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**SERVOCOMANDO A DUE ASSI  
(AZIONAMENTO A LEVA)**

***DOUBLE AXIS SERVO CONTROL  
(LEVER MECHANISM)***

**SERVOSTEUERUNG MIT  
HANDBEDIENUNG**

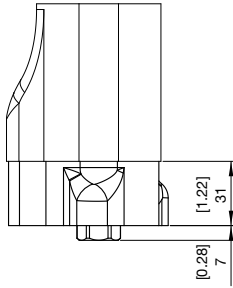
**HPCJ**

398SSC0013A01

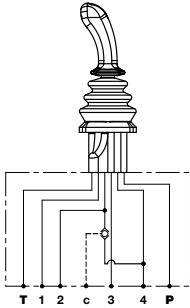
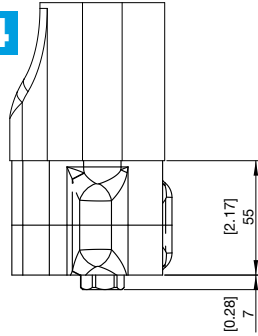




**1  
2**



**4**

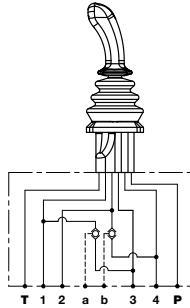
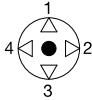


**1**

**STANDARD**  
+ 1 SEGNALE DI PRESSIONE  
DALL'ASSE 2-4

**STANDARD**  
+ 1 PRESSURE SIGNAL  
FROM AXIS 2-4

**STANDARD**  
+ 1 DRUCKSIGNAL VON  
ACHSEN 2-4

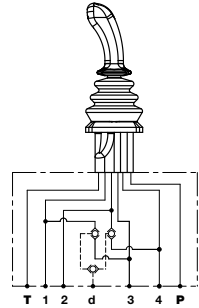
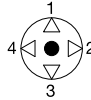


**2**

**STANDARD**  
+ 2 SEGNALE DI PRESSIONE  
DAGLI ASSI 1-3 E 2-4

**STANDARD**  
+ 2 PRESSURE SIGNALS  
FROM AXIS 1-3 AND 2-4

**STANDARD**  
+ 2 DRUCKSIGNAL VON  
ACHSEN 1-3 UND 2-4

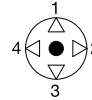


**4**

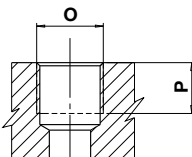
**STANDARD**  
+ 1 SEGNALE DI PRESSIONE  
PER OGNI POSIZIONE

**STANDARD**  
+ 4 SINGLE POSITION  
PRESSURE SIGNALS

**STANDARD**  
+ 1 DRUCKSIGNAL VON JEDER  
POSITION

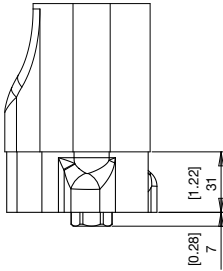


**BOCCHIE  
PORTS  
ANSCHLÜSSE**

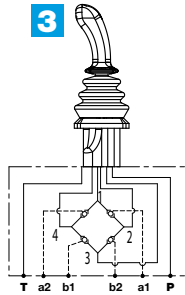
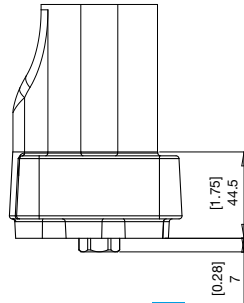


TIPO TYPE TYP	O	Nm		P	
		mm	in	mm	in
<b>G2</b>	1/4"	17	12	0,47	
<b>U3</b>	9/16-18 UNF	25	13	0,47	

3  
5



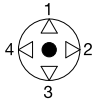
6  
7



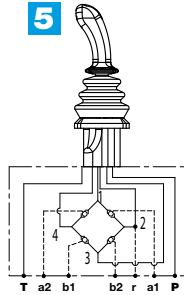
STANDARD  
+ CONTROROTAZIONE OPPOSTA

STANDARD  
+ OPPOSITE COUNTER-ROTATION

STANDARD  
+ ENTGEGENGESETZTE  
GEGENROTATION



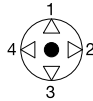
Versioni 3 e 5: In condizioni di retroromarcia la svolta a destra e sinistra è opposta all'inclinazione della leva.  
Versioni 6 e 7: In condizioni di retroromarcia la svolta a destra e sinistra è concorde all'inclinazione della leva.



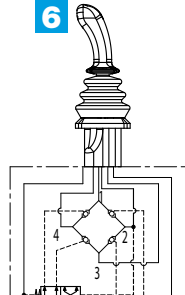
STANDARD  
+ CONTROROTAZIONE OPPOSTA  
E SEGNALE RETROMARCIA

STANDARD  
+ OPPOSITE COUNTER-ROTATION  
AND REVERSE SIGNAL

STANDARD  
+ ENTGEGENGESETZTE  
GEGENROTATION UND  
RÜCKWÄRTSGANG SIGNAL



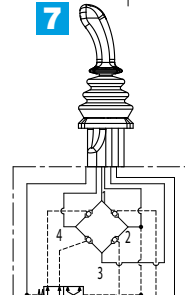
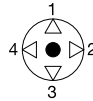
Versioni 3 and 5: In reverse conditions, the turn to the left and to the right is opposite to the inclination of the lever.  
Versioni 6 and 7: In reverse conditions, the turn to the left and to the right is concordant to the inclination of the lever.



STANDARD  
+ CONTROROTAZIONE  
CONCORDANTE

STANDARD  
+ CONCORDANT  
COUNTER-ROTATION

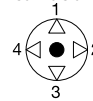
STANDARD  
+ ÜBEREINSTIMMENE  
GEGENROTATION



STANDARD  
+ CONTROROTAZIONE CONCORDANTE  
E SEGNALE RETROMARCIA

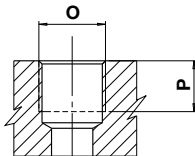
STANDARD  
+ CONCORDANT COUNTER-ROTATION  
AND REVERSE SIGNAL

STANDARD  
+ ÜBEREINSTIMMENE  
GEGENROTATION UND  
RÜCKWÄRTSGANG SIGNAL



Versioni 3 and 5: Im Rückwärtsgang ist die Wendung nach rechts und nach links entgegengesetzt zur Neigung des Hebels.  
Versionen 6 and 7: Im Rückwärtsgang ist die Wendung nach rechts und nach links übereinstimmend mit der Neigung des Hebels.

BOCCHE  
PORTS  
ANSCHLÜSSE



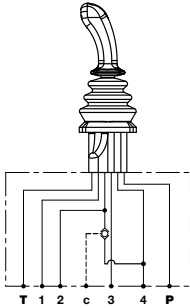
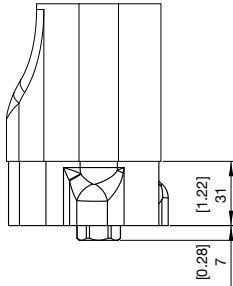
TIPO TYPE TYP	O		P	
		Nm	mm	in
<b>G2</b>	1/4"	17	12	0,47
<b>U3</b>	9/16-18 UNF	25	13	0,47



**MODELLI  
MODELS  
MODELLE**

**HPCJ**

**1  
2**

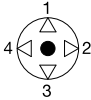


**1**

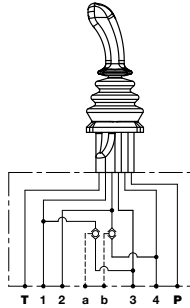
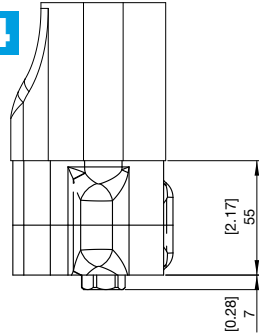
**STANDARD**  
+ 1 SEGNALE DI PRESSIONE  
DALL'ASSE 2-4

**STANDARD**  
+ 1 PRESSURE SIGNAL  
FROM AXIS 2-4

**STANDARD**  
+ 1 DRUCKSIGNAL VON  
ACHSEN 2-4



**4**

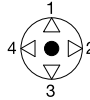


**2**

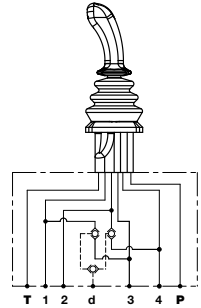
**STANDARD**  
+ 2 SEGNALE DI PRESSIONE  
DAGLI ASSI 1-3 E 2-4

**STANDARD**  
+ 2 PRESSURE SIGNALS  
FROM AXIS 1-3 AND 2-4

**STANDARD**  
+ 2 DRUCKSIGNAL VON  
ACHSEN 1-3 UND 2-4



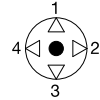
**4**



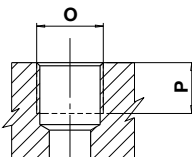
**STANDARD**  
+ 1 SEGNALE DI PRESSIONE  
PER OGNI POSIZIONE

**STANDARD**  
+ 4 SINGLE POSITION  
PRESSURE SIGNALS

**STANDARD**  
+ 1 DRUCKSIGNAL VON JEDER  
POSITION



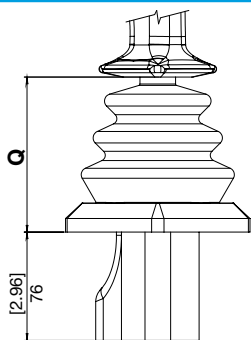
**BOCCHIE  
PORTS  
ANSCHLÜSSE**



TIPO TYPE TYP	O	P	
		Nm	mm in
<b>G2</b>	1/4"	17	12 0,47
<b>U3</b>	9/16-18 UNF	25	13 0,47

**IMPUGNATURE  
HANDLES  
GRIFFE**

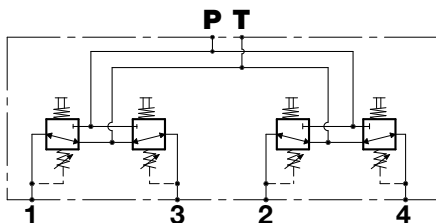
**HPCJ**



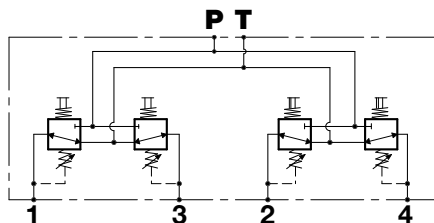
IMPUGNATURE HANDLES GRIFFE	Q
S	109
K	109
E-F	97
T-H	114
V-Z	114

**POSIZIONATORI  
POSITIONERS  
SIGNALGEBER**

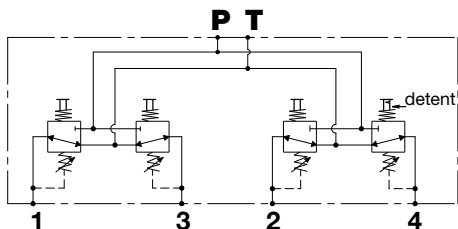
**S** STANDARD CON RITORNO A MOLLA AL CENTRO  
STANDARD WITH SPRING BACK  
RÜCKSTELLUNGSFEDER



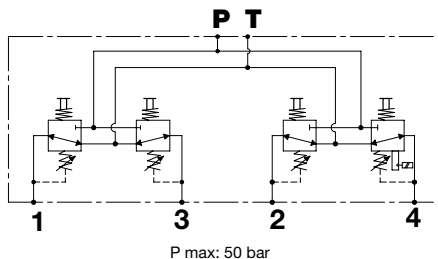
**A** FRIZIONATO AV./IND. 2-4  
CLUTCH CONTROLLED FORW. / REV. 2-4  
RÜCKSTELLUNGSFEDER GEKLEMMT VOR / ZURÜCK 2-4



**M** BLOCCO MECCANICO POS. 4  
MECHANICAL DETENT POS.4  
ARRETIERUNG POS.4

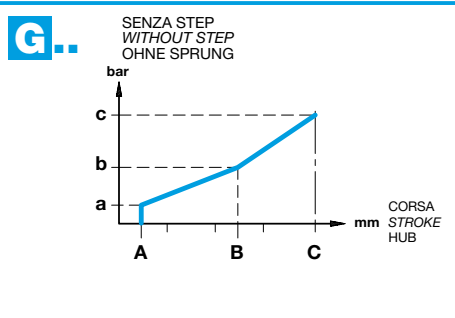
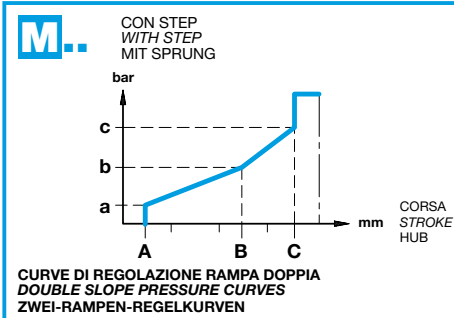
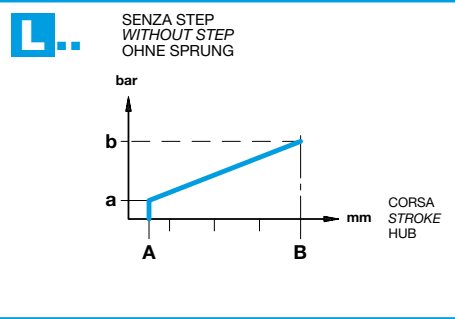
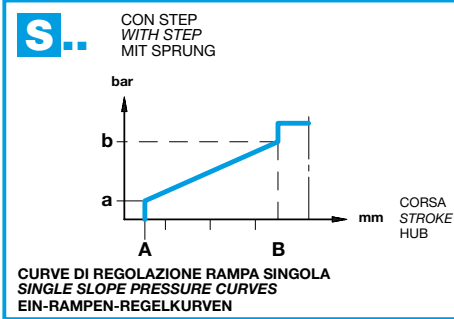


**E F** BLOCCO ELETTROMAGNETICO POS. 4  
ELECTROMAGNETIC DETENT POS.4  
ELEKTROMAGNETISCHE RASTE AUF POS.4  
12V 24V



**CURVE DI REGOLAZIONE  
PRESSURE CURVES  
REGELKURVEN**

**HPCJ**



**CURVE DI REGOLAZIONE  
ADJUSTMENT CURVES  
REGELKURVEN**

TIPO TYPE TYP	PRESSIONE PRESSURE DRUCK			
	a		b	
S	bar	psi	bar	psi
S00	2	29	16	232
S01	5	73	20	290
S02	6,5	94	24,5	355
S04	3	46	17	249
S08	5	73	16	232
S11	4	58	15	218
S12	1,5	22	7	102
S13	5	73	28	406

TIPO TYPE TYP	PRESSIONE PRESSURE DRUCK						CORSA STROKE HUB		
	a		b		c		A	B	C
M60	bar	psi	bar	psi	bar	psi	mm	mm	mm
M60	5	73	12	174	21	306	1,2	5,4	7,8

TIPO TYPE TYP	PRESSIONE PRESSURE DRUCK						CORSA STROKE HUB		
	a		b		c		A	B	C
G60	bar	psi	bar	psi	bar	psi	mm	mm	mm
G60	5	73	12	174	23	334	1,2	5,4	8,3

TIPO TYPE TYP	PRESSIONE PRESSURE DRUCK			
	a		b	
L	bar	psi	bar	psi
L00	2	29	18	261
L01	5	73	22	319
L02	6,5	94	26,5	384
L04	3	46	19	276
L08	5	73	18	261
L11	4	58	15	218
L12	1,5	22	9	131
L13	5	73	30	435

**HPCJ**

**0**

**G2**

**1**

**K**

**S**

**S01**

**0**

**0**

**000**

**SERIE SERIES SERIE**

**MODELLI MODELS MODELLE**

- 0 = Standard
- 1 = Standard+1 segnale pressione da asse 2-4
- 2 = Standard+2 segnali pressione da asse 1-3 e 2-4
- 3 = Standard + controrotazione opposta
- 4 = Standard+1 segnale di pressione da ogni posizione
- 5 = Standard+controrotazione opposta con segnale di retromarcia
- 6 = Standard + controrotazione concorde
- 7 = Standard+controrotazione concorde con segnale di retromarcia
- 0 = Standard
- 1 = Standard + 1 pressure signal from axis 2-4
- 2 = Standard + 2 pressure signals from axis 1-3 and 2-4
- 3 = standard + opposite counter rotation
- 4 = Standard + 4-single position pressure signals
- 5 = Standard + opposite counter rotation + reverse signal
- 6 = standard + concordant counter rotation
- 7 = Standard + concordant counter rotation + reverse signal
- 0 = Standard
- 1 = Standard + 1 Drucksignal von Achsen 2-4
- 2 = Standard + 2 Drucksignale von Achsen 1-3 und 2-4
- 3 = Standard + entgegengesetzte Gegenrotation
- 4 = Standard + 1 Drucksignal von jeder Position
- 5 = Standard + entgegengesetzte Gegenrotation und Rückwärtsgang Signal
- 6 = Standard + Übereinstimmende Gegenrotation
- 7 = Standard + Übereinstimmende Gegenrotation und Rückwärtsgang Signal

**BOCCHE STANDARD  
 STANDARD PORT  
 STANDARD ANSCHLÜSSE**

- G2 = 1/4" gas-BSPP
- U3 = SAE 9/16"-18UNF

**GUARNIZIONI  
 SEALS  
 DICHTUNGEN**

- 1 - NBR
- 2 - Viton

**IMPUGNATURE HANDLES GRIFFE**

- 0 = Senza impugnatura
- S = Anatomica
- K = Cilindrica
- E = Ergonomica
- F = Ergonomica uomo presente
- T = Multifunzione
- H = Multifunzione uomo presente
- V = Multifunzione uscita PWM
- Z = Multifunzione uscita PWM uomo presente

**POSIZIONATORE  
 POSITIONER**

- RASTER**
- S = Standard con ritorno a molla  
 Standard with spring-back Rückstellungsfeder
- A = Frizionato AV./IND. 2-4  
 Clutch Controlled FORW./REV. 2-4 Rückstellungsfeder geklemmt, VOR/ZURÜCK 2-4
- M = Blocco meccanico pos. 4  
 Mechanical detent pos.4 Arretierung pos.4
- E = Blocco elettromagnetico pos. 4 (12V)  
 Electromagnetic detent pos.4 (12V)  
 Elektromagnetische Raste auf Pos.4 (12V)
- F = Blocco elettromagnetico pos. 4 (24V)  
 Electromagnetic detent pos.4 (24V)  
 Elektromagnetische Raste auf Pos.4 (24V)

**CURVE  
 CURVES  
 KURVEN**

- Vedere pag. 11
- See pag. 11
- Siehe Seite 11

**VERSIONI SPECIALI  
 SPECIAL VERSIONS  
 SONDERAUSFÜHRUNGEN**

- 000 = Nessuna esecuzione speciale
- 001 = Leva inclinata a DX 15°
- 002 = Leva inclinata a SX 15°
- 000 = No special execution
- 001 = Lever tilted to right 15°
- 002 = Lever tilted to left 15°
- 000 = Keine Sonderausführung
- 001 = Um 15° nach rechts geneigter Hebel
- 002 = Um 15° nach links geneigter Hebel
- PROGRAMMAZIONE PROFILO USCITA PWM (A)  
 PROGRAMMING OF OUTPUT CURRENT PWM (A)  
 PROGRAMMIERUNG DES STROMAUSGANGS PWM (A)**
- 000 = Nessun segnale
- 500 = Vedere pag.(67) / See pag. (67) / Siehe seite (67)
- 501 = Vedere pag.(67) / See pag. (67) / Siehe seite (67)
- 502 = Vedere pag.(67) / See pag. (67) / Siehe seite (67)
- 503 = Vedere pag.(67) / See pag. (67) / Siehe seite (67)

**COMANDI ELETTRICI  
 CONFIGURAZIONE FRONTALE  
 ELECTRIC CONTROLS  
 FRONT CONFIGURATION  
 ELEKTROSTEUERUNGEN  
 ANORDNUNG VORNE**

Vedere Comandi Elettrici sezione HPCI  
 See HPCI Electric Controls section  
 Siehe Sektion HPCI, Elektronische Steuerungen

**COMANDI ELETTRICI  
 CONFIGURAZIONE SUPERIORE  
 ELECTRIC CONTROLS  
 TOP CONFIGURATION  
 ELEKTROSTEUERUNGEN  
 ÜBERGEORDNETE KONFIGURATION**

Vedere Comandi Elettrici sezione HPCI  
 See HPCI Electric Controls section  
 Siehe Sektion HPCI, Elektronische Steuerungen

- 0 = Without grip
- S = Anatomic grip
- K = Cylinder grip
- E = Ergonomic grip
- F = Ergonomic grip totman
- T = Multifunction grip
- H = Multifunction grip totman
- V = Multifunction grip with pwm signal
- Z = Multifunction grip with pwm signal + deadman contact

- 0 = Ohne Griff
- S = Anatomischer Griff
- K = Zylindrischer Griff
- E = Ergonomisch Griff
- F = Ergonomischer Griff Totmannschaltung
- T = Multifunktions Griff
- H = Multifunktions Griff Totmannschaltung
- V = Multifunktionsgriff mit pwm Signal
- Z = Multifunktionsgriff mit pwm Signal + Totmannschalter