

## E-15

### 5/2 M5 valves - mechanical and manual actuation

- Compact design: 15 mm body
- Original Univer spool system appreciated for decades
- Wide range of actuators and manual operators for panels - original Univer



### TECHNICAL CHARACTERISTICS

Ambient temperature	-10 ÷ +45 °C
Fluid temperature	-20 ÷ +50 °C
Fluid	not dehumidified filtered air 10 µm, lubricated or not
Commutation system	spool
Ways/Positions	<b>5/2</b>
Pressure	max 9 bar
Control	manual, mechanical
Return	mechanical spring
Nominal Ø	2 mm
Nominal flow rate	150 NI/min

### CONSTRUCTIVE CHARACTERISTICS

Valve body	zamak
Seals	nitrile rubber
Actuators	technopolymer
Spool	aluminium

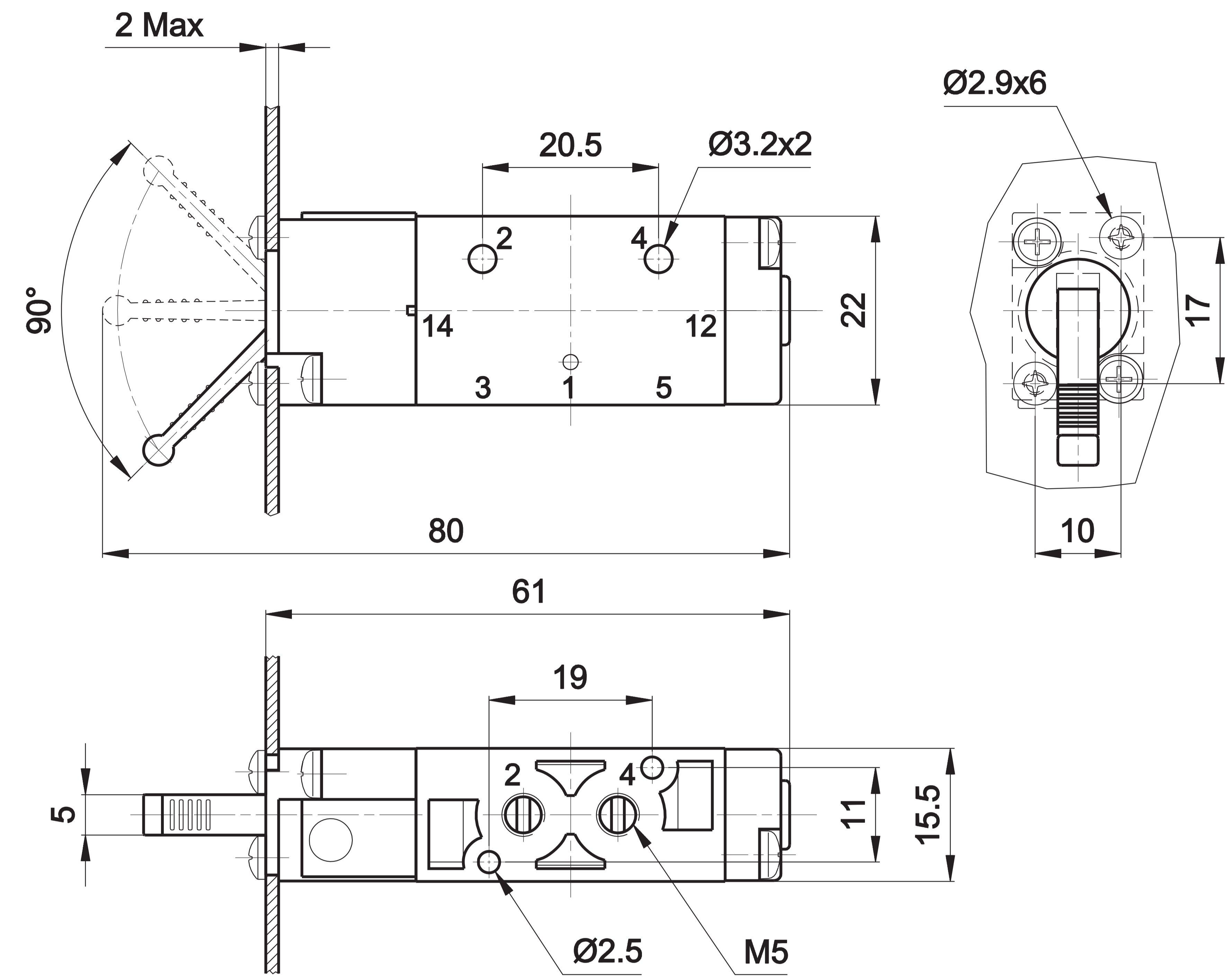
## Lever valve



- 1 = Supply port  
2 - 4 = Use  
3 - 5 = Exhaust  
14 = Control  
12 = Return

Weight: 0,068

Symbol	Control	Return	Lever colour	Part no.
5/2	lever	lever	yellow black red	<b>E-15422G</b> <b>E-15422N</b> <b>E-15422R</b>



## Push-pull valve

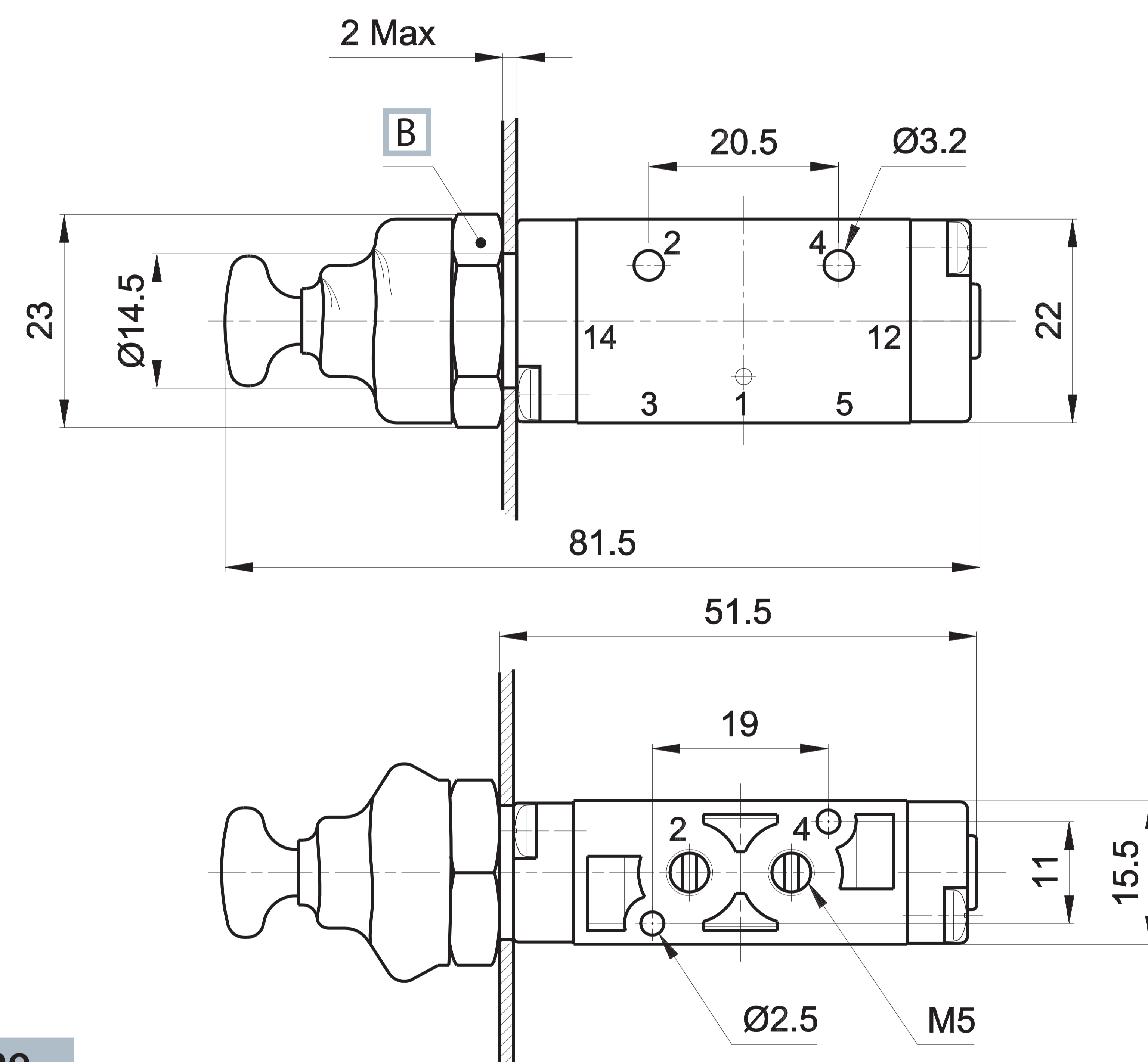


**B** Wrench 20

- 1 = Supply port  
2 - 4 = Use  
3 - 5 = Exhaust  
14 = Control  
12 = Return

Weight: 0,082

Symbol	Control	Return	Lever colour	Part no.
5/2	push-pull	push-pull	black	<b>E-15420</b>
5/2	push-pull	mechanical spring	black	<b>E-15420A</b>



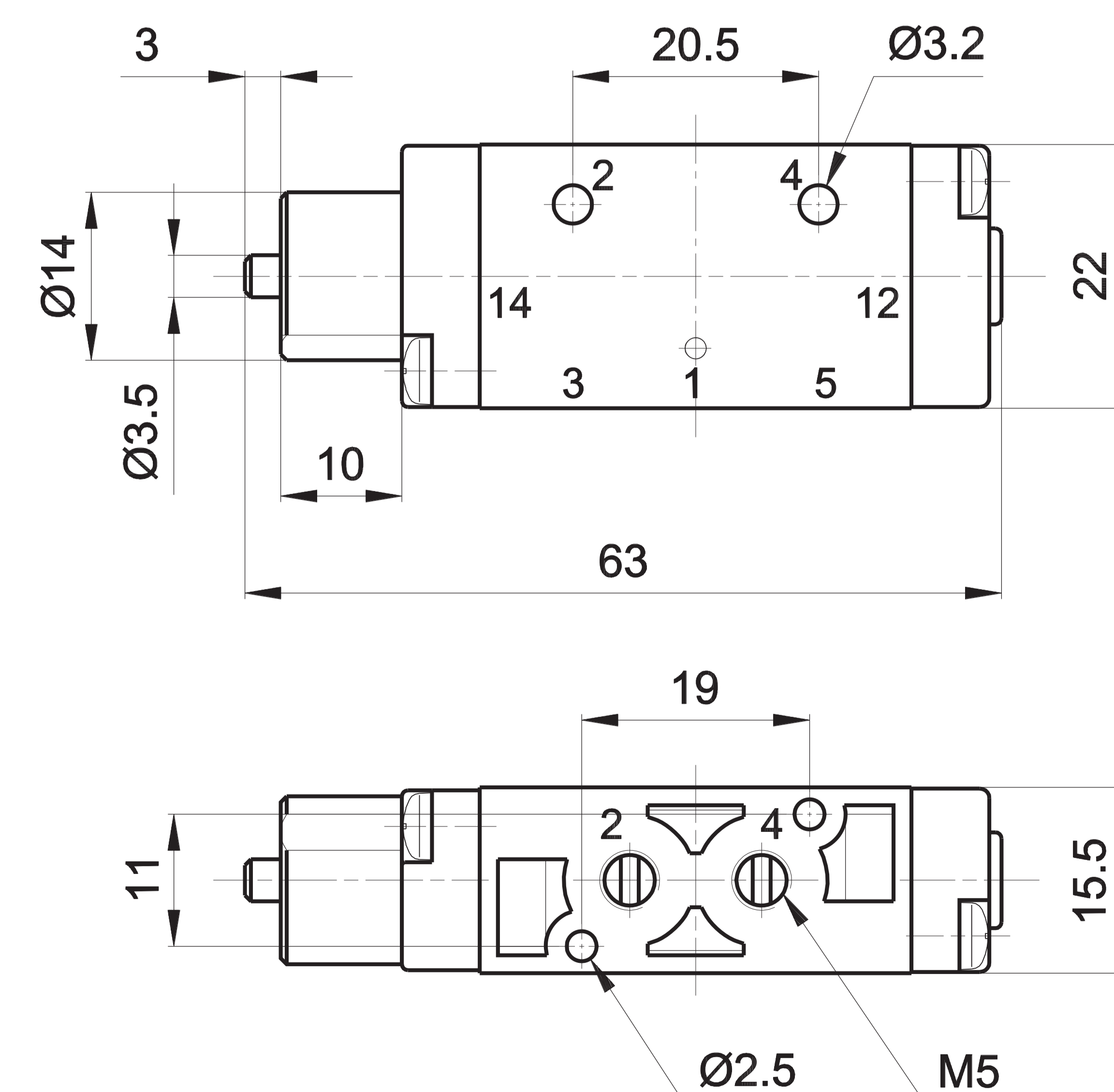
## Tappet valve



- 1 = Supply port  
2 - 4 = Use  
3 - 5 = Exhaust  
14 = Control  
12 = Return

Weight: 0,066

Symbol	Control	Return	Part no.
5/2	ball-push	mechanical spring	<b>E-15402A</b>





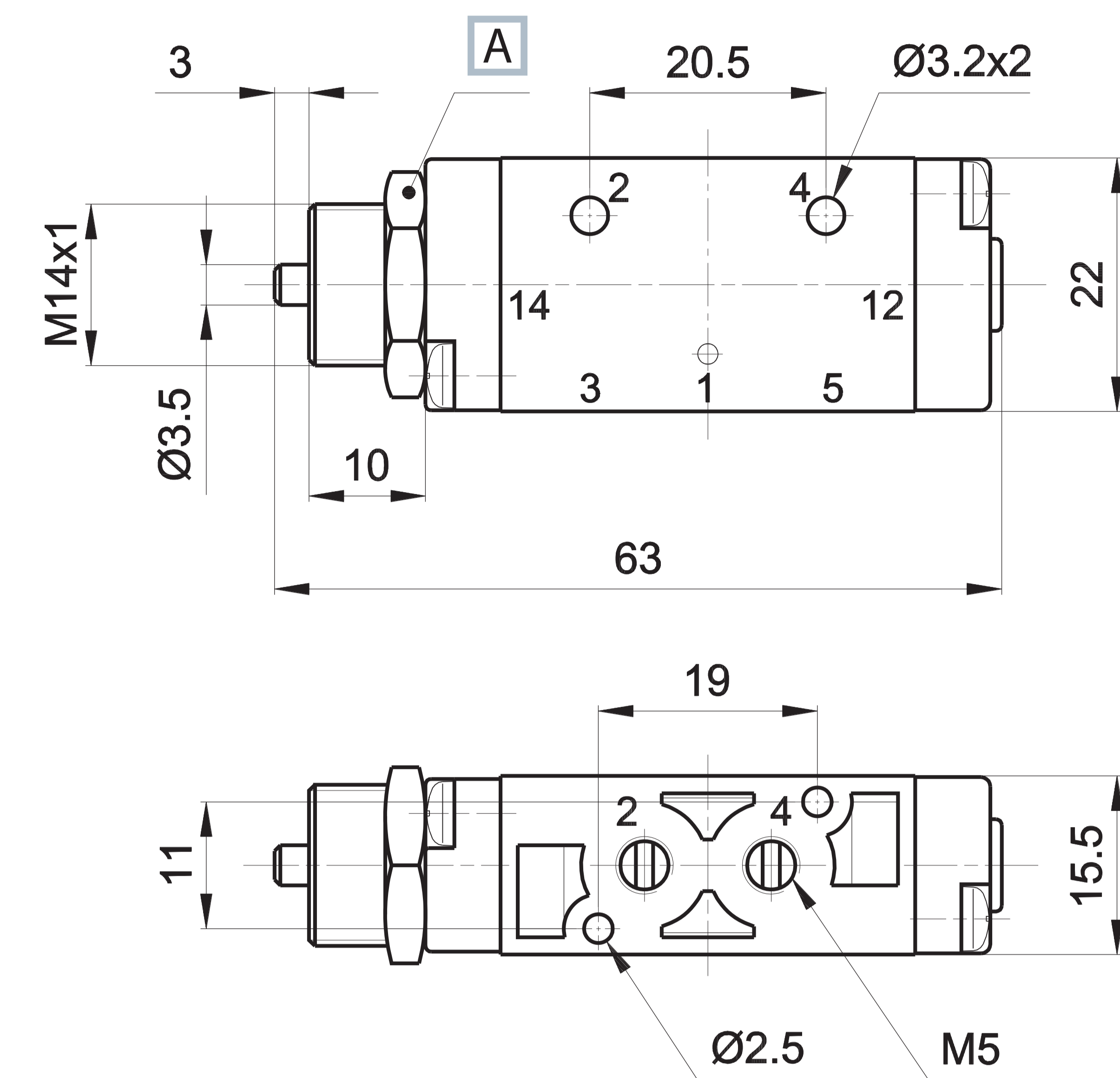
## Ball-pushrod valve for mechanical screw operator



**A** Wrench 17

- 1 = Supply port
- 2 - 4 = Use
- 3 - 5 = Exhaust
- 14 = Control
- 12 = Return

Weight: 0,066



Symbol	Control	Return	Part no.
5/2 	ball-pushrod	mechanical spring	<b>E-15403A</b>

### PNEUMATIC AND MECHANICAL ACTUATORS

	Pneumatic actuator	AI-3550 
	Amplified pneumatic actuator	AI-3551 
	Roller operator 1 position	AI-3560 
	Ball-push operator 1 position	AI-3562 
	Omni-directional operator	AI-3563 
	Roller lever operator 1 position	AI-3570 
	Articulated roller lever operator 1 position Complete actuation with stroke 2,5 mm max stroke 4,7 mm	AI-3571 
	Key operator 1 position	AI-3572 

### MANUAL ACTUATORS

	Recessed button	<ul style="list-style-type: none"> <li>■ BLACK AI-3511</li> <li>■ RED AI-3512</li> <li>■ GREEN AI-3513</li> </ul>
	Head button	<ul style="list-style-type: none"> <li>■ RED AI-3514</li> <li>■ BLACK AI-3516</li> <li>■ RED AI-3514D</li> <li>■ BLACK AI-3516D</li> </ul>
	Button	<ul style="list-style-type: none"> <li>■ GREEN AI-3515</li> <li>■ RED AI-3517</li> <li>■ BLACK AI-3519</li> </ul>
	Rotating selector	<ul style="list-style-type: none"> <li>■ BLACK AI-3520</li> <li>■ BLACK AI-3521</li> </ul>
	Rotating lever selector	<ul style="list-style-type: none"> <li>■ BLACK AI-3522</li> <li>■ BLACK AI-3523</li> </ul>
	Lever	<ul style="list-style-type: none"> <li>■ BLACK AI-3524</li> </ul>
	Omni-directional operator	<ul style="list-style-type: none"> <li>■ BLACK AI-3525</li> </ul>
	Push-pull operator	<ul style="list-style-type: none"> <li>■ BLACK AI-3526</li> </ul>

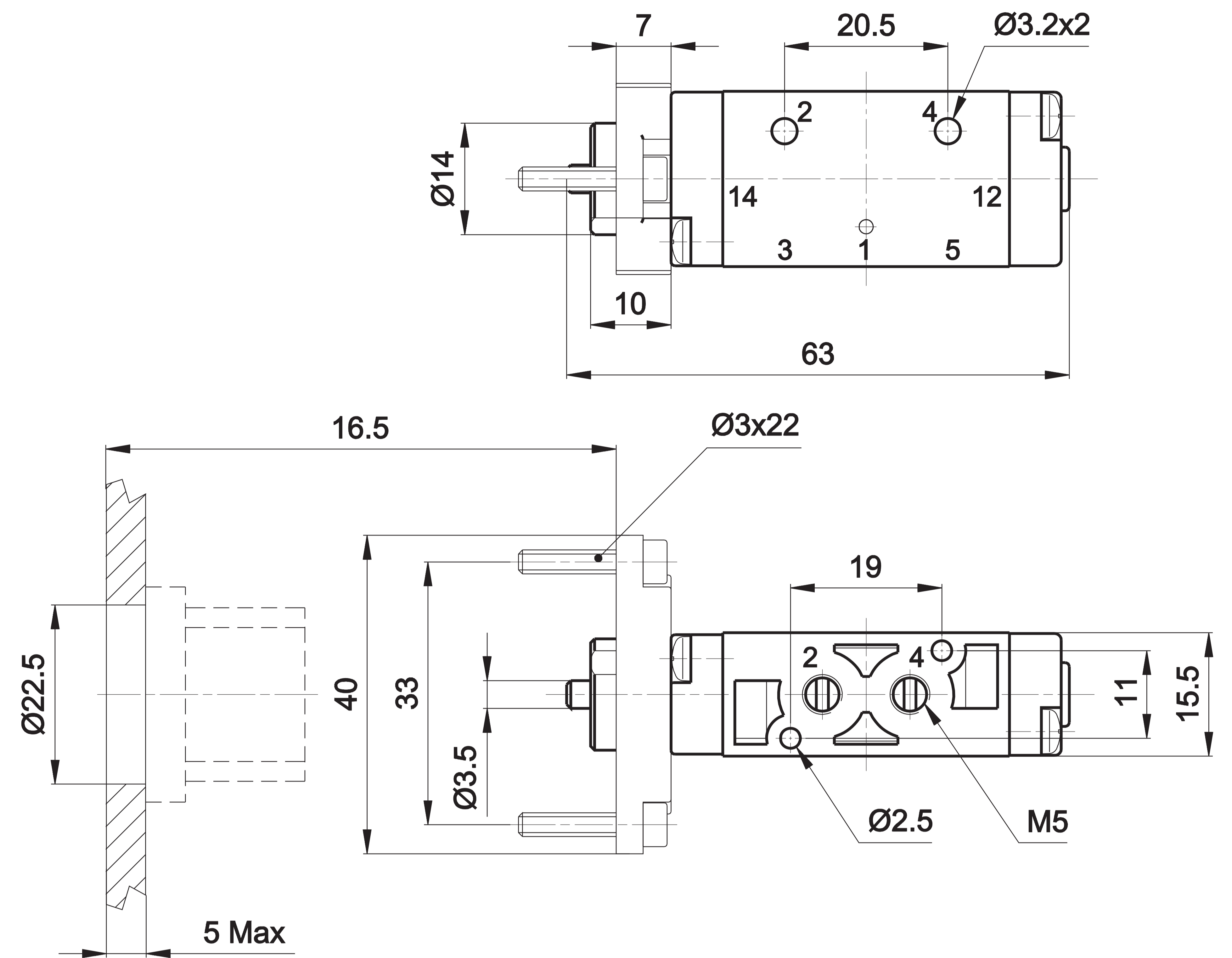
For technical features of coils and connector, see section "Accessories>Buttons"

Valve for mechanical operator for panel mounting



- 1 = Supply port
- 2 - 4 = Use
- 3 - 5 = Exhaust
- 14 = Control
- 12 = Return

Weight: 0,082



Symbol	Control	Return	Part no.
5/2 	ball-push	mechanical spring	<b>E-15412A</b>

MANUAL ACTUATORS

	Recessed button	<ul style="list-style-type: none"> <li>■ BLACK</li> <li>■ RED</li> <li>■ GREEN</li> </ul>	AI-3511 AI-3512 AI-3513 
	Head button	<ul style="list-style-type: none"> <li>■ RED</li> <li>■ BLACK</li> <li>■ RED</li> <li>■ BLACK</li> </ul>	AI-3514 AI-3516 AI-3514D AI-3516D 
	Button	<ul style="list-style-type: none"> <li>■ GREEN</li> <li>■ RED</li> <li>■ BLACK</li> </ul>	AI-3515 AI-3517 AI-3519 
	Rotating selector	<ul style="list-style-type: none"> <li>■ BLACK</li> <li>■ BLACK</li> </ul>	AI-3520 AI-3521 
	Rotating lever selector	<ul style="list-style-type: none"> <li>■ BLACK</li> <li>■ BLACK</li> </ul>	AI-3522 AI-3523 
	Lever	<ul style="list-style-type: none"> <li>■ BLACK</li> </ul>	AI-3524 
	Omni-directional operator	<ul style="list-style-type: none"> <li>■ BLACK</li> </ul>	AI-3525 
	Push-pull operator	<ul style="list-style-type: none"> <li>■ BLACK</li> </ul>	AI-3526 

For technical features of coils and connector, see section "Accessories>Buttons"



The importance of electronics in industrial automation challenges the manufacturers of pneumatic equipment to design components that can be interfaced with this automation more and more easily. This tendency has found Univer perfectly prepared with the presentation of Compa 2 and Compa 4 series which confirm its usual dynamism, original projects and utmost attention to the current marked demands.

**TECHNICAL CHARACTERISTICS**

**COMPA 2 - E... series**

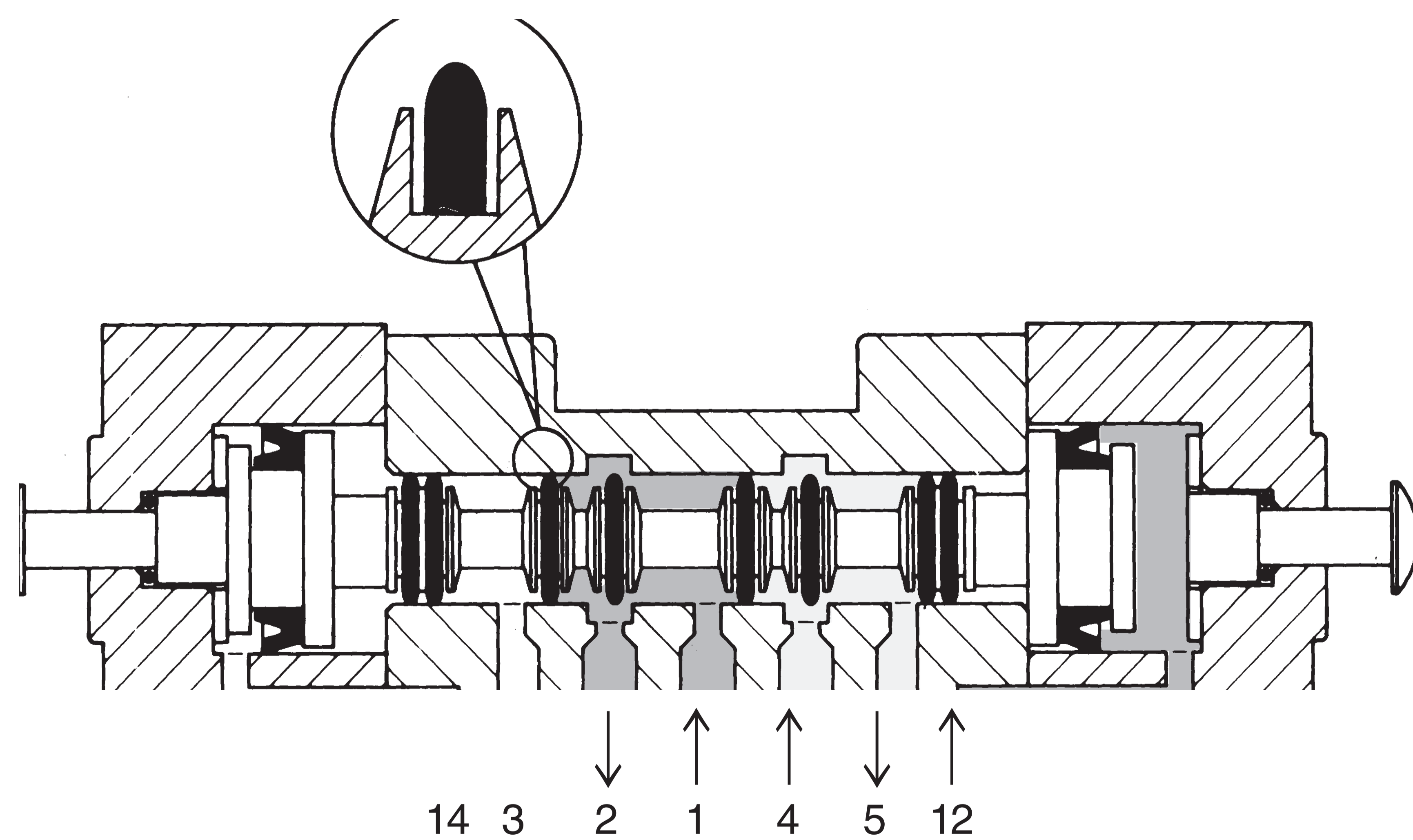
Orifice: 2 mm  
 Working pressure: 1,5 ÷ 10 bar  
 Ambient temperature: -10 + 45°C  
 Fluid temperature: -20 + 50°C  
 Flow capacity: NI/min 150\*  
 Fluid: filtered air 10 µm, not dehumidified  
 Body: die-cast zamak  
 M5 threaded connections or for assembly on bases (or vice-versa)  
 Modular bases with quick connections (4 x 2) or M5 threaded connections.  
 Coil type: **U05** part number DD-... (see section Accessories page 11).

**COMPA 4 - F... series**

Orifice: 4 mm  
 Working pressure: 1,5 ÷ 10 bar  
 Ambient temperature: -10 + 45°C  
 Fluid temperature: -20 + 50°C  
 Flow capacity: NI/min 390\*  
 Fluid: filtered air 10 µm, not dehumidified  
 Body: acetalic resin. Covers die-cast zamak  
 Single or manifold bases, available with quick couplings (6 x 4) or with threaded connections G 1/8  
 Advisable for cylinders Ø 25 to 63 mm.  
 Coil type: **U05** part number DD-... (see section Accessories page 11).  
 \* An indicative estimate of the factor "CV" can be obtained by dividing the capacity values expressed in NI/min by "962".

**Spool system**

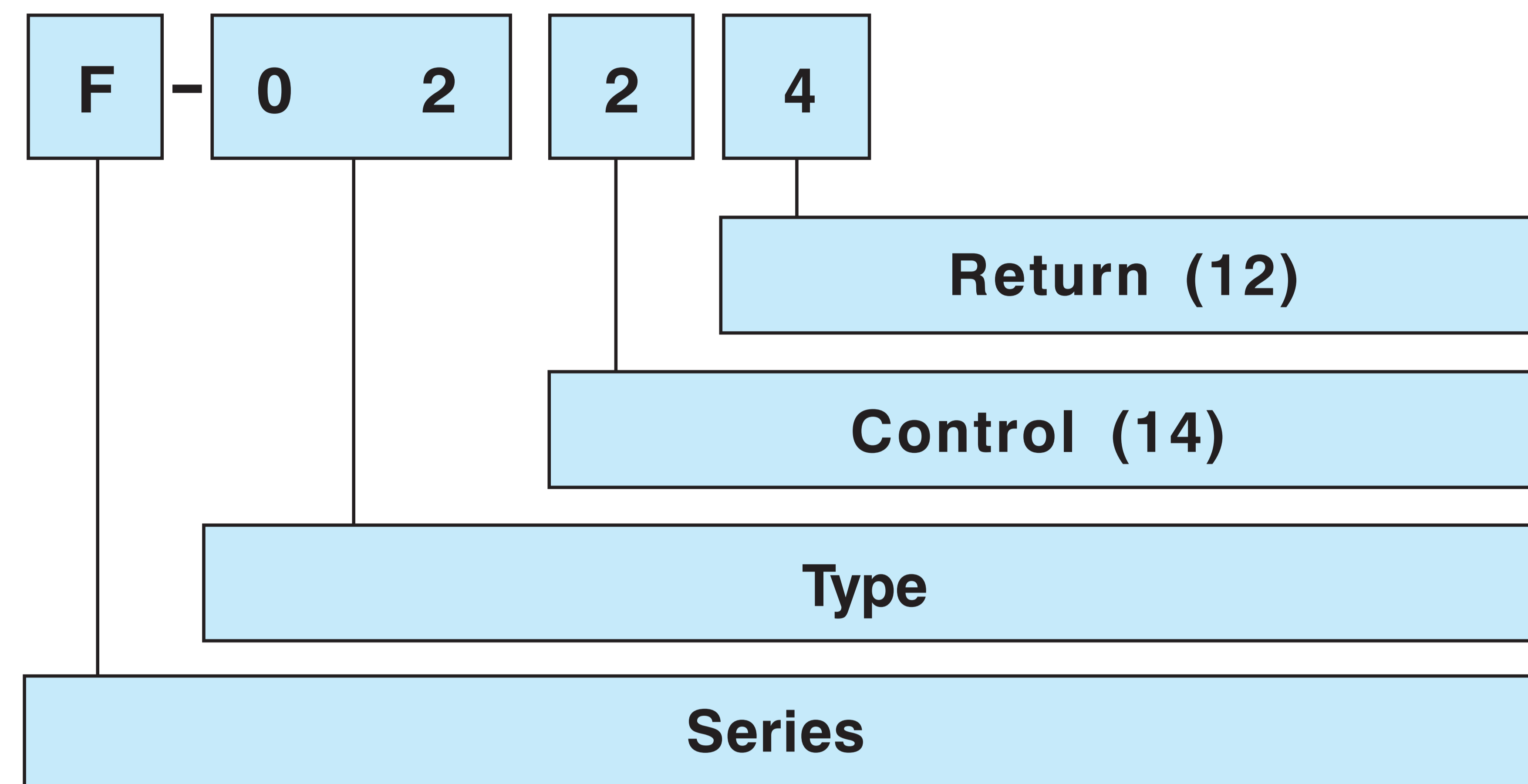
- 1 = Supply
- 2-4 = Consumptions
- 3-5 = Exhausts
- 14 = Control
- 12 = Return



**NOTE: to order solenoid operated valves**

**Code in black:** for d.c. version  
**Code in blue:** for a.c. version

**Codification key**



**SERIES**

**E** COMPA 2      **F** COMPA 4

**TYPE**

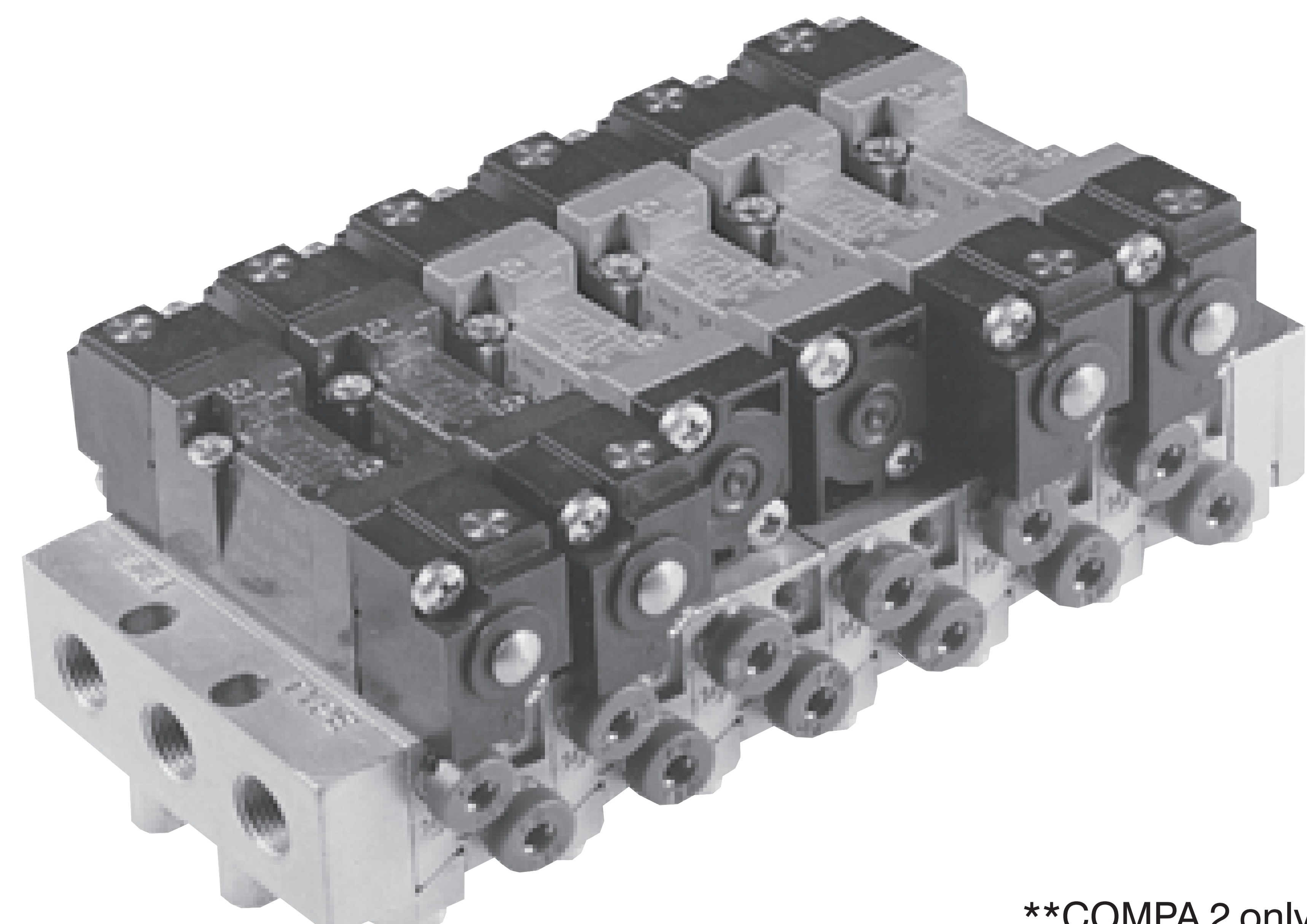
- 02** assembly on base - spool system 5/2
- 04** M5 threaded body - spool system 5/2\*\*
- 05** assembly on base - spool system 5/3 closed centres
- 06** assembly on base - spool system 5/3 open centres
- 07** assembly on base - spool system 5/3 pressurized centres
- 08** M5 threaded body - spool system 5/3 closed centres\*\*
- 09** M5 threaded body - spool system 5/3 open centres\*\*
- 10** M5 threaded body - spool system 5/3 pressurized centres\*\*

**OPERATION**

- 0** pneumatic spring
- 1** mechanical spring\*\*\*
- 2** electric (d.c. only)
- 3** differential electrical (d.c.)
- 4** pneumatic pulse
- 5** differential pneumatic pulse
- 6** electrical with external pilot input (d.c. only)
- 7** electrical (d.c. and a.c.)
- 8** electrical differential (d.c. and a.c.)
- 9** electrical with external pilot input (d.c. and a.c.)

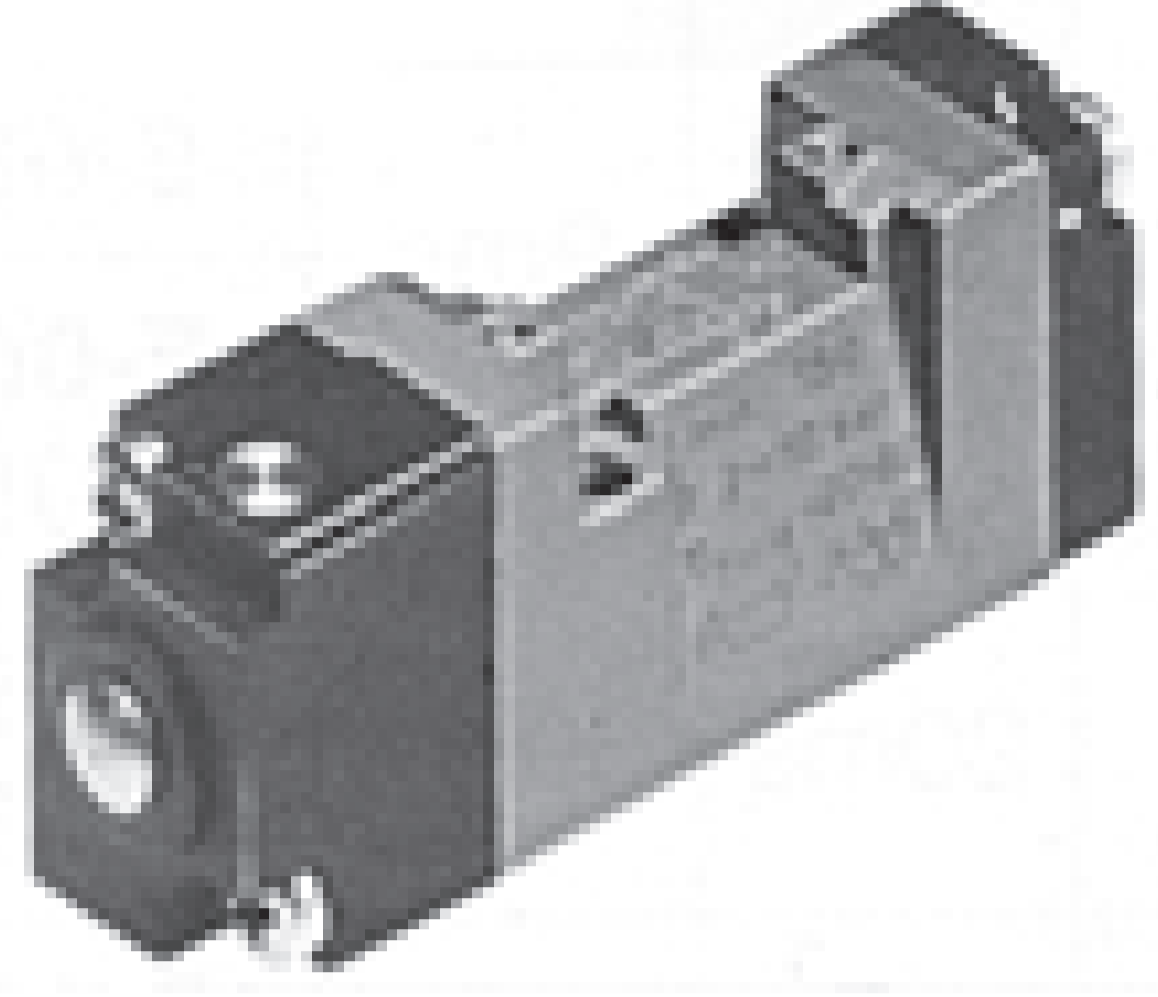
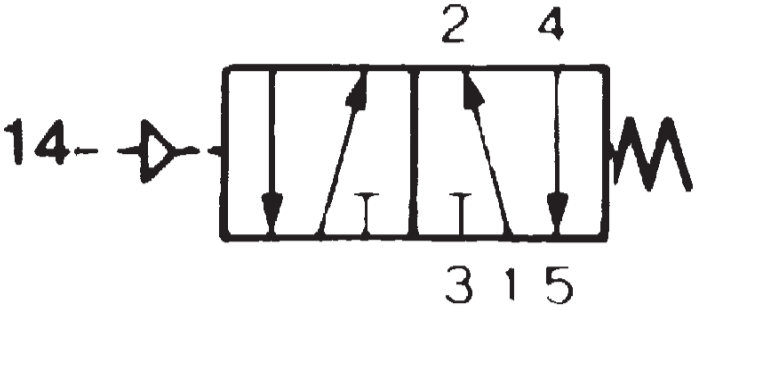
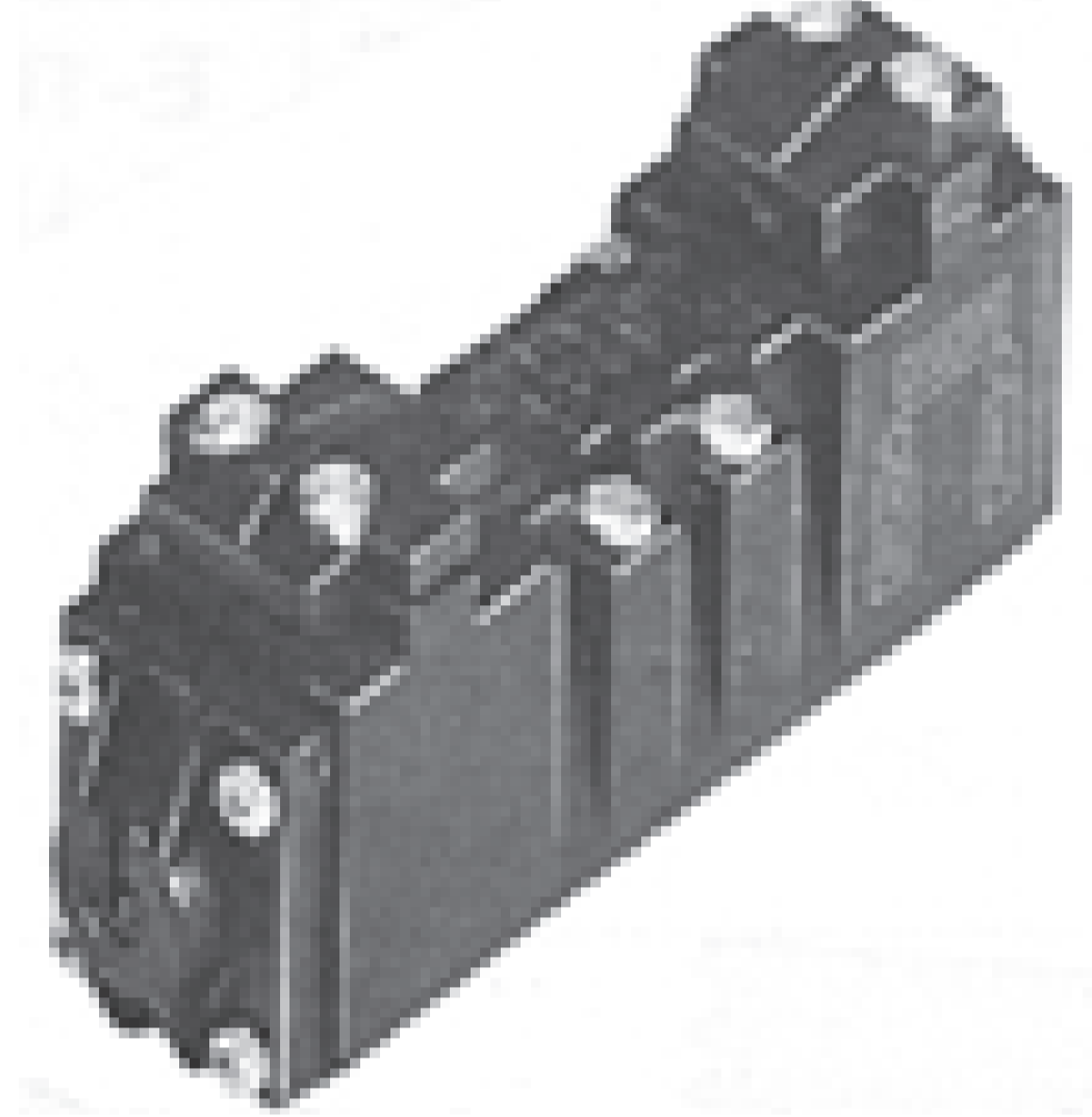
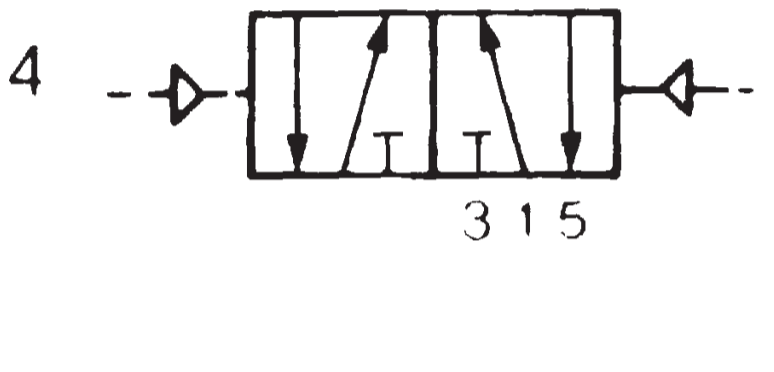
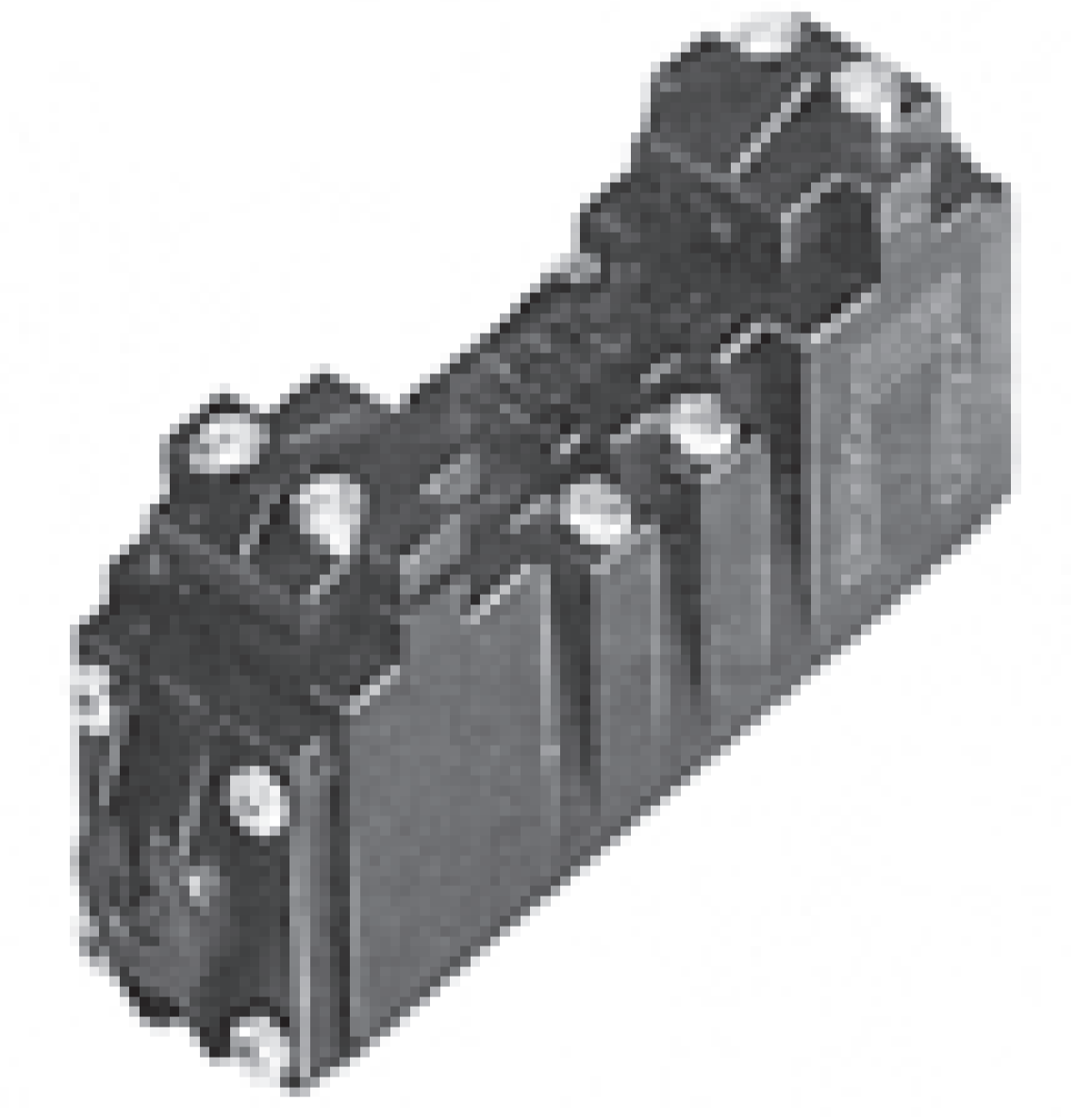
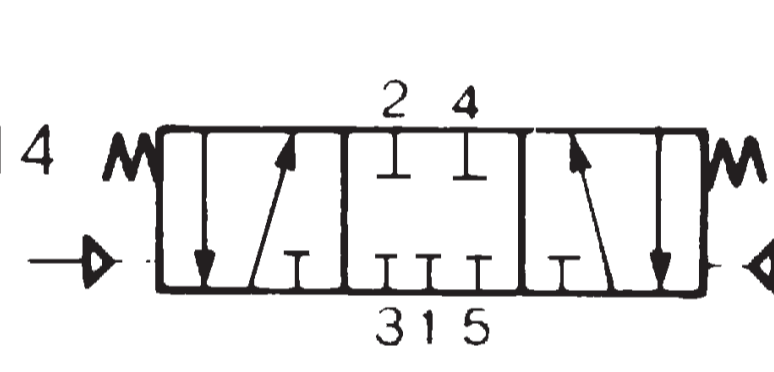
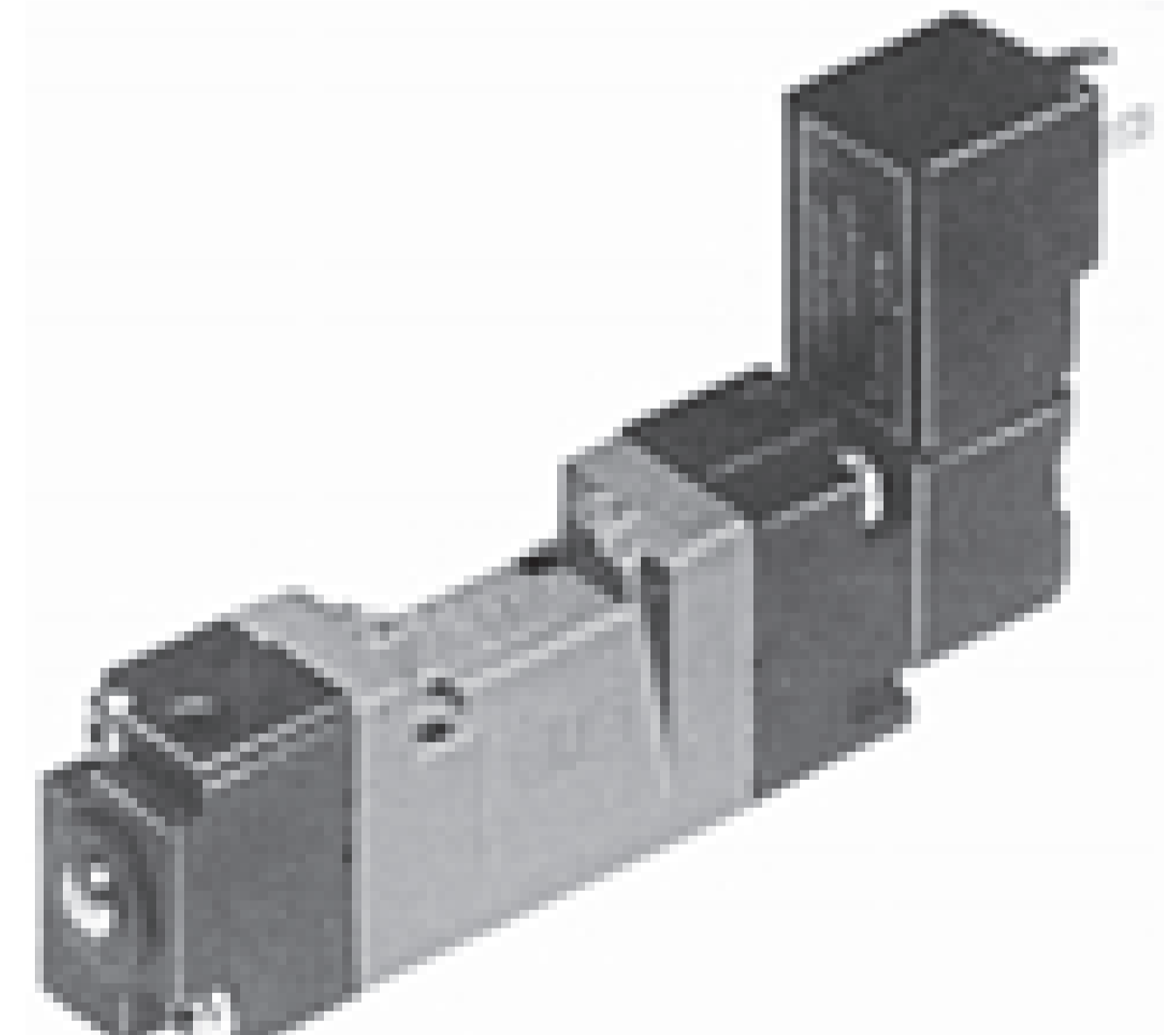
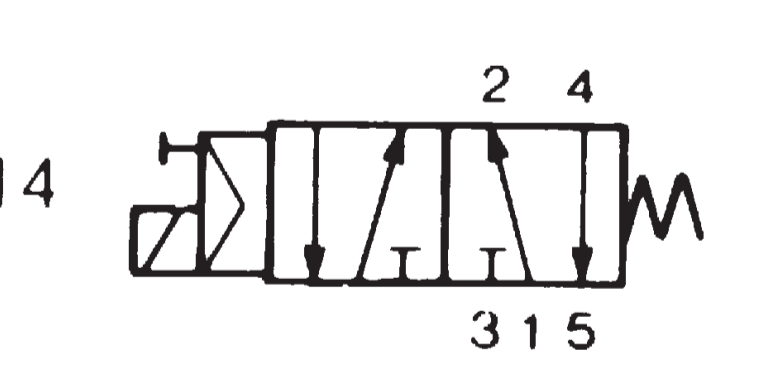
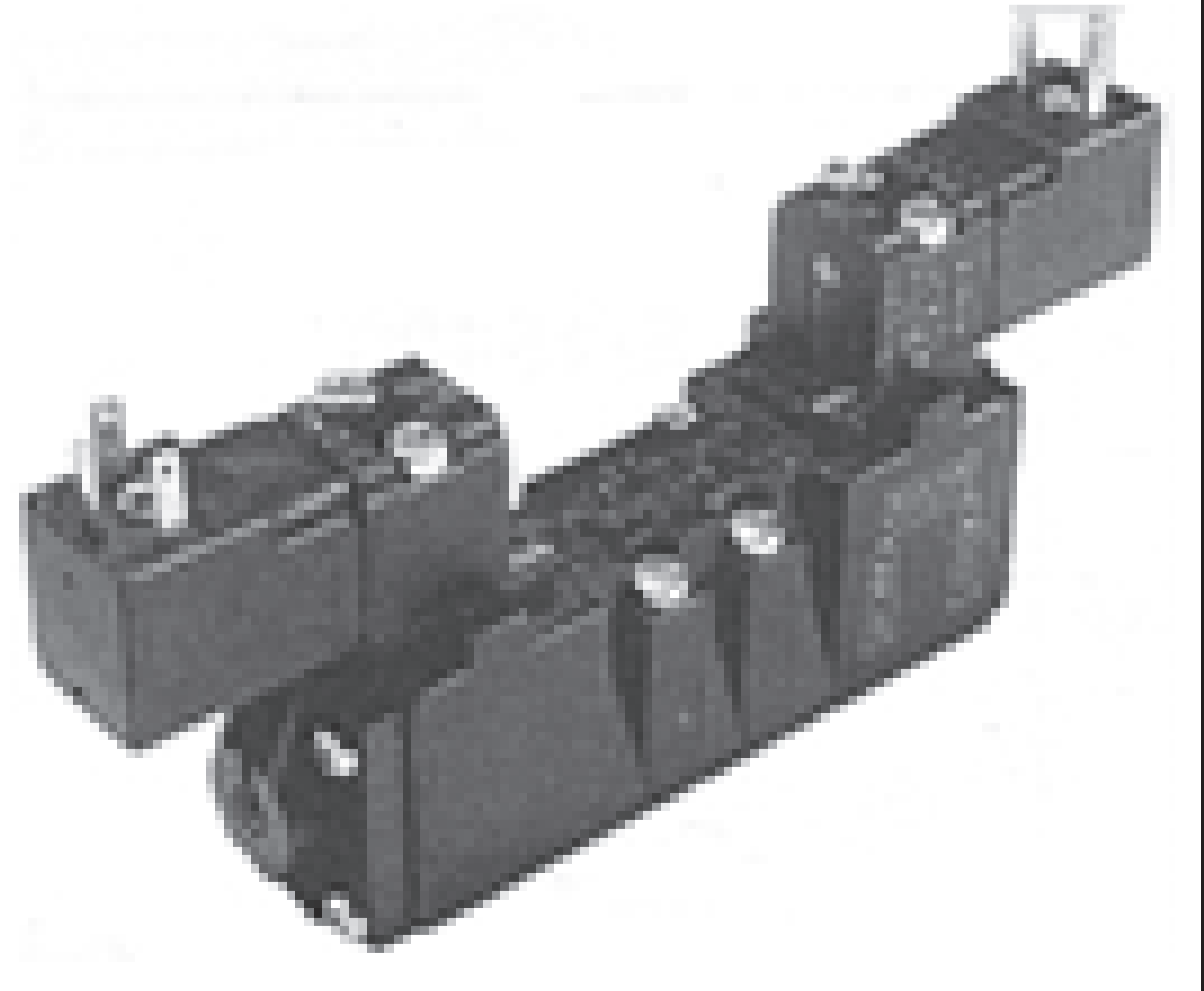
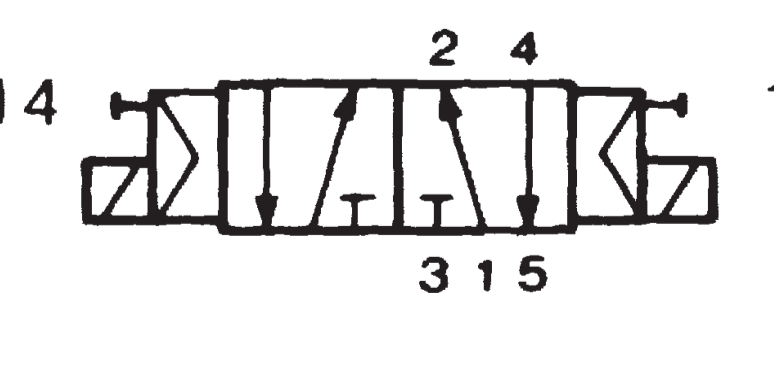
**NOTE: 2÷9** for control 14

**0÷9** for control 12



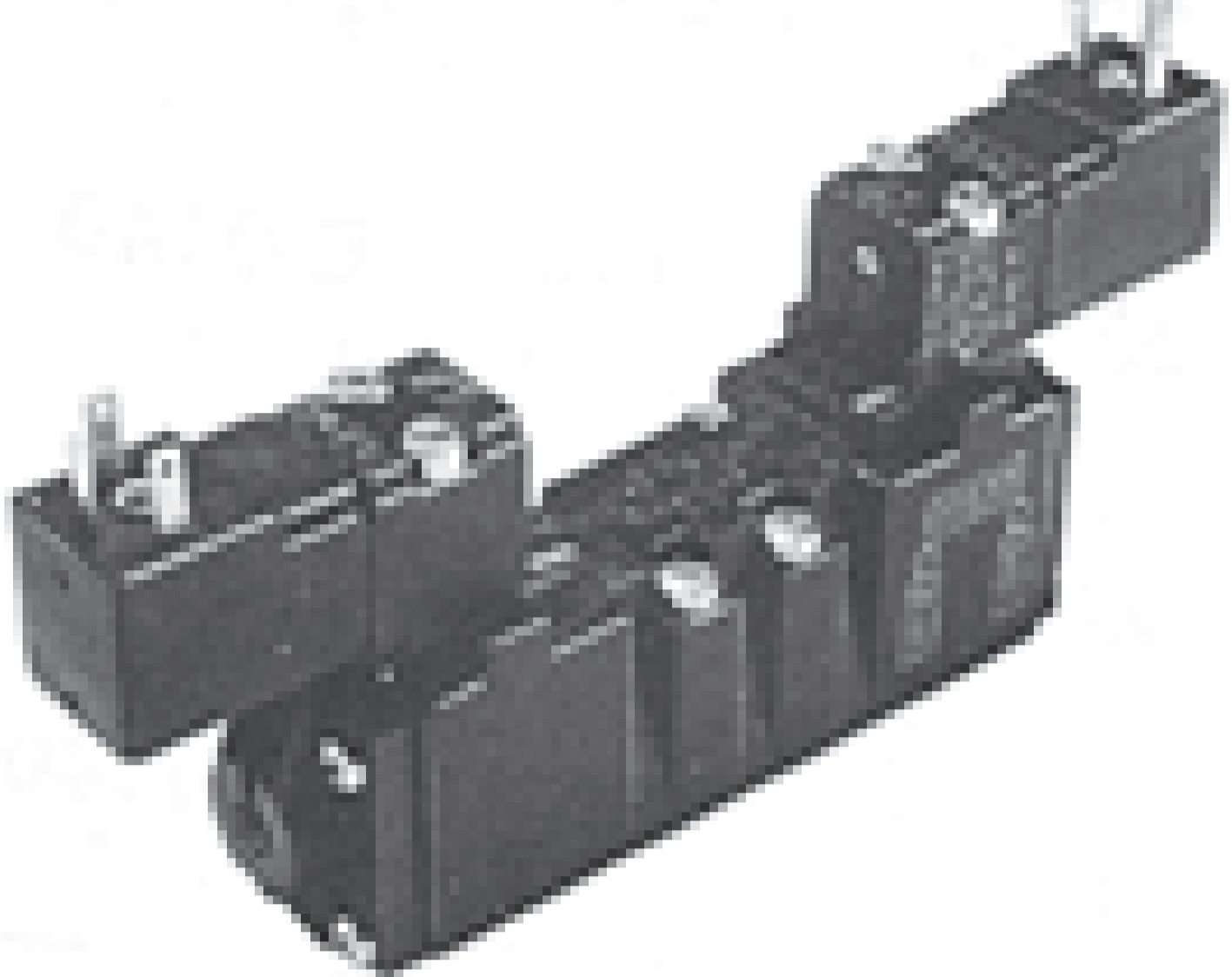
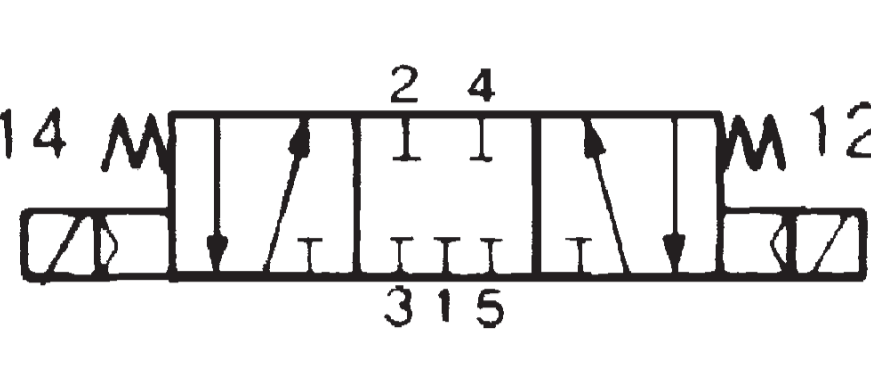
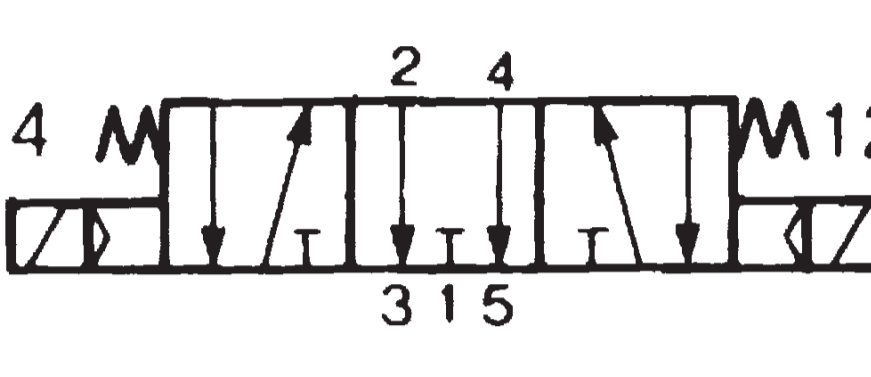
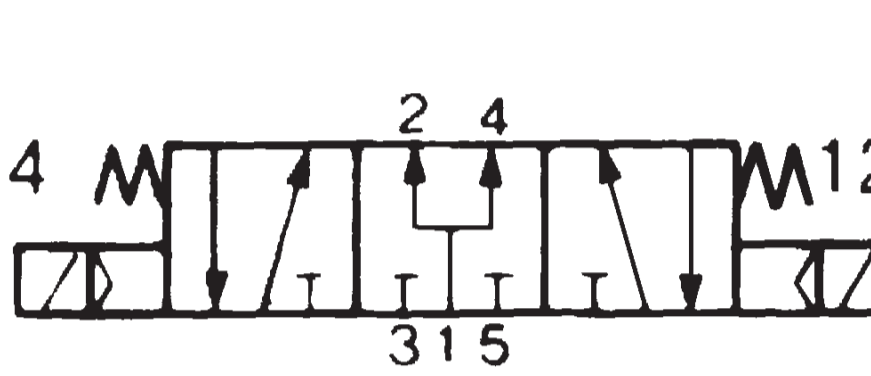
\*\*COMPA 2 only  
 \*\*\*5/2 spool system for base only




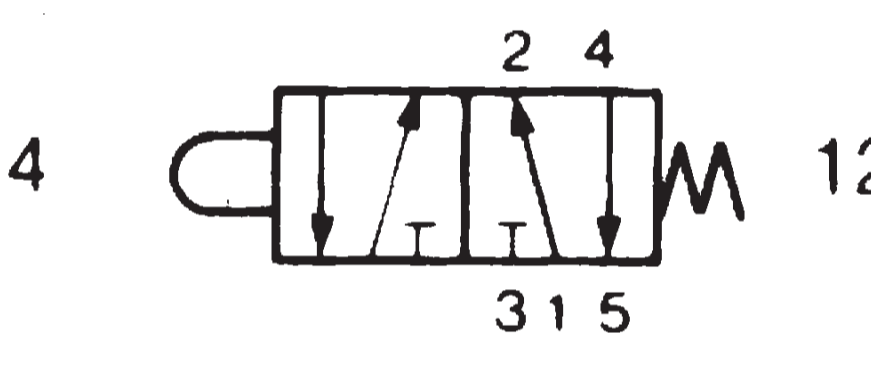
Type	Symbol	Control (14)	Return (12)	Version	Ways Ø mm	Pressure bar	Capacity NI/min	Time ms		Mass kg	Part number
								energ. (14)	de-energ. (12)		
		Pneum. pilot amplified	Pneu-mech. spring	Threaded body	5/2	1,8 ÷ 10	150	5	8	0,07	E-0440
				For mounting on base	2	1,8 ÷ 10		5	8		E-0240
				For mounting on base	5/2 4	2,2 ÷ 10	390	12	20	0,12	F-0240
		Pneum.	Pneum.	Threaded body	5/2	1,5 ÷ 10	150	3	3	0,07	E-0444
				For mounting on base	2	1,5 ÷ 10		3	3		E-0244
				For mounting on base	5/2 4	1,5 ÷ 10 2,5 ÷ 10	390	6	6	0,13	F-0244
		Pneumatic pilot	Closed centres	For mounting on base	5/3	2,5 ÷ 10	390	17	36	0,13	F-0544
				For mounting on base		2,5 ÷ 10		17	36		F-0644
				For mounting on base		1,8 ÷ 10		17	36		F-0744
		Electric	Pneu-mech. spring	Threaded body	5/2	1,8 ÷ 10	150	11	11	0,08	E-0420 E-0470
				For mounting on base	2	2,2 ÷ 10		11	11		E-0220 E-0270
				For mounting on base	5/2 4	1,5 ÷ 10	390	16	26	0,13	F-0220 F-0270
		Electric	Electric	Threaded body	5/2	1,5 ÷ 10	150	10	10	0,11	E-0422 E-0477
				For mounting on base	2	1,5 ÷ 10		10	10		E-0222 E-0277
				For mounting on base	5/2 4		390	8	8	0,15	F-0222 F-0277

The part numbers of valves do not include coils



Type	Symbol	Control (14)	Return (12)	Version	Ways Ø mm	Pressure bar	Capacity NI/min	Time ms		Mass kg	Part number
								energ. (14)	de-energ. (12)		
		Solenoid pilot	Closed centres	Threaded body	5/3	2,5 ÷ 10	150	8	9	0,12	E-0822
				For mounting on base	2	2,5 ÷ 10					E-0522
				For mounting on base	5/3 4	2,5 ÷ 10					F-0522 F-0577
		Solenoid pilot	Open centres	Threaded body	5/3	2,5 ÷ 10	150	8	9	0,12	E-0922
				For mounting on base	2	2,5 ÷ 10					E-0622
				For mounting on base	5/3 4	2,5 ÷ 10					F-0622 F-0677
		Solenoid pilot	Pressurized centres	Threaded body	5/3	2,5 ÷ 10	150	8	9	0,12	E-1022
				For mounting on base	2	2,5 ÷ 10					E-0722
				For mounting on base	5/3 4	2,5 ÷ 10					F-0722 F-0777

**Valves with mechanical or manual actuation**

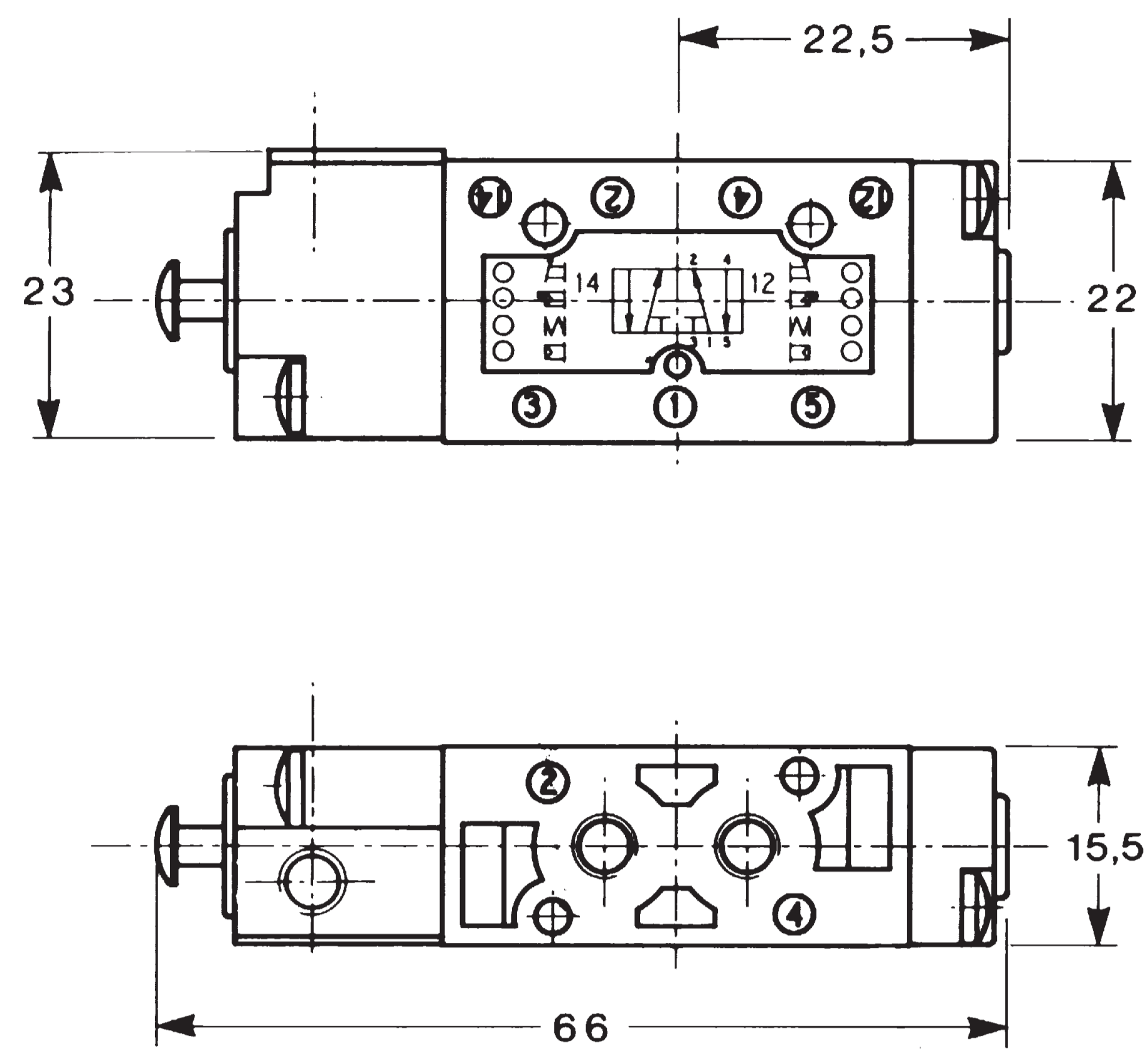
Type	Symbol	Control (14)	Return (12)	Version	Ways Ø mm	Pressure bar	Capacity NI/min	Mass kg	Part number	
		Tappet	mech. spring	Threaded body	5/2 2	0 ÷ 10	150	0,07	E-15402A	
		Tappet for operation AI-35..	mech. spring	Threaded body	5/2 2	0 ÷ 10	150	0,07	E-15403A	
		Tappet for operation AI-35..Q for panel mounting	mech. spring	Threaded body	5/2	0 ÷ 10	150	0,08	E-15412A	
			Pneum.		2	1,5 ÷ 10		0,09	E-15412P	
		Lever	Lever	Threaded body	5/2	0 ÷ 10	150	0,09	Yellow	E-15422G
					2				Black	E-15422N
									Red	E-15422R
									Green	E-15422V

With regard to panel mounted mechanical/manual operators, please refer to section Accessories.

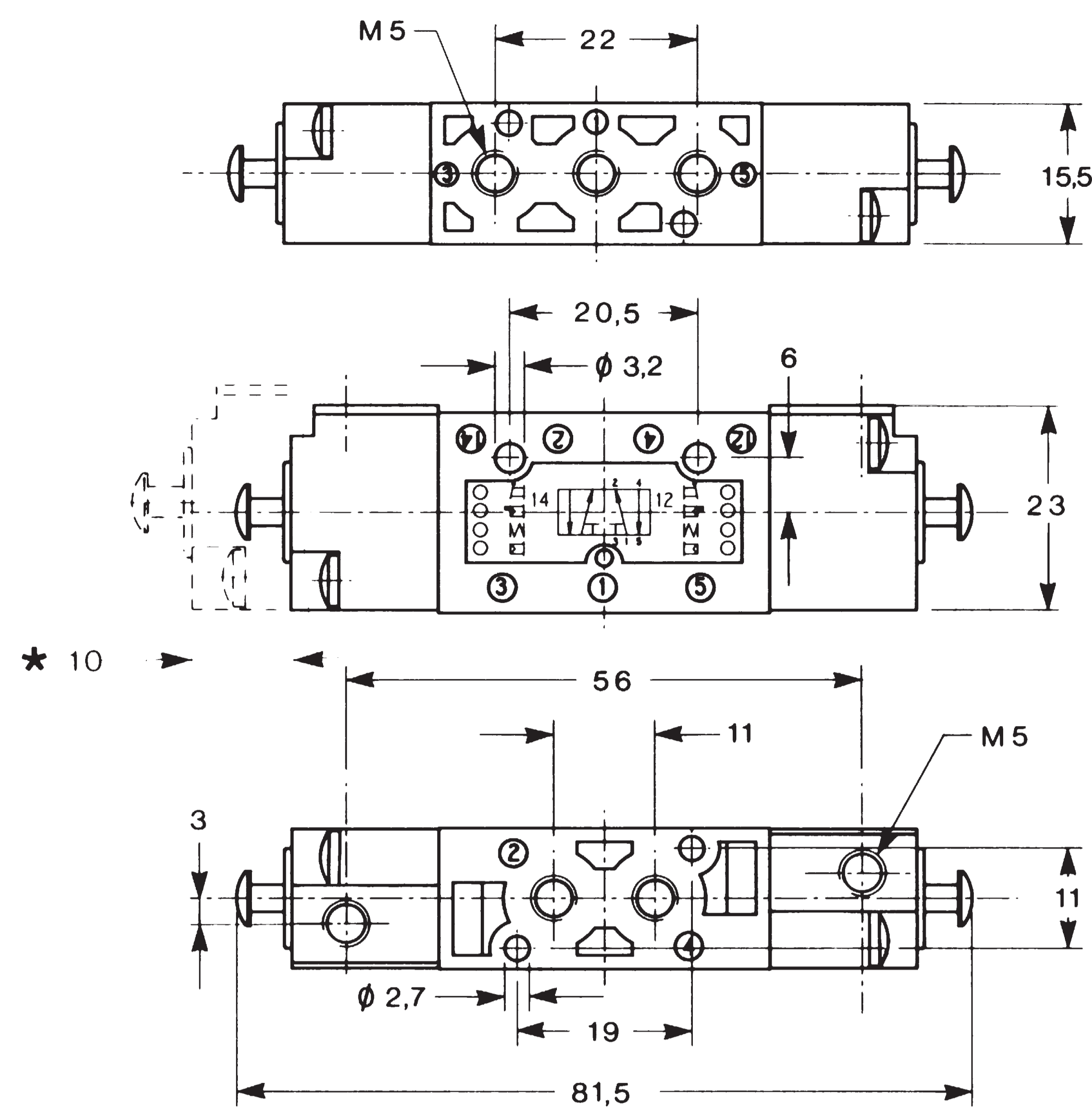
The part numbers of valves do not include coils



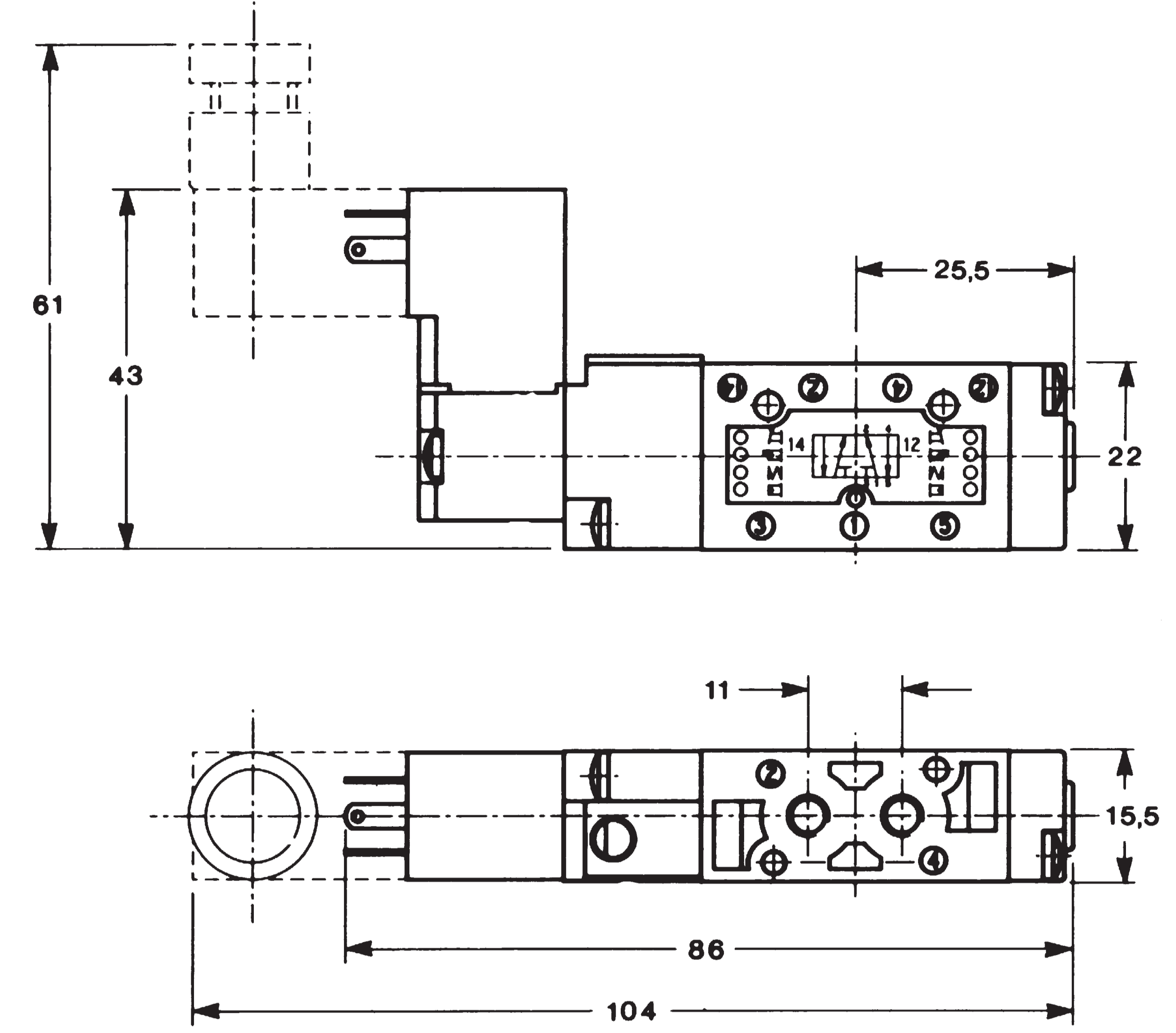
**5/2 valve - Single pneumatic control (threaded body)**



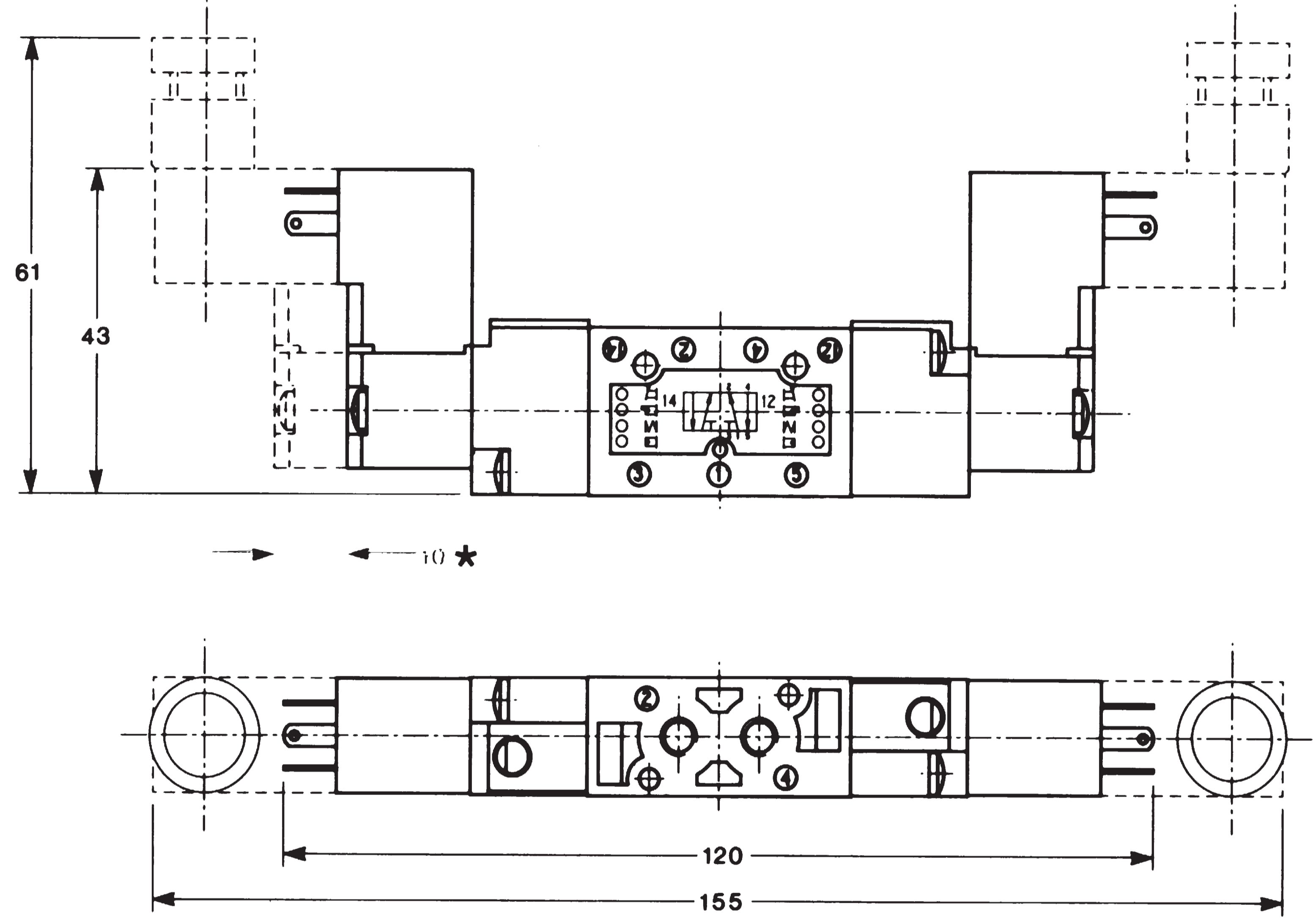
**5/2 5/3 valve - Double pneumatic control (threaded body)**



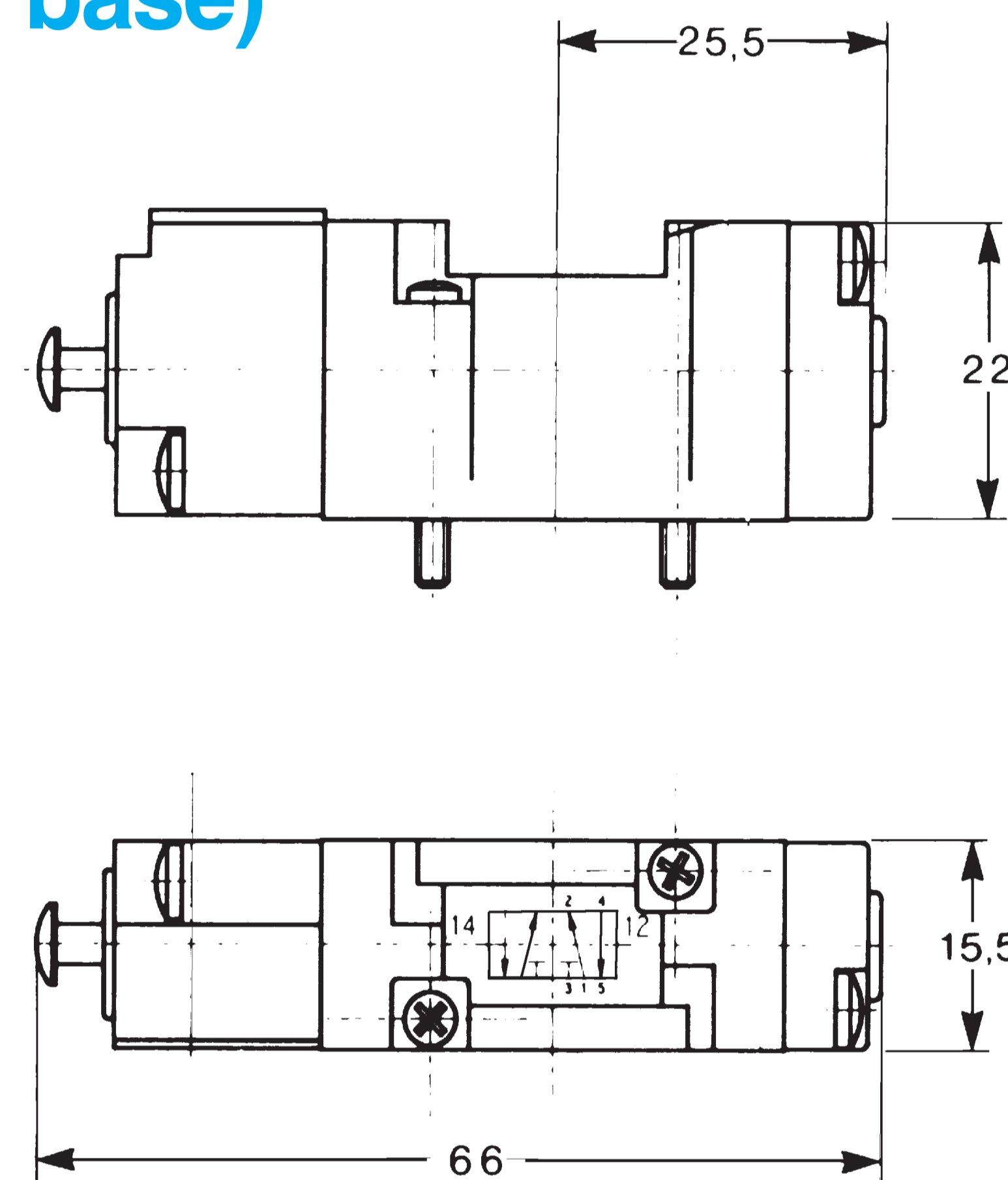
**5/2 valve - Single electric control (threaded body)**



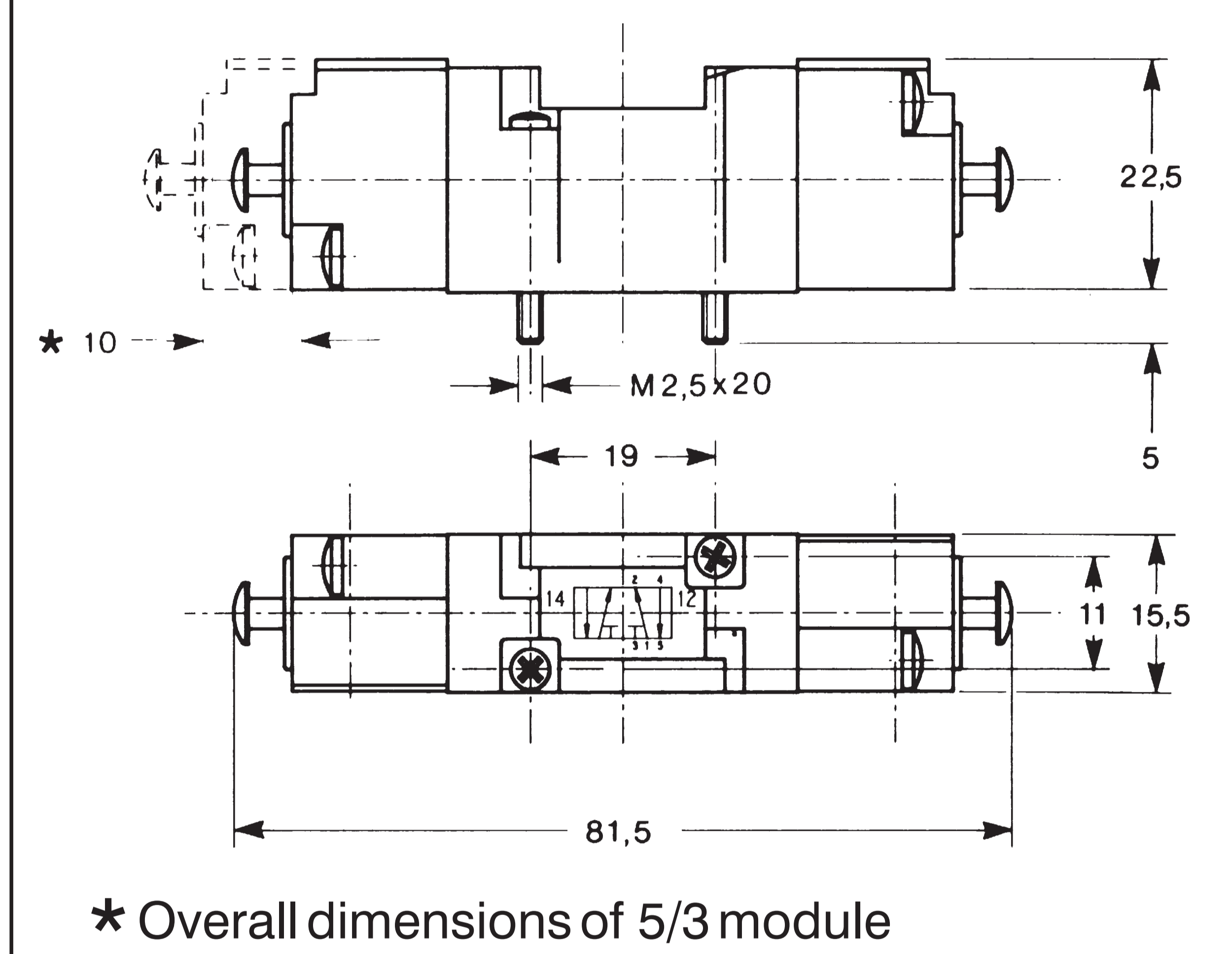
**5/2 5/3 valve - Double electric control (threaded body)**



**5/2 valve - Single pneumatic control (mounting on sub-base)**

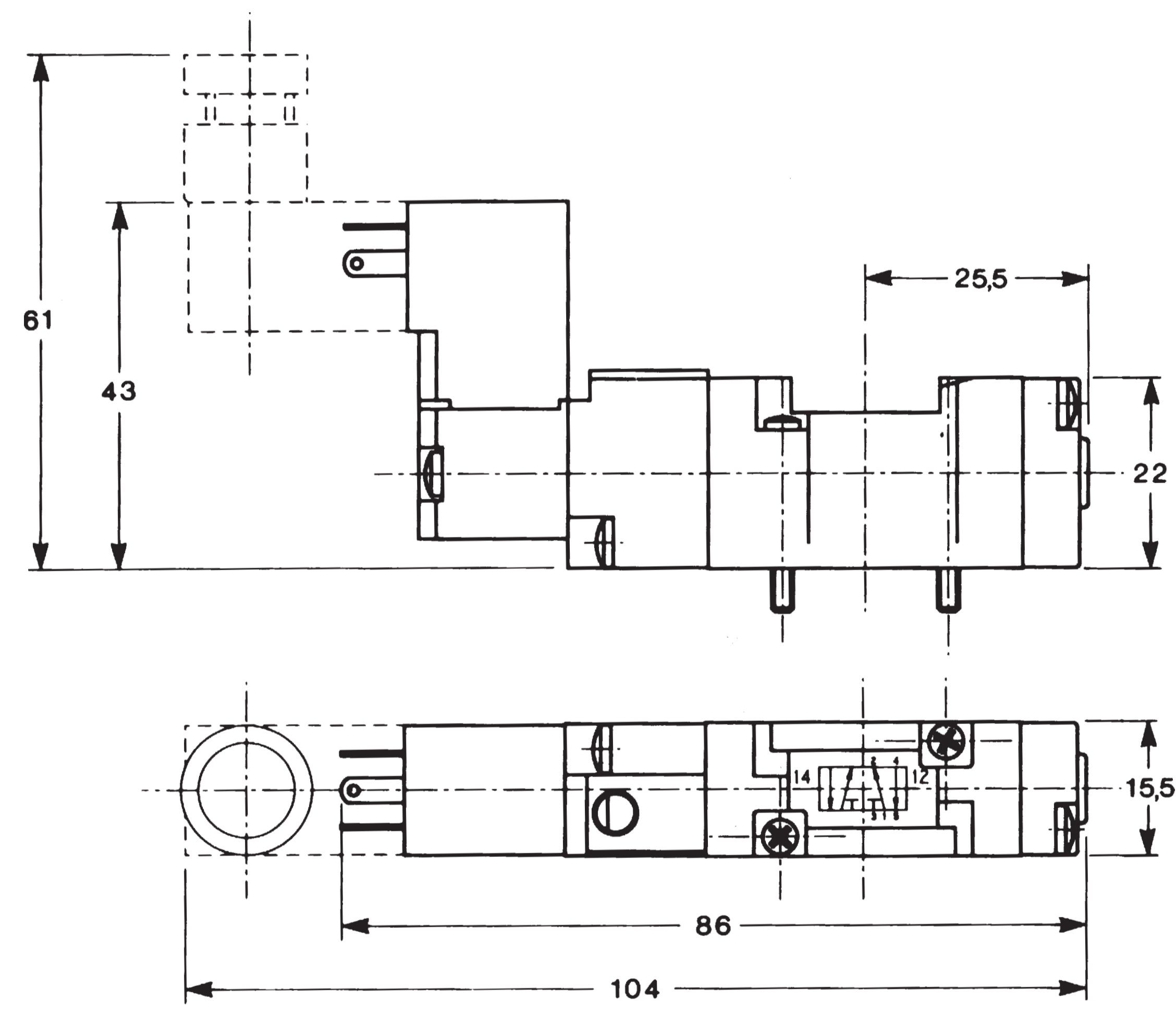


**5/2 5/3 valve - Double pneumatic control (mounting on sub-base)**

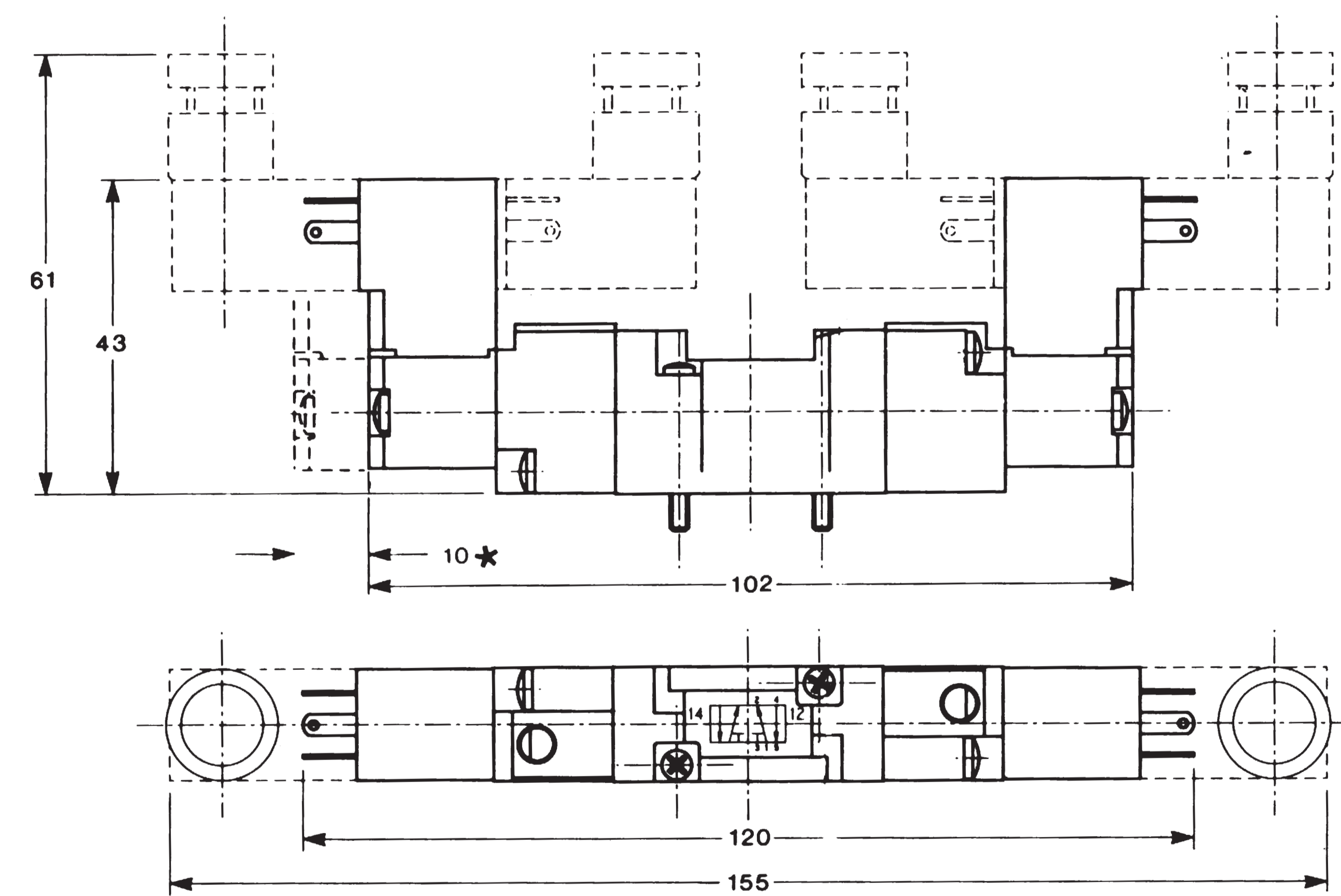


\* Overall dimensions of 5/3 module

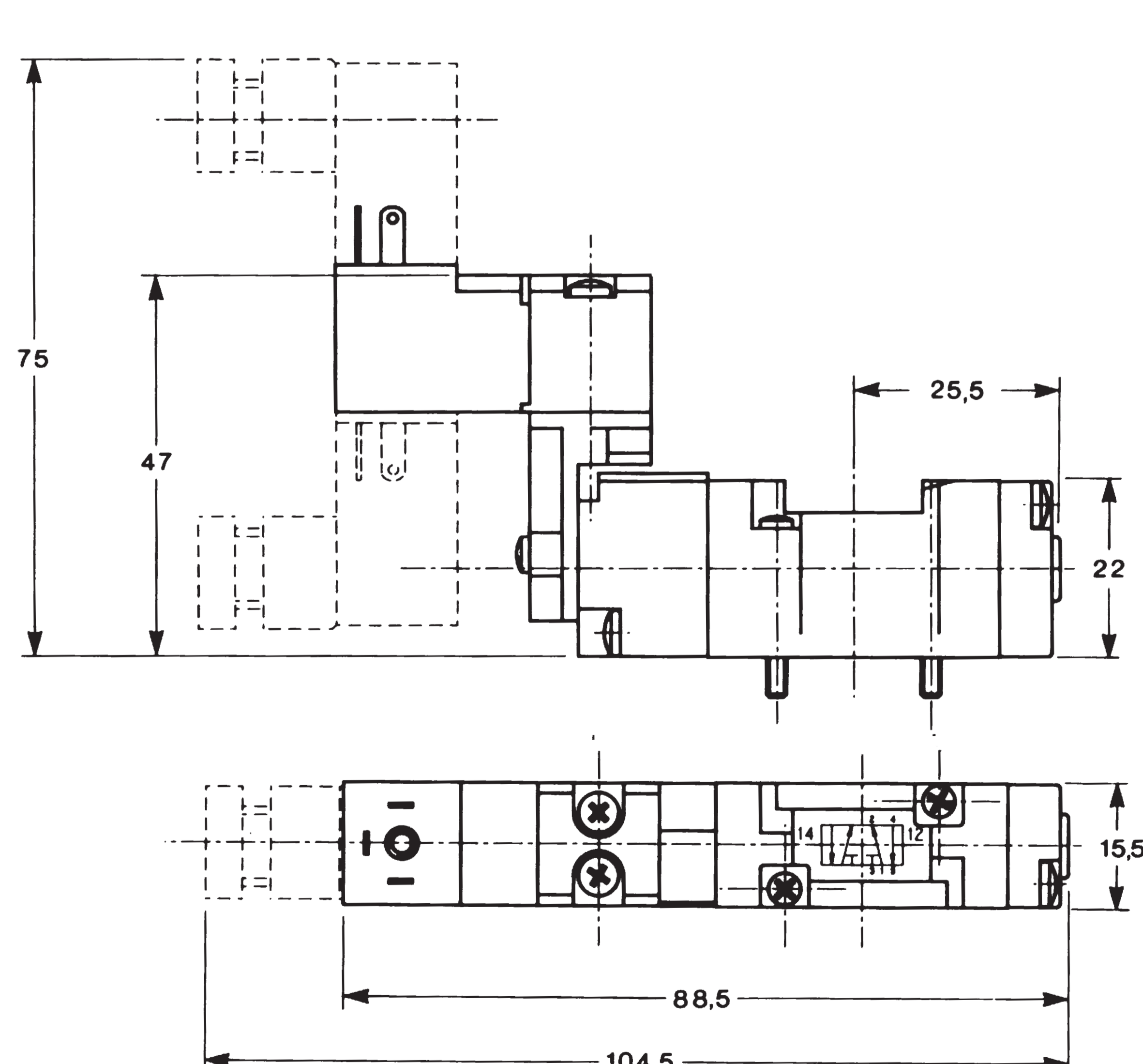
**5/2 valve - Single electric control (mounting on sub-base)**



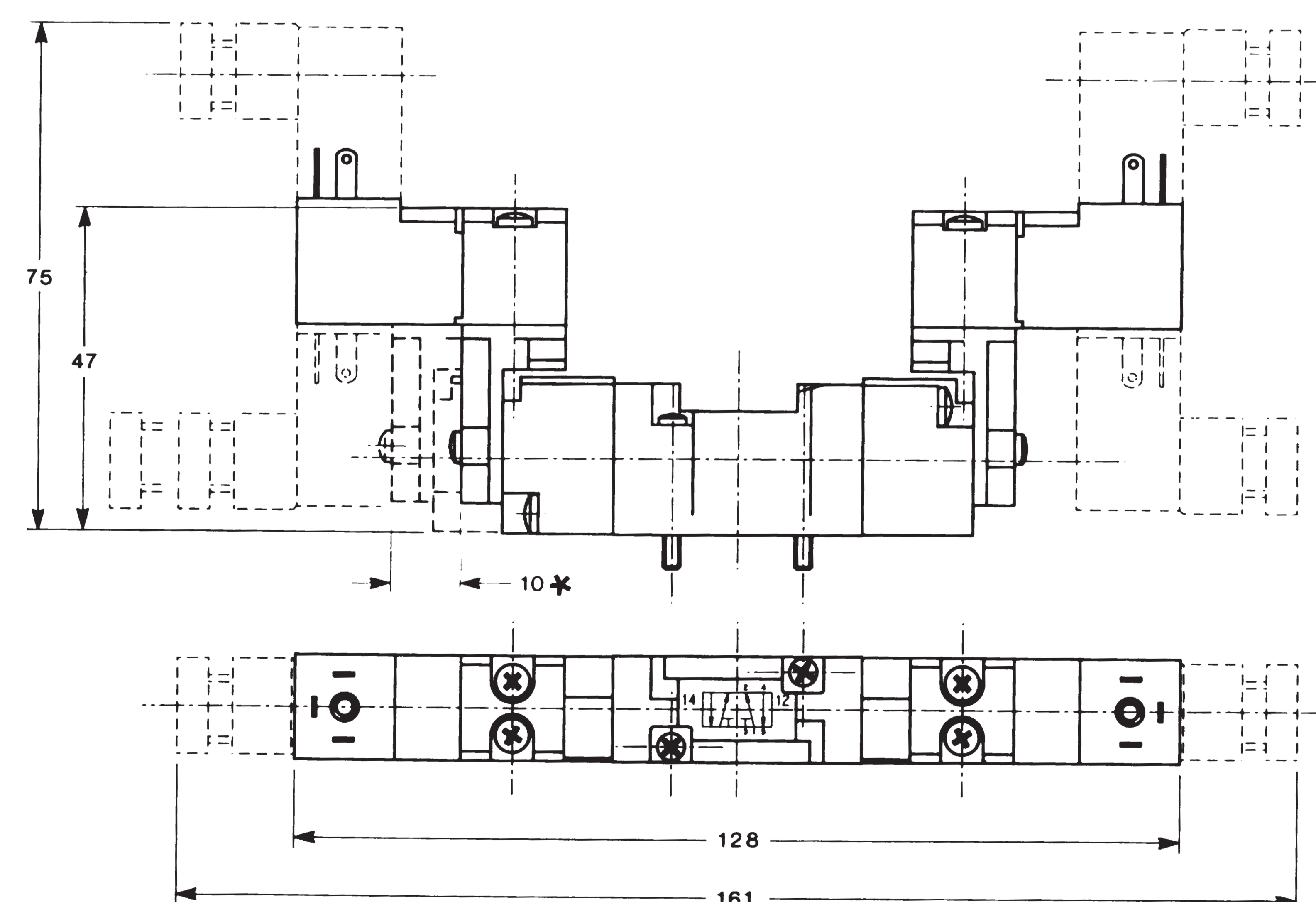
**5/2 5/3 valve - Double electric control (mounting on sub-base)**



**5/2 valve - Single electric control with bracket (mounting on sub-base)**



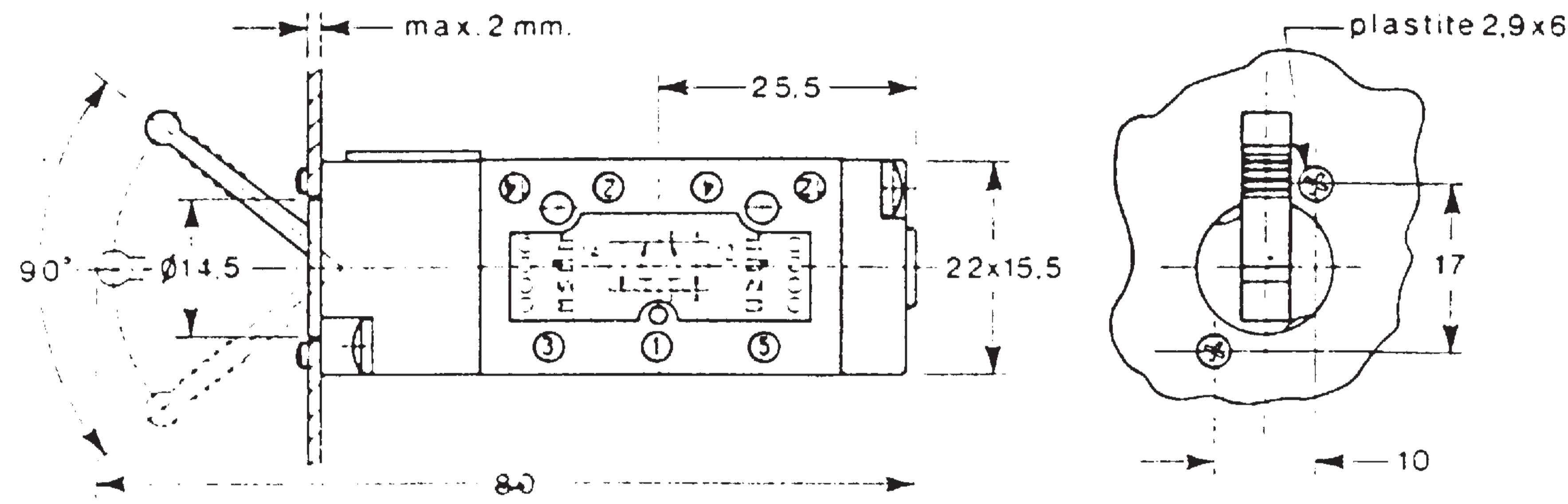
**5/2 5/3 valve - Double electric control with bracket (mounting on sub-base)**



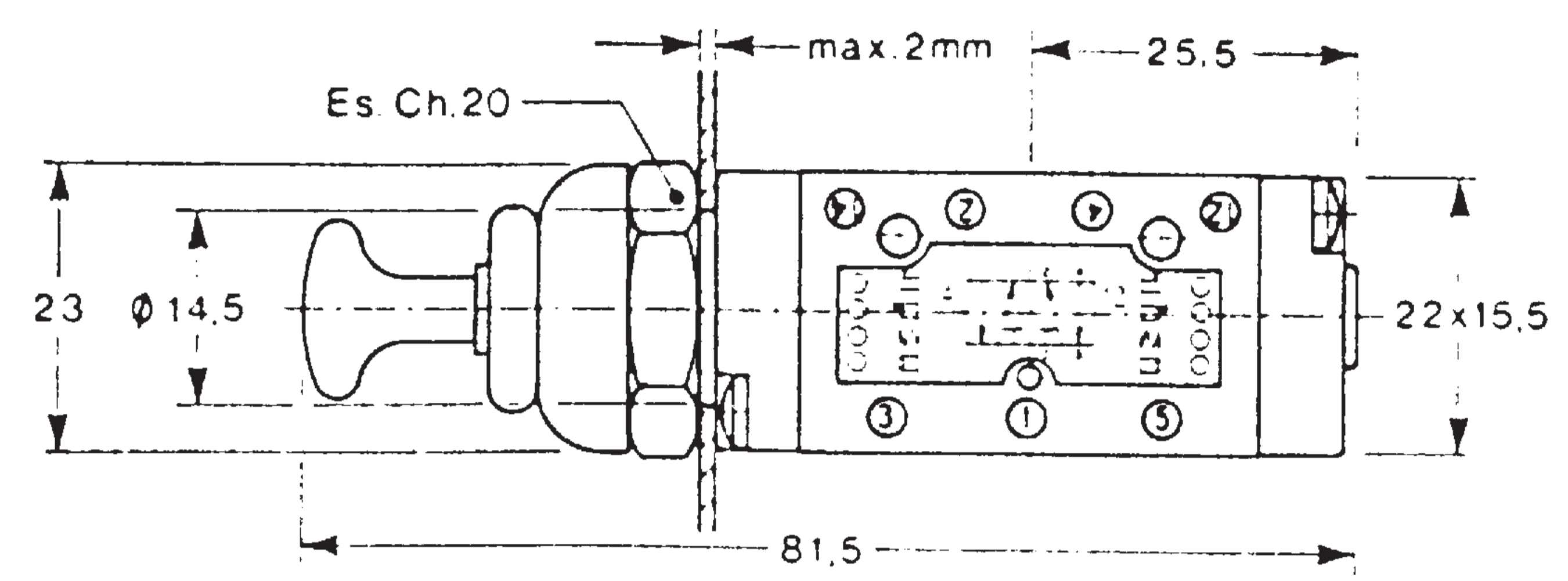
\* Overall dimensions of 5/3 module



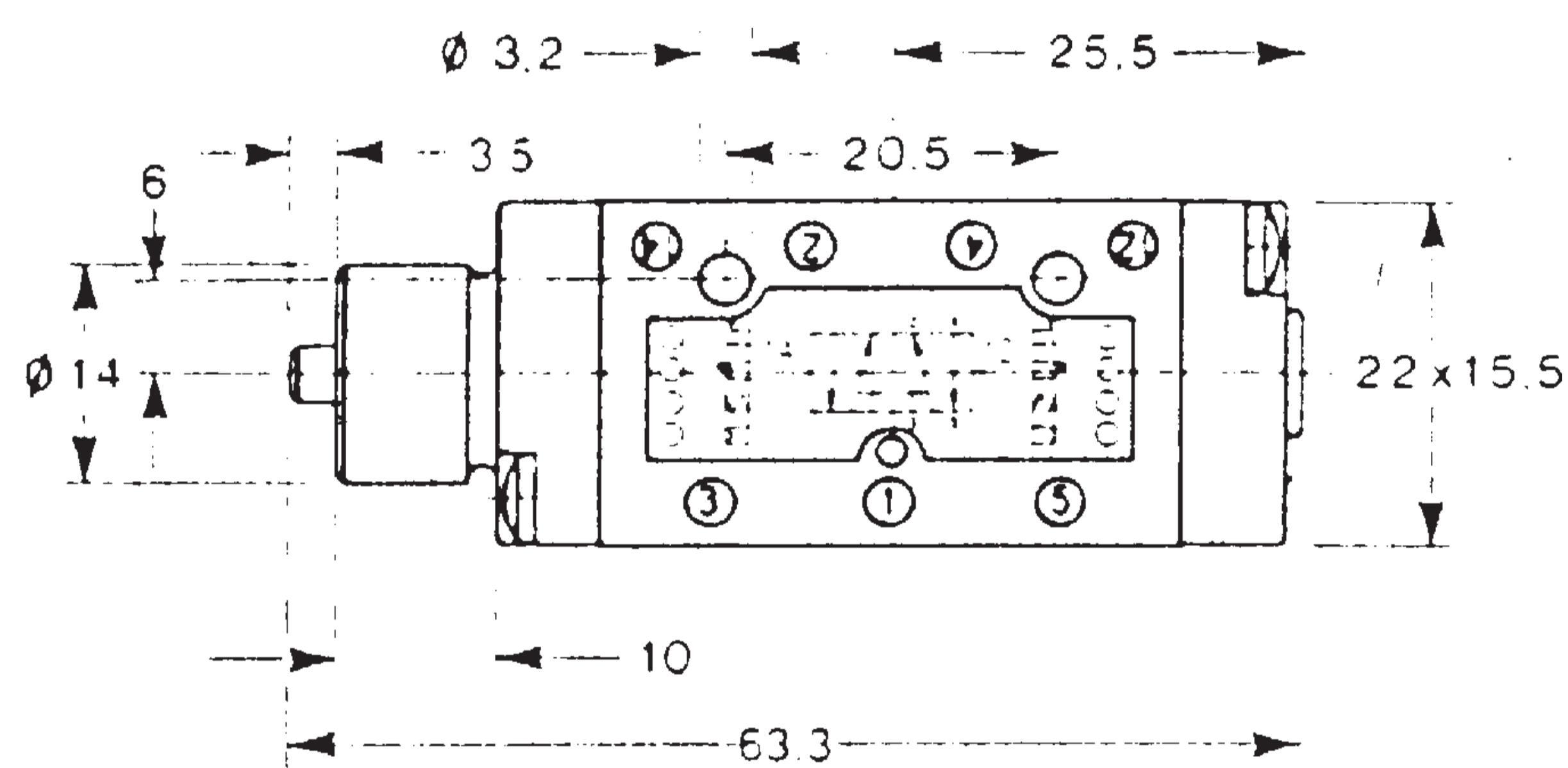
5/2 valve - lever (threaded body)



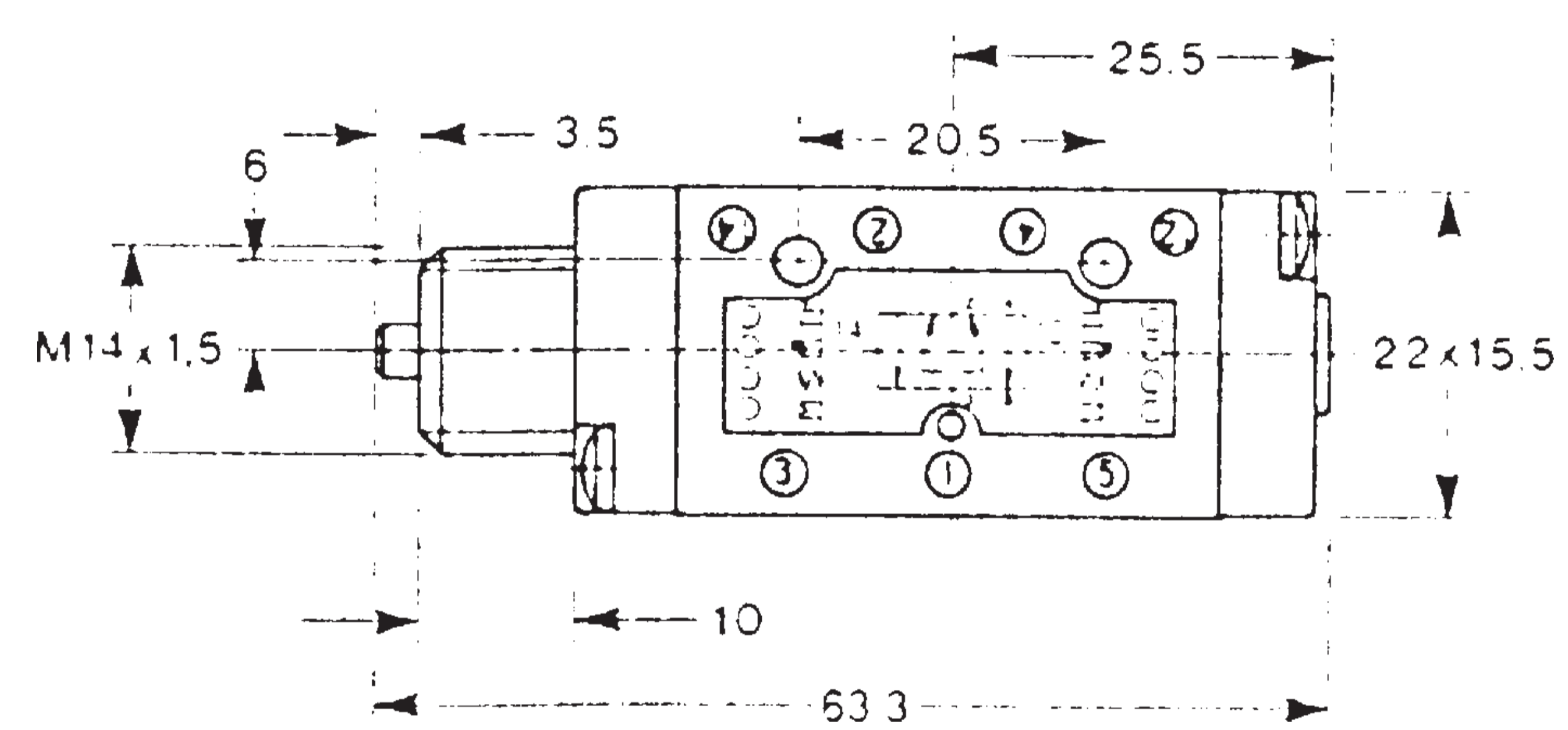
5/2 valve - push pull (threaded body)



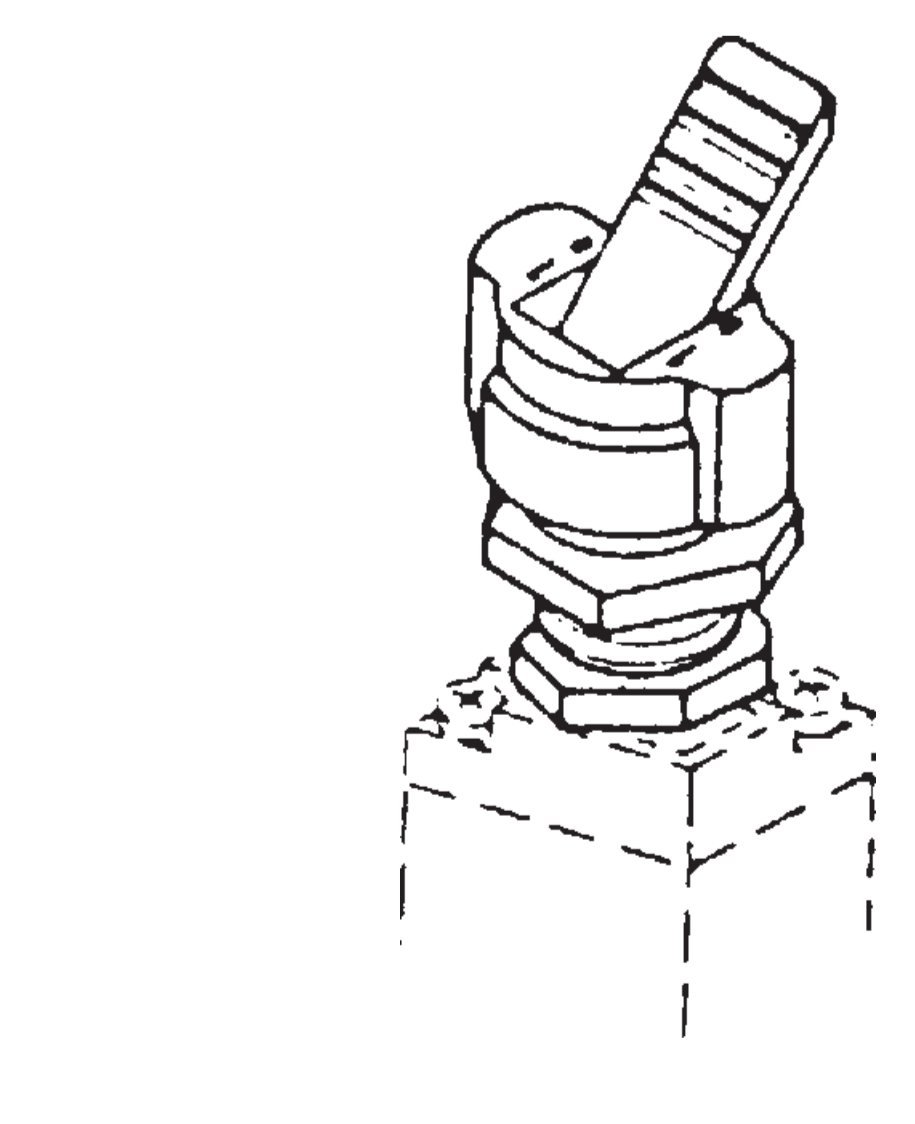
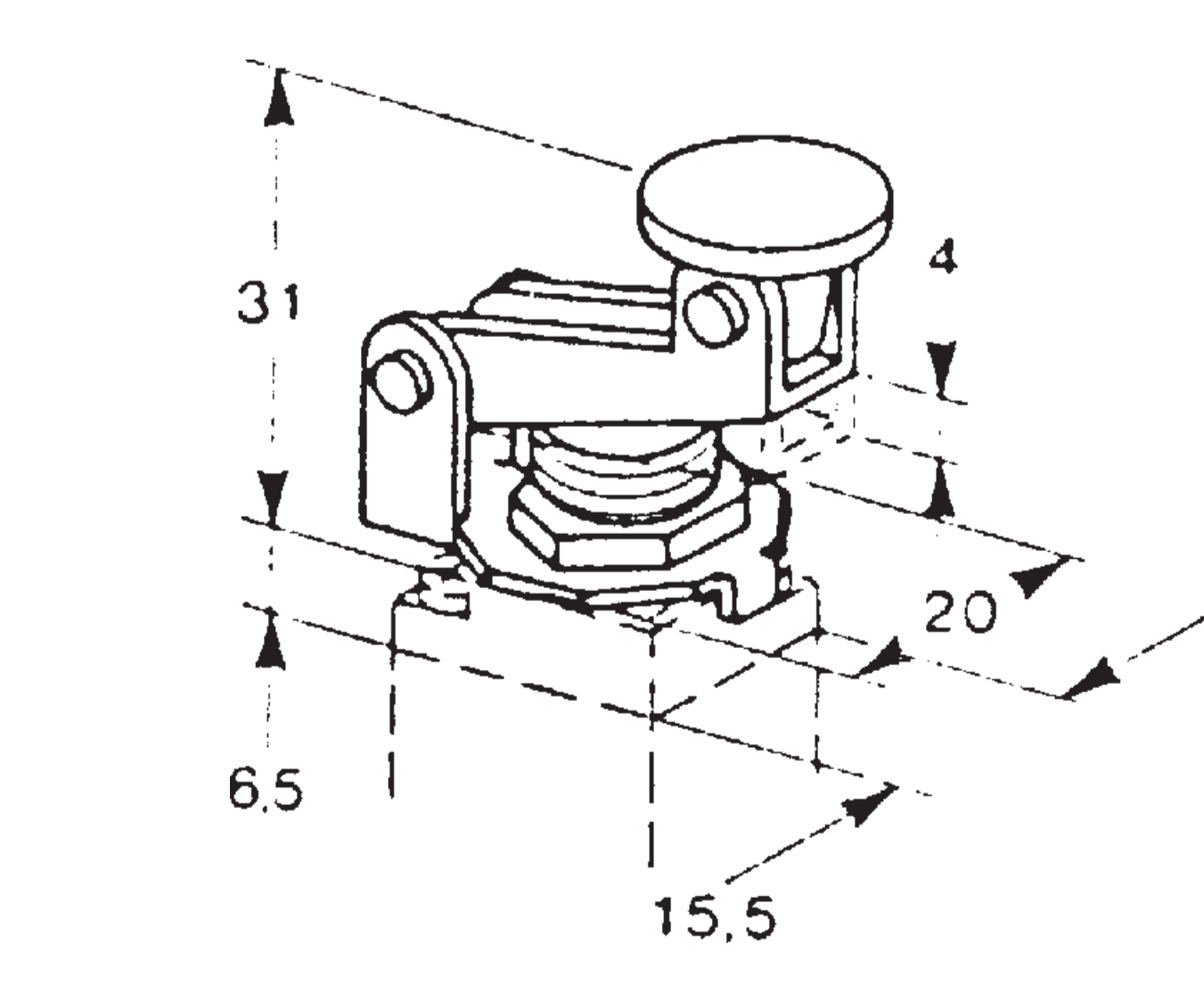
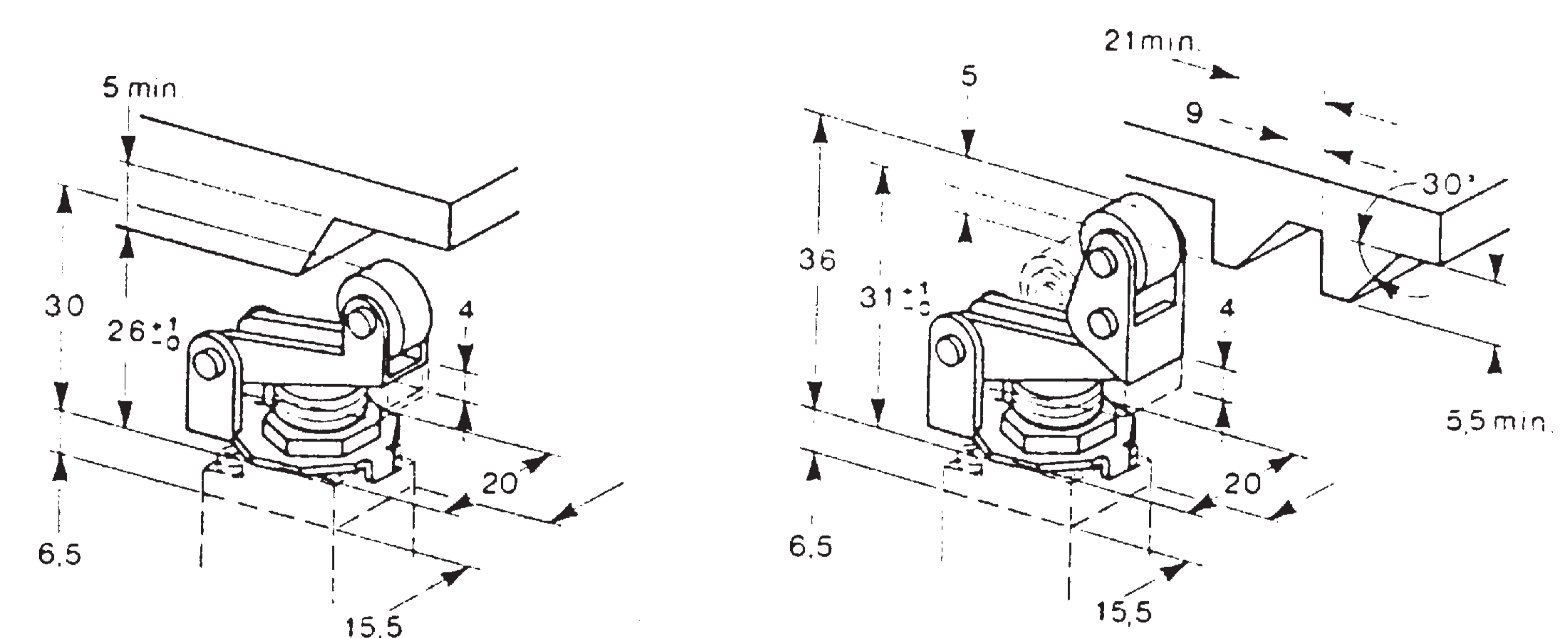
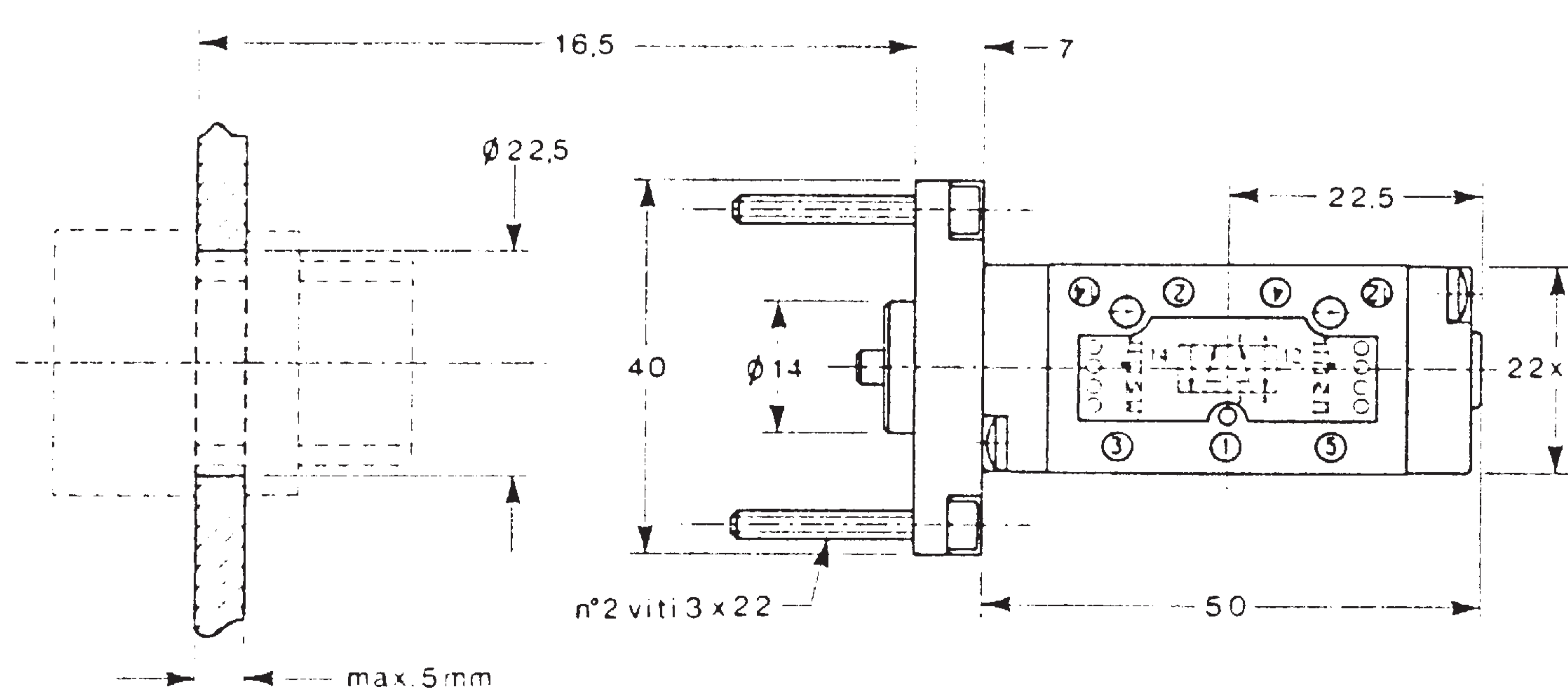
5/2 valve - mechanical operation (threaded body)



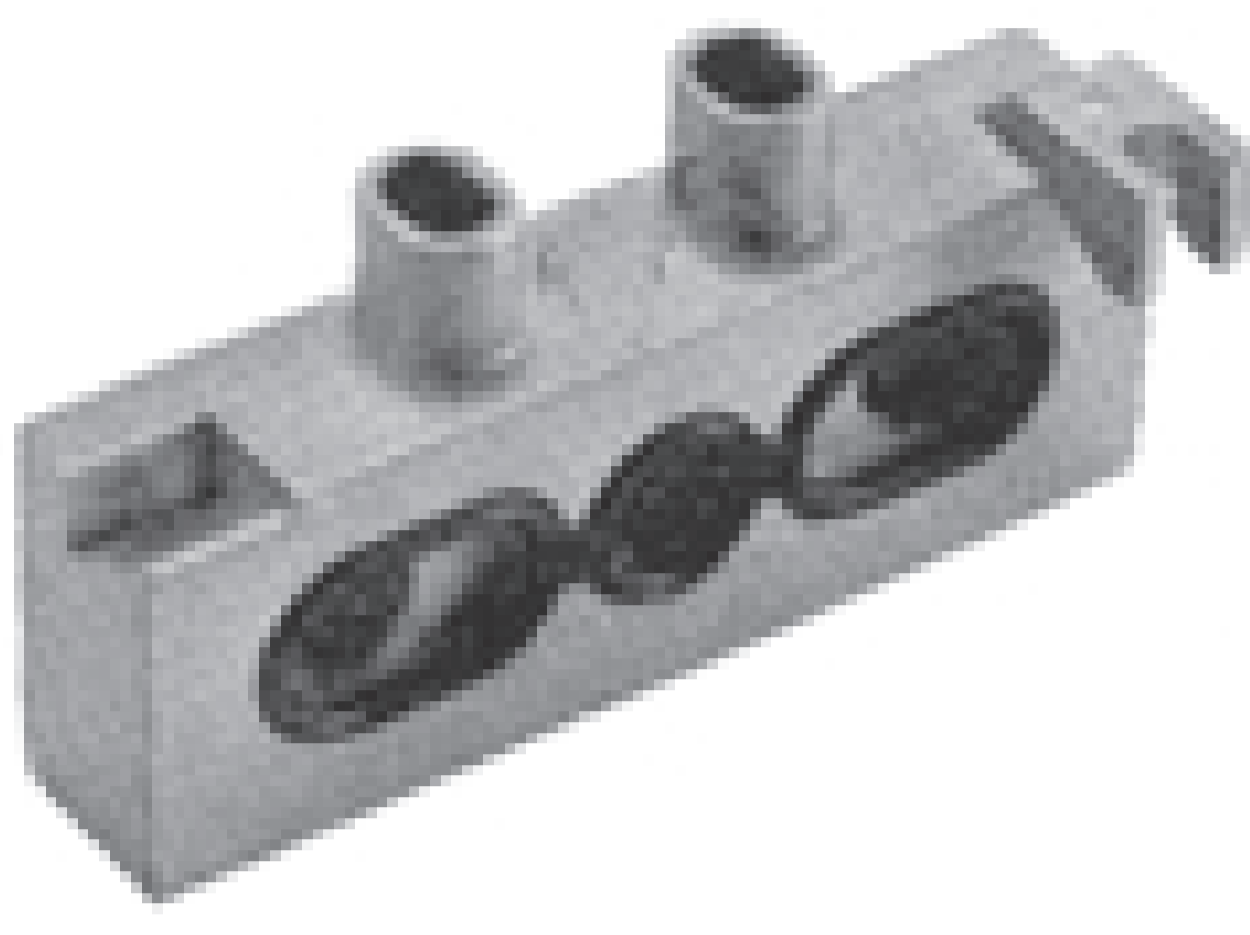
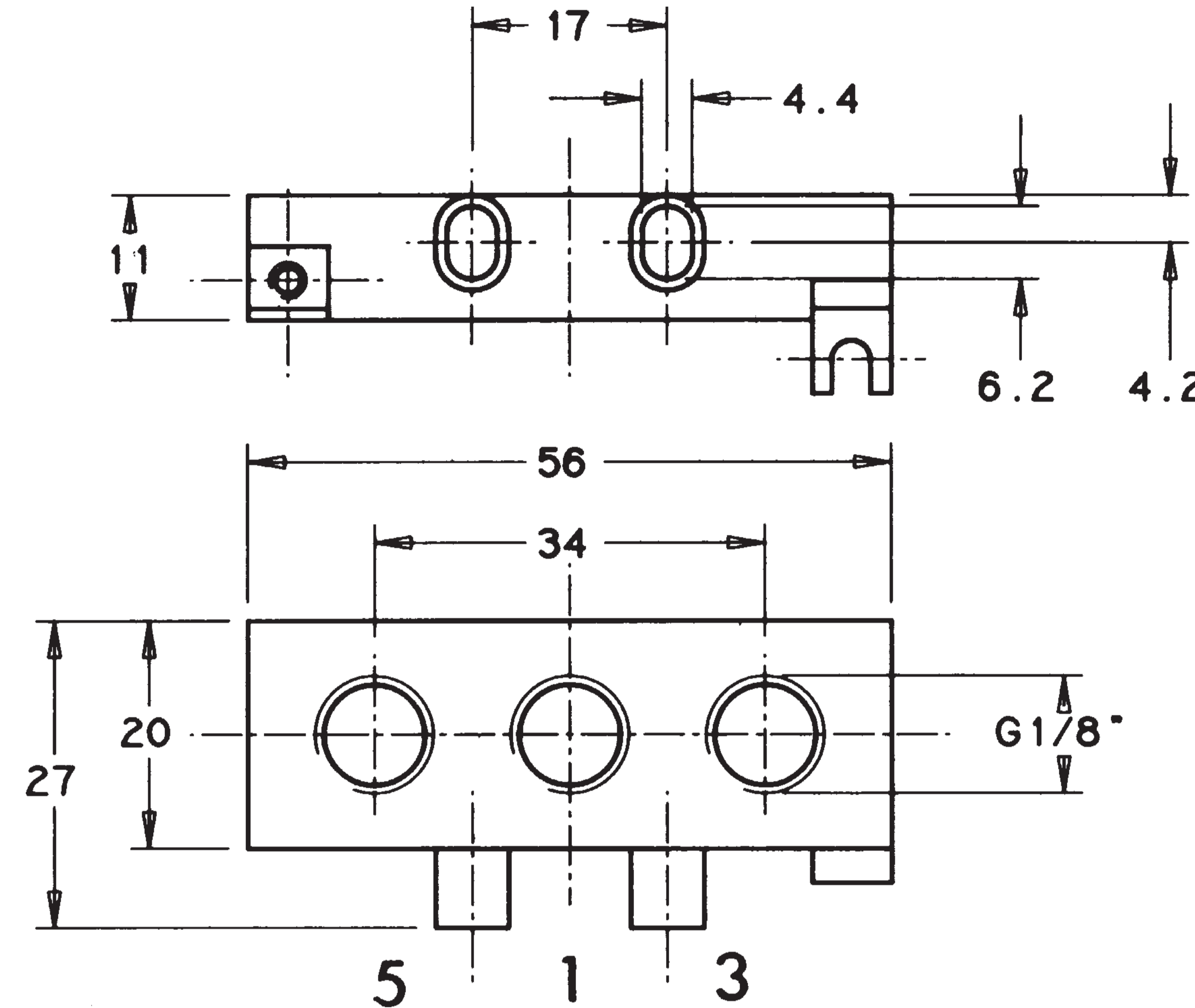

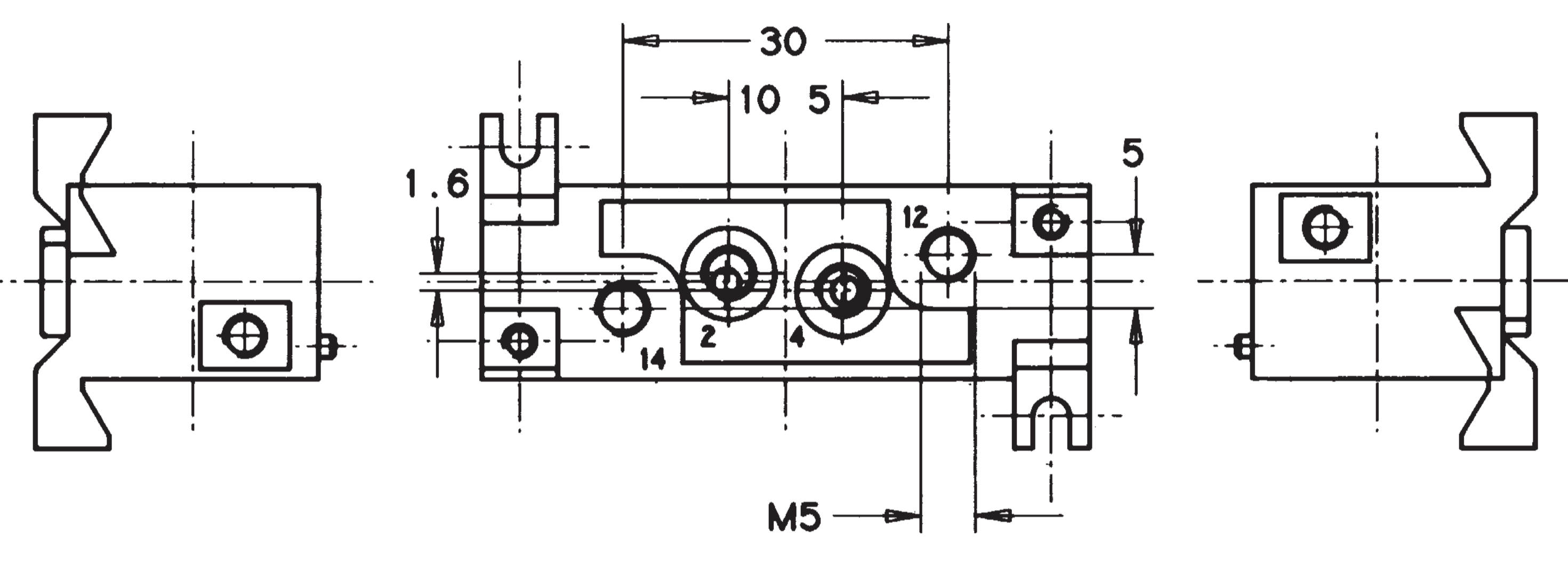

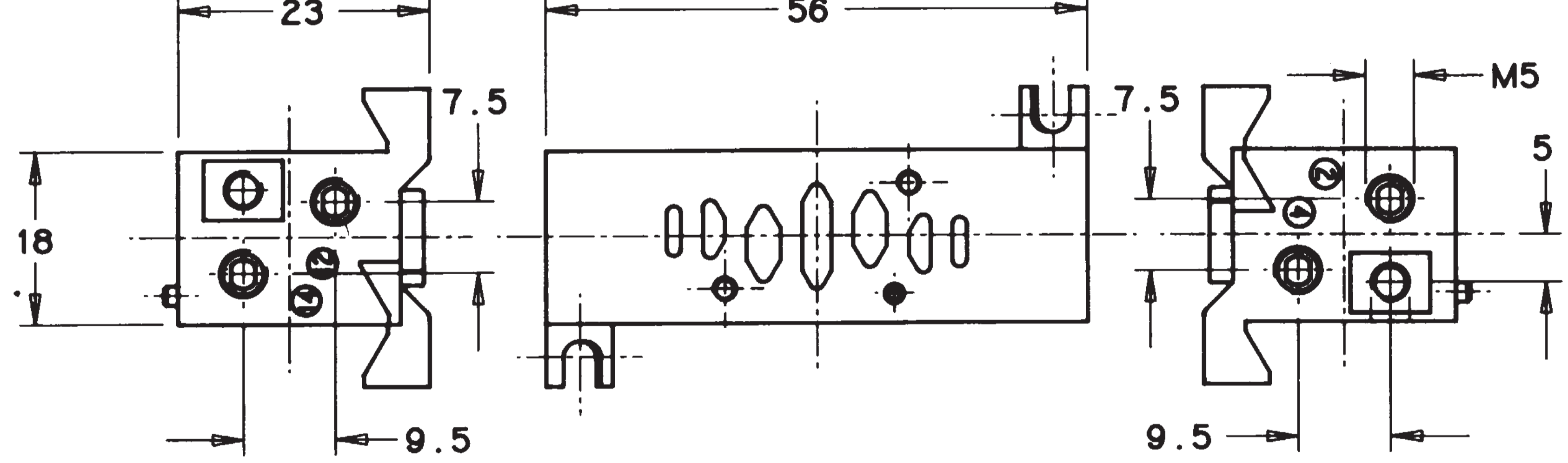

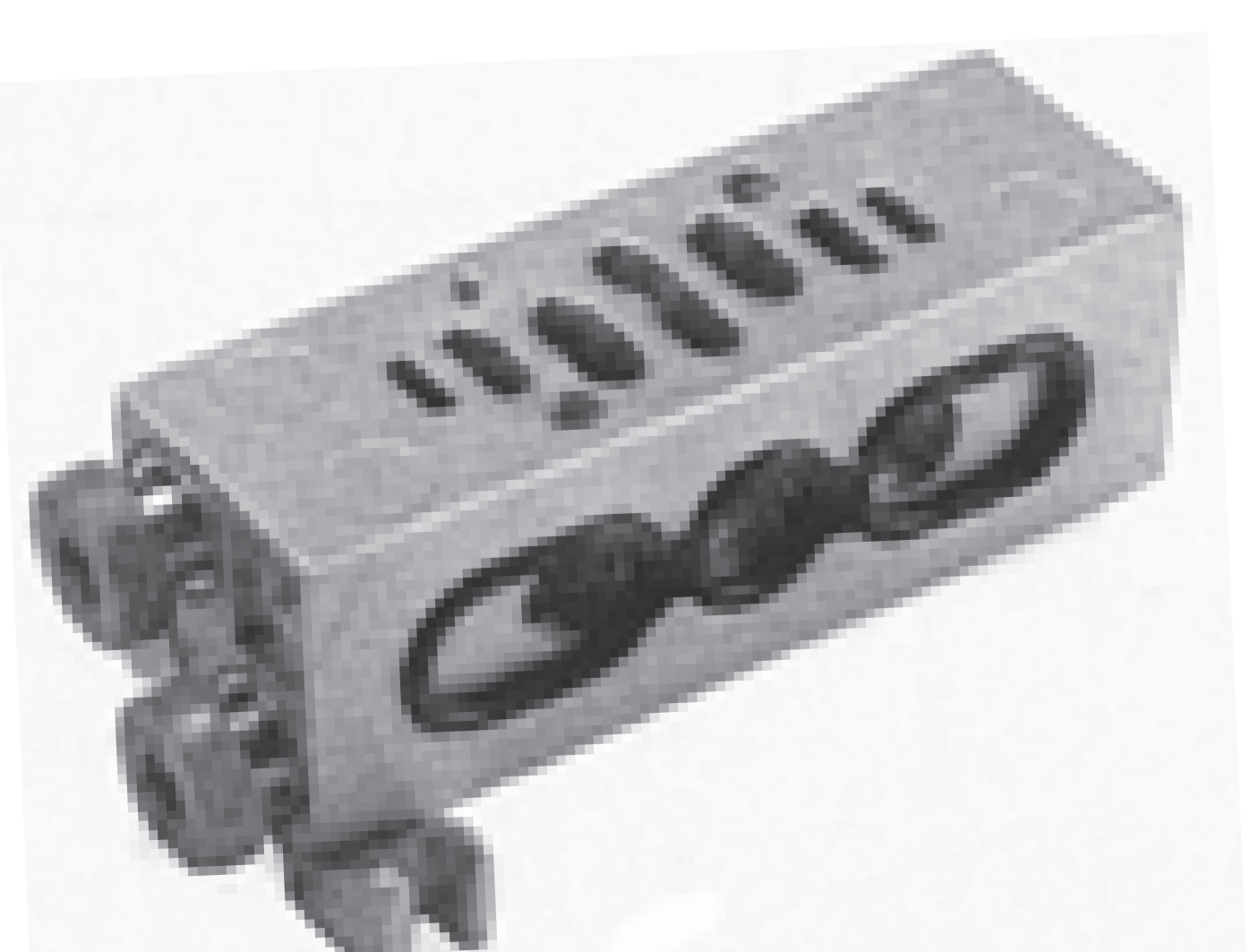
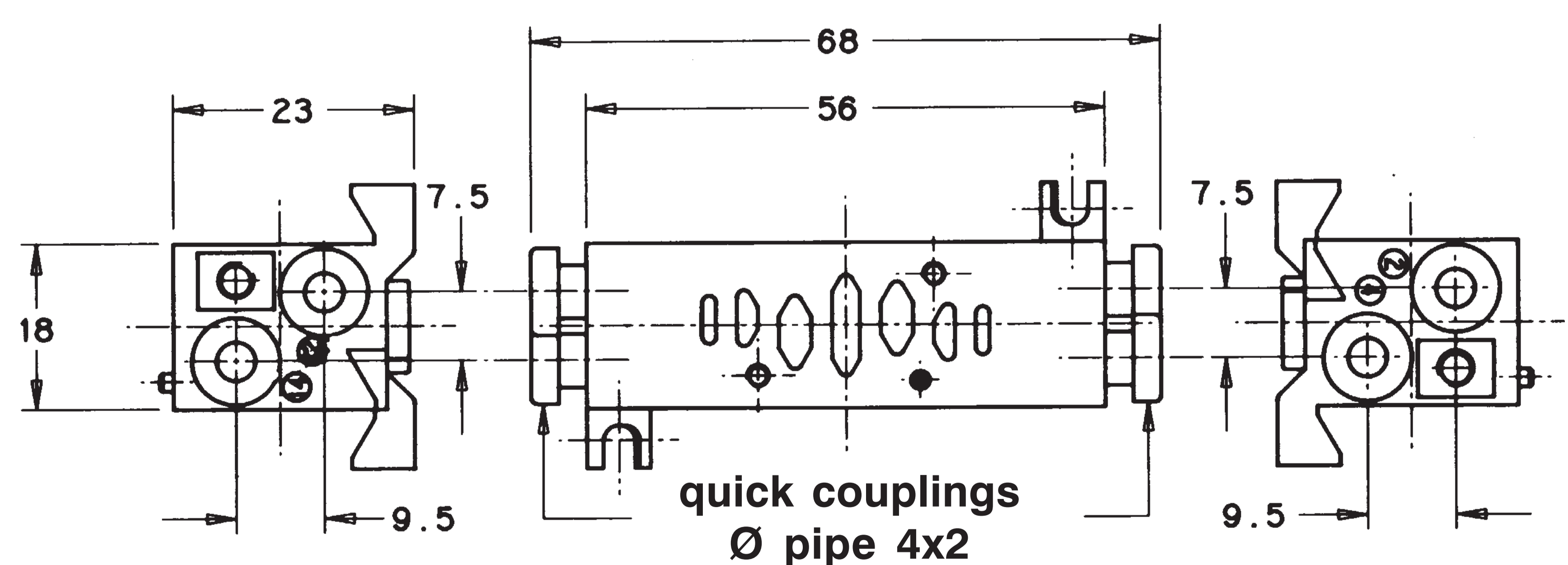
5/2 valve - screw mechanical operation (threaded body)



5/2 valve - panel mechanical operation (threaded body)

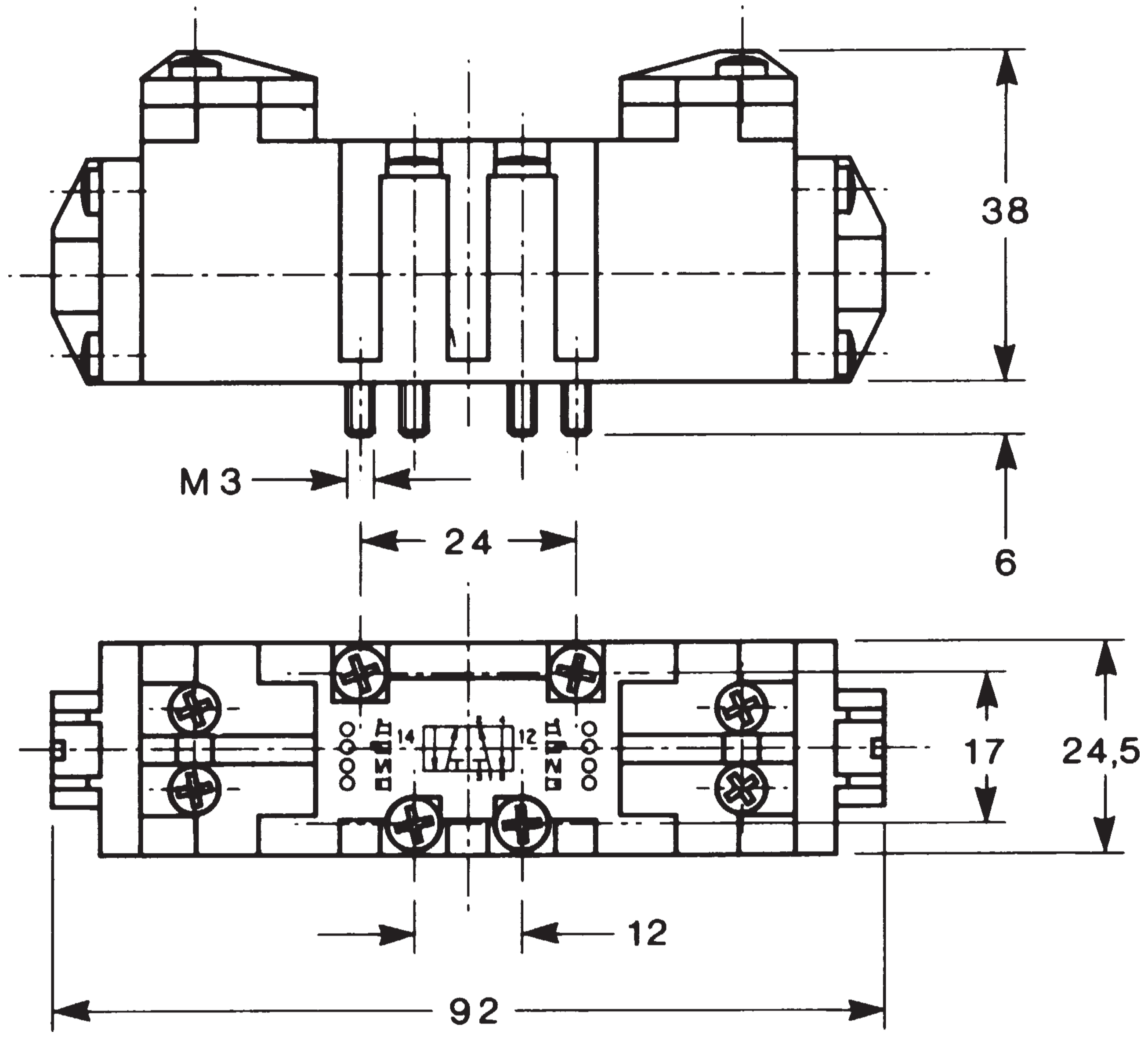




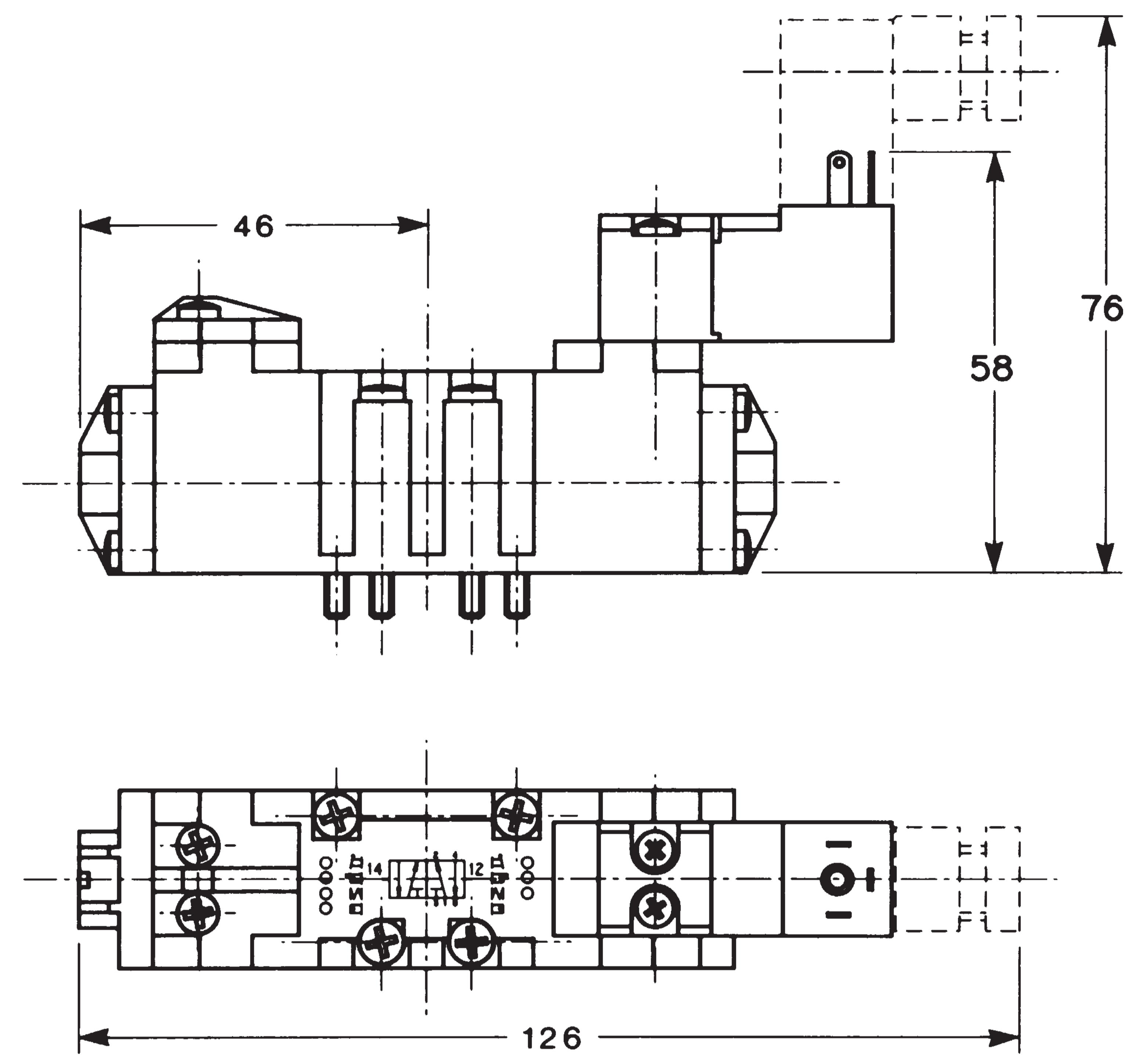
Type	Overall dimensions	Material	Mass kg	Part number
<b>G 1/8 inlet plate</b>				
	 <p>1 = Supply 3-5 = Exhausts 2-4 = Consumptions</p>	zamak	0,055	E-4500
<b>Manifold sub-base with dorsal outlets M5</b>				
	 <p>2-4 = Consumptions 14 = Control 12 = Return</p>	zamak	0,095	E-4515
<b>Manifold sub-base with side outlets M5</b>				
	 <p>2-4 = Consumptions 14 = Control 12 = Return</p>	zamak	0,095	E-4505
<b>Manifold sub-base with quick side couplings Ø 4x2</b>				
 	 <p>2-4 = Consumptions 14 = Control 12 = Return</p>	zamak	0,100 0,094	E-4510 (pneumatic) E-4511 (electric)



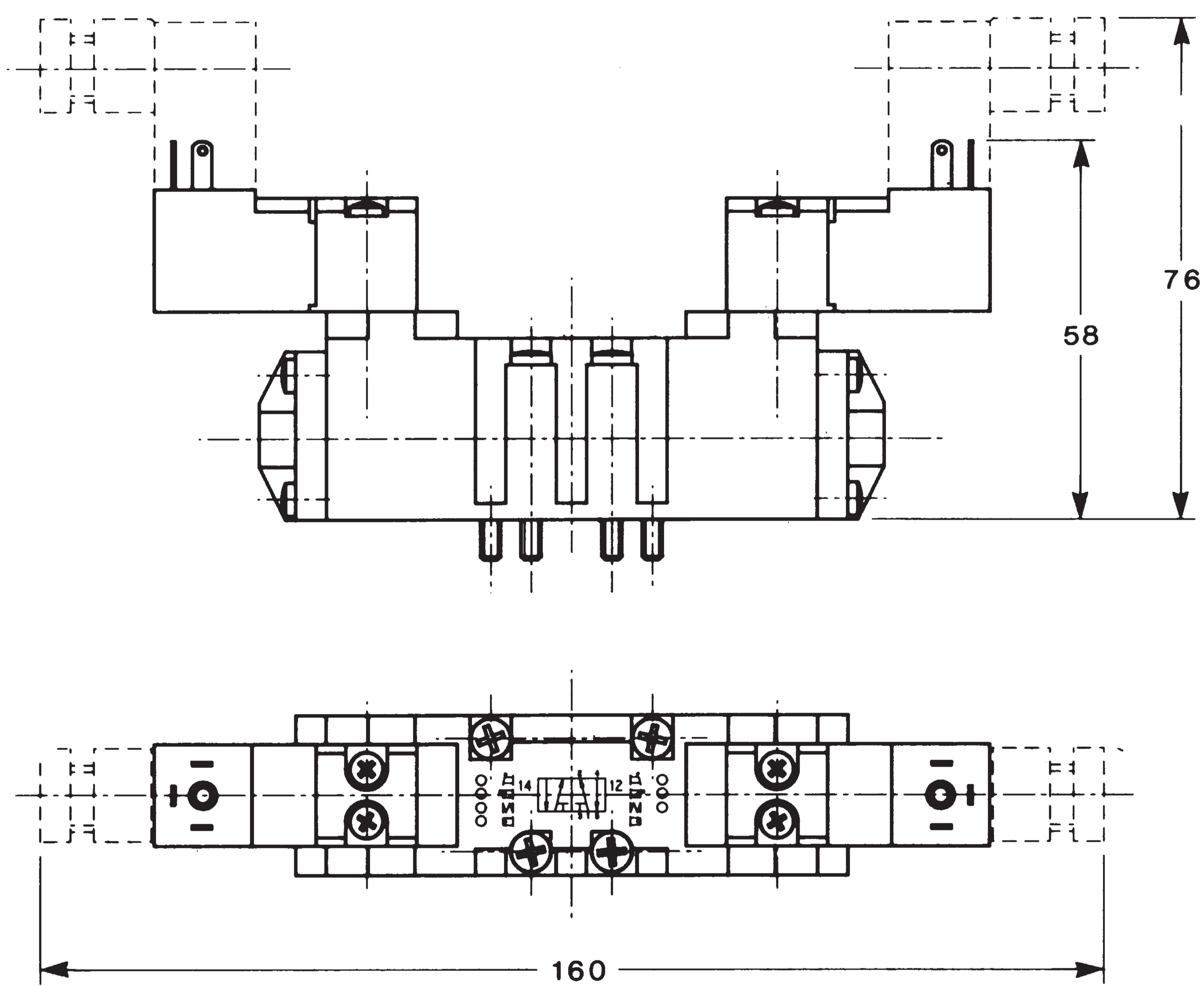
5/2 - 5/3 valves - single or double pneumatic control



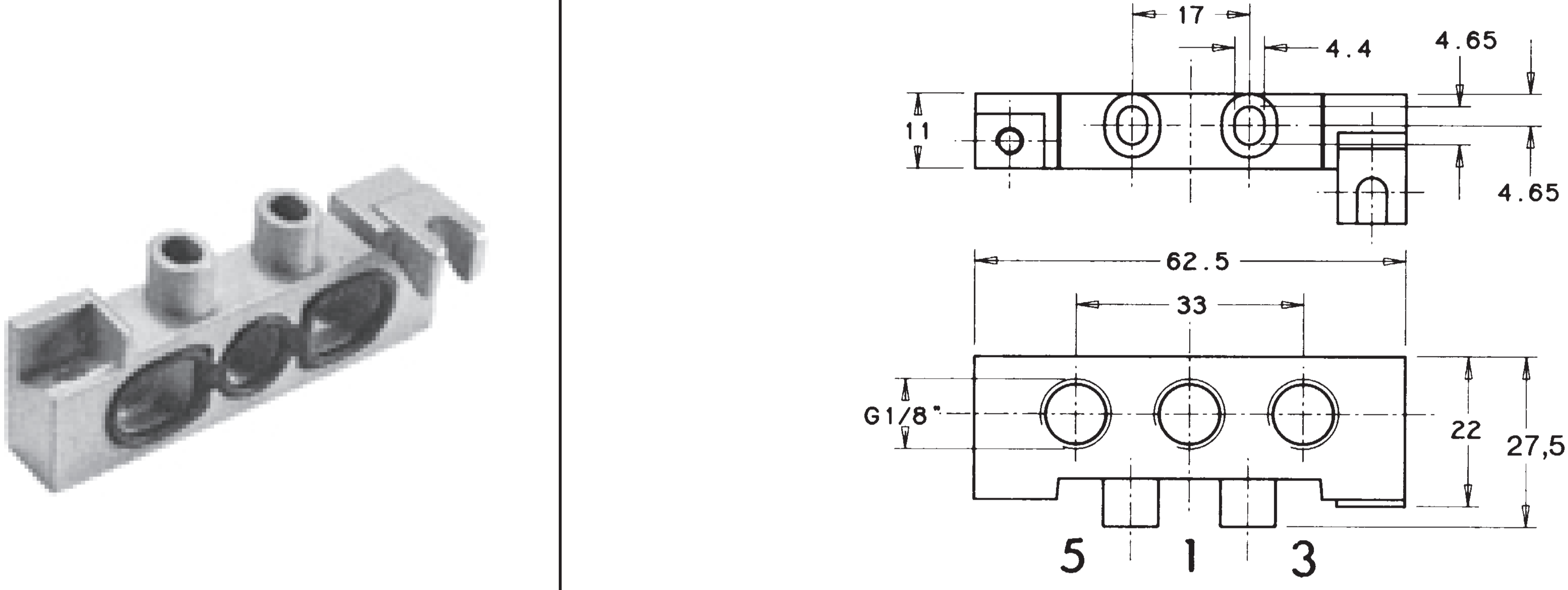
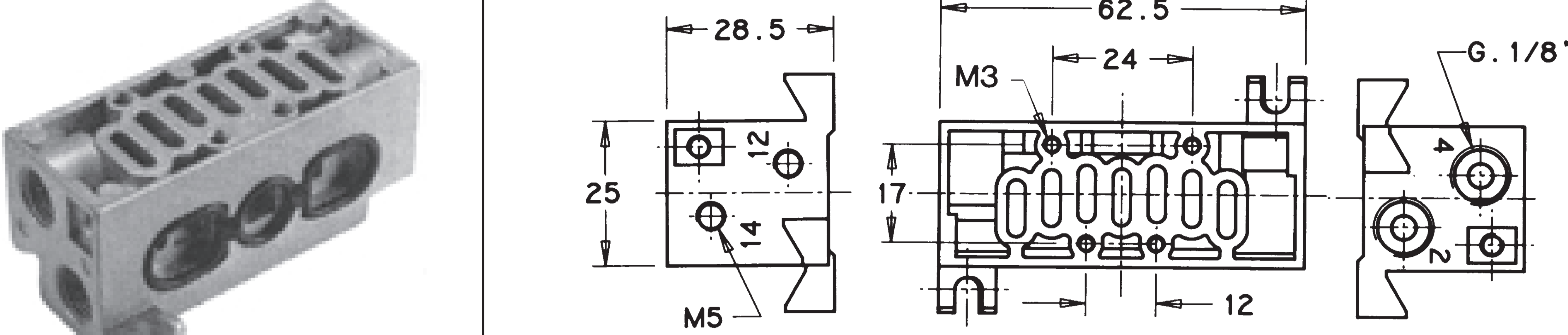
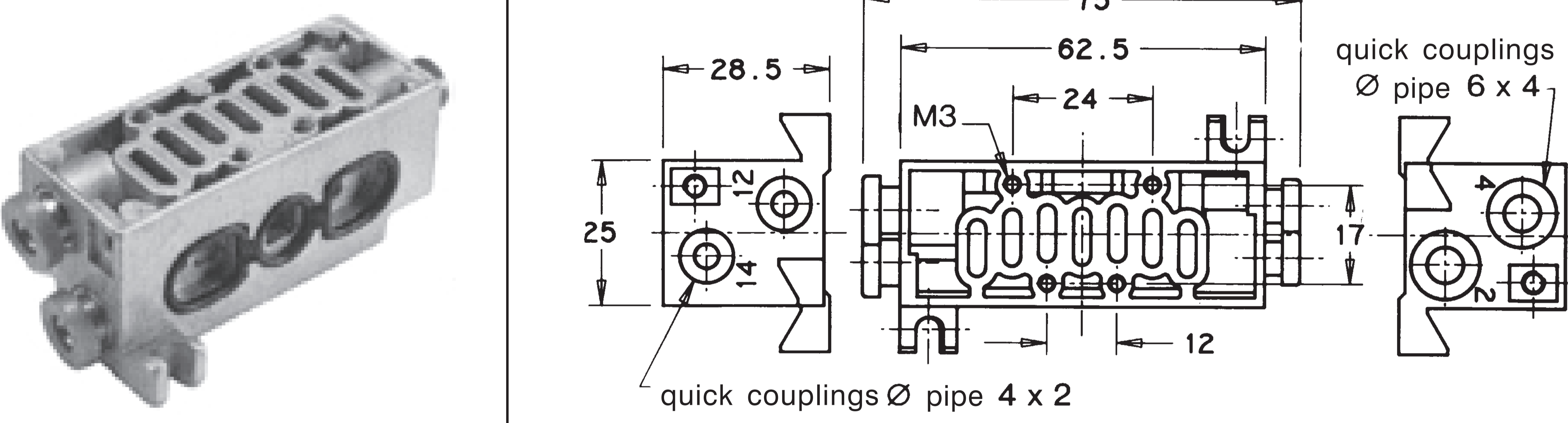
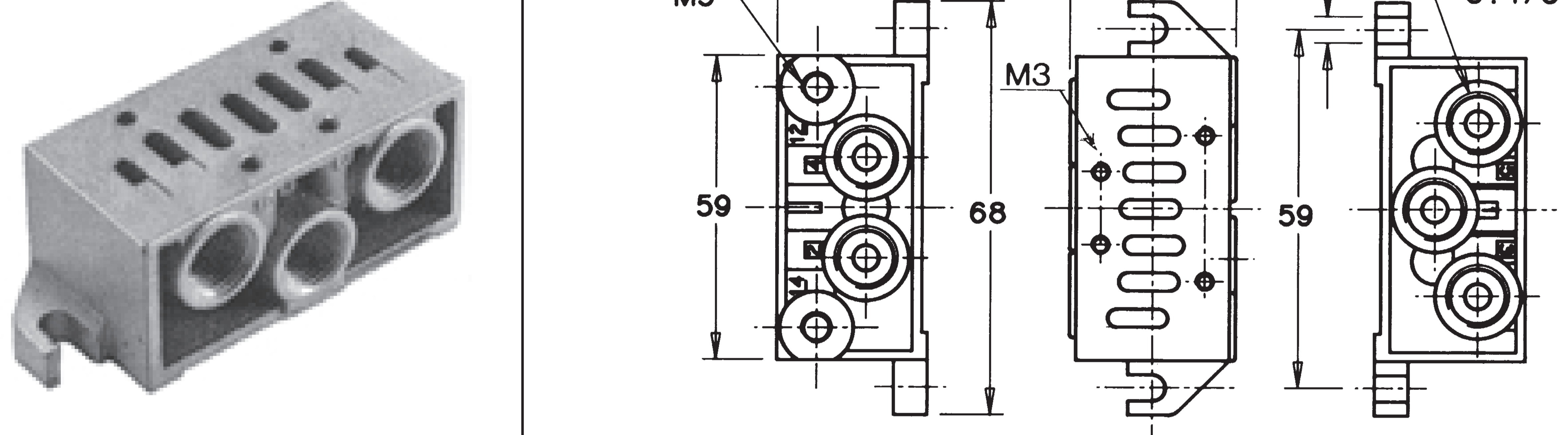
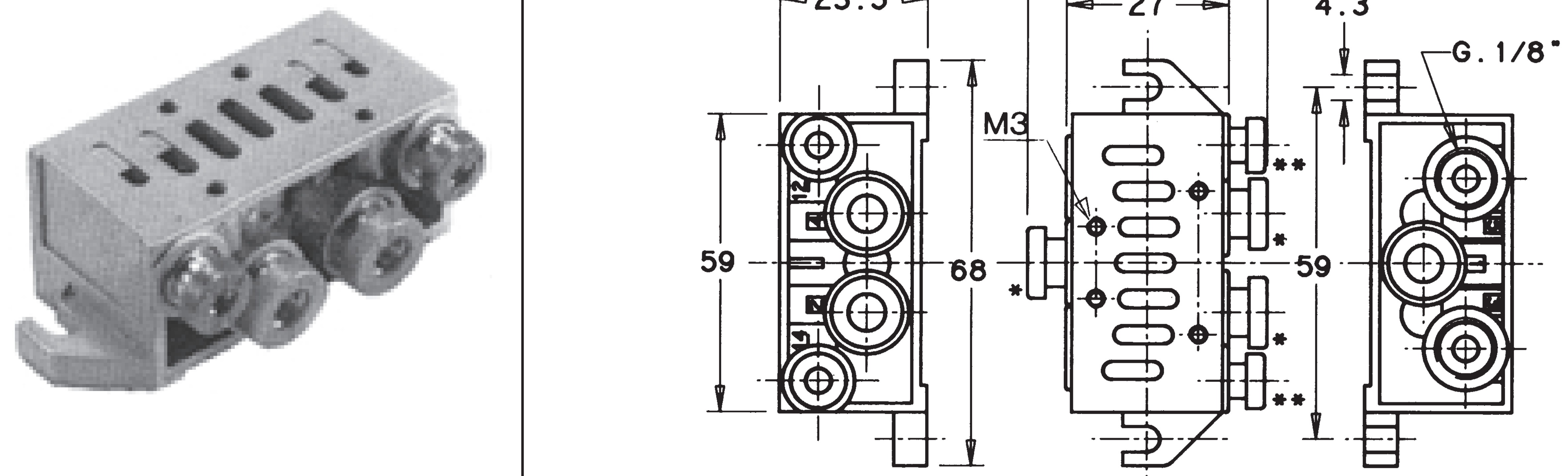
5/2 valves for sub-base mounting - single electric control



5/2 - 5/3 valves for sub-base mounting - double electric control





Type	Overall dimensions	Material	Mass kg	Part number
<b>G 1/8 inlet plate</b>	 <p>1 = Supply 3-5 = Exhausts 2-4 = Consumptions</p>	Aluminium	0,050	<b>F-4500</b>
<b>Manifold sub-base with threaded connections G 1/8</b>	 <p>2-4 = Consumptions 14 = Control 12 = Return</p>	Aluminium	0,062	<b>F-4505</b>
<b>Manifold sub-base with quick side connections Ø 6x4</b>	 <p>quick couplings Ø pipe 4 x 2</p> <p>quick couplings Ø pipe 6 x 4</p> <p>2-4 = Consumptions 14 = Control 12 = Return</p>	Aluminium	0,065	<b>F-4510</b> (pneumatic) <b>F-4511</b> (electric)
<b>Single sub-base with threaded connections G 1/8</b>	 <p>2-4 = Consumptions 3-5 = Exhausts 14 = Control 12 = Return</p>	Aluminium	0,047	<b>F-4519</b>
<b>Single sub-base with quick connections Ø 6x4* - Ø42**</b>	 <p>2-4 = Consumptions 3-5 = Exhausts 14 = Control 12 = Return</p>	Aluminium	0,057	<b>F-4520</b> (pneumatic) <b>F-4521</b> (electric)