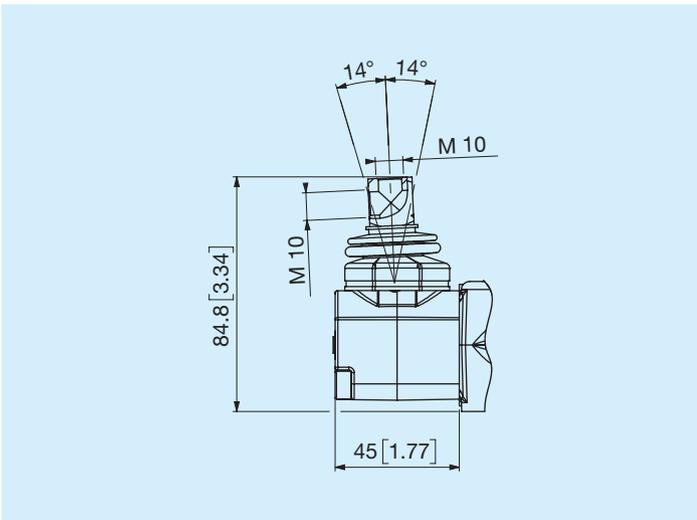
S Sinistra (standard)**D** Destra

La bocca A è generalmente la porta più vicina al lato dell'azionamento.

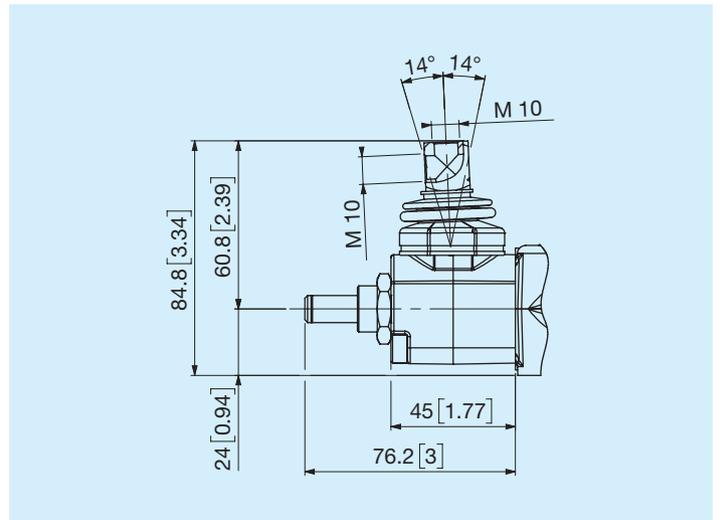
Filettatura bocche

Codice	Tipo	Serraggio Nm
B	1/2" GAS ISO 1179	70
A	3/8" GAS ISO 1179	35
T	M16x1,5 ISO 9974	24
C	M18x1,5 ISO 9974	40
E	3/4" - 16 SAE ISO 11926	50
P	9/16" - 18 SAE ISO 11926	21

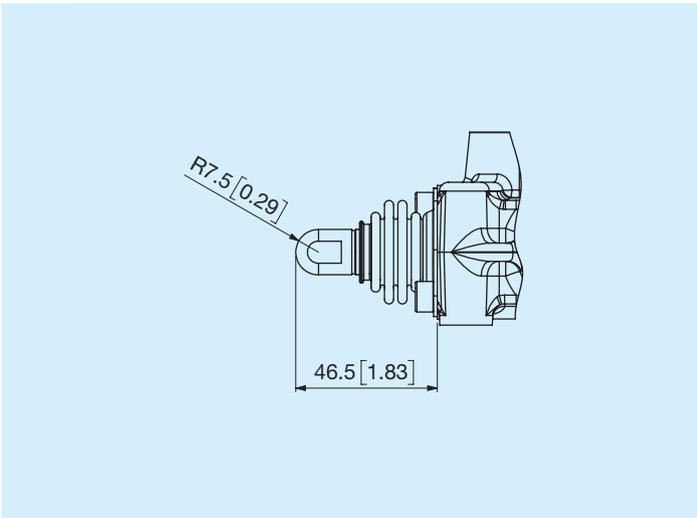
L Standard kit portaleva



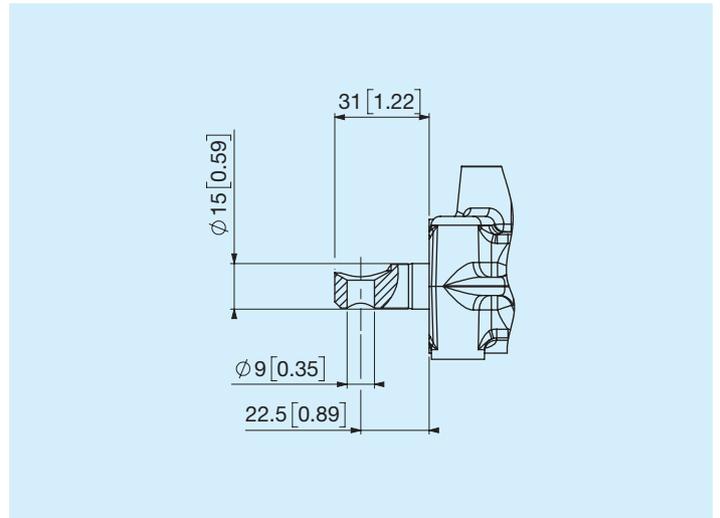
Z Portaleva con limitatore di corsa



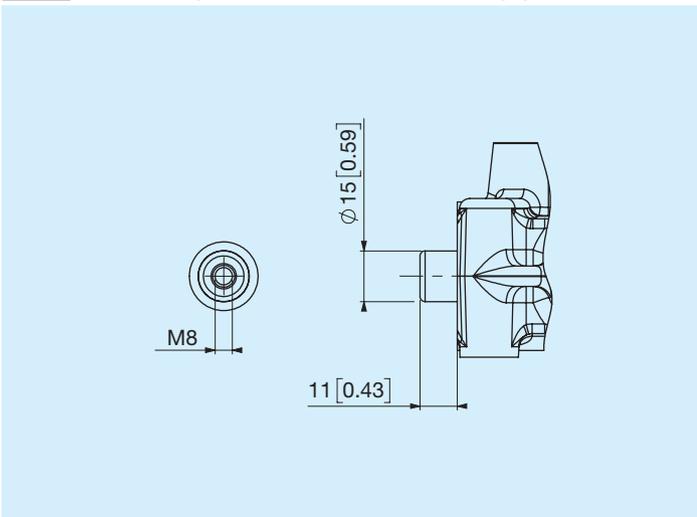
1 Senza portaleva, appendice a sfera



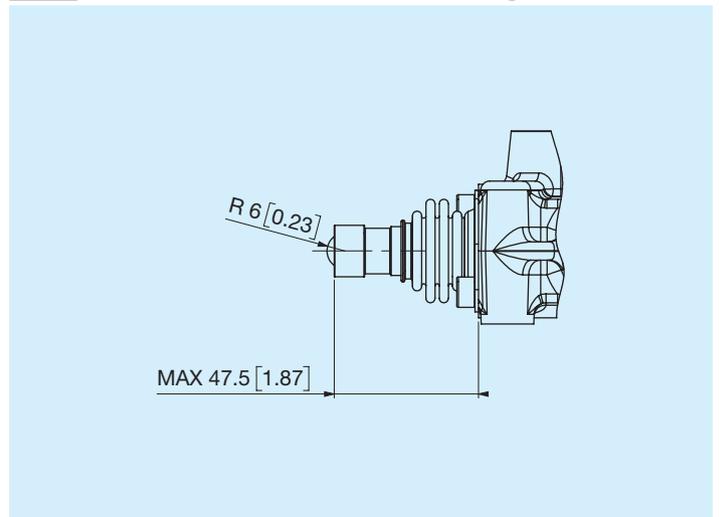
A Senza portaleva, appendice standard



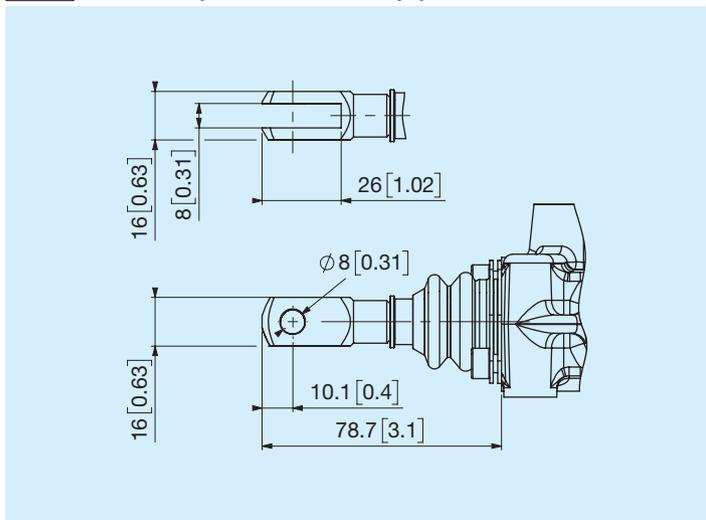
B Senza portaleva, senza appendice



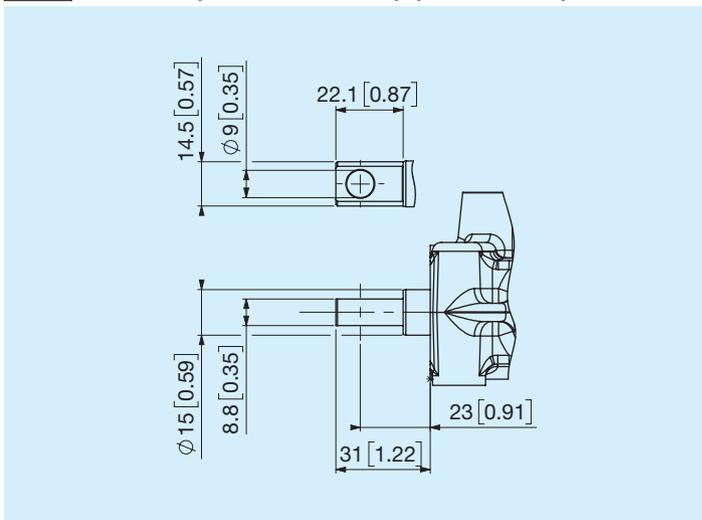
9 Azionamento a sfera integrata



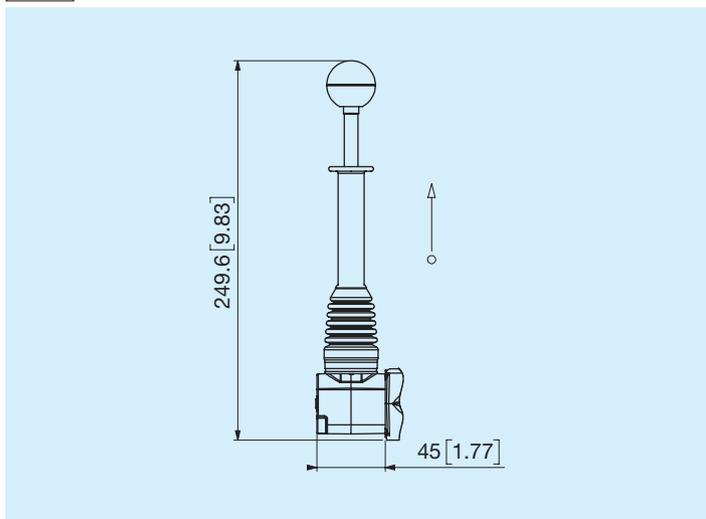
F Senza portaleva, appendice forcella



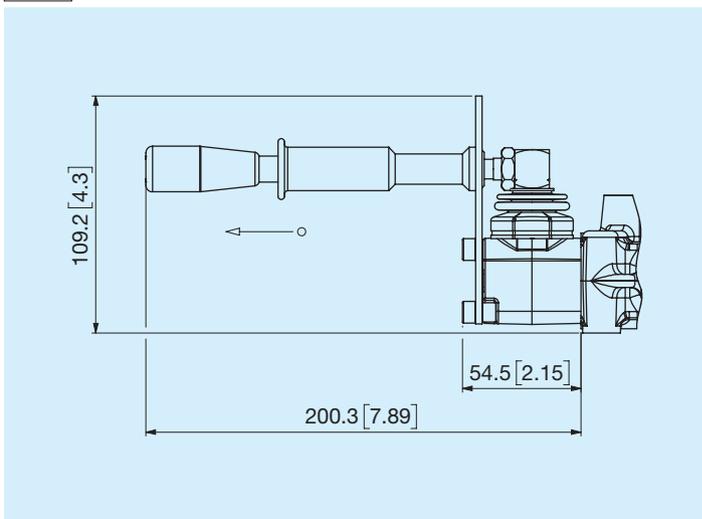
C Senza portaleva, appendice piatta



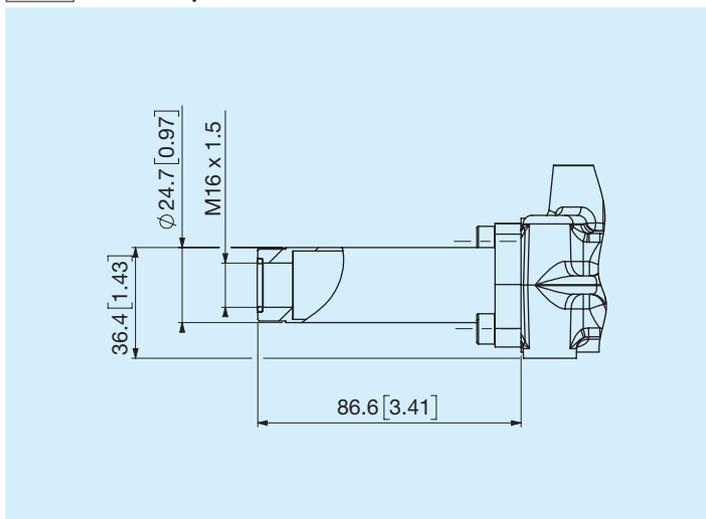
V Intenzionale verticale



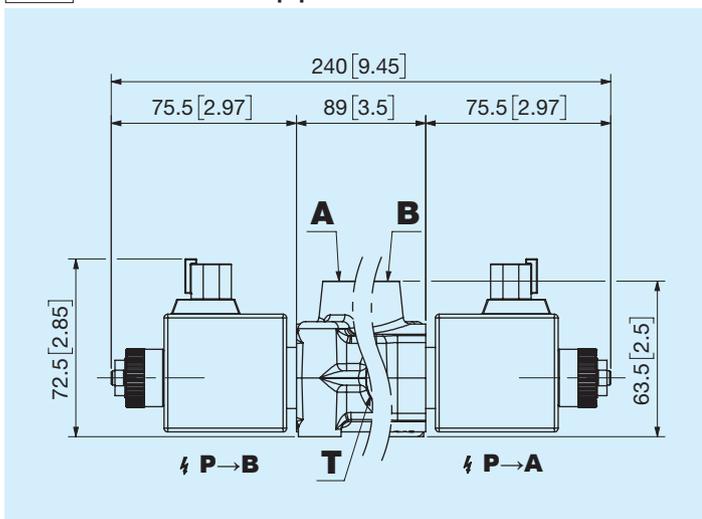
O Intenzionale orizzontale



T Predisposizione azionamento a cavo

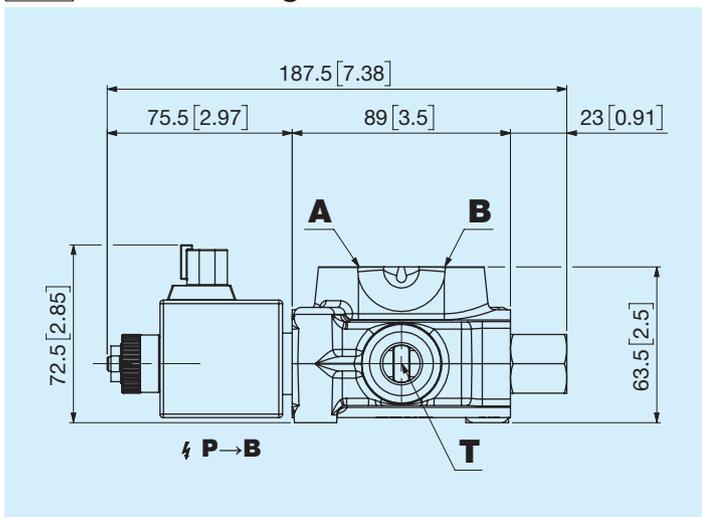


E Elettrico doppio effetto

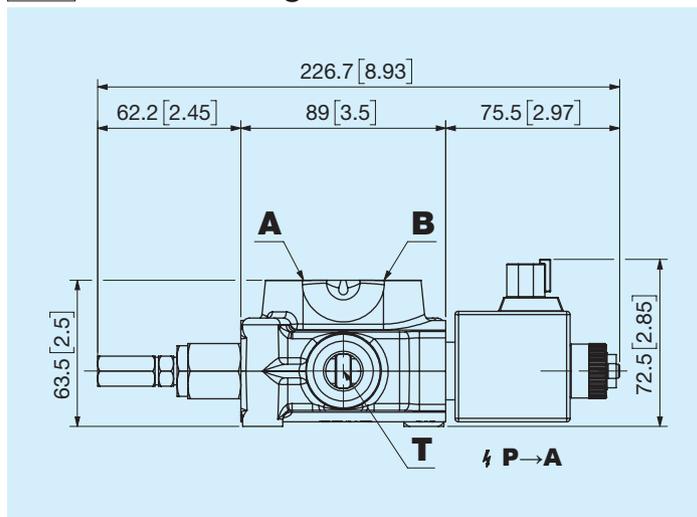


Tipo bobina	12V	24V	null
Resistenza a 20°C	4	18	$\Omega (\pm 7\%)$
Corrente assorbita	3	1,2	A ($\pm 5\%$)
Potenza	36	30	W ($\pm 5\%$)

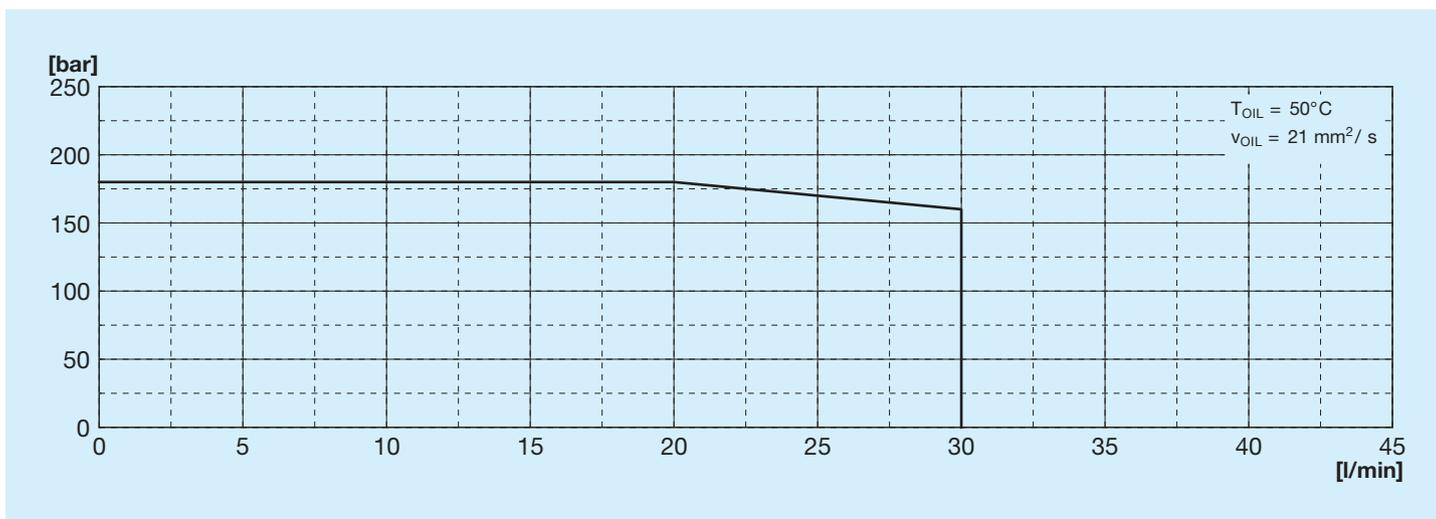
D Elettrico singolo effetto lato bocca A



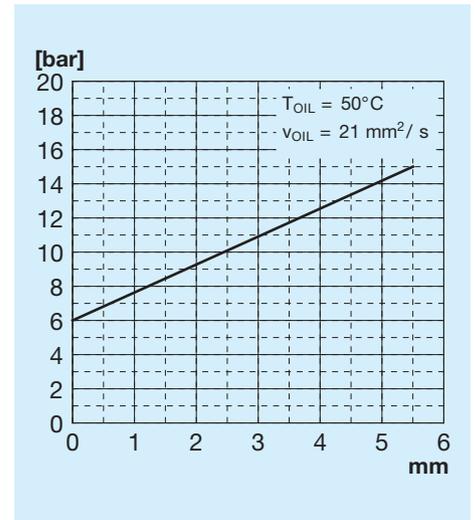
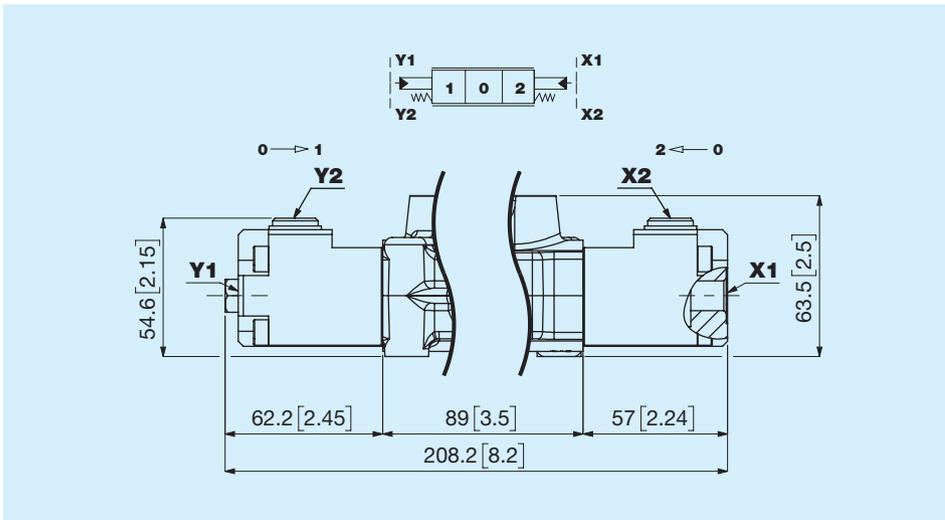
J Elettrico singolo effetto lato bocca B



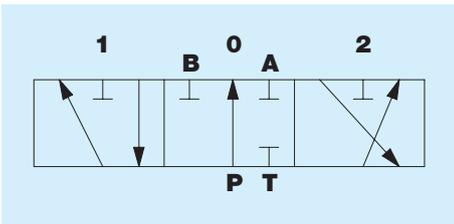
Limiti d'impiego azionamento elettrico



K Comando idraulico



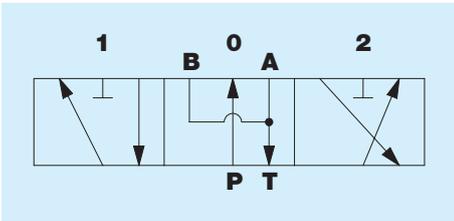
01 Circuito



Posizioni

3	1	0	2	4
	$P \rightarrow B$ $A \rightarrow T$ $BP \dashv$	$A, B \dashv$ $BP \rightarrow$	$P \rightarrow A$ $B \rightarrow T$ $BP \dashv$	

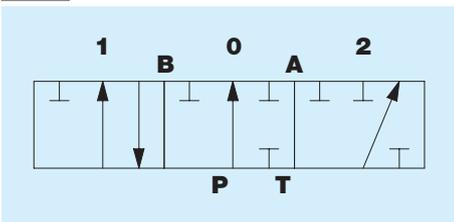
03 Circuito



Posizioni

3	1	0	2	4
	$P \rightarrow B$ $A \rightarrow T$ $BP \dashv$	$A, B \rightarrow T$ $BP \rightarrow$	$P \rightarrow A$ $B \rightarrow T$ $BP \dashv$	

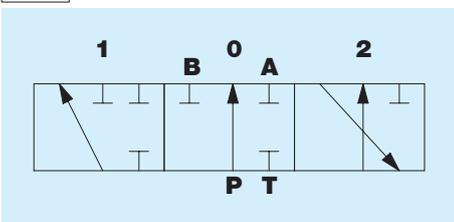
04 Circuito



Posizioni

3	1	0	2	4
	$A \rightarrow T$ $B \dashv$ $BP \rightarrow$	$A, B, T \dashv$ $BP \rightarrow$	$P \rightarrow A$ $B, T \dashv$ $BP \dashv$	

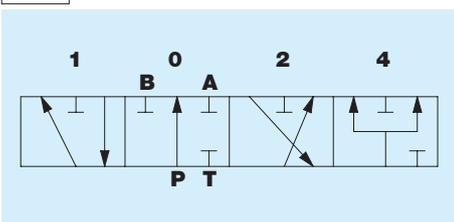
05 Circuito



Posizioni

3	1	0	2	4
	$P \rightarrow B$ $A, T \dashv$ $BP \dashv$	$A, B, T \dashv$ $BP \rightarrow$	$A \dashv$ $B \rightarrow T$ $BP \rightarrow$	

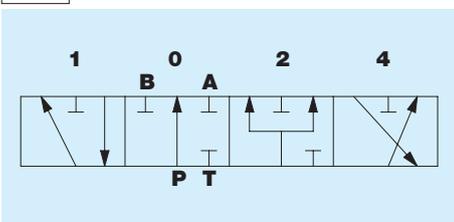
17 Circuito



Posizioni

3	1	0	2	4
	$P \rightarrow B$ $A \rightarrow T$ $BP \dashv$	$A, B, T \dashv$ $BP \rightarrow$	$P \rightarrow A$ $B \rightarrow T$ $BP \dashv$	$P \rightarrow A, B$ $T \dashv$ $BP \dashv$

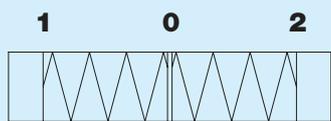
23 Circuito



Posizioni

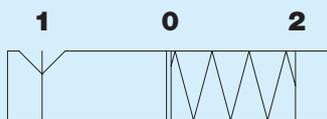
3	1	0	2	4
	$P \rightarrow B$ $A \rightarrow T$ $BP \dashv$	$A, B, T \dashv$ $BP \rightarrow$	$P \rightarrow A, B$ $T \dashv$ $BP \dashv$	$P \rightarrow A$ $B \rightarrow T$ $BP \dashv$

0A



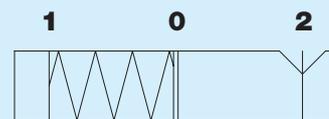
Posizione neutra in 0

0B



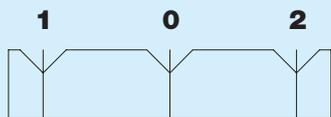
Posizione neutra in 0,
detent in 1

0C



Posizione neutra in 0,
detent in 2

0D



Detent in 0, 1, 2

0E



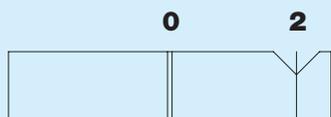
Posizione neutra in 0

0F



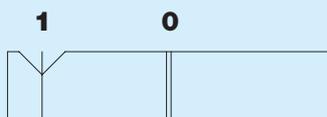
Posizione neutra in 0

0H



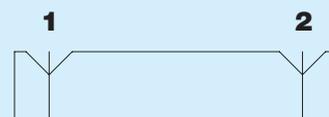
Detent in 2

0L



Detent in 1

0Q



Detent in 1, 2

0R



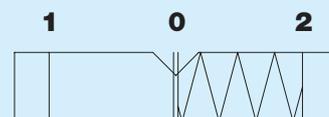
Posizione neutra in 2

0S



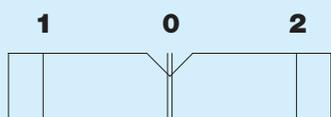
Posizione neutra in 1

BF



Frizionato, posizione
neutra e detent in 0

DF



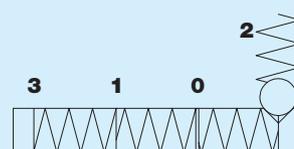
Frizionato, detent in 0

SQ



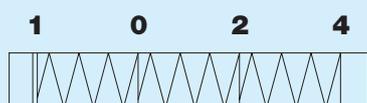
Posizione neutra in 1,
detent in 2

TH



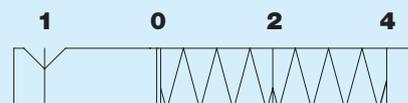
Autogancio in 2

TR



Posizione neutra in 1

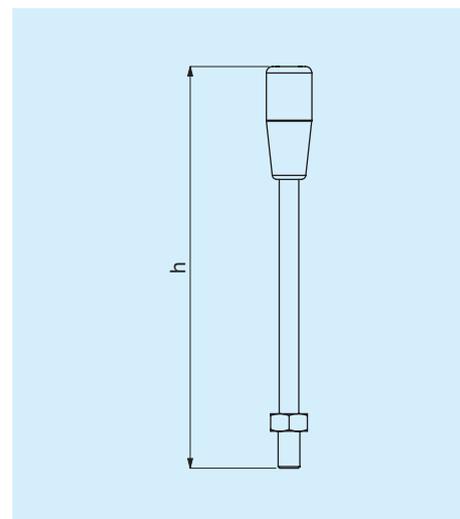
TB



Posizione neutra in 0, detent in 1

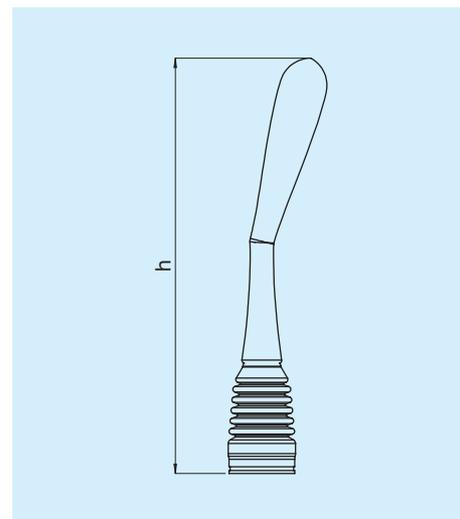
Dritta pomello standard

Codice	Descrizione	h [mm]	h [in]
A	Dritta pomello standard	109	4,3
B	Dritta pomello standard	134	5,28
C	Dritta pomello standard	184	7,24
D	Dritta pomello standard	214	8,42
E	Dritta pomello standard	254	10
F	Dritta pomello standard	304	11,97

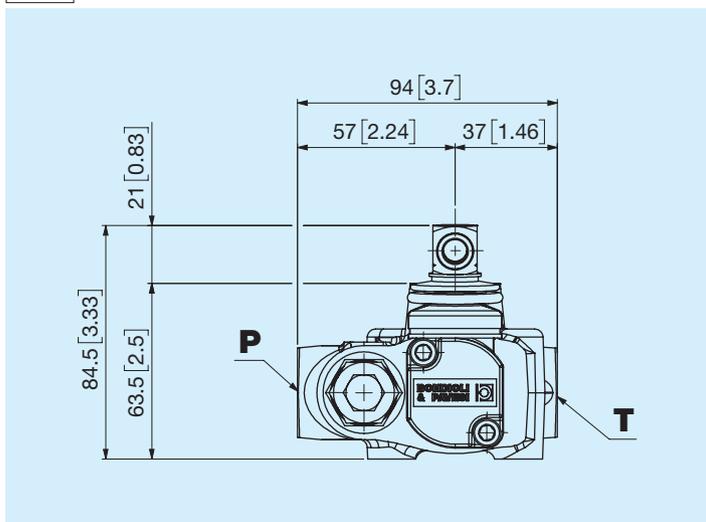


Leva ergonomica

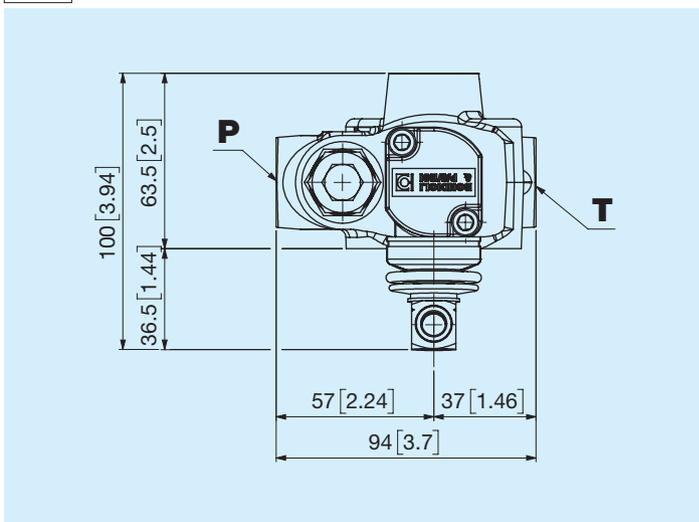
Codice	Descrizione	h [mm]	h [in]
L	Dritta verticale	180	7,09
O	Piegata 15° verticale	180	7,09
R	Piegata 30° verticale	180	7,09
M	Dritta orizzontale	180	7,09
Y	Piegata 15° orizzontale	180	7,09
Q	Piegata 30° orizzontale	180	7,09



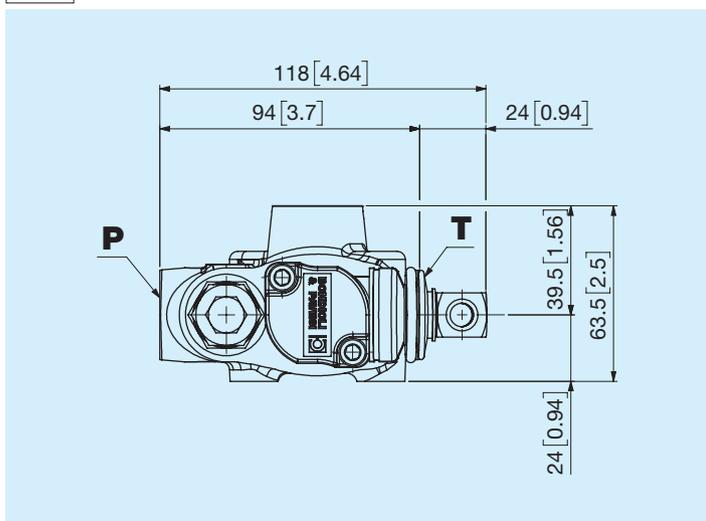
A Dritta

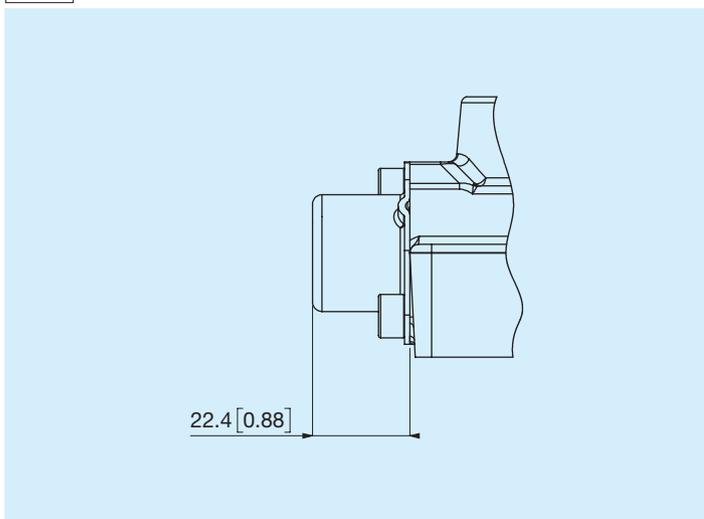
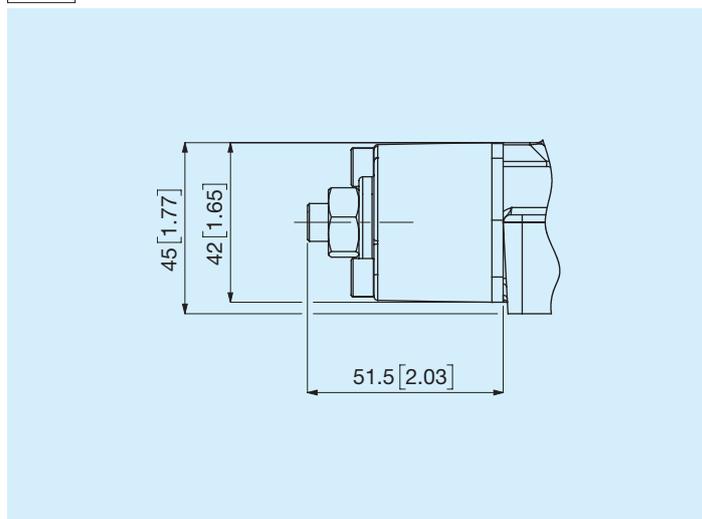


C Ruotato 180°



D Ruotato 90° verso il T



N Nessuno**C** Limitatore di corsa



1	Opzioni generali			
	N Nessuna	V Verniciatura nera	Z Zincatura	
2	Tipo di entrata			
	S Sinistra (standard)	D Destra		
3	Filettatura bocca P			
	B 1/2" GAS ISO 1179	T M16x1,5 ISO 9974	E 3/4" - 16 SAE ISO 11926	
	A 3/8" GAS ISO 1179	C M18x1,5 ISO 9974	P 9/16" - 18 SAE ISO 11926	
4 5	Tipo valvola di massima pressione			
	00 Tappo sostitutivo VMP	11 110 bar	17 170 bar	23 230 bar
	06 60 bar	12 120 bar	18 180 bar	24 240 bar
	07 70 bar	13 130 bar	19 190 bar	25 250 bar
	08 80 bar	14 140 bar	20 200 bar	
	09 90 bar	15 150 bar	21 210 bar	
	10 100 bar	16 160 bar	22 220 bar	
6	Tipo di terminale valvola di massima pressione			
	G Grano	P Sigillata	N Nessuna	
	C Cappuccio	R Predisposta sigillatura		
7	Filettatura bocche A e B			
	B 1/2" GAS ISO 1179	T M16x1,5 ISO 9974	E 3/4" - 16 SAE ISO 11926	
	A 3/8" GAS ISO 1179	C M18x1,5 ISO 9974	P 9/16" - 18 SAE ISO 11926	
8	Azionamenti			
	N Nessuno	A Senza portaleva, appendice standard	C Senza portaleva, appendice piatta	E Elettrico doppio effetto
	L Standard kit portaleva	B Senza portaleva, senza appendice	V Intenzionale verticale	D Elettrico singolo effetto lato bocca A
	Z Portaleva con limitatore di corsa	1 Senza portaleva, appendice a sfera	O Intenzionale orizzontale	J Elettrico singolo effetto lato bocca B
	9 Azionamento a sfera integrata	F Senza portaleva, appendice a forcella	T Predisposizione azionamento a cavo	K Comando idraulico
9 10	Circuiti			
	01 Circuito	04 Circuito	17 Circuito	
	03 Circuito	05 Circuito	23 Circuito	
11	Opzioni spola			
	A Spola standard con ricoprimento negativo	B Spola nichelata con ricoprimento negativo	C Spola standard con ricoprimento positivo	D Spola nichelata con ricoprimento positivo
12 13	Posizionatore			
	NN Nessuno	0E Posizione neutra in 0	0R Posizione neutra in 2	TH Autosgancio in 2
	0A Posizione neutra in 0	0F Posizione neutra in 0	0S Posizione neutra in 1	TR Posizione neutra in 1
	0B Posizione neutra in 0, detent in 1	0H Detent in 2	BF Frizionato, posizione neutra e detent in 0	[**[TB_min]] Posizione neutra in 0, detent in 1
	0C Posizione neutra in 0, detent in 2	0L Detent in 1	DF Frizionato, detent in 0	...
	0D Detent in 0, 1, 2	0Q Detent in 1, 2	SQ Posizione neutra in 1, detent in 2	... Per la scelta, vedi capitolo dedicato

17 18

14

Opzioni leva

N Nessuna	C h 184 mm / 7,24 in	L Dritta verticale	Y Piegata 15° orizzontale
S Senza leva	D h 214 mm / 8,42 in	O Piegata 15° verticale	Q Piegata 30° orizzontale
A h 109 mm / 4,3 in	E h 254 mm / 10 in	R Piegata 30° verticale	
B h 134 mm / 5,28 in	F h 304 mm / 11,97 in	M Dritta orizzontale	

15

Posizione portaleva

A Dritta	C Ruotato 180°	N Nessuna
B Ruotato 90° verso il P (entrata a destra)	D Ruotato 90° verso il T	

16

Opzioni lato posizionatore

N Nessuno	C Limitatore di corsa
------------------	------------------------------

17

Tensione e connettore

N Nessuno	B 24V DIN 43650	H 24V DEUTSCH DT04-2P
A 12V DIN 43650	G 12V DEUTSCH DT04-2P	

18

Filettatura bocca T

B 1/2" GAS ISO 1179	T M16x1,5 ISO 9974	E 3/4" - 16 SAE ISO 11926
A 3/8" GAS ISO 1179	C M18x1,5 ISO 9974	P 9/16" - 18 SAE ISO 11926