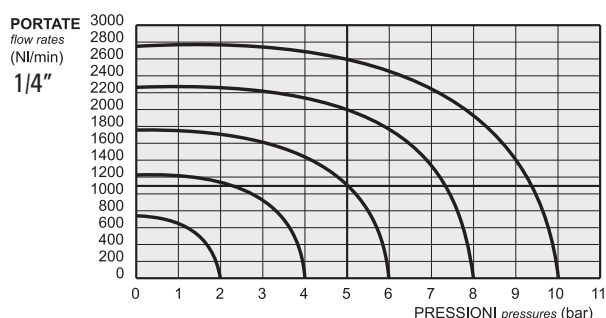
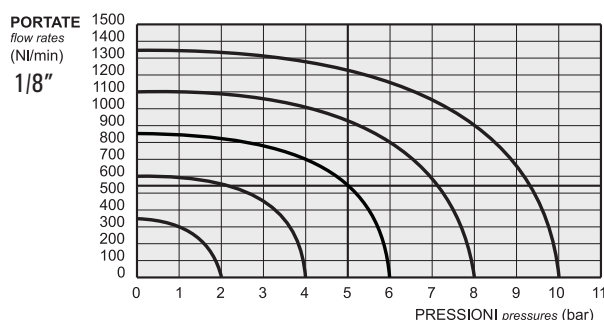
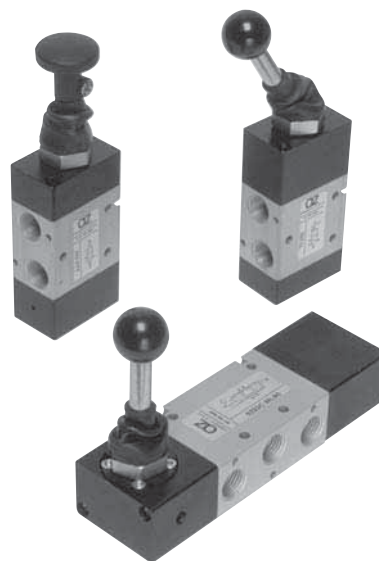


valvole ad azionamento manuale

manually actuated valves



- Valvole a spola 3/2-5/2-5/3 con attacchi filettati G1/8"-G1/4"
3/2-5/2-5/3 spool valves with G1/8"-G1/4" threaded ports
- Installazione in qualsiasi posizione
Installation in any position
- Ampia gamma di azionamenti
Comprehensive range of actuations
- Valvole a leva e tiretto: filetto per montaggio a pannello M18x1.5
Push/pull and lever valves: thread for panel mounting M18x1.5
- Versione per attuatore da pannello (foro ø22)
Version for actuator for panel mounting (with ø22 hole)
- Esecuzioni speciali a richiesta
Special versions on request



Materiali

Corpo: alluminio 11S

Comando e fondello: tecnopolimero (*)

Molle: INOX

Guarnizioni: NBR

Spola: alluminio nichelato

Parti interne: ottone OT58

Materials

Body: aluminium 11S

End cups: technopolymer (*)

Springs: stainless steel

Seals: NBR

Spool: nickel plated aluminium

Internal parts: brass OT58

(*) Su richiesta e dietro supplemento di prezzo, le valvole sono fornibili con corpo, comando e fondello interamente in alluminio. Alcune valvole, come di seguito specificato, sono disponibili solo nella versione in alluminio. Le valvole ATEX sono solo in alluminio.

Le parti in tecnopolimero recano impresso il logo

(*) On request and upon extra charge, the valves are available also with body and end caps entirely in aluminium. Some valves, as specified in the next pages, are available only in the aluminium version. ATEX valves are only in aluminium.

The parts in technopolymer are marked with the logo

Diametro nominale <i>Nominal orifice</i>			1/8": 5 mm 1/4": 7.5 mm		
Temperatura di esercizio <i>Temperature range</i>			max + 60°C		
Pressione di esercizio <i>Working pressure</i>			azionam. diretto <i>direct actuation</i>		az. servopilotato <i>servo-piloted actuation</i>
			-0.9 ... 10 bar -0.09 ... 1 MPa		2.5 ... 10 bar 0.25 ... 1 MPa
Forza di azionamento <i>Actuating force</i>	1/8" monost. [1/8" monost.]	1/4" monost. [1/4" monost.]	1/8" bistabile [1/8" bi-stable]	1/4" bistabile [1/4" bi-stable]	
	15 N	20 N	10 N	15 N	
Fluido <i>Fluid</i>		Aria filtrata 50μ con o senza lubrificazione <i>50μ filtered, lubricated or non lubricated air</i>			

valvole ad azionamento manuale

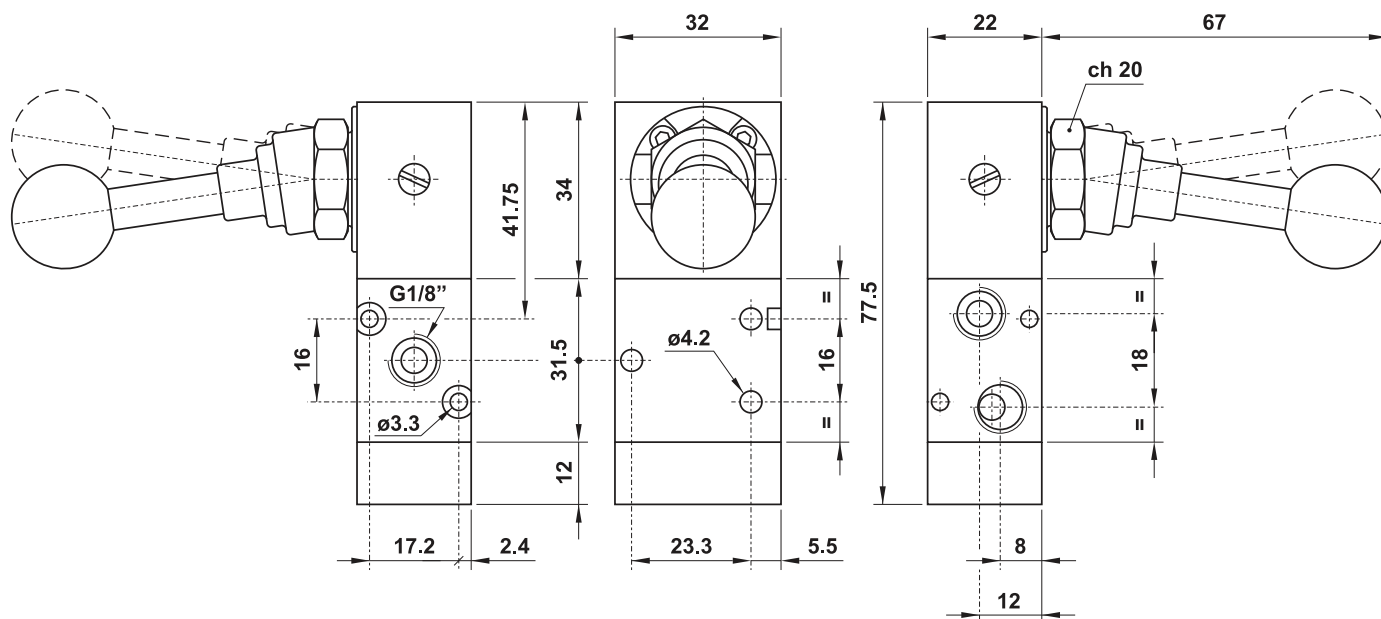
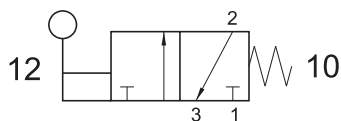
manually actuated valves



321 ML90

3/2 1/8" leva 90° - ritorno a molla

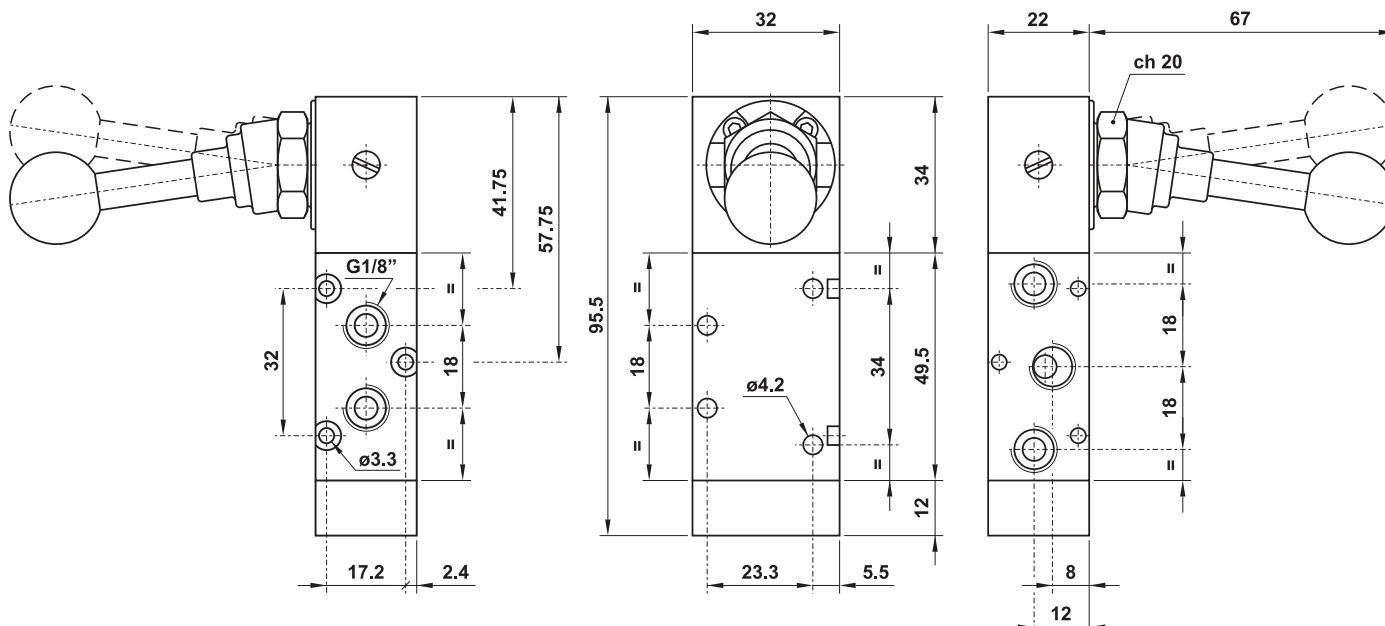
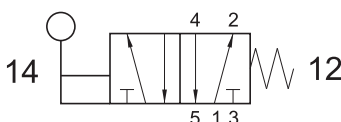
3/2 1/8" 90° lever - spring return



521 ML90

5/2 1/8" leva 90° - ritorno a molla

5/2 1/8" 90° lever - spring return



valvole ad azionamento manuale

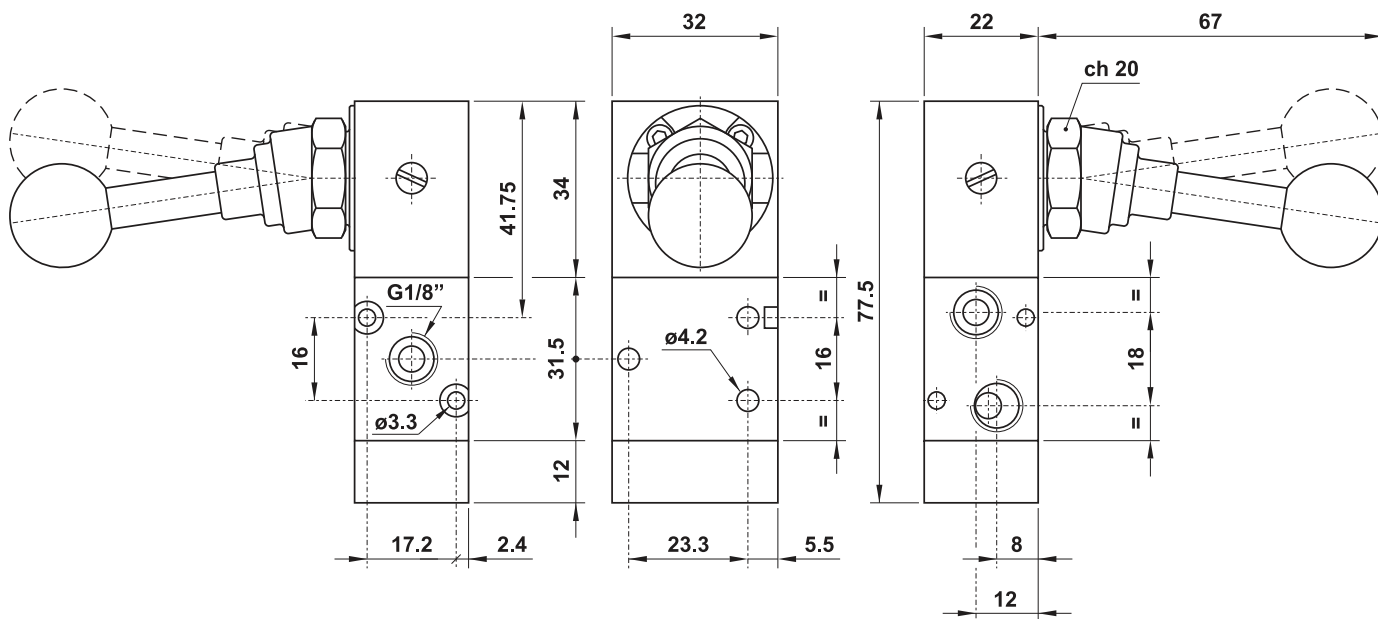
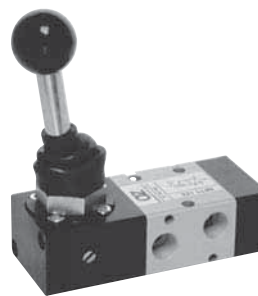
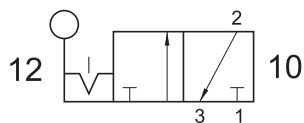
manually actuated valves



321 LL90

3/2 1/8" leva 90° bistabile

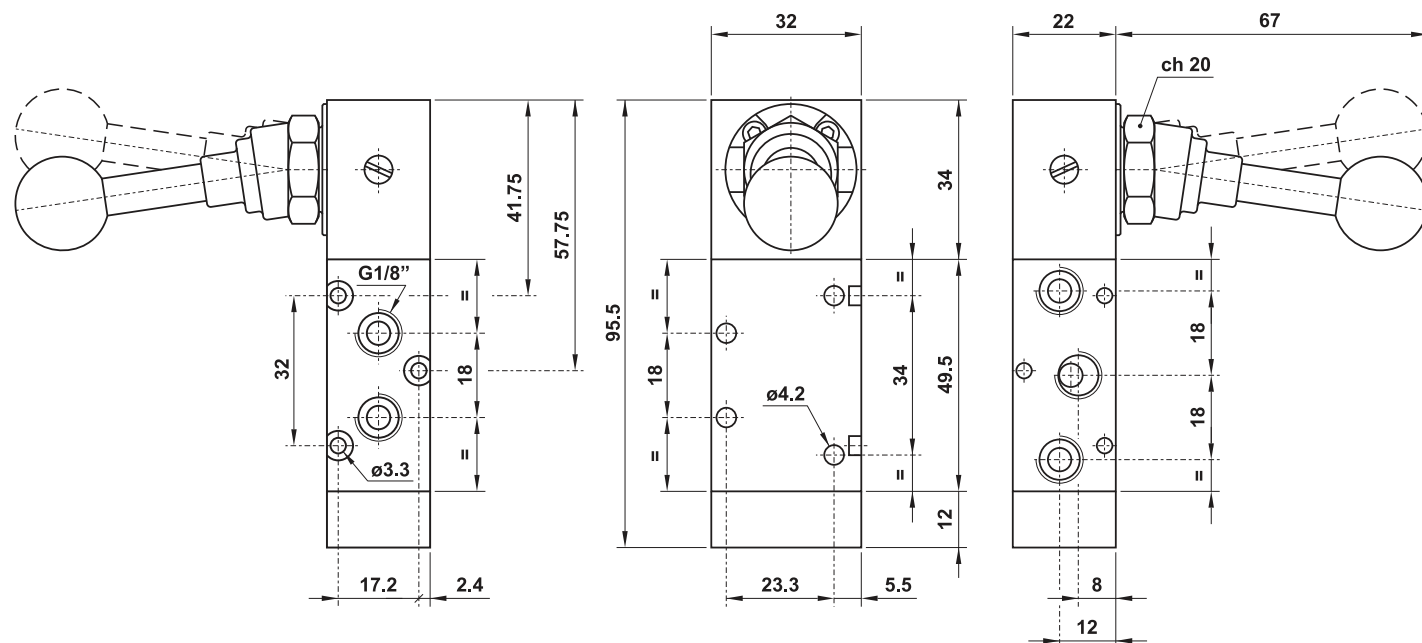
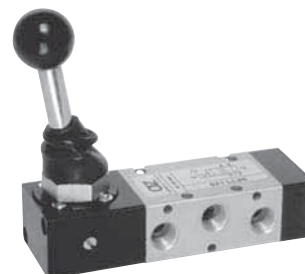
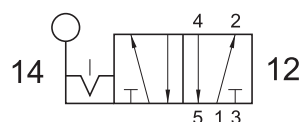
3/2 1/8" 90° bi-stable lever



521 LL90

5/2 1/8" leva 90° bistabile

5/2 1/8" 90° bi-stable lever



valvole ad azionamento manuale

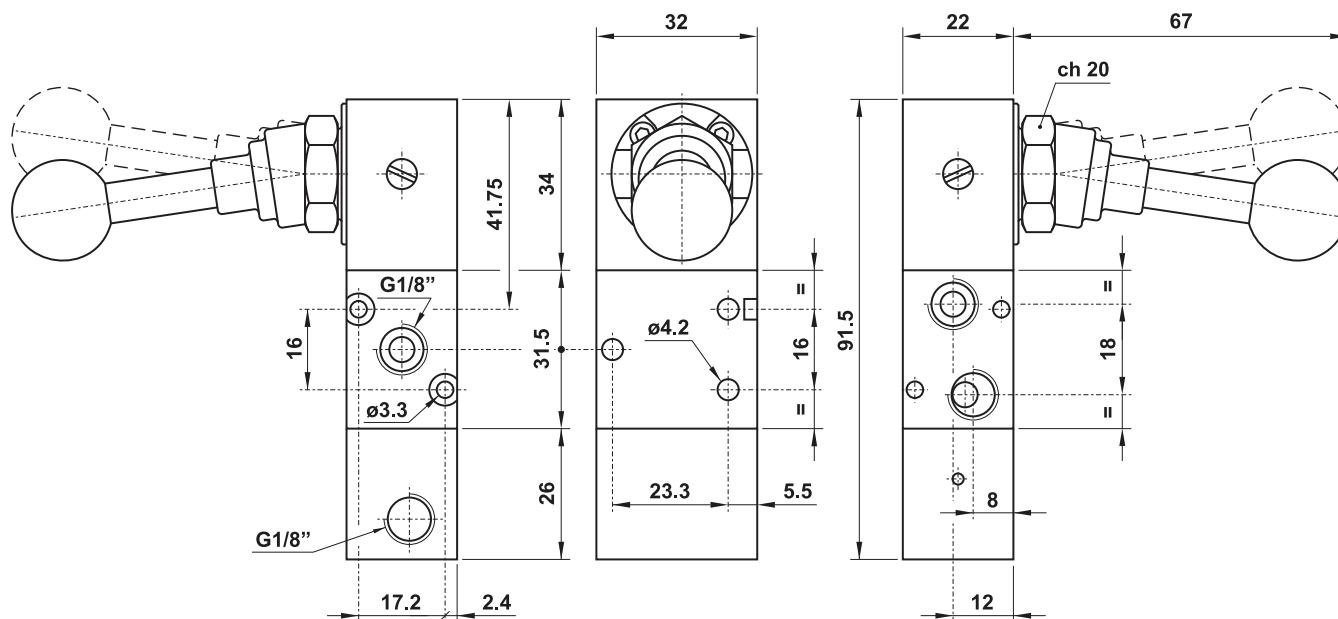
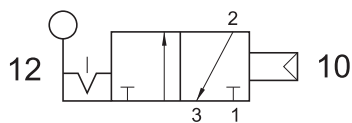
manually actuated valves



321 CL90

3/2 1/8" leva 90° - ritorno a comando pneumatico

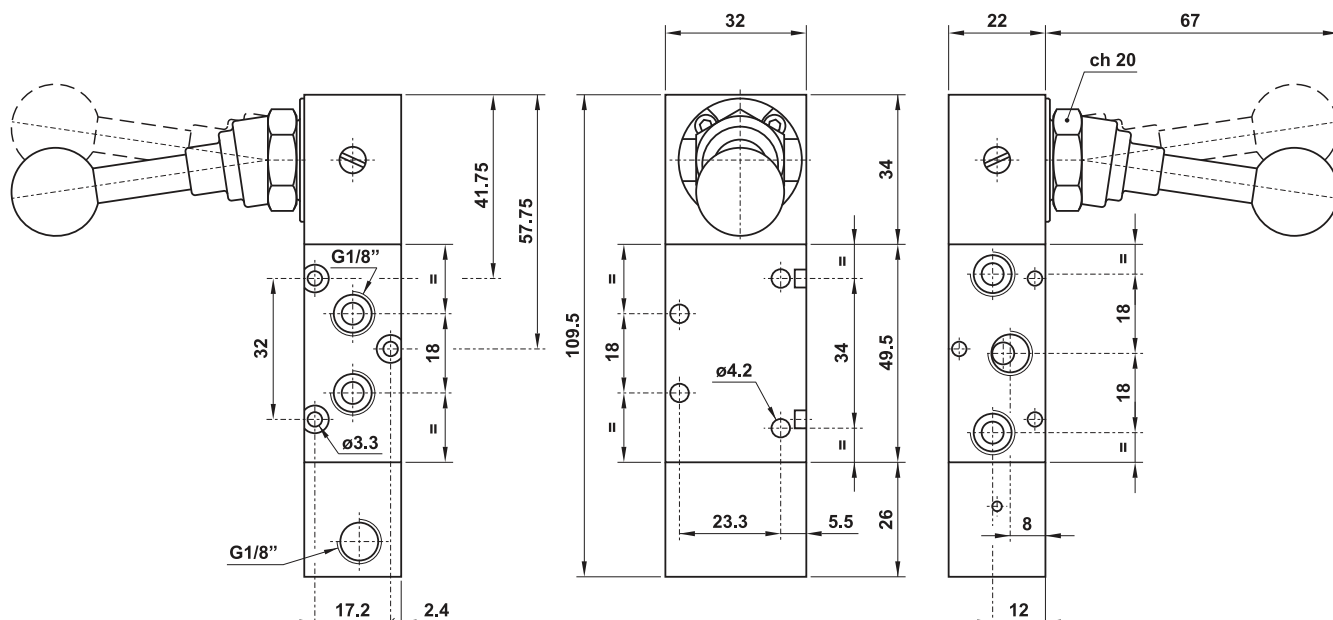
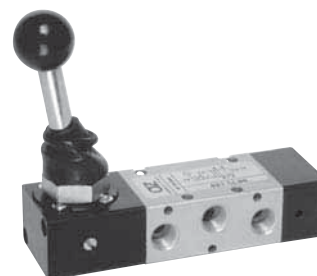
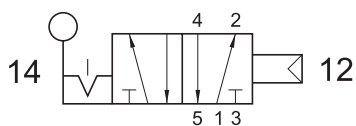
3/2 1/8" 90° lever - separate pneumatically piloted return



521 CL90

5/2 1/8" leva 90° - ritorno a comando pneumatico

5/2 1/8" 90° lever - separate pneumatically piloted return



valvole ad azionamento manuale

manually actuated valves



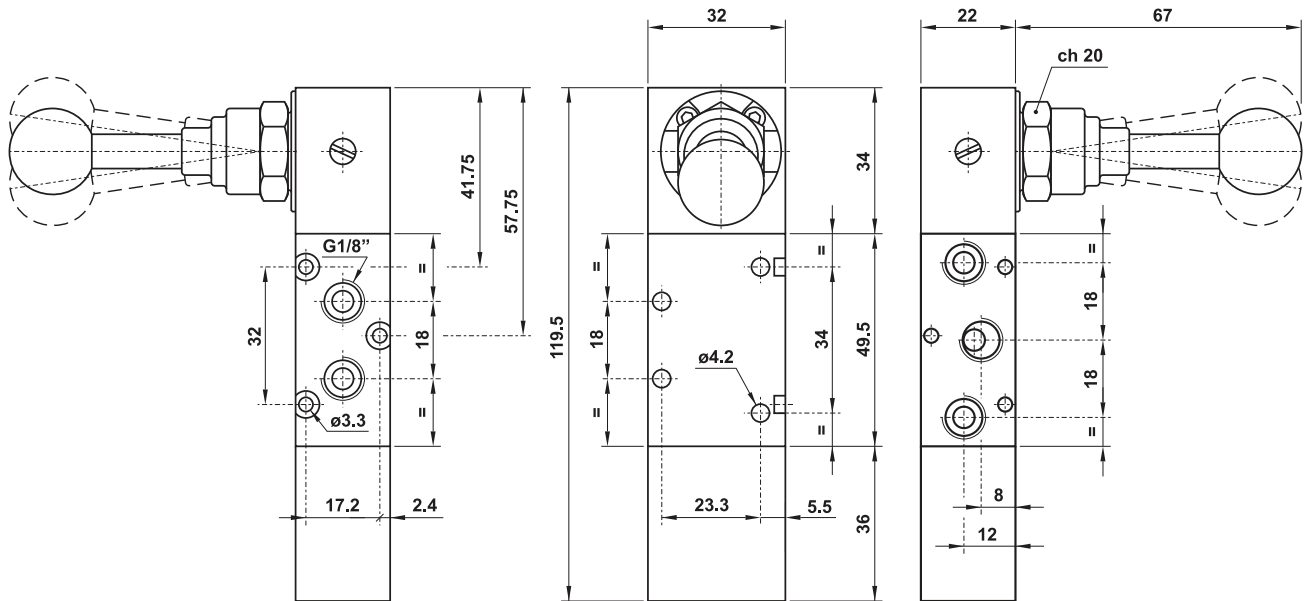
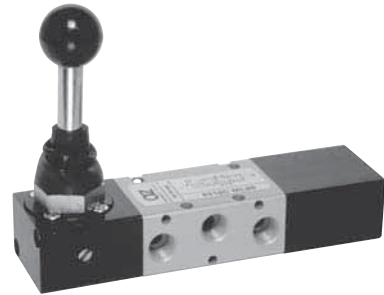
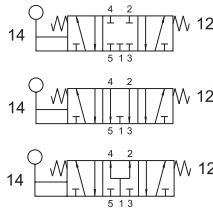
5213C ML90 centri chiusi
closed centres

5213A ML90 centri aperti
open centres

5213P ML90 centri in pressione
pressurized centres

5/3 1/8" leva 90° - ritorno al centro

5/3 1/8" 90° lever - spring return to centre



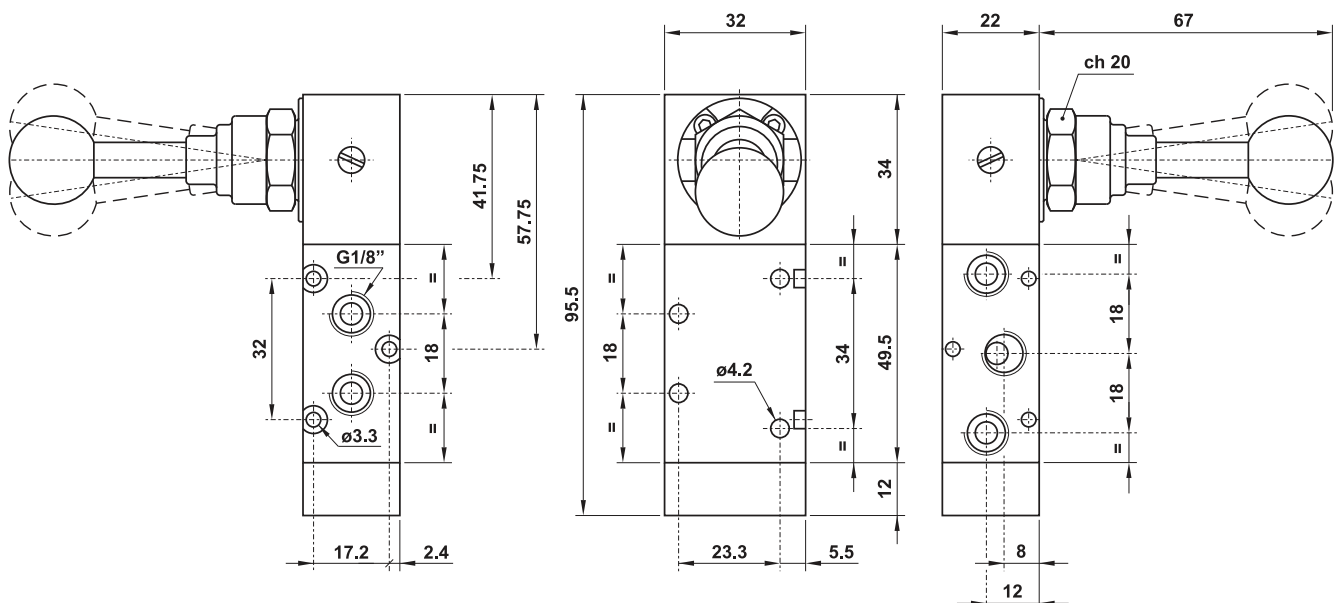
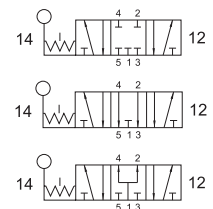
5213C LL90 centri chiusi
closed centres

5213A LL90 centri aperti
open centres

5213P LL90 centri in pressione
pressurized centres

5/3 1/8" leva 90° - tre posizioni stabili

5/3 1/8" 90° lever - three detented positions



valvole ad azionamento manuale

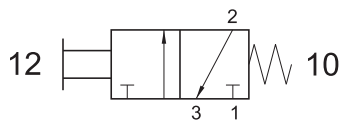
manually actuated valves



321 MT

3/2 1/8" tiretto - ritorno a molla

3/2 1/8" push/pull with spring return

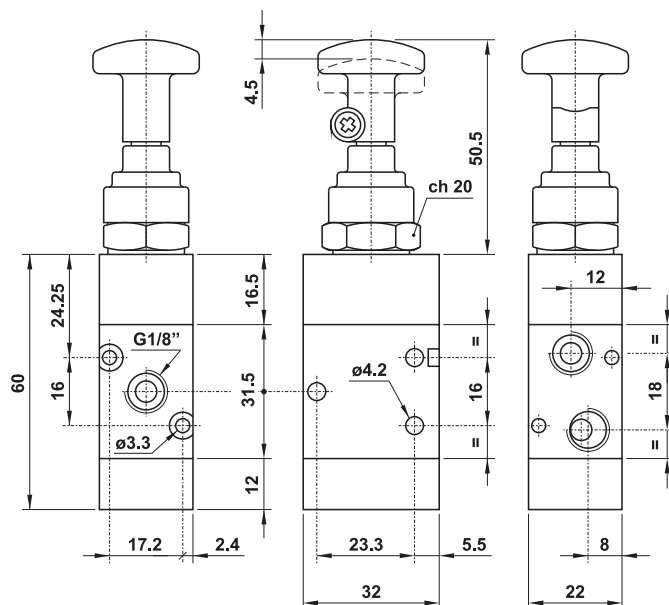


Pomolo tiretto standard: NERO

A richiesta pomolo ROSSO

Standard push button: BLACK

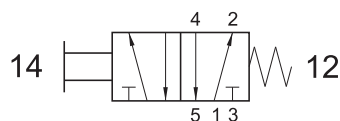
On request RED push button



521 MT

5/2 1/8" tiretto - ritorno a molla

5/2 1/8" push/pull with spring return

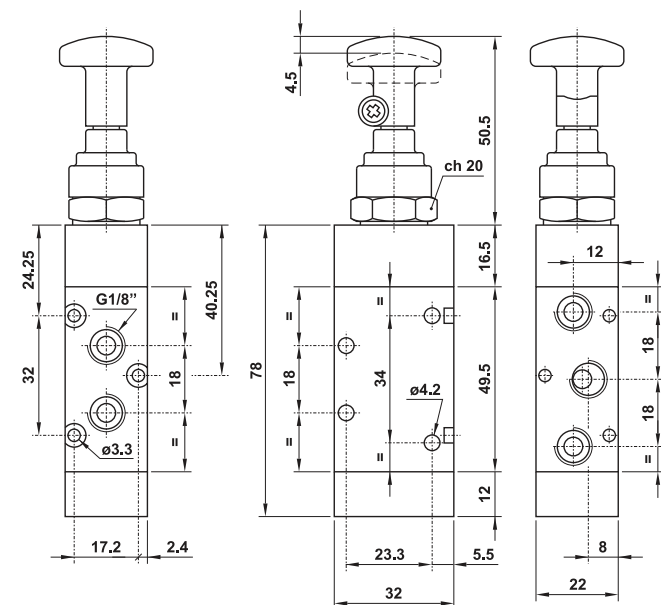


Pomolo tiretto standard: NERO

A richiesta pomolo ROSSO

Standard push button: BLACK

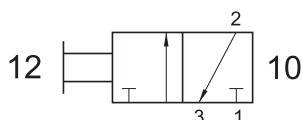
On request RED push button



321 TT

3/2 1/8" tiretto bistabile

3/2 1/8" detented push/pull

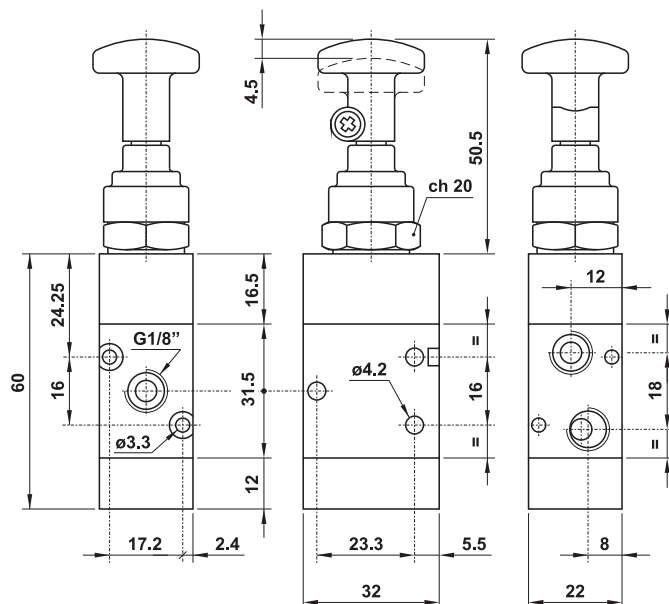


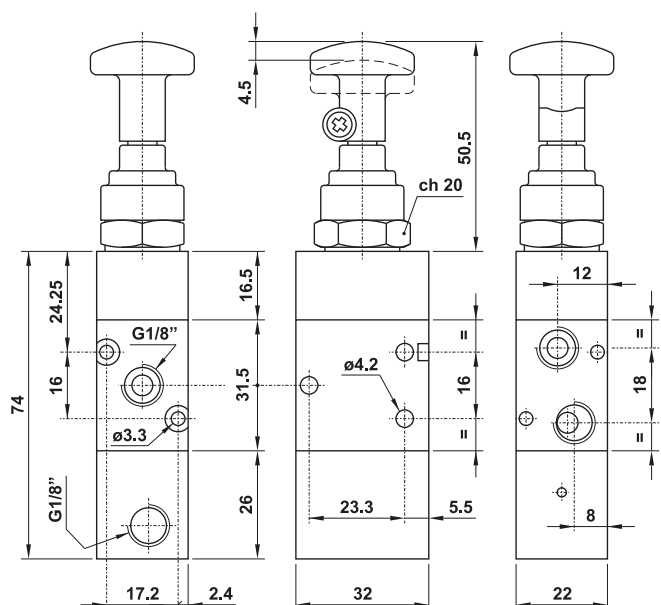
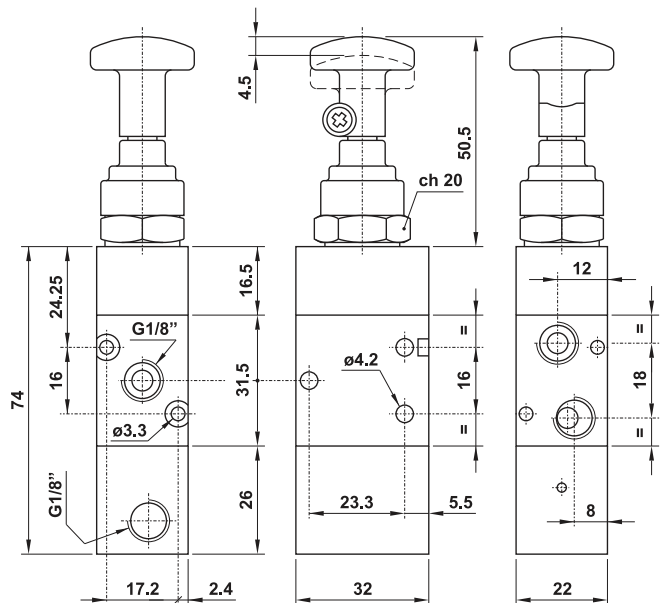
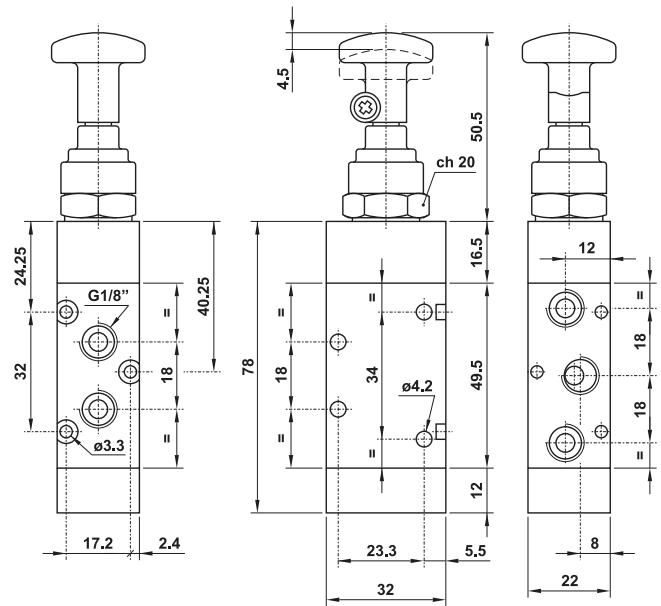
Pomolo tiretto standard: NERO

A richiesta pomolo ROSSO

Standard push button: BLACK

On request RED push button



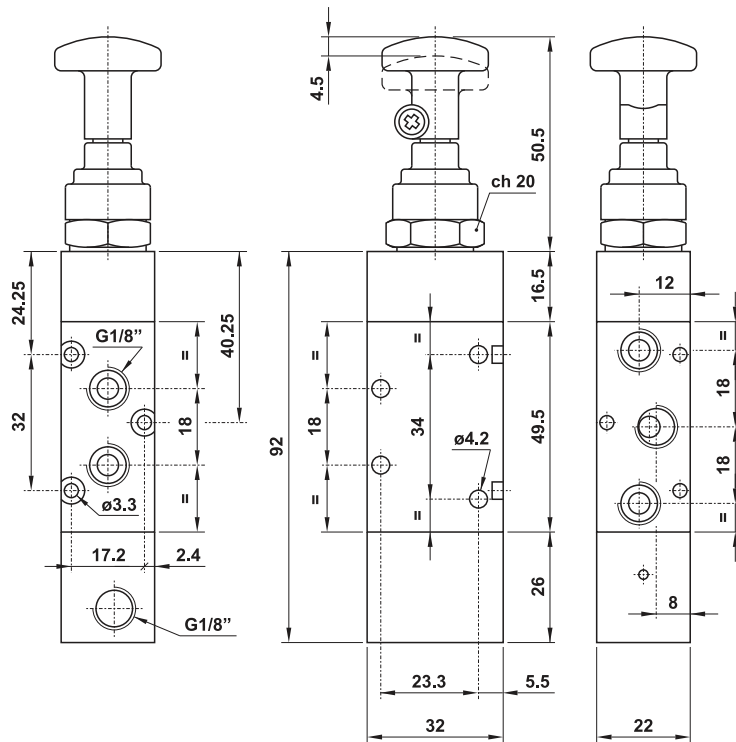


manually actuated valves



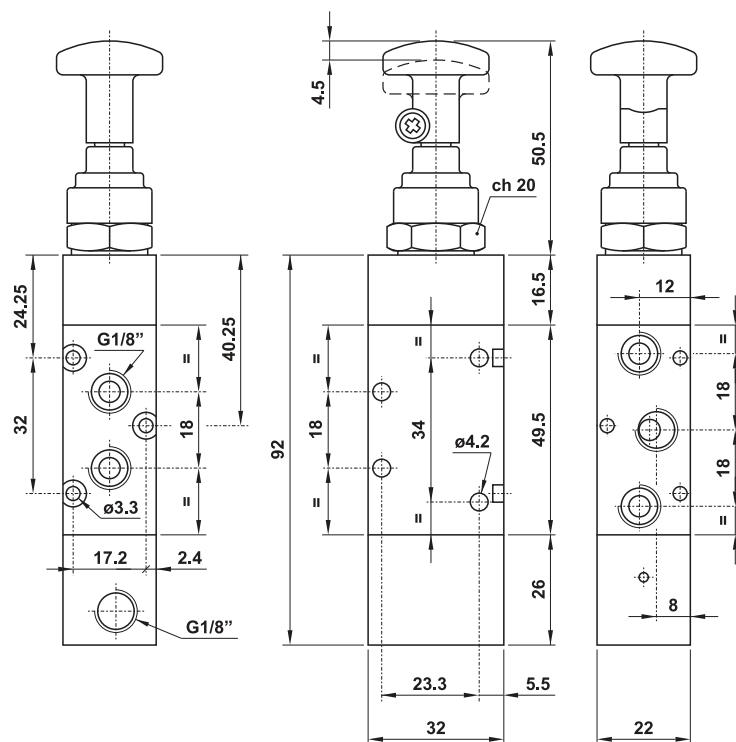
5/2 1/8" push/pull with separate pneumatically piloted return

The return can be done only with pneumatic pilote signal.



5/2 1/8" detented push/pull with separate pneumatically piloted return

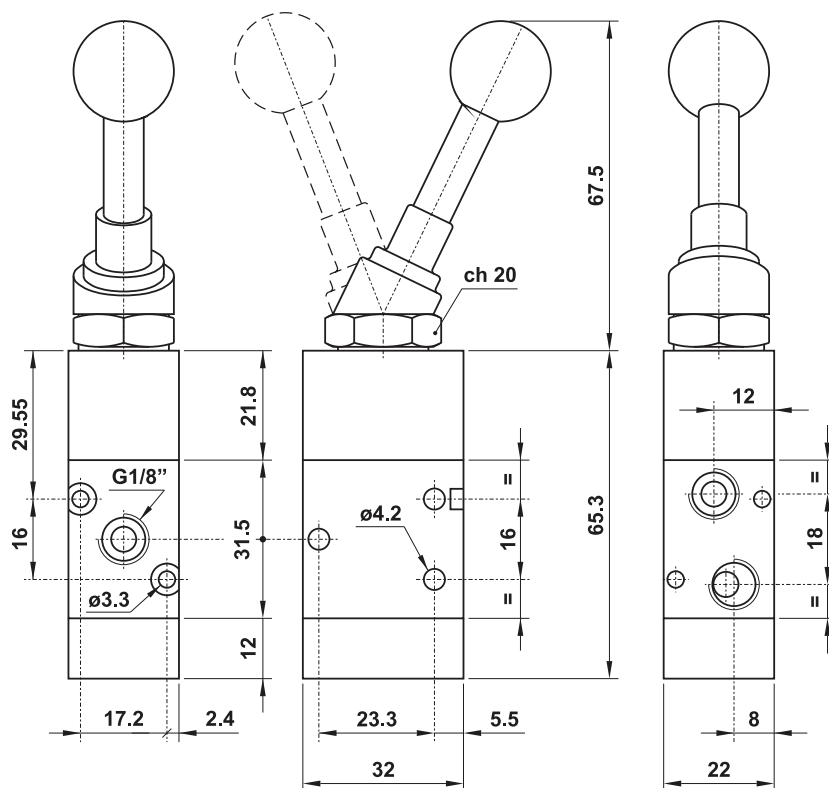
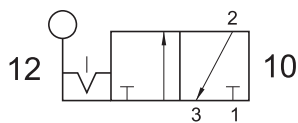
The return can be done with pneumatic pilot signal or by pulling the knob.



manually actuated valves

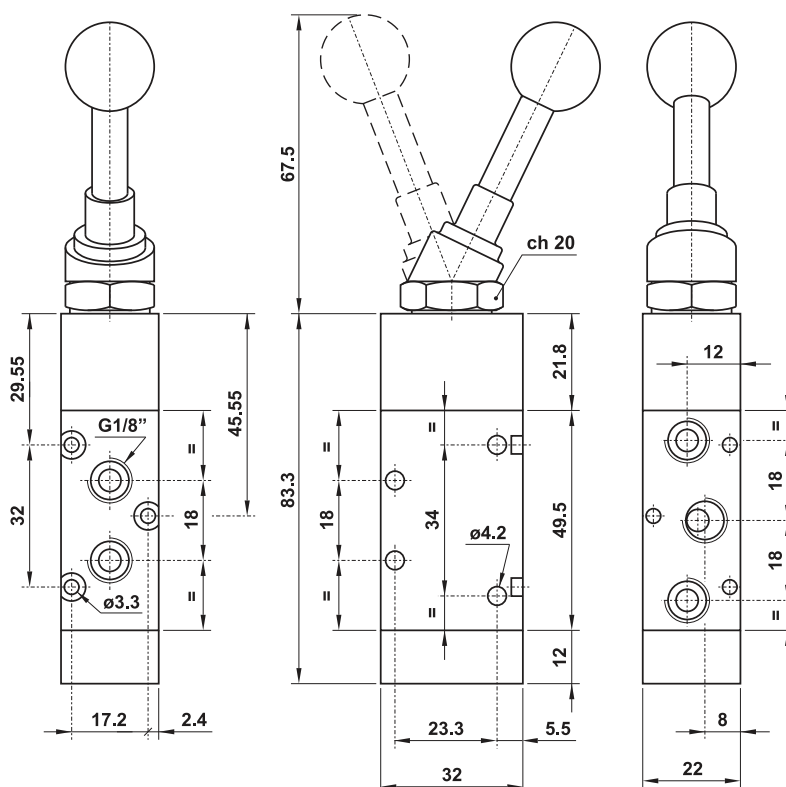
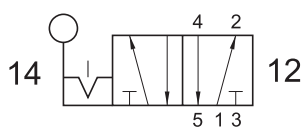


3/2 1/8" bi-stable top lever



521 LL

5/2 1/8" bi-stable top lever



valvole ad azionamento manuale

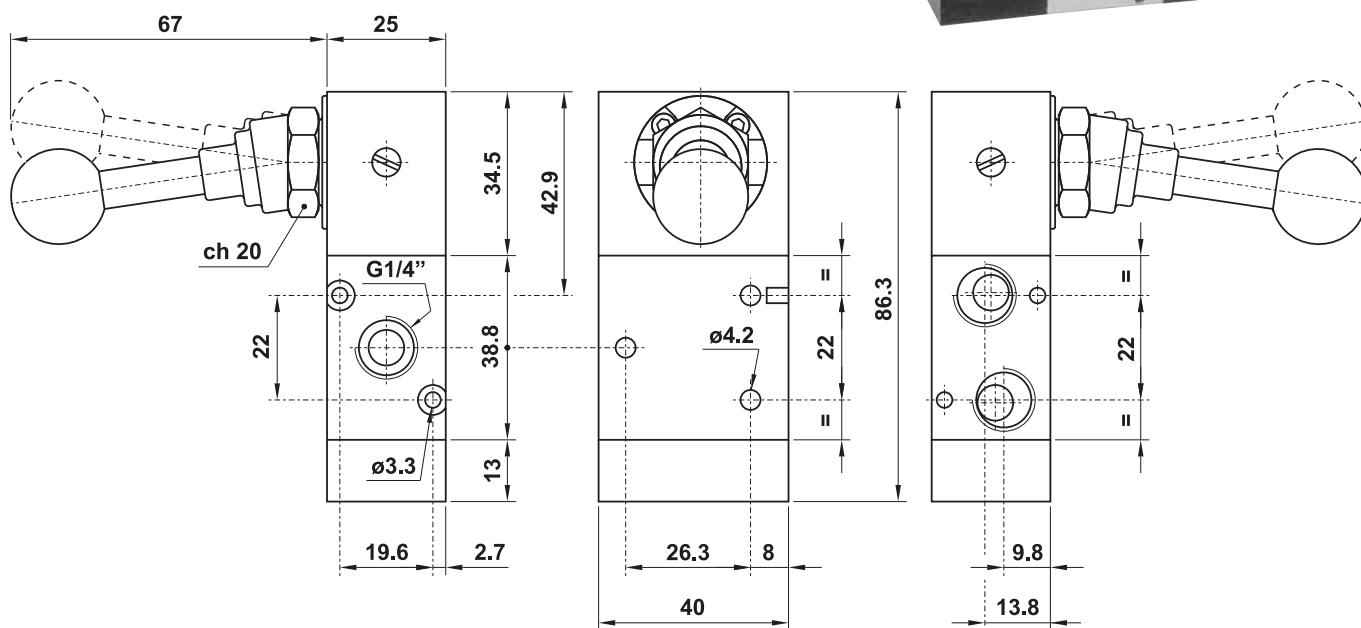
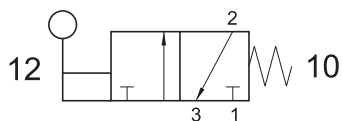
manually actuated valves



322 ML90

3/2 1/4" leva 90° - ritorno a molla

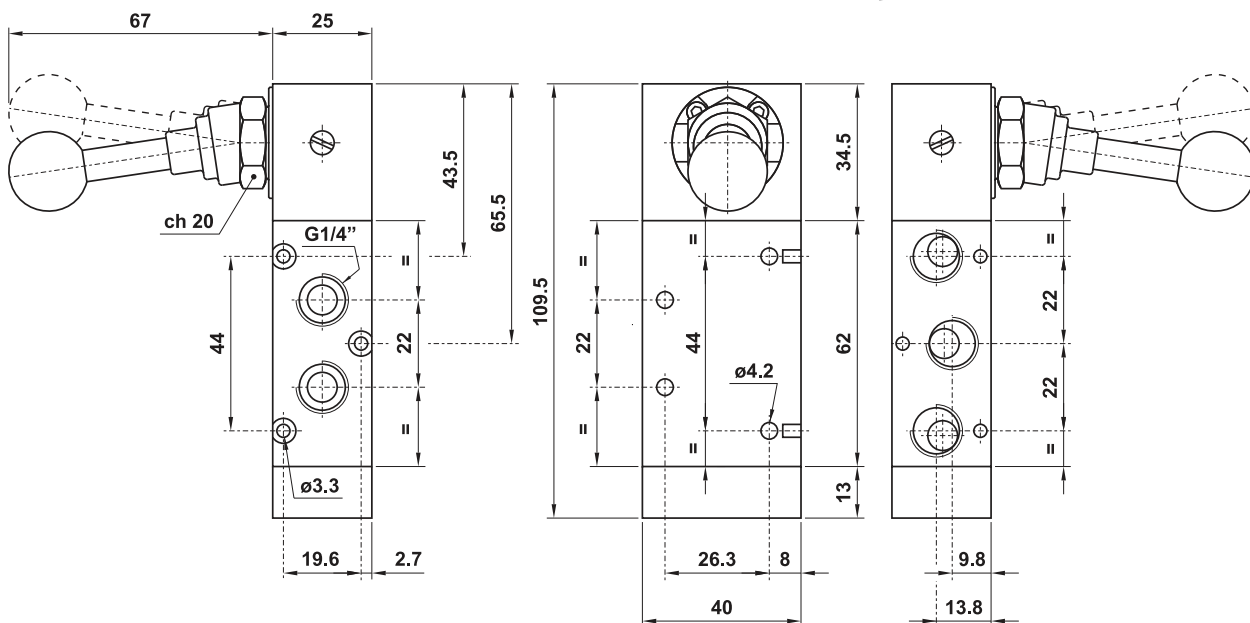
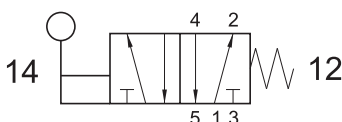
3/2 1/4" 90° lever - spring return



522 ML90

5/2 1/4" leva 90° - ritorno a molla

5/2 1/4" 90° lever - spring return



valvole ad azionamento manuale

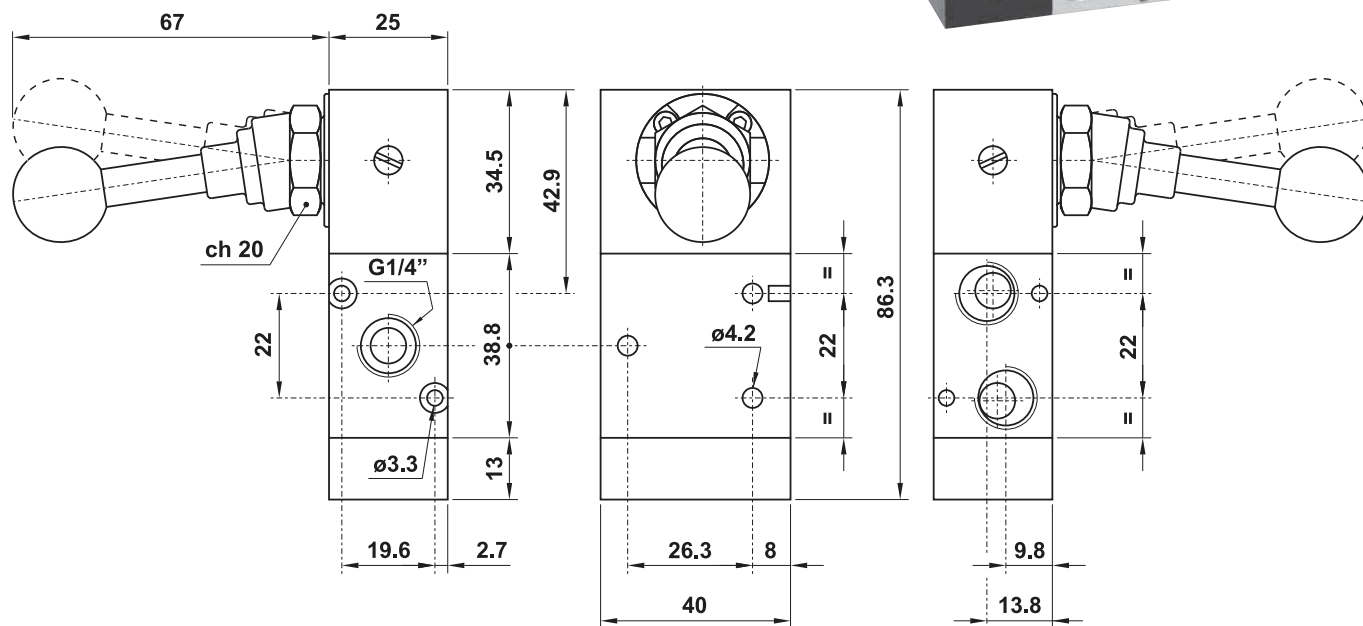
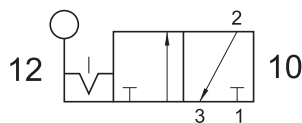
manually actuated valves



322 LL90

3/2 1/4" leva 90° bistabile

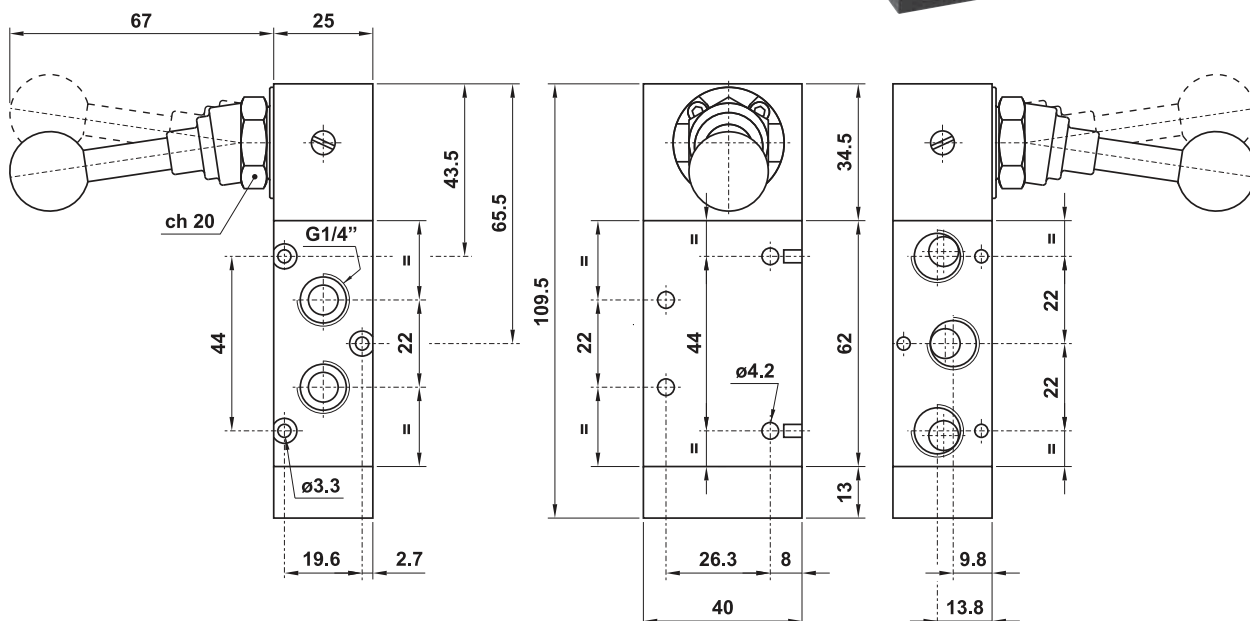
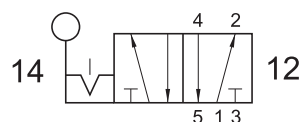
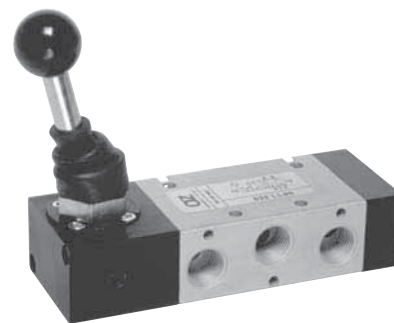
3/2 1/4" 90° bi-stable lever



522 LL90

5/2 1/4" leva 90° bistabile

5/2 1/4" 90° bi-stable lever



valvole ad azionamento manuale

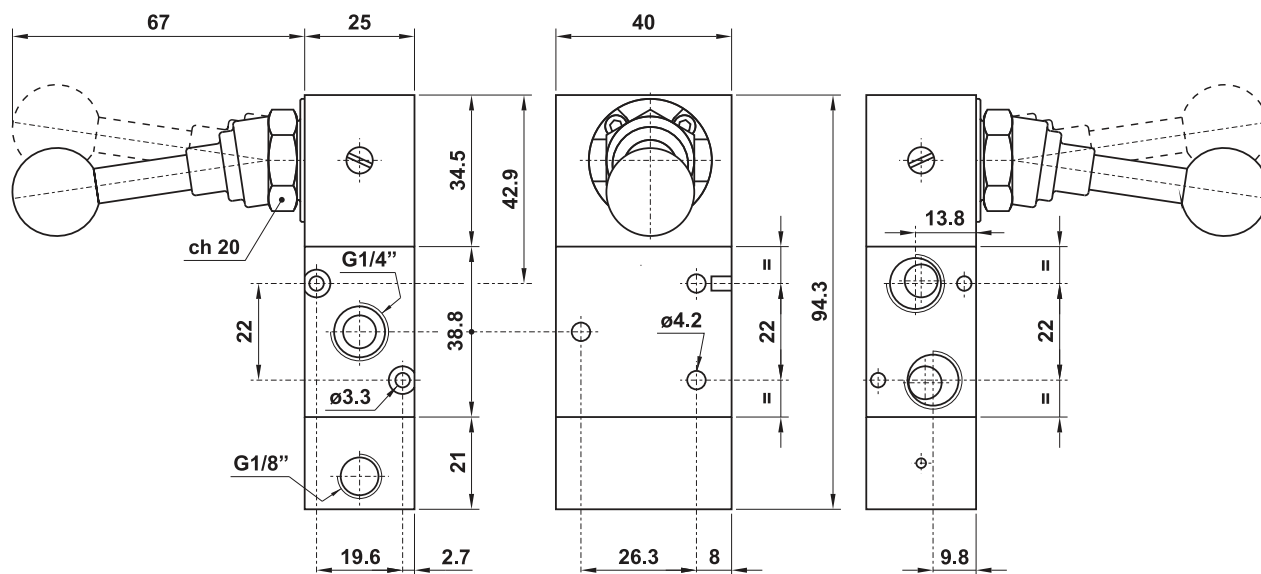
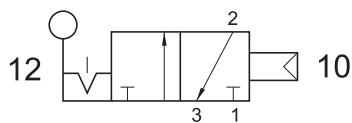
manually actuated valves



322 CL90

3/2 1/4" leva 90° - ritorno a comando pneumatico

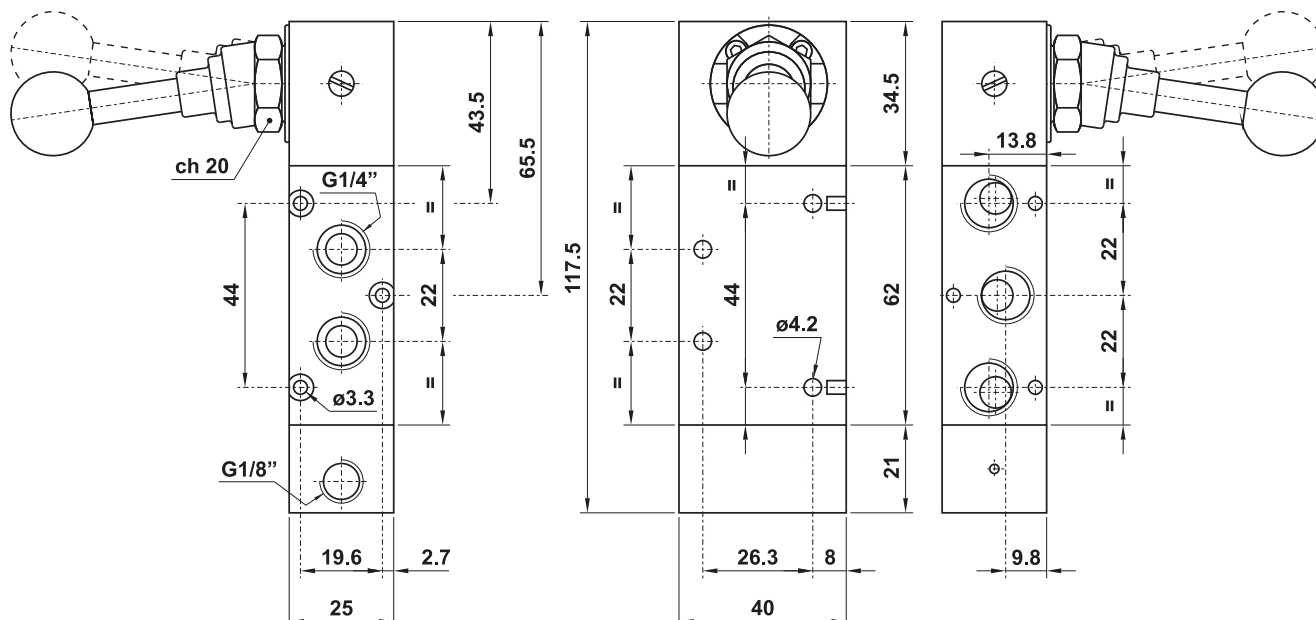
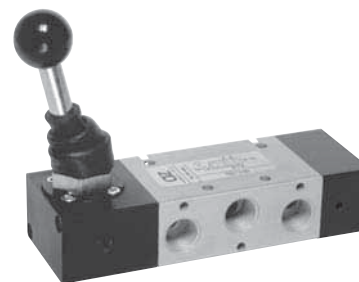
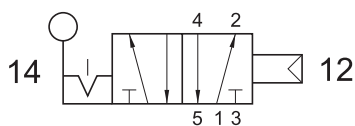
3/2 1/4" 90° lever - separate pneumatically piloted return

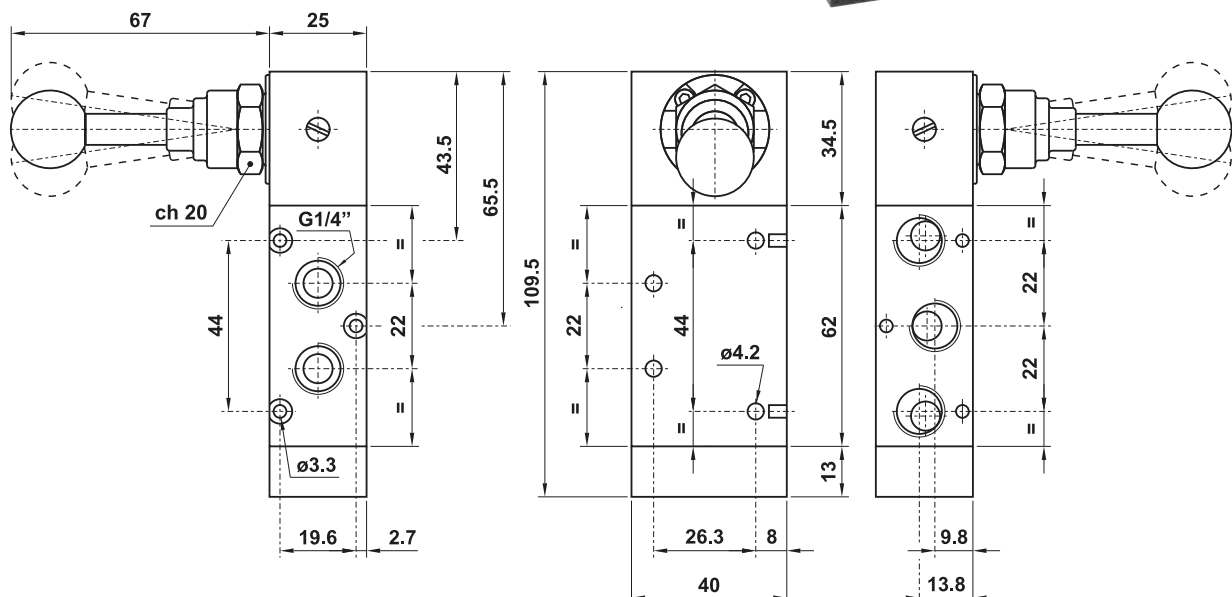
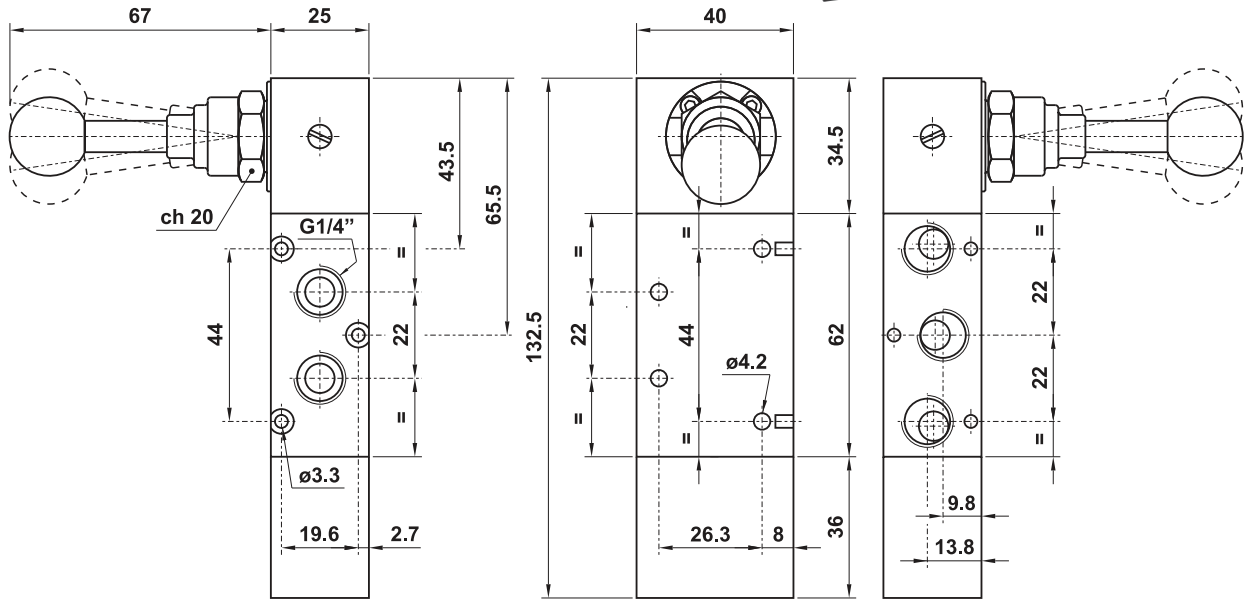


522 CL90

5/2 1/4" leva 90° - ritorno a comando pneumatico

5/2 1/4" 90° lever - separate pneumatically piloted return





valvole ad azionamento manuale

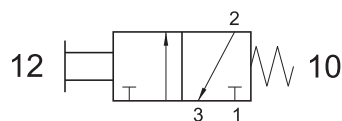
manually actuated valves



322 MT

3/2 1/4" tiretto - ritorno a molla

3/2 1/4" push/pull with spring return

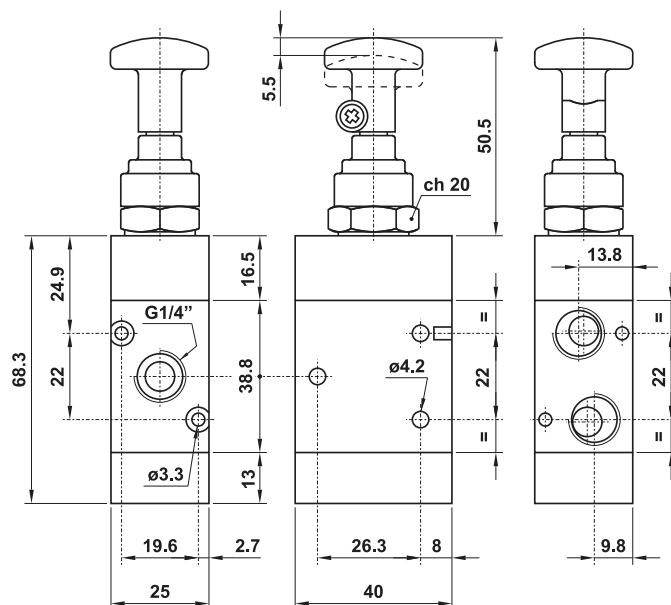


Pomolo tiretto standard: NERO

A richiesta pomolo ROSSO

Standard push button: BLACK

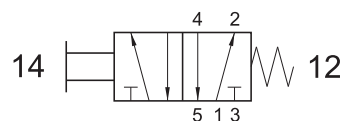
On request RED push button



522 MT

5/2 1/4" tiretto - ritorno a molla

5/2 1/4" push/pull with spring return

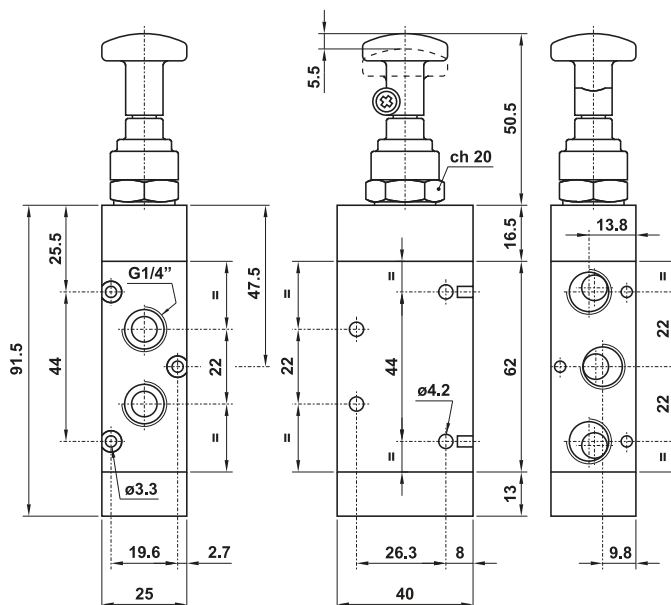


Pomolo tiretto standard: NERO

A richiesta pomolo ROSSO

Standard push button: BLACK

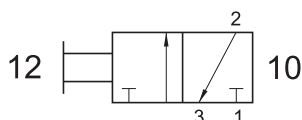
On request RED push button



322 TT

3/2 1/4" tiretto - bistabile

3/2 1/4" detented push/pull

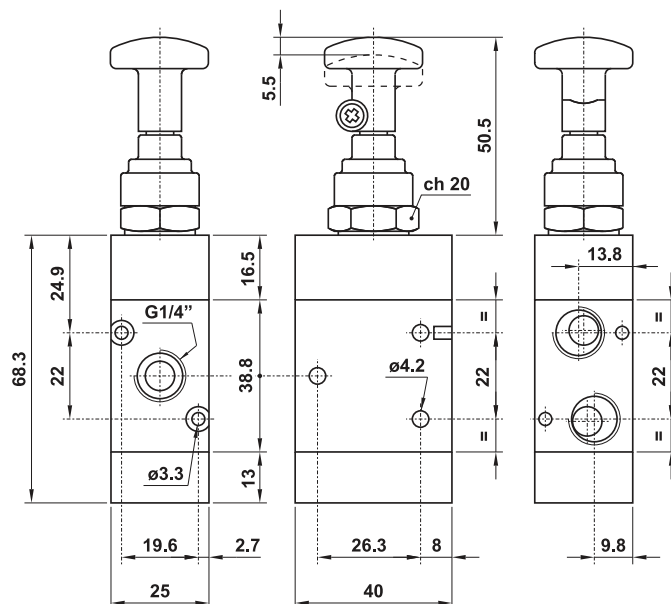


Pomolo tiretto standard: NERO

A richiesta pomolo ROSSO

Standard push button: BLACK

On request RED push button



valvole ad azionamento manuale

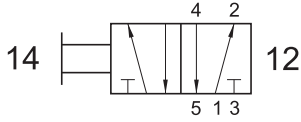
manually actuated valves



522 TT

5/2 1/4" tiretto - bistabile

5/2 1/4" detented push/pull

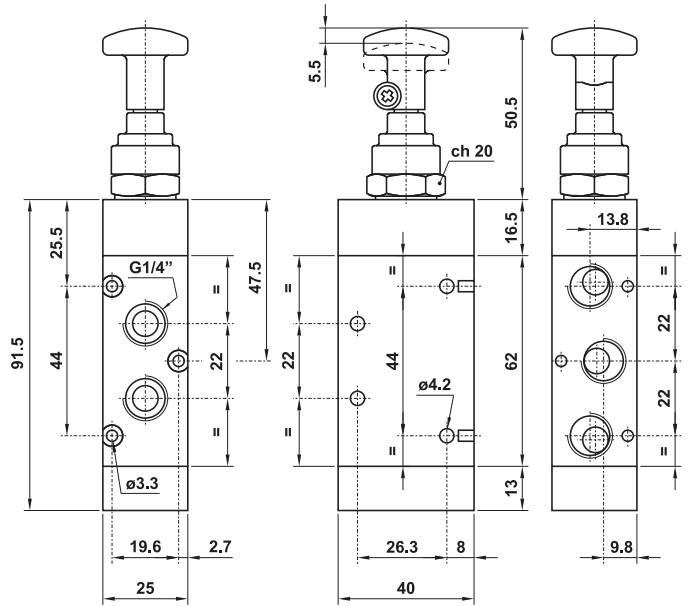


Pomolo tiretto standard: NERO

A richiesta pomolo ROSSO

Standard push button: BLACK

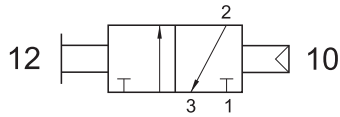
On request RED push button



322 CT

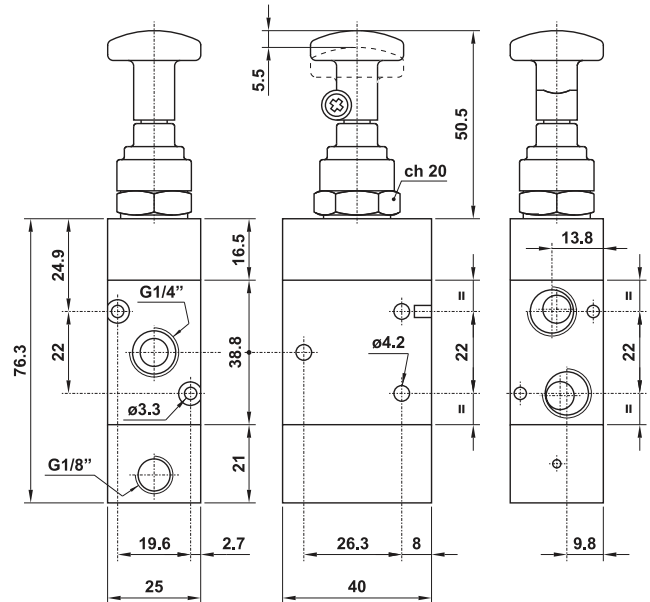
3/2 1/4" tiretto sganciato - ritorno a comando pneumatico

3/2 1/4" push/pull with separate pneumatically piloted return



Dopo aver premuto il tiretto, il ritorno si effettua soltanto a comando pneumatico.

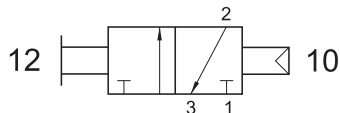
The return can be done only with pneumatic pilote signal.



322 CTT

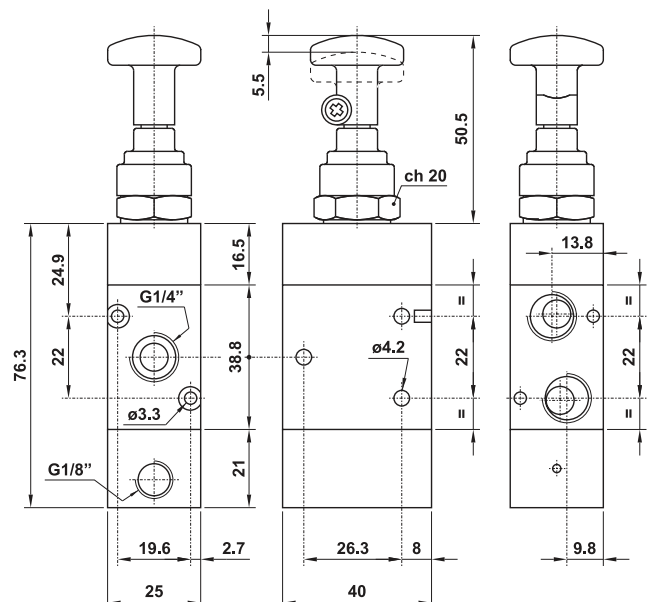
3/2 1/4" tiretto agganciato - ritorno a comando pneumatico

3/2 1/4" detented push/pull with separate pneumatically piloted return



Dopo aver premuto il tiretto, il ritorno può essere effettuato inviando un segnale pneumatico o tirando il tiretto.

The return can be done with pneumatic pilote signal or by pulling the knob.



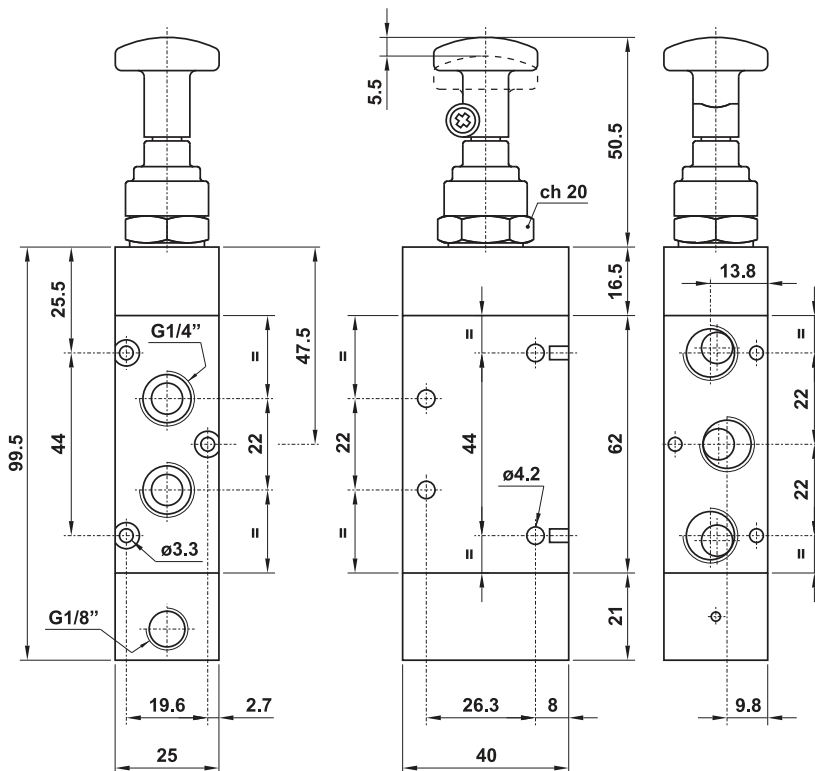
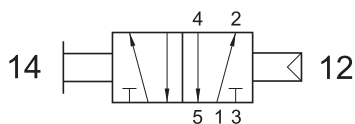
522 CT

5/2 1/4" tiretto sganciato - ritorno a comando pneumatico

5/2 1/4" push/pull with separate pneumatically piloted return

Dopo aver premuto il tiretto, il ritorno si effettua soltanto a comando pneumatico.

The return can be done only with pneumatic pilot signal.



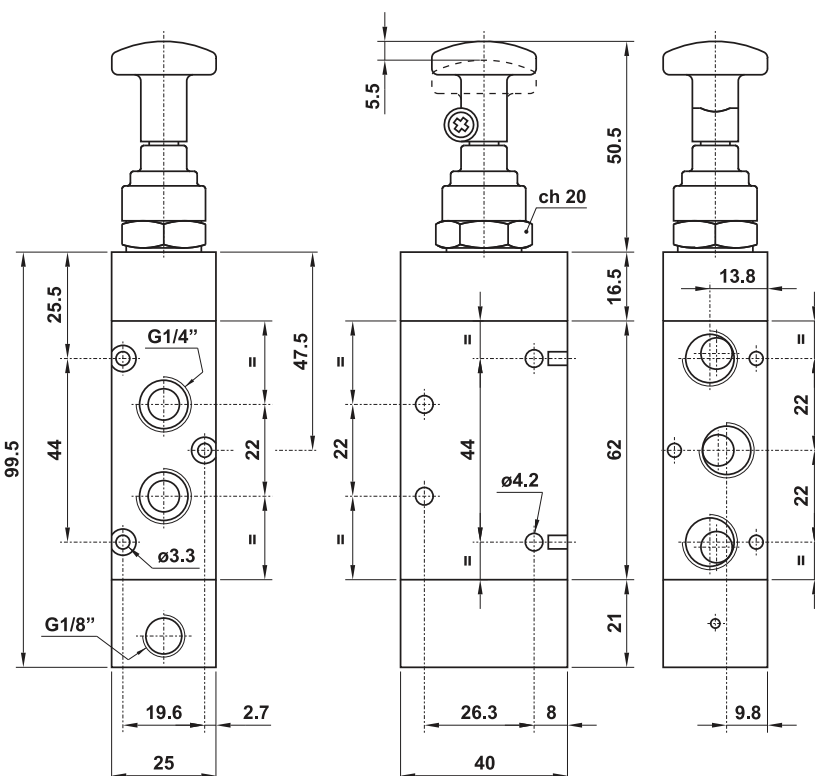
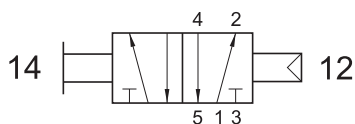
522 CTT

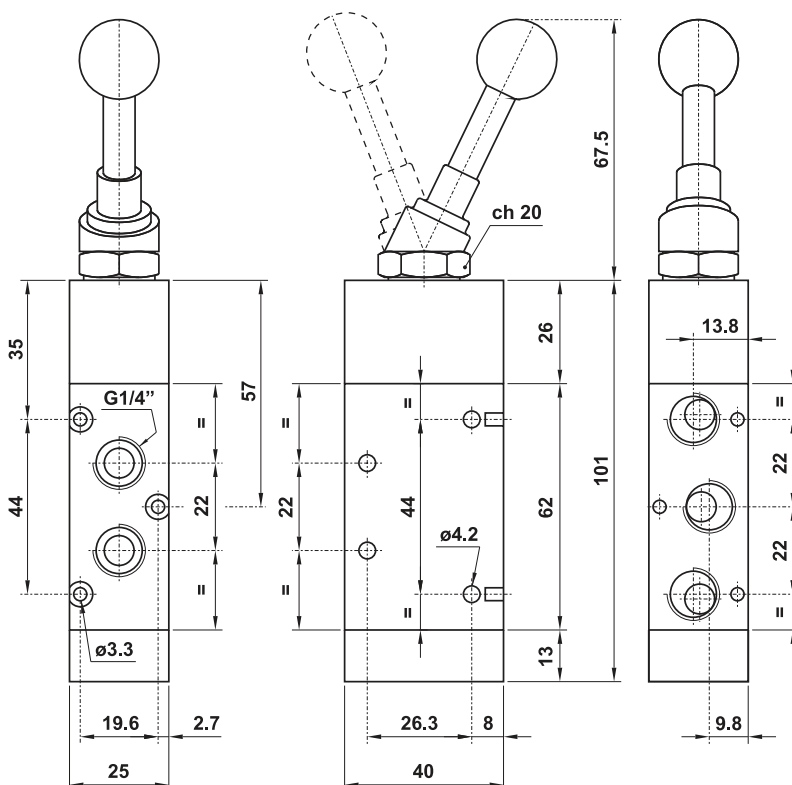
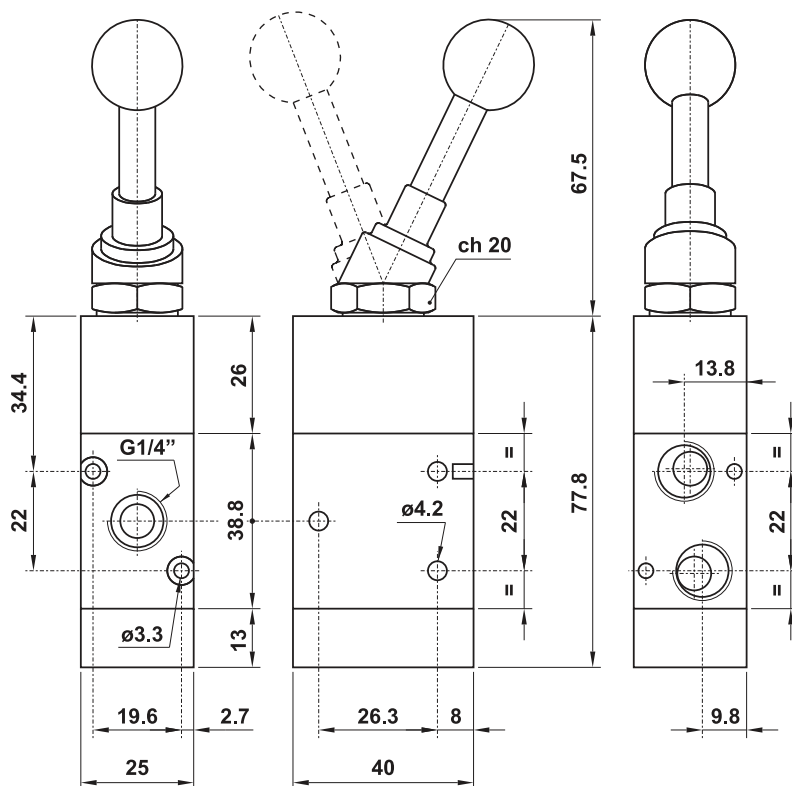
5/2 1/4" tiretto agganciato - ritorno a comando pneumatico

5/2 1/4" detented push/pull with separate pneumatically piloted return

Dopo aver premuto il tiretto, il ritorno può essere effettuato inviando un segnale pneumatico o tirando il tiretto.

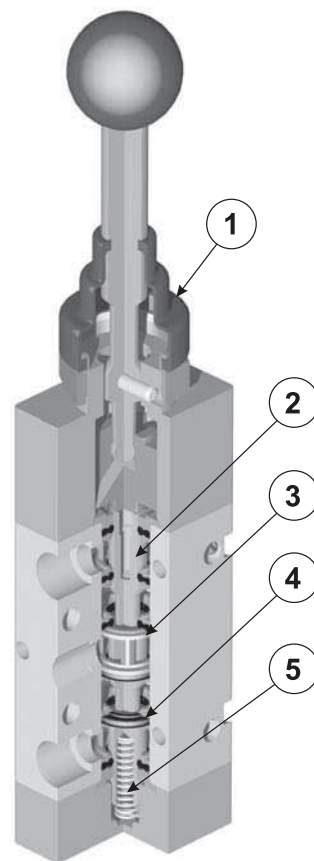
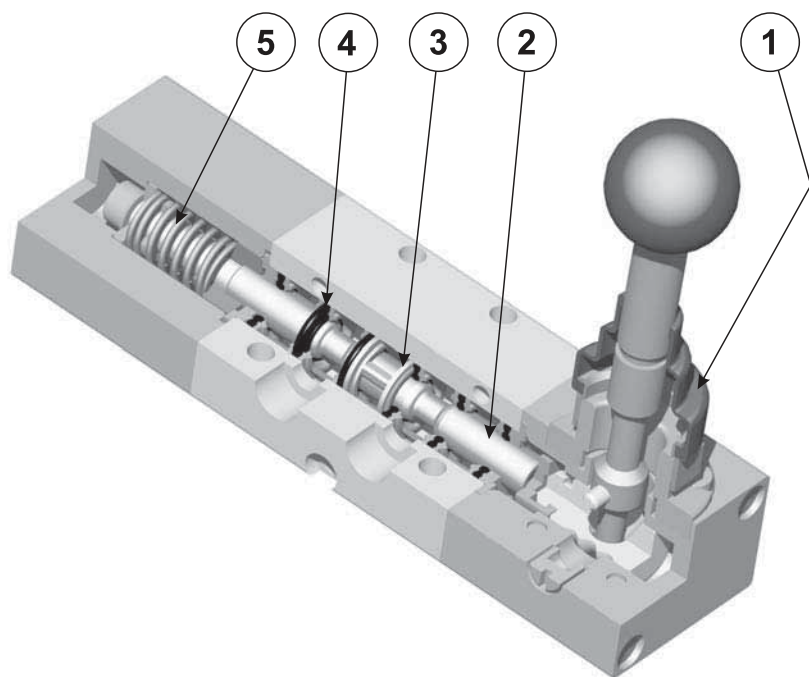
The return can be done with pneumatic pilot signal or by pulling the knob.





ricambi per valvole ad azionamento manuale

spare parts for manually actuated spool valves



1. Cuffietta parapolvere [cover for dust protection]
2. Spola: alluminio 11S nichelato [spool: aluminium 11S, nickeled]
3. Distanziale cassetto: ottone [brass]
4. Guarnizione cassetto: NBR [seal for spool: NBR]
5. Molla: acciaio [spring: steel]

codice kit code of kit	utilizzabile per suitable for		
00.099.2	321 LL	321 LL90	321 ML90
	321 TT	321 MT	
00.106.2	521 LL	521 LL90	521 ML90
	5213C LL90	5213A LL90	5213P LL90
	5213C ML90	5213A ML90	5213P ML90
	521 TT	521 MT	
01.041.2	322 TT	322 LL90	322 ML90
	322 TT	322 MT	
01.054.2	522 LL	522 LL90	522 ML90
	5223C LL90	5223A LL90	5223P LL90
	5223C ML90	5223A ML90	5223P ML90
	522 TT	522 MT	

Il kit contiene le guarnizioni qui indicate e le O-Ring necessarie per il funzionamento della valvola.

The kit contains the seals listed here and the necessary O-Rings for the function of the valve.

valvole ad azionamento manuale

manually actuated valves

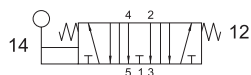


5213A ML

centri aperti
open centres

5/3 1/8" leva in testa - ritorno al centro

5/3 1/8" top lever - spring return to centre

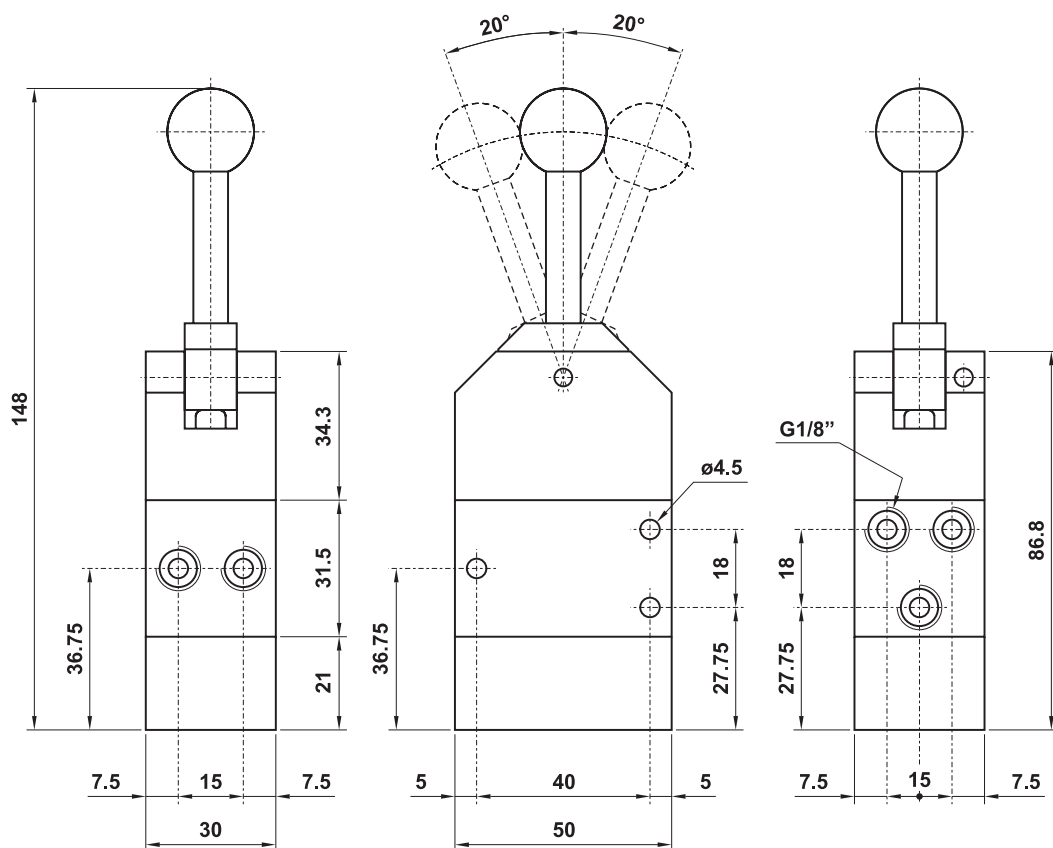


5213A LL

centri aperti
open centres

5/3 1/8" leva in testa - 3 posizioni stabili

5/3 1/8" top lever - 3 detented positions



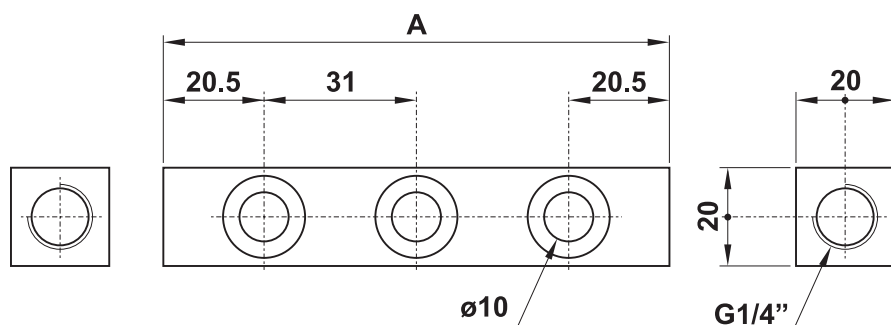
SOLO VERSIONE IN ALLUMINIO
ONLY ALUMINIUM VERSION

- Collettori per valvole 5213A ML
Collectors for valves 5213A ML

- Alimentazione unica
Only one air supply port



modello model	nr. posizioni no. stations	A
00.136.3	2	72
00.137.3	3	103
00.138.3	4	134
00.139.3	5	165



Ogni pezzo è venduto in kit con le viti e le guarnizioni
necessarie al suo assemblaggio.
It is sold in kit with all necessary screws and sealings for
installation.

valvole ad azionamento manuale

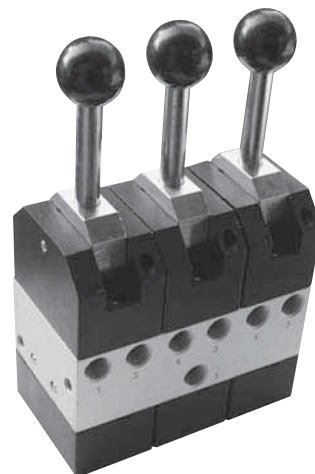
manually actuated valves



- Blocchi di valvole 5/3 centri aperti, leva in testa, ritorno al centro
Blocks of valves 5/3 open centres, top lever, spring return to centre

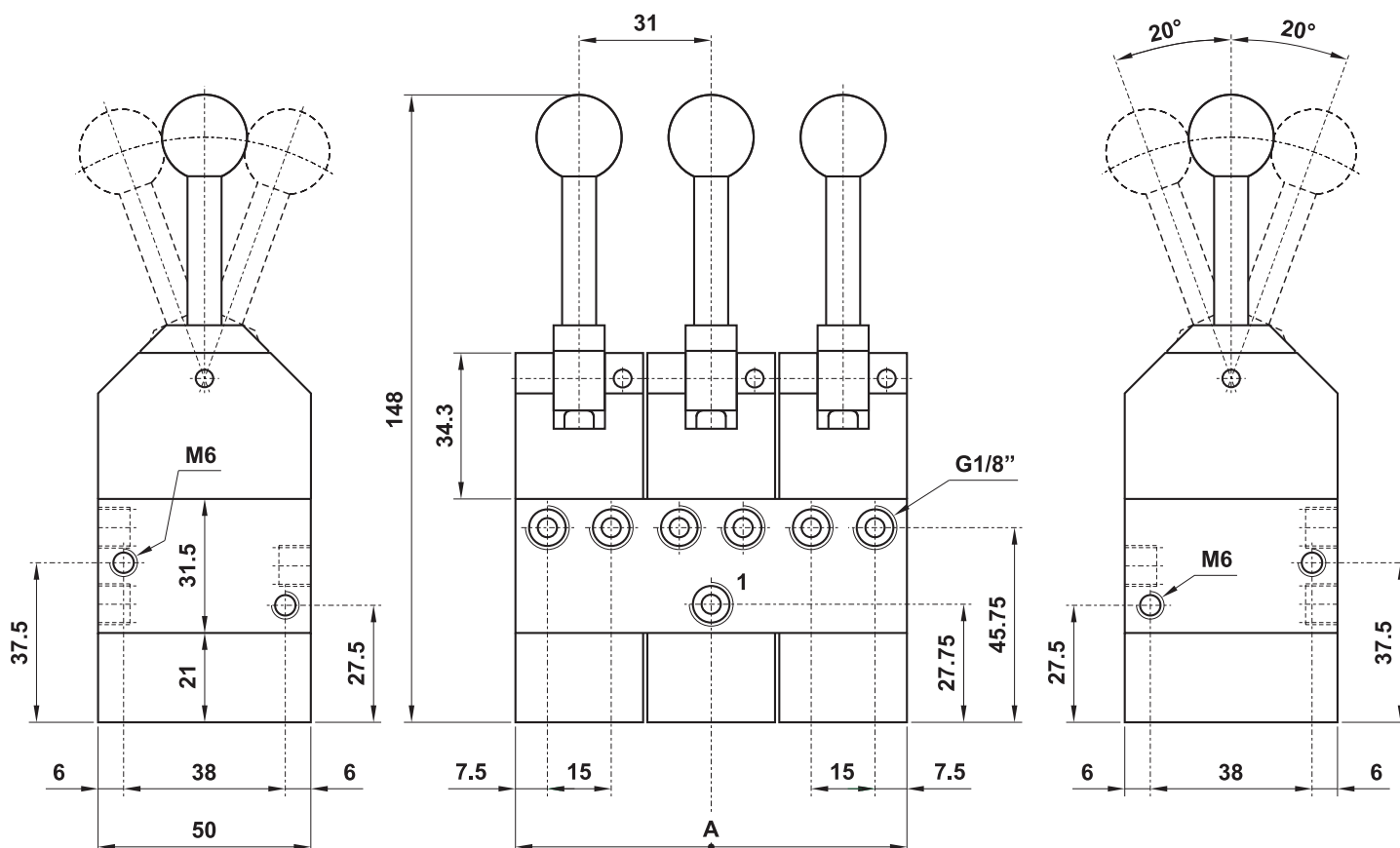


- Alimentazione unica
Only one air supply port



modello model	nr. posizioni no. stations	A
00.163.4	2	61
00.160.4	3	92
00.164.4	4	123
00.130.4	5	154

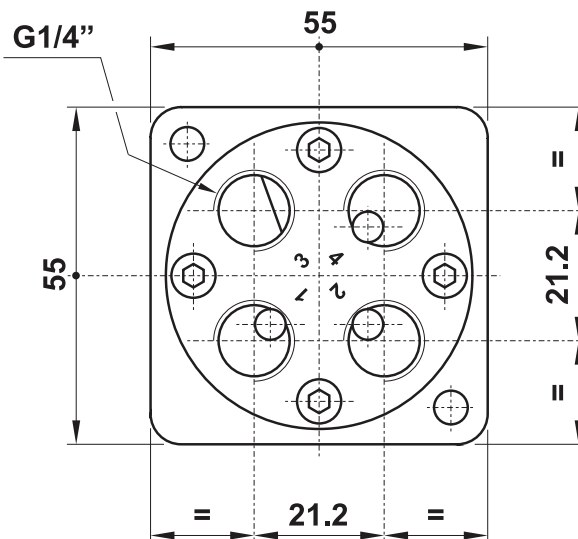
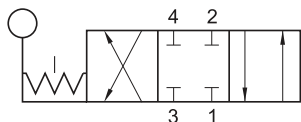
SOLO VERSIONE IN ALLUMINIO
ONLY ALUMINIUM VERSION



10.071.4

4/3 1/4" valvola rotativa - tre posizioni stabili -
centri chiusi - uscite sotto

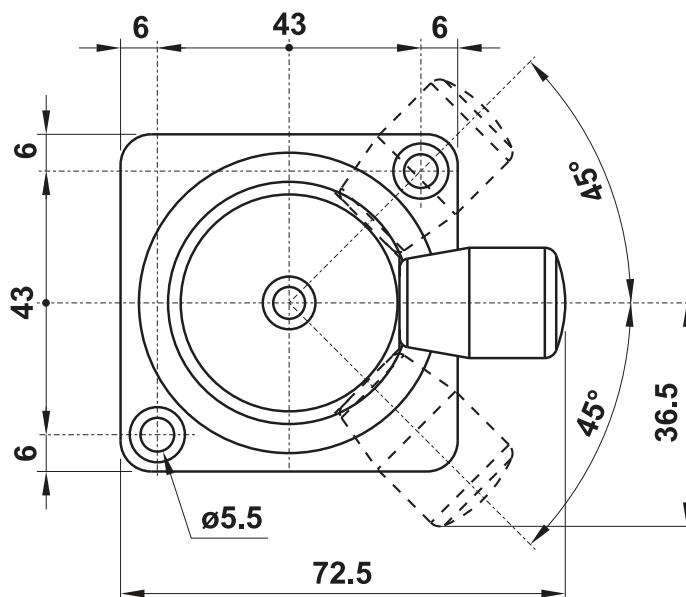
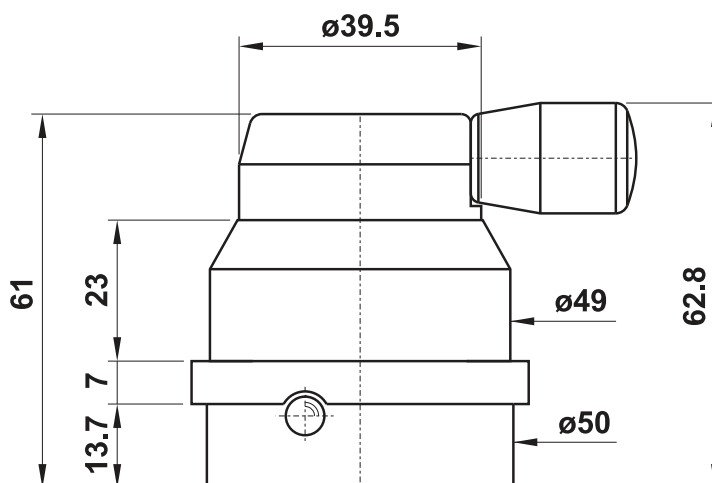
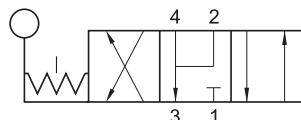
4/3 1/4" rotary valve - three detented positions - closed
centres - ports on the bottom



10.072.4

4/3 1/4" valvola rotativa - tre posizioni stabili -
centri aperti - uscite sotto

4/3 1/4" rotary valve - three detented positions - open
centres - ports on the bottom



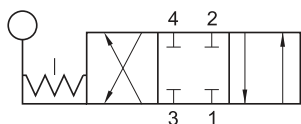
Portata nominale a 6 bar: 530 NI/min

Nominal flow rate at 6 bar: 530 NI/min

10.069.4

4/3 1/4" valvola rotativa - tre posizioni stabili -
centri chiusi - uscite laterali

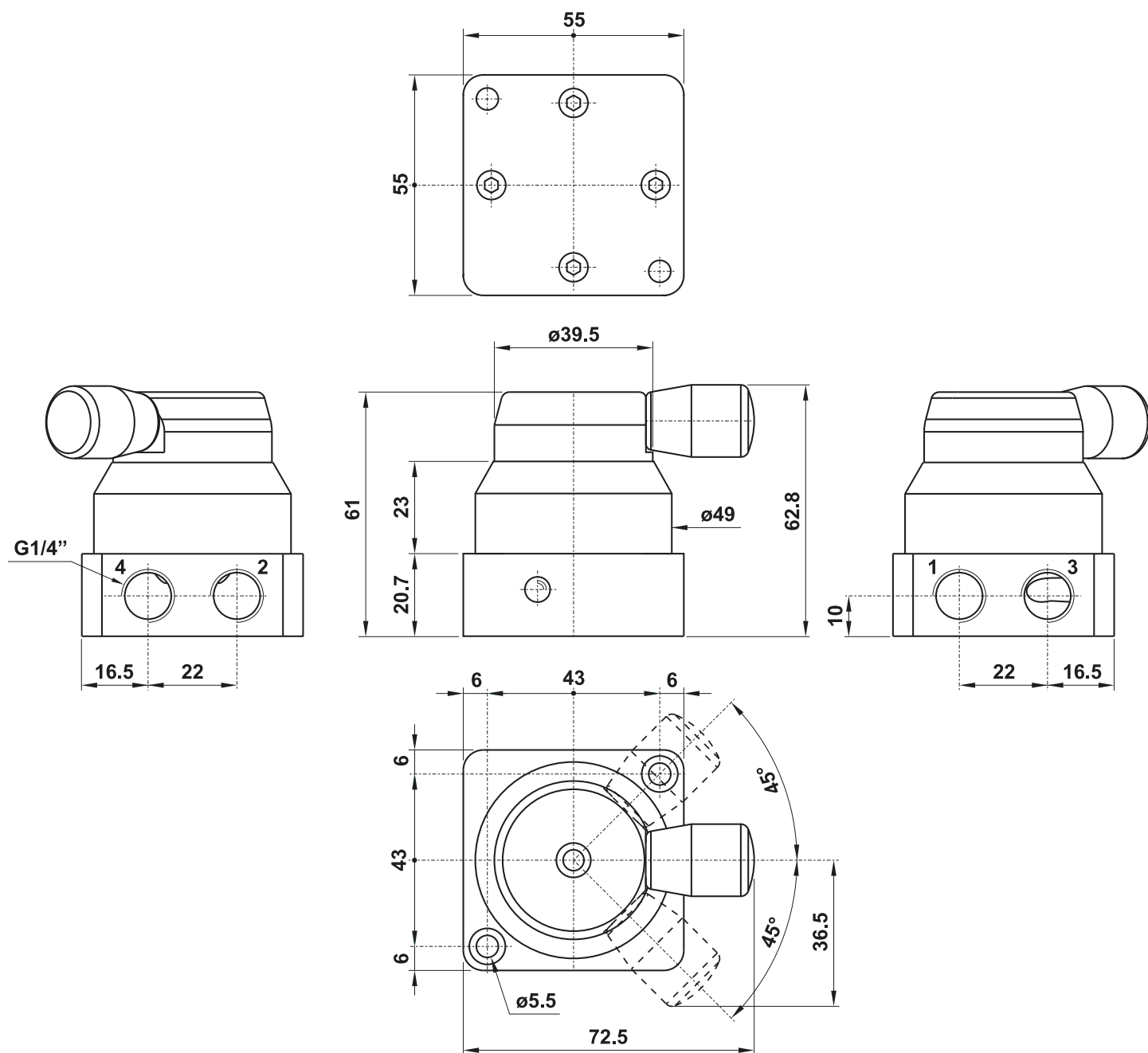
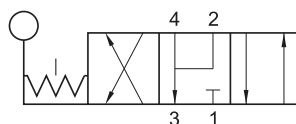
4/3 1/4" rotary valve - three detented positions - closed
centres - ports on the side



10.070.4

4/3 1/4" valvola rotativa - tre posizioni stabili -
centri aperti - uscite laterali

4/3 1/4" rotary valve - three detented positions - open
centres - ports on the side



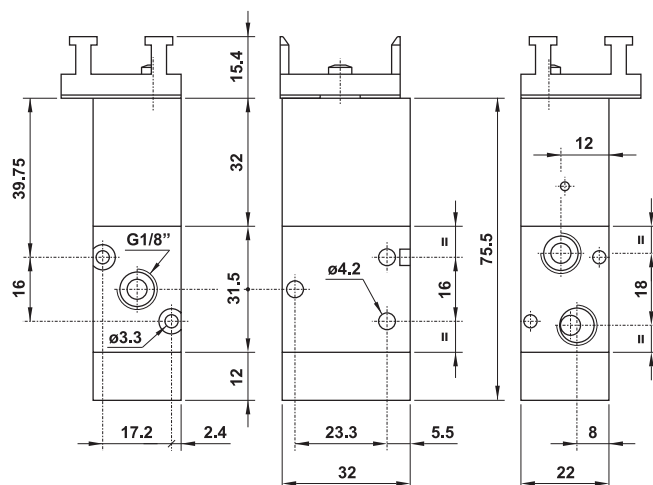
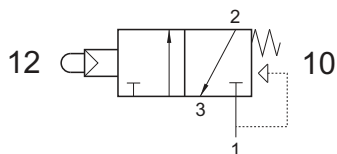
Portata nominale a 6 bar: 530 NI/min

Nominal flow rate at 6 bar: 530 NI/min

321 MB

3/2 1/8" NC pulsante servopilotato con interfaccia per attuatore a pannello - ritorno a molla

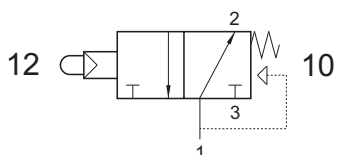
3/2 1/8" NC servo-piloted tappet with actuator adaptor for panel mounting - spring return



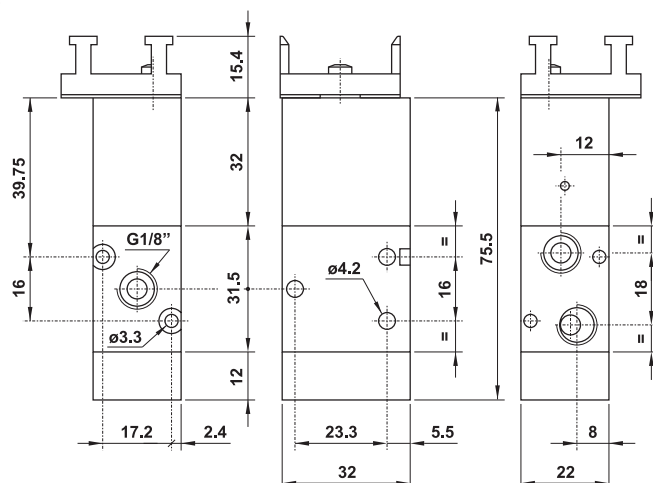
321 MBA

3/2 1/8" NA pulsante servopilotato con interfaccia per attuatore a pannello - ritorno a molla

3/2 1/8" NO servo-piloted tappet with actuator adaptor for panel mounting - spring return



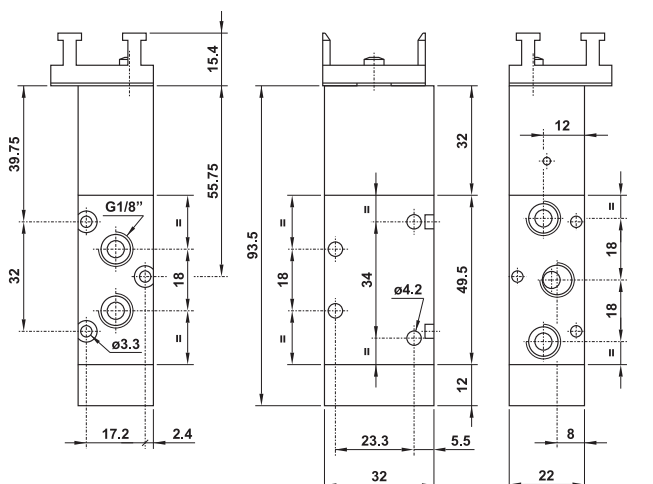
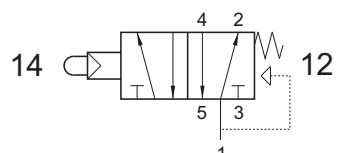
SOLO VERSIONE IN ALLUMINIO
ONLY ALUMINIUM VERSION



521 MB

5/2 1/8" pulsante servopilotato con interfaccia per attuatore a pannello - ritorno a molla

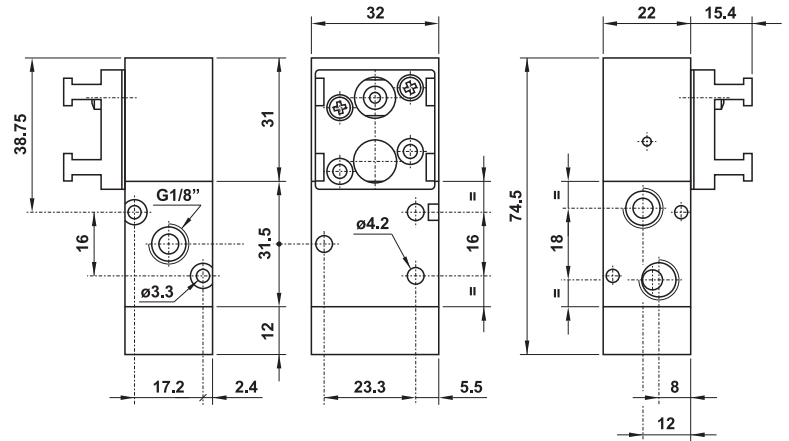
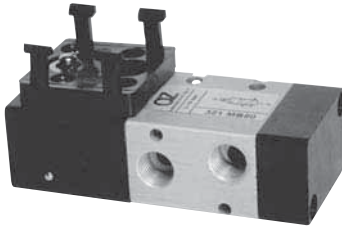
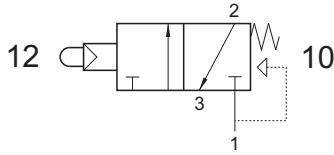
5/2 1/8" servo-piloted tappet with actuator adaptor for panel mounting - spring return



321 MB90

3/2 1/8" NC pulsante servopilotato 90° con interfaccia per attuatore a pannello - ritorno a molla

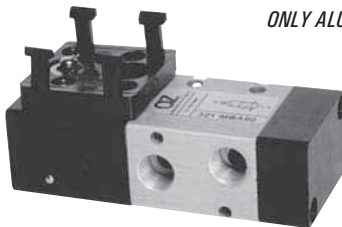
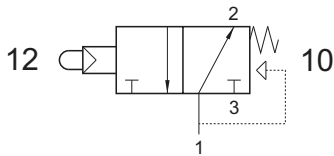
3/2 1/8" NC servo-piloted tappet with 90° actuator adaptor for panel mounting - spring return



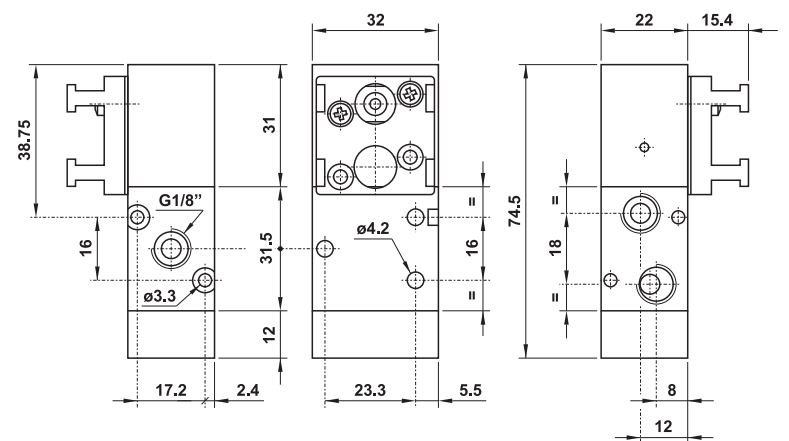
321 MBA90

3/2 1/8" NA pulsante servopilotato 90° con interfaccia per attuatore a pannello - ritorno a molla

3/2 1/8" NO servo-piloted tappet with 90° actuator adaptor for panel mounting - spring return



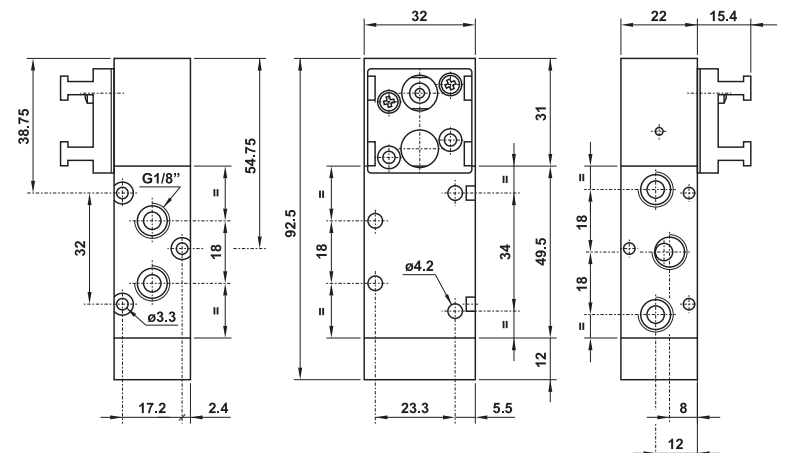
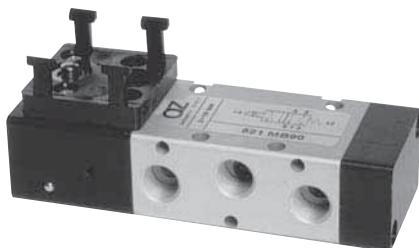
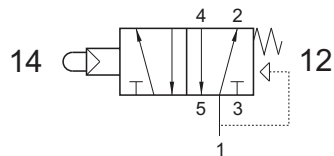
SOLO VERSIONE IN ALLUMINIO
ONLY ALUMINIUM VERSION



521 MB90

5/2 1/8" pulsante servopilotato con interfaccia per attuatore a pannello - ritorno a molla

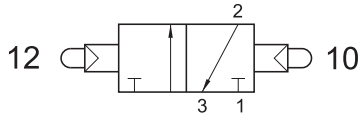
5/2 1/8" servo-piloted tappet with 90° actuator adaptor for panel mounting - spring return



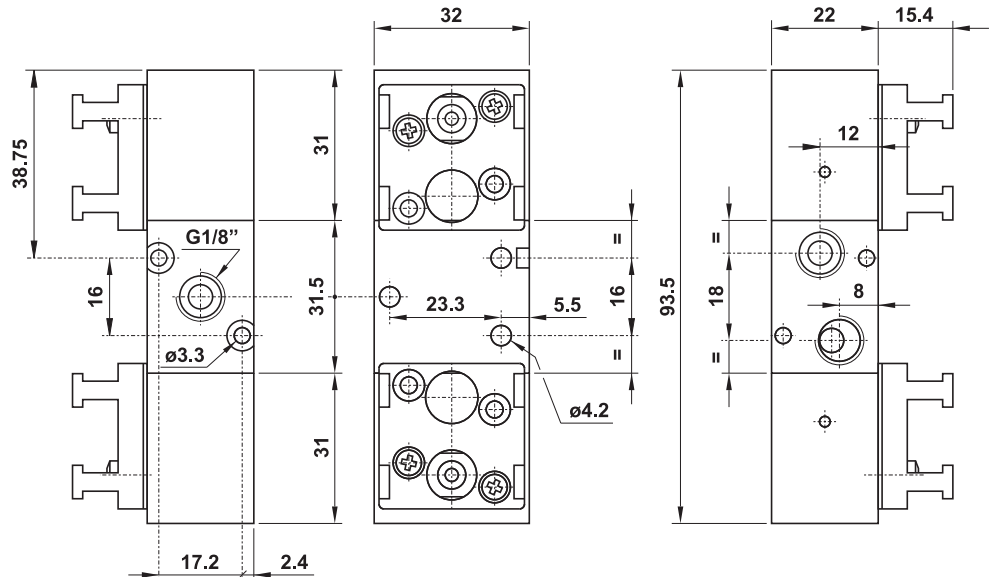
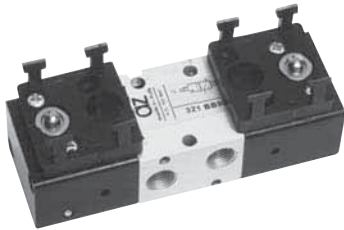
321 BB90

3/2 1/8" doppio pulsante servopilotato 90° con interfaccia per attuatore a pannello

3/2 1/8" double servo-piloted tappet with 90° actuator adaptor for panel mounting



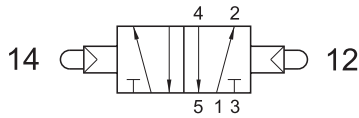
SOLO VERSIONE IN ALLUMINIO
ONLY ALUMINIUM VERSION



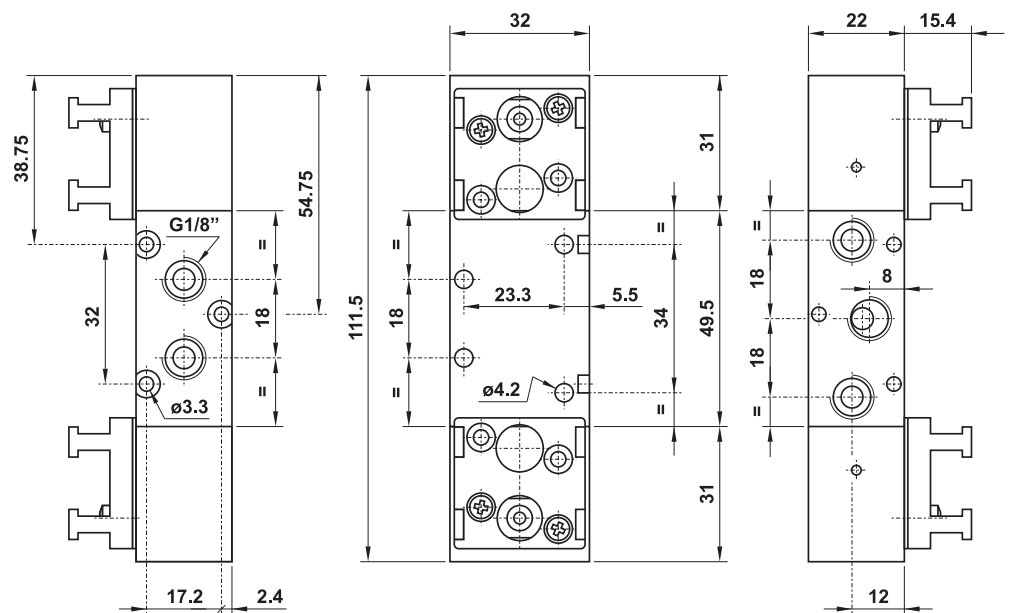
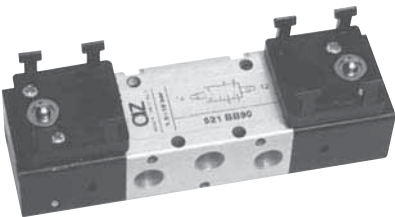
521 BB90

5/2 1/8" doppio pulsante servopilotato 90° con interfaccia per attuatore a pannello

5/2 1/8" double servo-piloted tappet with 90° actuator adaptor for panel mounting

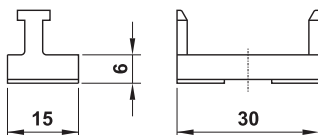


SOLO VERSIONE IN ALLUMINIO
ONLY ALUMINIUM VERSION



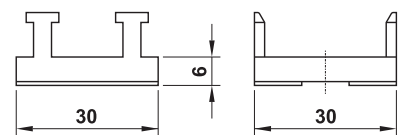
08.017.2

interfaccia singola per attuatore a
pannello completa di viti
*single adaptor for panel mounting actuator,
complete with fixing screws*



08.015.2

interfaccia doppia per attuatore a
pannello completa di viti
*double adaptor for panel mounting actuator,
complete with fixing screws*



attuatori da pannello

actuators for panel mounting



pulsante protetto protected push button

codice code	colori standard standard colours
PR1/NRB	ROSSO, NERO e BIANCO (forniti assieme nel kit) red, black and white (supplied in kit)

- I seguenti colori sono disponibili ordinandoli in aggiunta al kit standard

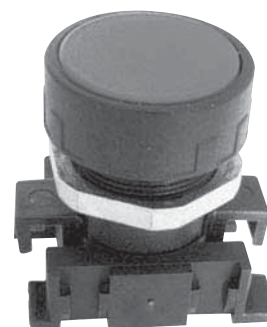
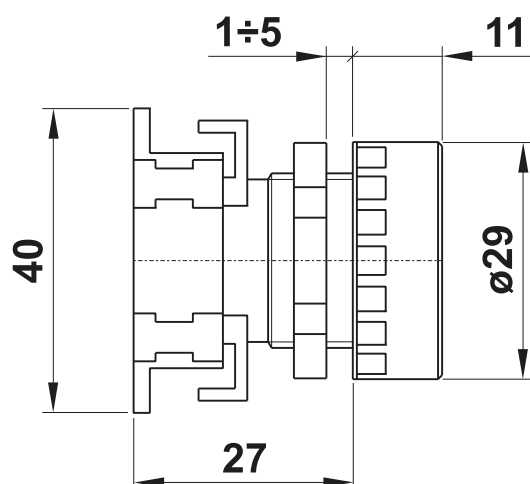
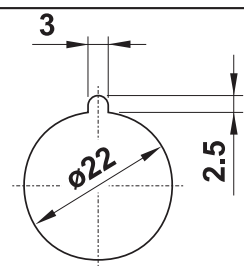
The following colours can be ordered separately

codice code	colore colour
DCV1	VERDE [green]
DCG1	GIALLO [yellow]
DCA1	AZZURRO [light blue]
DCB1	BIANCO [white]

codice code	colore colour
DCN1	NERO [black]
DCR1	ROSSO [red]

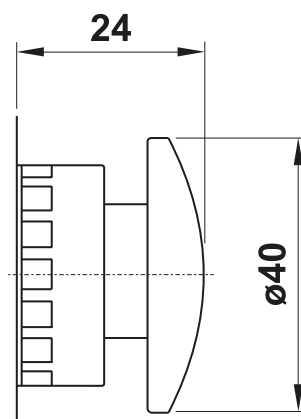
Foro per montaggio a pannello
con asola antirotazione

Panel mounting hole with antirotation
feature



fungo ø40 ø40 mushroom

codice code	descrizione description	colore colour
PF2/40	monostabile assiale [axial mono-stable]	ROSSO [red]
PF1/40	monostabile assiale [axial mono-stable]	NERO [black]
PFB2/40	sblocco a rotazione [turn to unlock]	ROSSO [red]

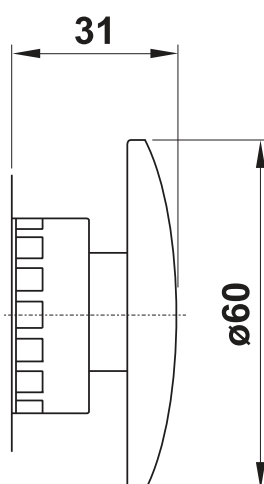


attuatori da pannello

actuators for panel mounting

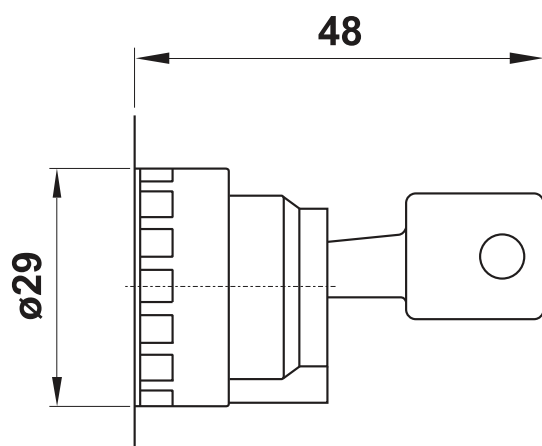


fungo ø60
ø60 palm

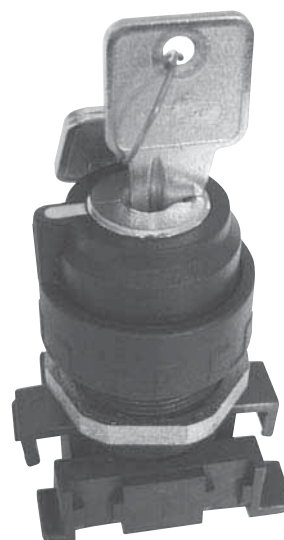


codice code	descrizione description	colore colour
PFBA2	oscillante [multi-directional]	ROSSO [red]
PFB2/60	sblocco a rotazione [turn to unlock]	ROSSO [red]

selettore a chiave 2 posizioni
2 positions key selector



codice code	funzione function	posizione di estrazione chiave position to pull the key out
SSC/CD-V	0 1	solo centrale [only in central position]
SSC/CD-Z	0 1	ambedue [both positions]
SSC/E-V	2 0 1	solo centrale [only in central position]



attuatori da pannello

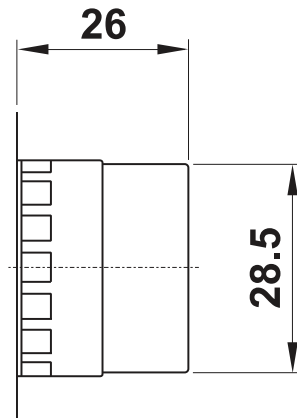
actuators for panel mounting



selettore leva corta

short lever selector

codice code	colore colour	funzione function
SS1/CD	NERO black	0 1
SS1/CD-R	NERO black	0 ← 1
SS1/E	NERO black	2 0 1
SS1/E-RC	NERO black	2 → 0 ← 1

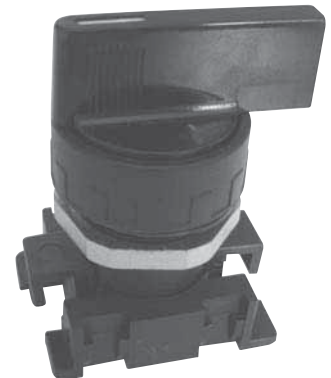
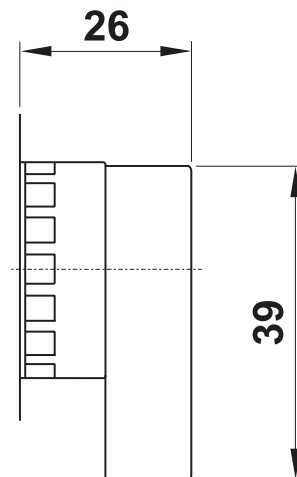


1

selettore leva lunga

long lever selector

codice code	colore colour	funzione function
SSP1/CD	NERO black	0 1
SSP1/CD/R	NERO black	0 ← 1
SSP1/E	NERO black	2 0 1
SSP1/E-RC	NERO black	2 → 0 ← 1



Materiale Material	Materiale plastico ad alte prestazioni High performance plastic material
Grado di protezione Protection degree	IP 55
Corrispondenza alle norme According to norms	EN 60947-5-1 VDE 0660 IEC 947-5
Temperatura di esercizio Temperature range	max +55°C
Durata meccanica Mechanical life time	500000 manovre [actuations]