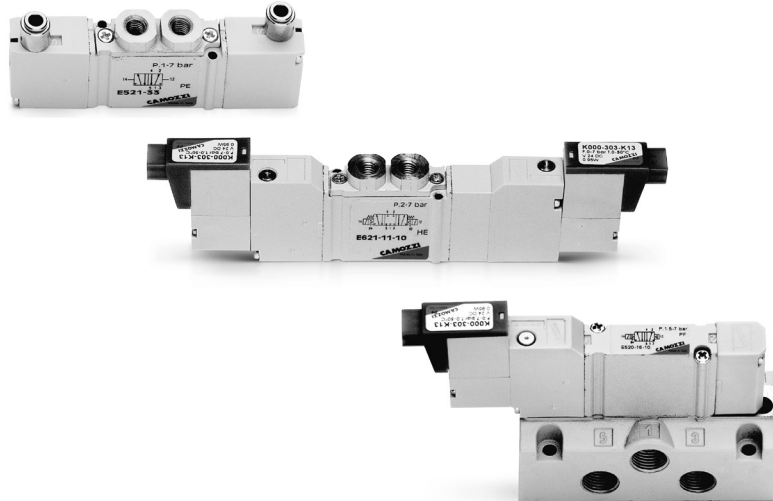


# Series E valves and solenoid valves

5/2-way monostable/bistable - 5/3 CC, CO, CP  
 With outlets on the body - For individual or manifold assembly  
 Size 10,5 mm



Series E valves have been designed to allow high flows with small overall dimensions. These valves are manufactured in three different sizes and are suitable for individual use or for mounting on manifolds. The manifolds allow a common inlet as well as the two exhausts and the pilot exhaust in common.

## GENERAL DATA

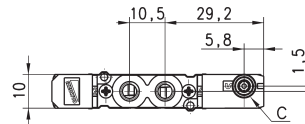
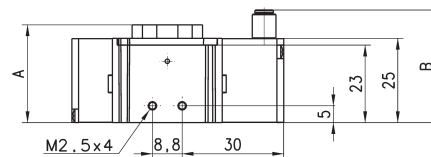
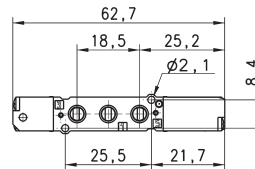
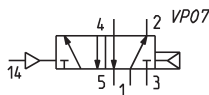
<b>Construction</b>	spool-type
<b>Valve functions</b>	5/2, 5/3 CC CO CP
<b>Materials</b>	zamak body, aluminium spool and sub-bases; technopolymer end-covers, joints NBR
<b>Ports</b>	valve = M5; manifold = M5 - tube Ø4; sub-base = G1/8
<b>Temperature</b>	0°C min + 50°C max
<b>Fluid</b>	filtered air (5 µm or lower), without lubricant; if lubricated air is used, it is recommended to use ISOVG32 oil. Once applied the lubrication should never be interrupted.
<b>Solenoid voltage</b>	see coding
<b>Voltage tolerance</b>	± 10%
<b>Power consumption</b>	1W
<b>Class of insulation</b>	class F
<b>Protection class</b>	IP50

CODING EXAMPLE											
<b>E</b>	<b>5</b>	<b>2</b>	<b>1</b>	<b>-</b>	<b>11</b>	<b>-</b>	<b>10</b>	<b>-</b>	<b>K</b>	<b>1</b>	<b>3</b>
<b>E</b>	SERIES										
<b>5</b>	FUNCTION: 5 = 5/2 6 = 5/3 Centres Closed 7 = 5/3 Centres Open 8 = 5/3 Centres in Pressure										
<b>2</b>	SIZE: 2 = 10,5 mm										
<b>1</b>	BODY TYPE: 1 = body with threaded plate										
<b>11</b>	ACTUATION: 11 = electro-pneumatic, bistable 16 = electro-pneumatic, monostable 33 = pneumatic bistable - tube 3 36 = pneumatic monostable - tube 4 C33 = pneumatic bistable - tube 4 C36 = pneumatic monostable - tube 4										
<b>10</b>	INTERFACE: 10										
<b>K</b>	TYPE OF SOLENOID: K										
<b>1</b>	SOLENOID DIMENSION: 1 = 10x10										
<b>3</b>	SOLENOID VOLTAGE: 1 = 6V DC 2 = 12V DC 3 = 24V DC										

Pneumatically actuated valve, monostable - size 10,5

5/2-way

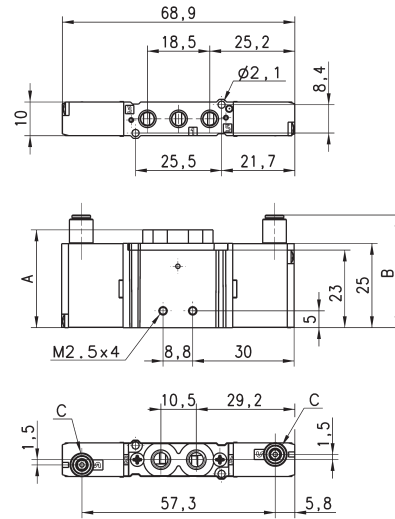
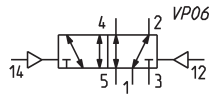
Note: the pilot pressure should never be lower than the operating pressure.



Mod.	A	B	C	Ports 1-3-5	Ports 2-4	Min pilot pressure (bar)	Working pressure (bar)	Flow rate (NI/min)
<b>E521-36</b>	29	33,4	Ø 3	M5	M5	2,5	2,5 + 7	200
<b>E521-C36</b>	29	39,1	Ø 4	M5	M5	2,5	2,5 + 7	200

## Pneumatically actuated valve, bistable - size 10,5

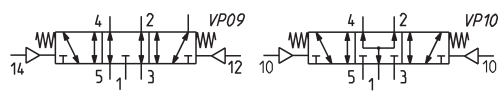
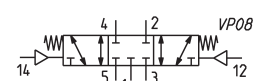
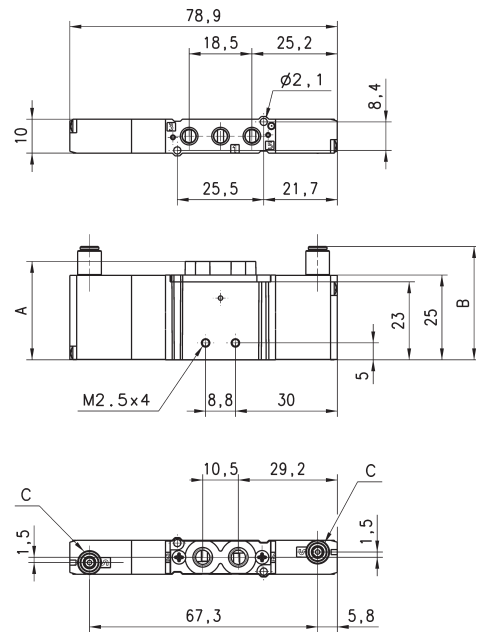
5/2-way



Mod.	A	B	C	Ports 1-3-5	Ports 2-4	Min pilot pressure (bar)	Working pressure (bar)	Flow rate (NL/min)
<b>E521-33</b>	29	33,4	Ø 3	M5	M5	1	-0,9 + 7	200
<b>E521-C33</b>	29	39,1	Ø 4	M5	M5	1	-0,9 + 7	200

## Pneumatically actuated valve - size 10,5

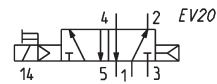
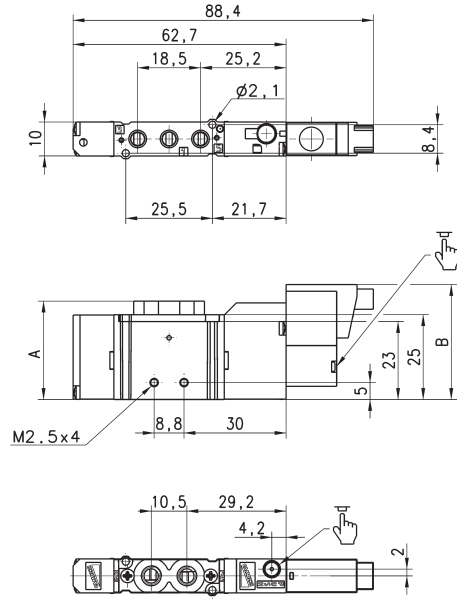
5/3-way

 CC = Centres closed  
 CO = Centres open  
 CP = Pressure centres


Mod.	A	B	C	Ports 1-3-5	Ports 2-4	Min pilot pressure (bar)	Working pressure (bar)	Flow rate NL/min	Symbol
<b>E621-33</b>	29	33,4	Ø 3	M5	M5	2	-0,9 + 7	200	VP08
<b>E621-C33</b>	29	39,1	Ø 4	M5	M5	2	-0,9 + 7	200	VP08
<b>E721-33</b>	29	33,4	Ø 3	M5	M5	2	-0,9 + 7	200	VP09
<b>E721-C33</b>	29	39,1	Ø 4	M5	M5	2	-0,9 + 7	200	VP09
<b>E821-33</b>	29	33,4	Ø 3	M5	M5	2	-0,9 + 7	200	VP10
<b>E821-C33</b>	29	39,1	Ø 4	M5	M5	2	-0,9 + 7	200	VP10

Electropneumatically actuated valve, monostable - size 10,5

5/2-way



For solenoid valves with solenoid type K, use connector 121-8...

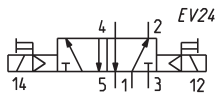
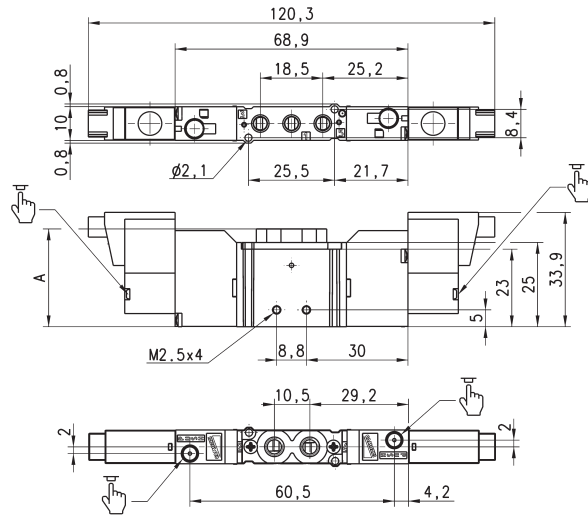
DIMENSIONS					
Mod.	A	Ports 1-3-5	Ports 2-4	working P. (bar)	Flow rate (NI/min)
E521-16-10-K10	29	M5	M5	2,5 ÷ 7	200

Electropneumatically actuated valve, bistable - size 10,5

5/2-way



Use connector Mod. 121-8... (see page 2/1.05.05).



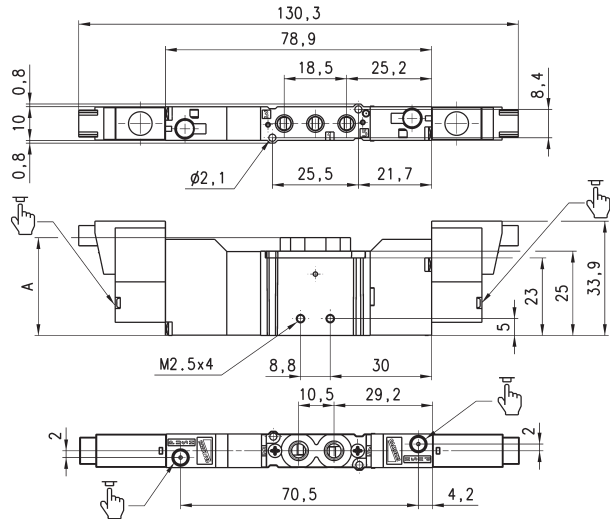
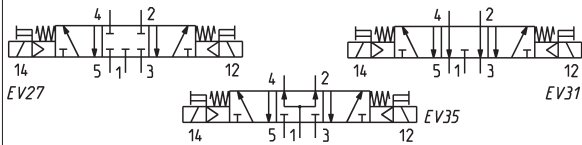
Mod.	A	Ports 1-3-5	Ports 2-4	working P. (bar)	Flow rate (NI/min)
E521-11-10-K10	29	M5	M5	1 ÷ 7	200

## Electropneumatically actuated valve - size 10,5

5/3-way  
 CC = Centres Closed  
 CO = Centres Open  
 CP = Centres in Pressure



Use connector Mod. 121-8... (see page 2/1.05.05).

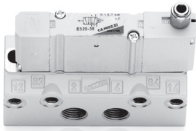


Mod.	A	Ports 1-3-5	Ports 2-4	working P. (bar)	Flow rate (NI/min)	Symbol
<b>E621-11-10-K10</b>	29	M5	M5	2 + 7	200	EV27
<b>E721-11-10-K10</b>	29	M5	M5	2 + 7	200	EV31
<b>E821-11-10-k10</b>	29	M5	M5	2 + 7	200	EV35

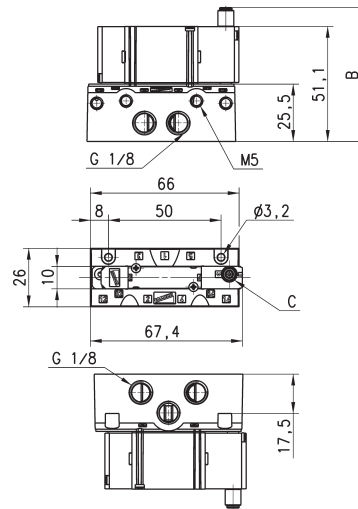
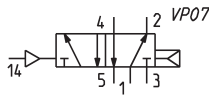
CODING EXAMPLE											
<b>E</b>	<b>5</b>	<b>2</b>	<b>0</b>	<b>-</b>	<b>11</b>	<b>-</b>	<b>10</b>	<b>-</b>	<b>K</b>	<b>1</b>	<b>3</b>
<b>E</b>	SERIES:										
<b>5</b>	FUNCTION: 5 = 5/2 6 = 5/3 Centres Closed 7 = 5/3 Centres Open 8 = 5/3 Centres in Pressure										
<b>2</b>	SIZE: 2 = 10,5 mm										
<b>0</b>	BODY TYPE: 0 = body for sub-base										
<b>11</b>	ACTUATION: 11 = electropneumatic bistable 16 = electropneumatic monostable 33 = pneumatic bistable - tube Ø 3 36 = pneumatic monostable - tube Ø 3 C33 = pneumatic bistable - tube Ø 4 C36 = pneumatic monostable - tube Ø 4										
<b>10</b>	INTERFACE: 10										
<b>K</b>	TYPE OF SOLENOID: K										
<b>1</b>	SOLENOID DIMENSIONS: 1 = 10x10										
<b>3</b>	SOLENOID VOLTAGE: 1 = 6V DC 2 = 12V DC 3 = 24V DC										

Pneumatically actuated valve, monostable - size 10,5

5/2-way



The single base is ordered separately from the valve. The pilot pressure should never be lower than the operating pressure.



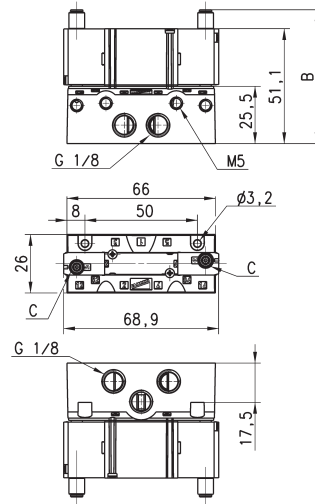
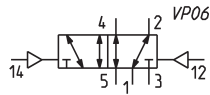
DIMENSIONS					
Mod.	B	C	min. pil P. (bar)	working P. bar	Flow rate (NI/min)
<b>E520-36</b>	59,5	Ø3	2,5	2,5 ÷ 7	280
<b>E520-C36</b>	65,2	Ø4	2,5	2,5 ÷ 7	280

**Pneumatically actuated valve, bistable - size 10,5**

5/2-way



The single base is ordered separately from the valve.


**DIMENSIONS**

Mod.	B	C	min. pil P. (bar)	working P. (bar)	Flow rate (NI/min)
<b>E520-33</b>	59,5	Ø3	1	-0,9 ÷ 7	280
<b>E520-C33</b>	65,2	Ø4	1	-0,9 ÷ 7	280

**Pneumatically actuated valve - size 10,5**

5/3-way

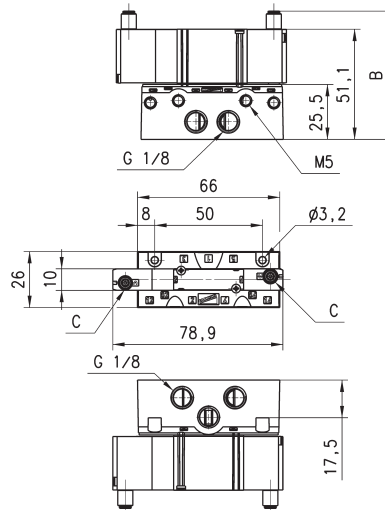
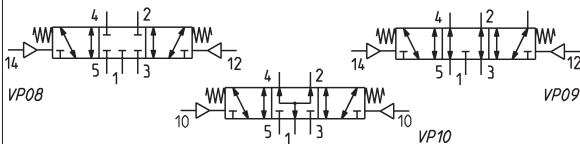
CC = Centres Closed

CO = Centres Open

CP = Centres in Pressure



The single base is ordered separately from the valve.

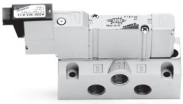

**DIMENSIONS**

Mod.	B	C	min. pil P. (bar)	working P. (bar)	Flow rate (NI/min)	Symbol
<b>E620-33</b>	59,5	Ø3	2	-0,9 ÷ 7	280	VP08
<b>E620-C33</b>	65,5	Ø4	2	-0,9 ÷ 7	280	VP08
<b>E720-33</b>	59,5	Ø3	2	-0,9 ÷ 7	280	VP09
<b>E720-C33</b>	65,5	Ø4	2	-0,9 ÷ 7	280	VP09
<b>E820-33</b>	59,5	Ø3	2	-0,9 ÷ 7	280	VP10
<b>E820-C33</b>	65,5	Ø4	2	-0,9 ÷ 7	280	VP10

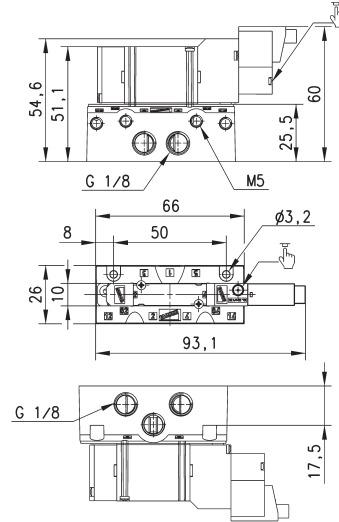
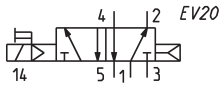
Electropneumatically actuated valve, monostable - size 10,5

5/2-way

In case of separate pilot supply, the pilot pressure should never be lower than the operating pressure.



The single base is ordered separately from the valve.



DIMENSIONS

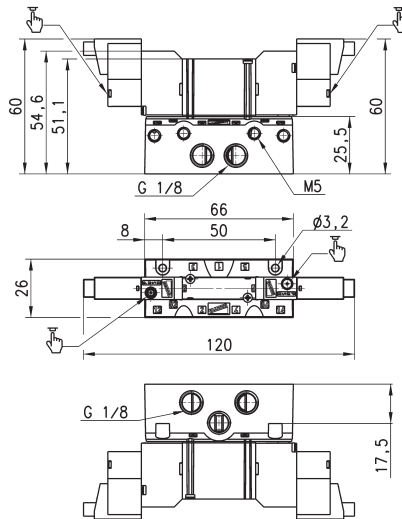
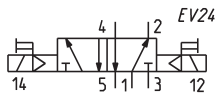
Mod.	working P. (bar)	Flow rate (NI/min)
E520-16-10-K10	2 ÷ 7	280

Electropneumatically actuated valve, bistable - size 10,5

5/2-way



The single base is ordered separately from the valve.



Mod.	working P. bar	Flow rate NI/min
E520-11-10-K10	2 ÷ 7	280

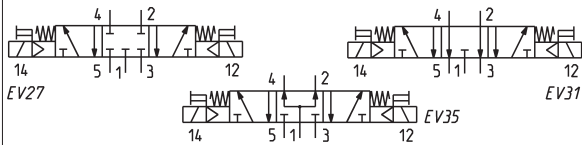
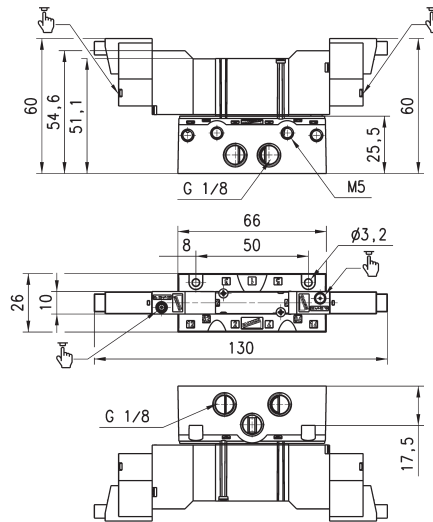


**Electropneumatically actuated valve - size 10,5**

5/3-way  
 CC = Centres Closed  
 CO = Centres Open  
 CP = Centres in Pressure



The single base is ordered separately from the valve



Mod.	working P. bar	Flow rate NI/min	Symbol
<b>E620-11-10-K10</b>	2 ÷ 7	280	EV27
<b>E720-11-10-K10</b>	2 ÷ 7	280	EV31
<b>E820-11-10-K10</b>	2 ÷ 7	280	EV35

**Torque for securing screws on manifolds and single sub-base**

Mod.	Size (mm)	Torque (Nm)
E52...	10,5	0,3 ÷ 0,35

**CODING EXAMPLE**

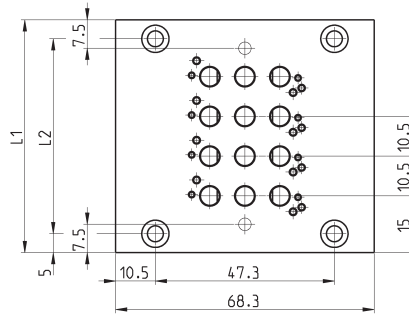
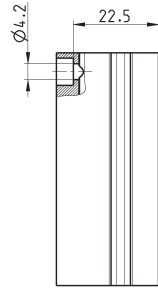
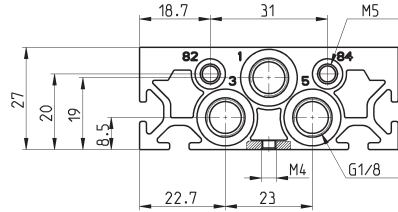
<b>E5</b>	<b>2</b>	<b>1</b>	<b>-</b>	<b>1</b>	<b>0</b>	<b>02</b>
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<b>E5</b>	SERIES
<b>2</b>	SIZE: 2 = size 10,5
<b>1</b>	BODY TYPE: 0 = body for sub-base assembly 1 = body with threads or tube port
<b>1</b>	TYPE OF SUB-BASE: 0 = single sub-base with side outlets 1 = manifold for threaded valve 2 = manifold for body mounted valve
<b>0</b>	PORTS: 0 = for valves with outlets on the body 1 = threaded C = tube 4
<b>02</b>	N° OF POSITIONS: 01 = single 03, 04, 06, 08, 10, 12 = multiple

NOTE: When constructing manifolds with 10 or more stations, it is recommended, in order to reduce the risk of pressure drop within the assembly, that pressure is supplied to port 1 at each end of the block. The exhaust ports 3 and 5 at each end should also be utilized (size 10,5 and 16 mm). The same provision should be made for 5 station manifolds of the 19 mm valves.  
Manifolds complete with ports for external pilot supply are available on request.

**Manifolds for valves with outlets on the body Size 10,5**

The manifolds have been manufactured with common inlet and exhausts 3 and 5. There are also common exhausts for pilots 82 and 84.



Note: the manifolds are supplied complete with the seals and the valves, fixing screws.

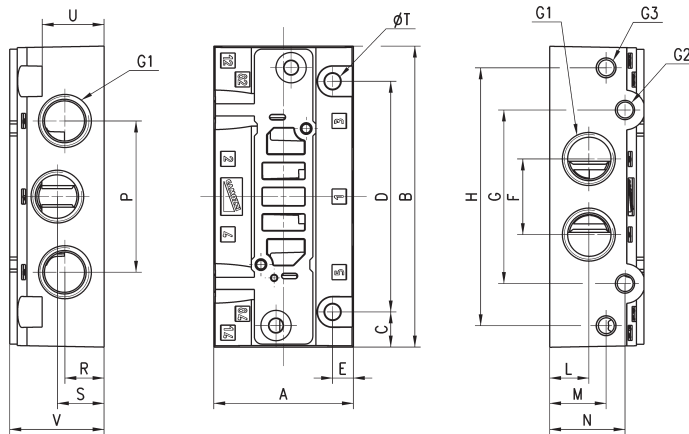
**DIMENSIONS**

Mod.	Size	Nr positions	02	03	04	05	06	07	08	09	10	11	12
<b>E521-10..</b>	10.5	L1	40.5	51	61.5	72	82.5	93	103.5	114	124.5	135	145.5
<b>E521-10..</b>	10.5	L2	30.5	41	51.5	62	72.5	83	93.5	104	114.5	125	135.5

Single sub-base for base mounted valves - size 10,5



Note: The valve and its single sub-base are available on request.

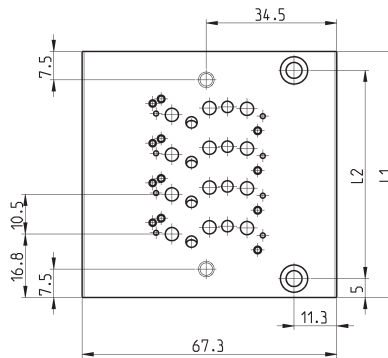
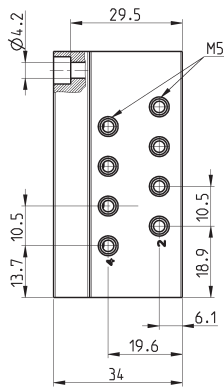
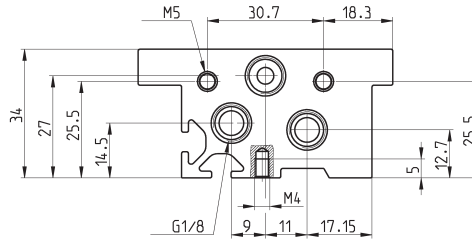


DIMENSIONS

Mod.	Size	G1	G2	G3	A	B	C	D	E	F	G	H	L	M	N	P	R	S	T	U	V
<b>E520-0101</b>	10,5	G1/8	M5	M5	26	66	8	50	4	15	37,3	57,3	8,2	17	18	24,5	8,2	17,2	32	17,5	25,5

**Manifolds for base mounted valves size 10,5**

The manifolds have been manufactured with common inlet 1 and exhaust 3 and 5. There are also common exhausts for pilots 82 and 84.


**DIMENSIONS**

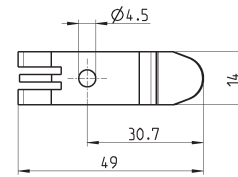
Mod.	Size	Nr positions	02	03	04	05	06	07	08	09	10	11	12
<b>E520-21..</b>	10.5	L1	44	54.5	65	75.5	86	96.5	107	117.5	128	138.5	149
<b>E520-21..</b>	10.5	L2	34	44.5	55	65.5	76	86.5	97	107.5	118	128.5	139
<b>E520-2C..</b>	10.5	L1	44	54.5	65	75.5	86	96.5	107	117.5	128	138.5	149
<b>E520-2C..</b>	10.5	L2	34	44.5	55	65.5	76	86.5	97	107.5	118	128.5	139



**Mounting brackets for DIN rail**


DIN EN 50022 (7,5mm x 35mm - width 1)  
Suitable for all manifolds.

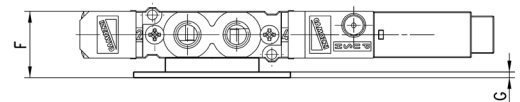
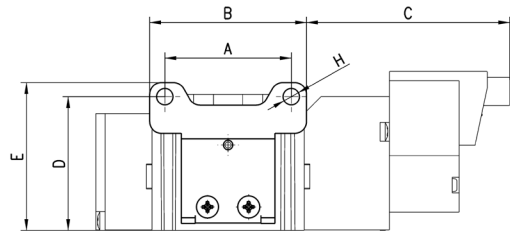
Supplied with:  
2x plates  
2x screws M4x6 UNI 5931



Mod.  
**PCF-E520**

**Horizontal mounting foot bracket for valves with outlets on the body**

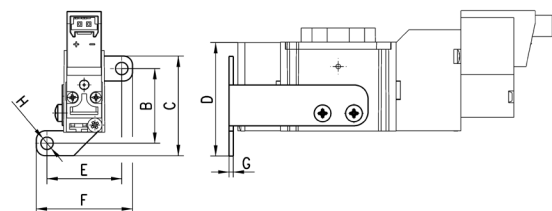
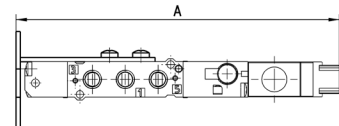

The following is supplied:  
1x foot bracket  
2x screws.


**DIMENSIONS**

Mod.	Size	A	B	C	D	E	F	G	H
<b>B1-E521</b>	10,5	27	33,5	43,4	28,5	31,5	14,2	1,2	3,5

**Vertical mounting foot bracket for valves with outlets on the body**


The following is supplied:  
1x foot bracket  
2x screws  
Monostable valves only.

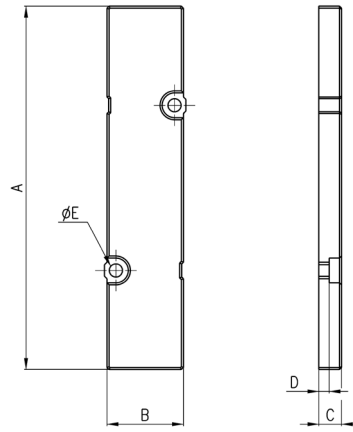

**DIMENSIONS**

Mod.	Size	A	B	C	D	E	F	G	H
<b>B2-E521</b>	10,5	90,8	21	28	31,9	21	27	1,2	3,5

Blanking plate for manifolds - valves with outlets on the body



The following is supplied:  
 1x blanking plate  
 2x screws  
 1x seal.



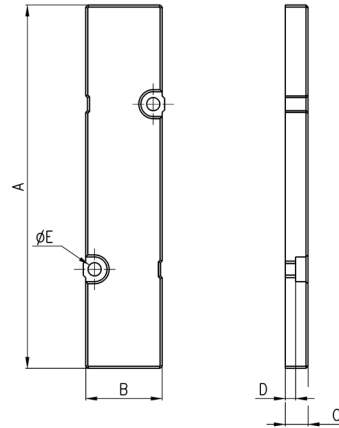
DIMENSIONS

Mod.	Size	A	B	C	D	$\phi E$
TP-E521	10,5	66	10	6	3,5	2,1

Blanking plate for manifolds - base mounted valves



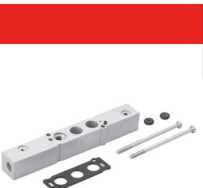
The following is supplied:  
 1x blanking plate  
 2x screws  
 1x seal.



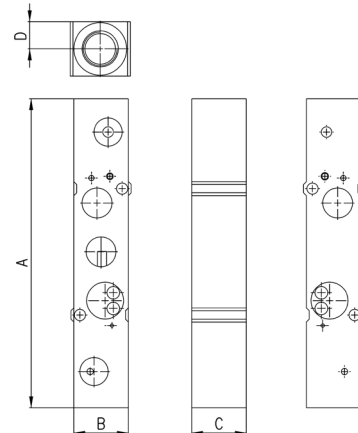
DIMENSIONS

Mod.	Size	A	B	C	D	$\phi E$
TP-E520	10,5	66	10	6	3,5	2,1

Intermediate plate for valves to provide a separate supply in 1



Base mounted valves.  
 The following is supplied:  
 1x plate  
 2x screws  
 1x interface seal  
 2x O-Ring.



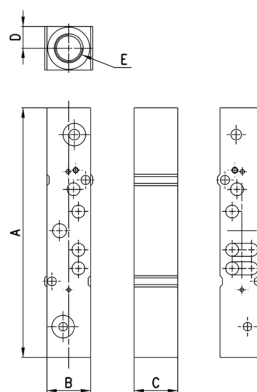
DIMENSIONS

Mod.	Size	A	B	C	D	E
PCP-E521	10,5	72,5	10	10	5	M5



**Intermediate plate for valves to provide a separate supply in 1**

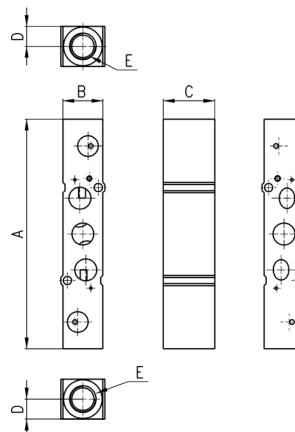

Base mounted valves.  
The following is supplied:  
1x plate  
2x screws  
1x interface seal  
2x OR.


**DIMENSIONS**

Mod.	Size	A	B	C	D	E
PCP-E520	10,5	72,5	10	10	5	M5

**Intermediate plate for valves to provide separate supply in 3 and 5**

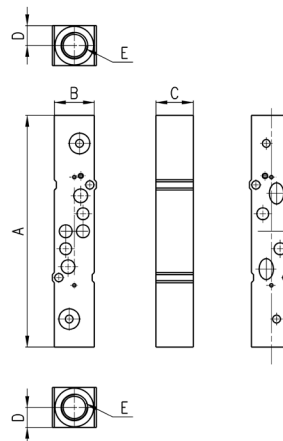

Kits for valves with outlets on the body  
Mod. E2\*1-\*\*.  
The following is supplied:  
1x plate  
2x screws  
1x interface seal  
2x OR.


**DIMENSIONS**

Mod.	Size	A	B	C	D	E
PCS-E521	10,5	76	10	10	5	M5

**Intermediate plate for valves to provide separate supply in 3 and 5**


Kits for valves mounted on sub-base  
Mod. E2\*0-\*\*.  
The following is supplied:  
1x plate  
2x screws  
1x interface seal  
2x OR.


**DIMENSIONS**

Mod.	Size	A	B	C	D	E
PCS-E520	10,5	76	10	10	5	M5