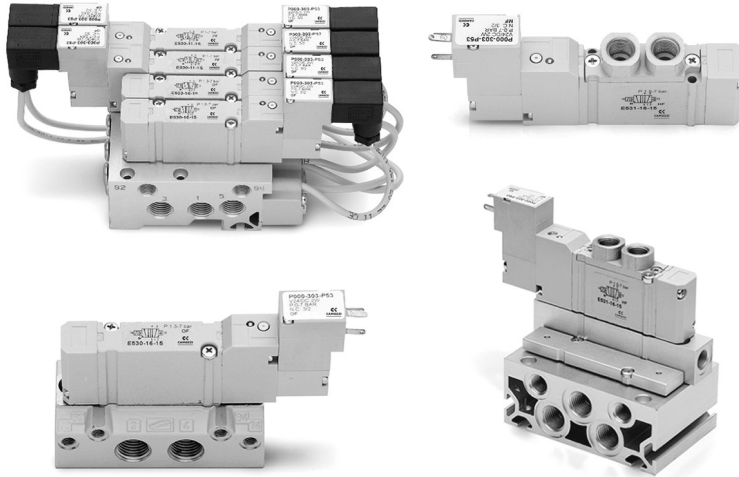


# Series E valves and solenoid valves

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 AND SOLENOID VALVES



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										

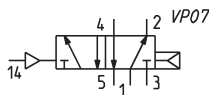
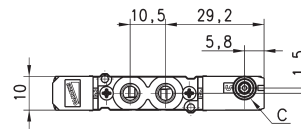
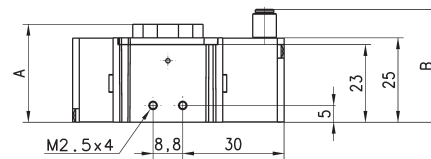
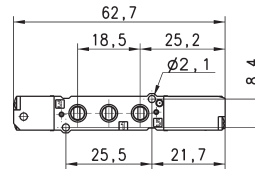
SERIES E VALVES AND SOLENOID VALVES

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

5/2-way



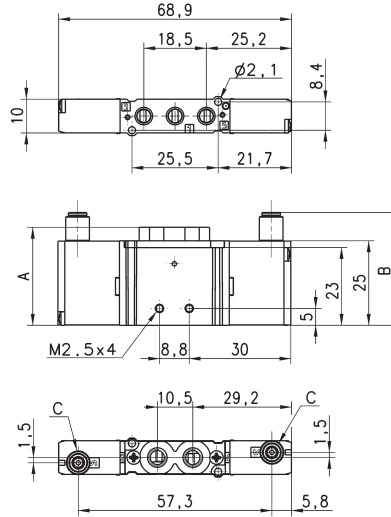
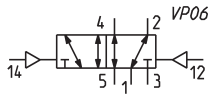
Note: the pilot pressure should never be lower than the operating pressure.



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

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

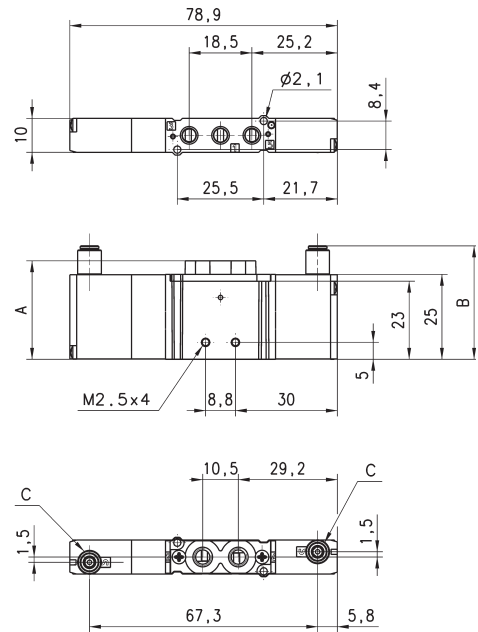
5/2-way



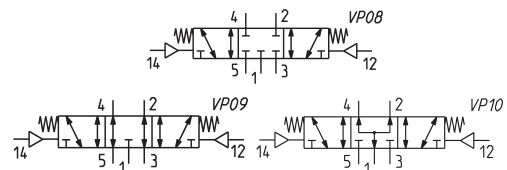
Mod.	A	B	C	Ports 1-3-5	Ports 2-4	Min pilot pressure (bar)	Working pressure (bar)	Flow rate (NL/min)
E521-33	29	33,4	∅ 3	M5	M5	1	-0,9 ÷ 7	200
E521-C33	29	39,1	∅ 4	M5	M5	1	-0,9 ÷ 7	200

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

5/3-way  
CC = Centres closed  
CO = Centres open  
CP = Pressure centres

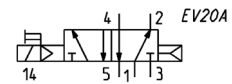
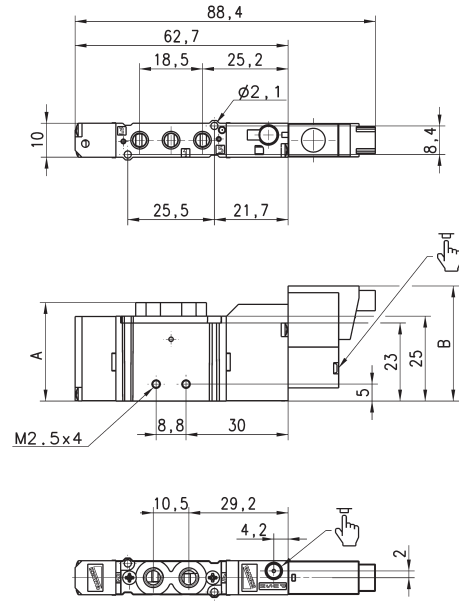


Mod.	A	B	C	Ports 1-3-5	Ports 2-4	Min pilot pressure (bar)	Working pressure (bar)	Flow rate NL/min	Symbol
E621-33	29	33,4	∅ 3	M5	M5	2	-0,9 ÷ 7	200	VP08
E621-C33	29	39,1	∅ 4	M5	M5	2	-0,9 ÷ 7	200	VP08
E721-33	29	33,4	∅ 3	M5	M5	2	-0,9 ÷ 7	200	VP09
E721-C33	29	39,1	∅ 4	M5	M5	2	-0,9 ÷ 7	200	VP09
E821-33	29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

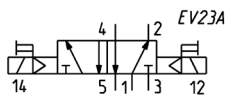
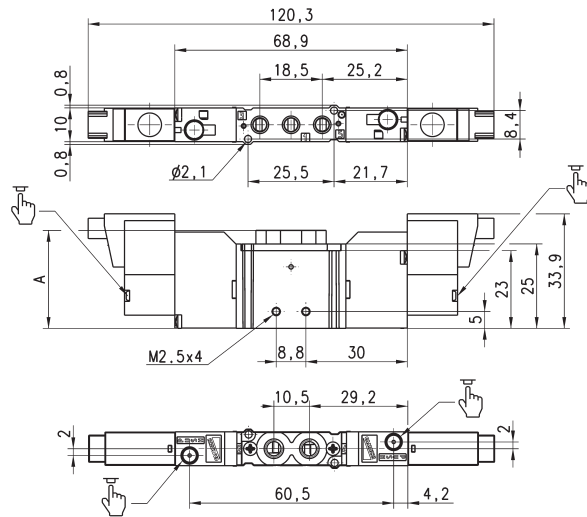
DIMENSIONS					
Mod.	A	Ports 1-3-5	Ports 2-4	working P. (bar)	Flow rate (NI/min)
E521-16-10-K1..	29	M5	M5	2,5 ÷ 7	200

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

5/2-way



Use connector Mod. Mod. 121-8..



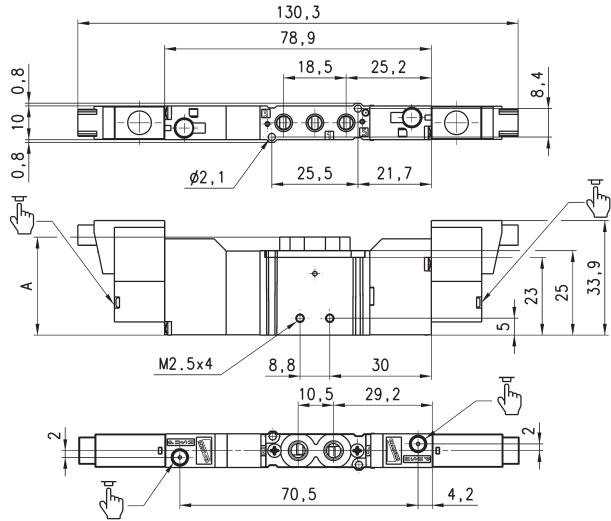
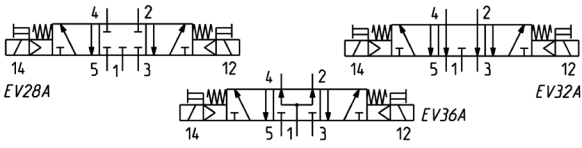
Mod.	A	Ports 1-3-5	Ports 2-4	working P. (bar)	Flow rate (NI/min)
E521-11-10-K1..	29	M5	M5	1 ÷ 7	200

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



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

Use connector Mod. 121-8...



Mod.	A	Ports 1-3-5	Ports 2-4	working P. (bar)	Flow rate (Nl/min)	Symbol
E621-11-10-K1..	29	M5	M5	2 ÷ 7	200	EV27
E721-11-10-K1..	29	M5	M5	2 ÷ 7	200	EV31
E821-11-10-K1..	29	M5	M5	2 ÷ 7	200	EV36A

SERIES E VALVES AND SOLENOID VALVES

**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										

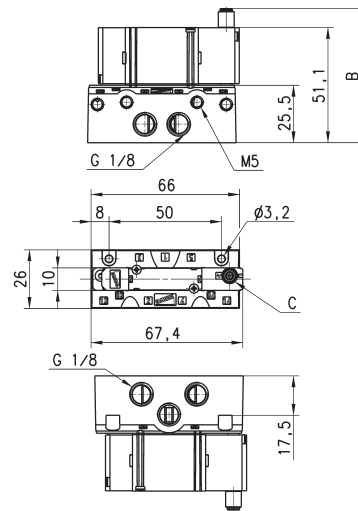
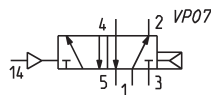
SERIES E VALVES AND SOLENOID VALVES

**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.



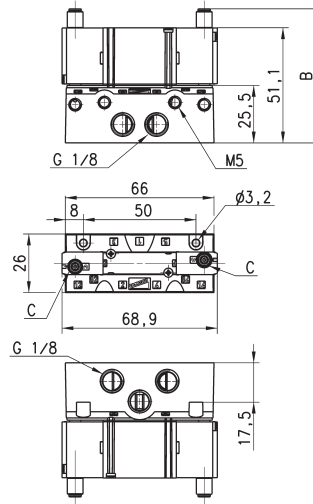
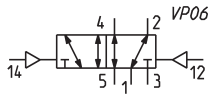
DIMENSIONS					
Mod.	B	C	min. pil P. (bar)	working P. bar	Flow rate (NL/min)
E520-36	59,5	Ø3	2,5	2,5 ÷ 7	280
E520-C36	65,2	Ø4	2,5	2,5 ÷ 7	280

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

5/2-way



The single base is ordered separately from the valve.



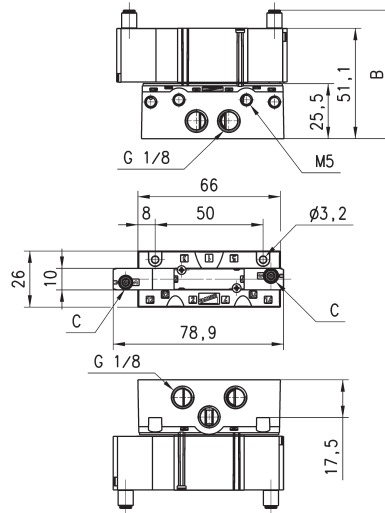
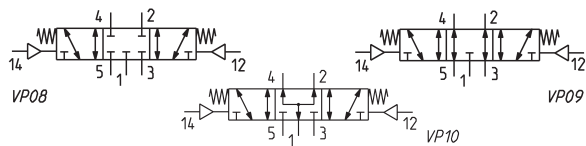
DIMENSIONS					
Mod.	B	C	min. pil P. (bar)	working P. (bar)	Flow rate (NL/min)
E520-33	59,5	Ø3	1	-0,9 ÷ 7	280
E520-C33	65,2	Ø4	1	-0,9 ÷ 7	280

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

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



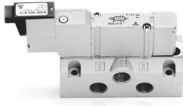
The single base is ordered separately from the valve.



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

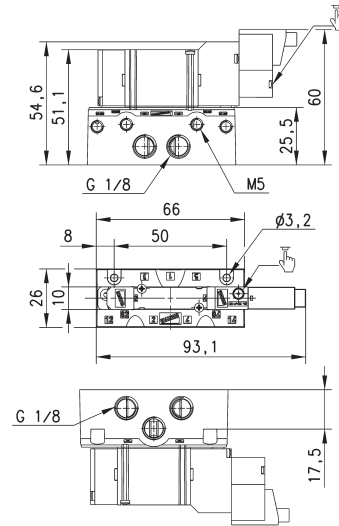
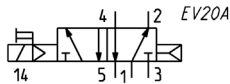
### Electropneumatically actuated valve, monostable - size 10,5

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.



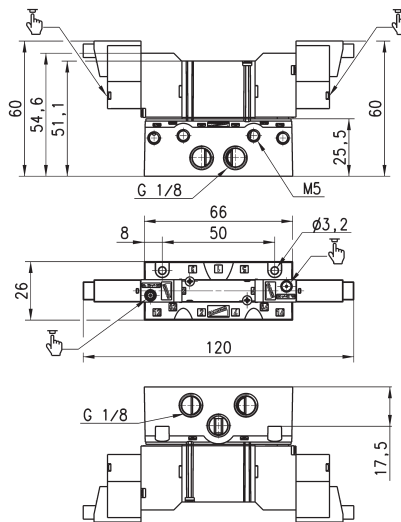
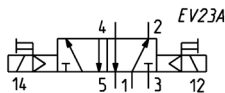
DIMENSIONS		
Mod.	working P. (bar)	Flow rate (NI/min)
E520-16-10-K1..	2 ÷ 7	280

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

5/2-way



The single base is ordered separately from the valve.



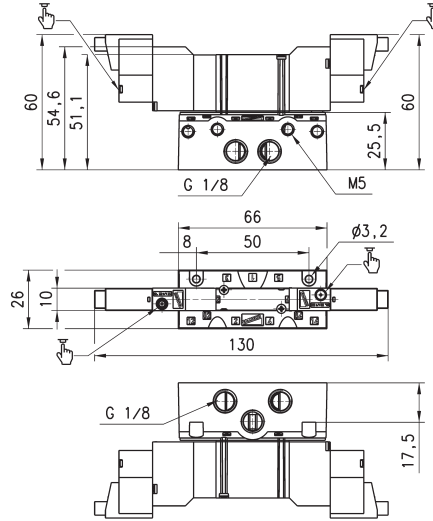
DIMENSIONS		
Mod.	working P. bar	Flow rate NI/min
E520-11-10-K1..	2 ÷ 7	280



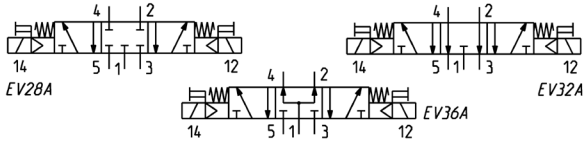
## Electropneumatically actuated valve - size 10,5



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
E620-11-10-K1..	2 ÷ 7	280	EV27
E720-11-10-K1..	2 ÷ 7	280	EV31
E820-11-10-K1..	2 ÷ 7	280	EV36A

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

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

### CODING EXAMPLE

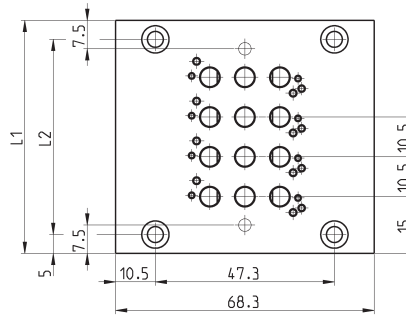
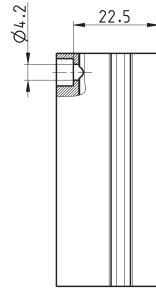
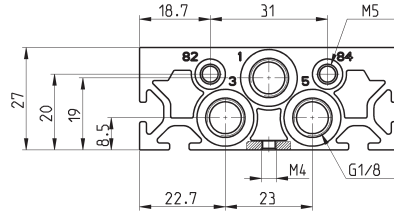
<b>E5</b>	<b>2</b>	<b>1</b>	<b>-</b>	<b>1</b>	<b>0</b>	<b>02</b>
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<b>E5</b>	SERIES
<b>2</b>	SIZE: 2 = size 10,5
<b>1</b>	BODY TYPE: 0 = body for sub-base assembly 1 = body with threads or tube port
<b>1</b>	TYPE OF SUB-BASE: 0 = single sub-base with 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.

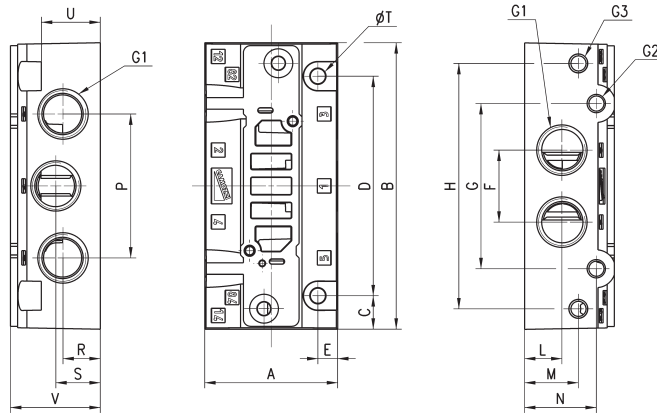
### DIMENSIONS

Mod.	Size	Nr positions	02	03	04	05	06	07	08	09	10	11	12
E521-10..	10.5	L1	40.5	51	61.5	72	82.5	93	103.5	114	124.5	135	145.5
E521-10..	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.



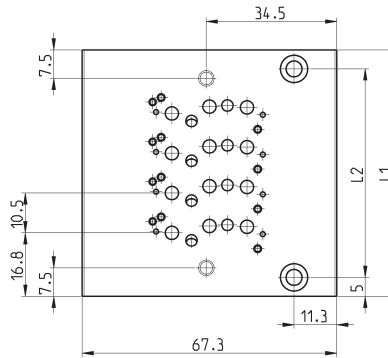
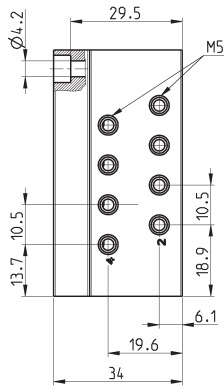
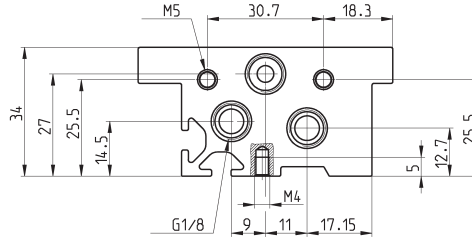
DIMENSIONS																					
Mod.	Size	G1	G2	G3	A	B	C	D	E	F	G	H	L	M	N	P	R	S	T	U	V
E520-0101	10,5	G1/8	M5	M5	26	66	8	50	4	15	37,3	57,3	8,2	17	18	24,5	8,2	17,2	32	17,5	25,5

SERIES E VALVES AND SOLENOID VALVES

## 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.

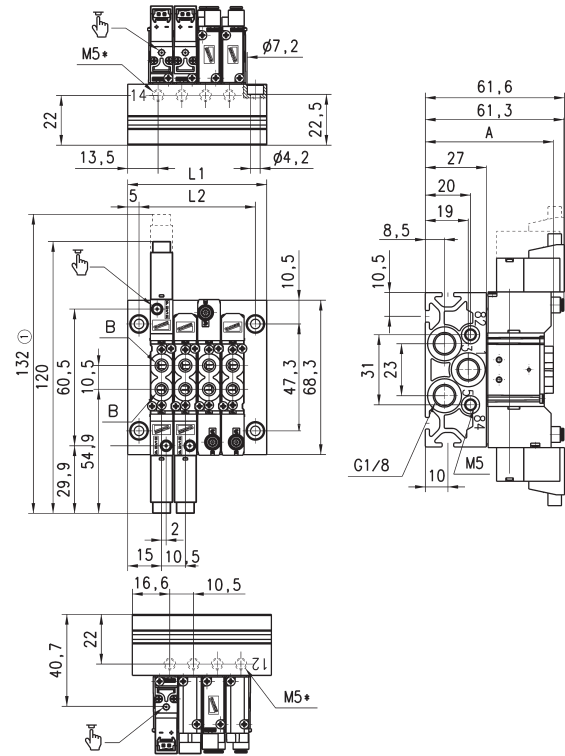


### DIMENSIONS

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

**Manifolds with valves with outlets on the body - size 10.5**

5/2 and 5/3, ports M5

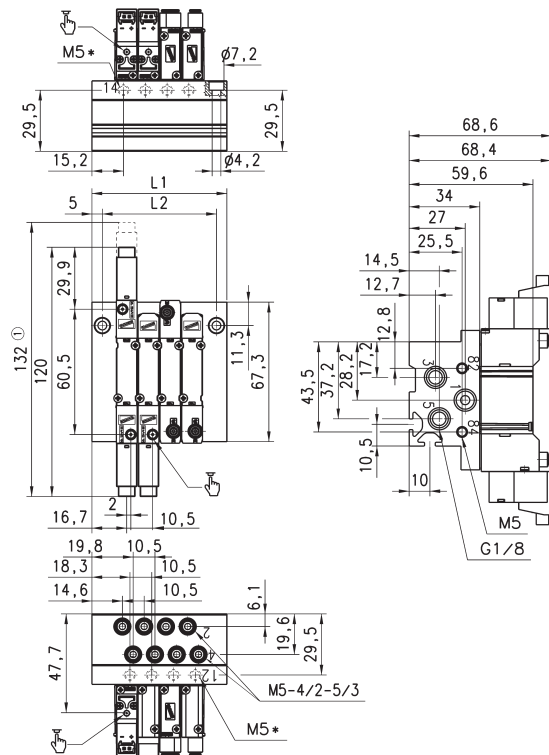


DIMENSIONS					
Mod.	A	B	L1 - L2 N° 1 Position	L1 - L2 N° 2 Positions	Fixed quote for position
E521	56,6	M5	40,5 - 30,5	51 - 41	10,5
E52C	65,1	4/2	40,5 - 30,5	51 - 41	10,5

Size referred to 5/3 valve M5\*  
Separate pilot supply on request.

**Manifolds with valves for subbase - size 10.5**

5/2 and 5/3



DIMENSIONS												
N° Positions	2	3	4	5	6	7	8	9	10	11	12	
L1	44	54,5	65	75,5	86	96,5	107	117,5	128	138,5	149	
L2	34	44,5	55	65,5	76	86,5	97	107,5	118	128,5	139	

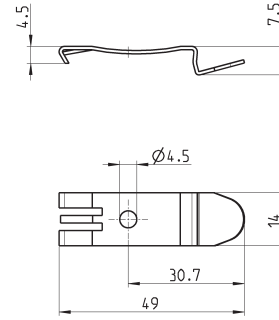
(1) Size referred to 5/3 valve M5\* Separate pilot supply on request.

### 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

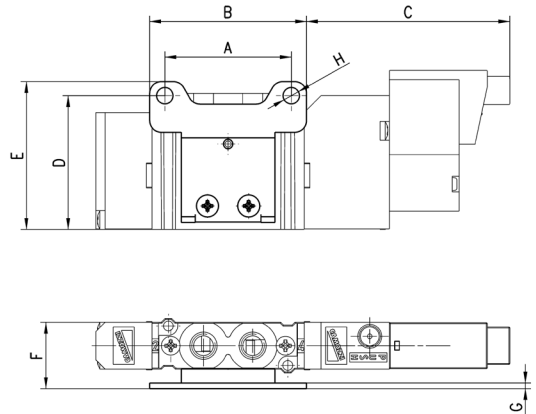


Mod.	PCF-E520
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### Horizontal mounting foot bracket for valves with outlets on the body



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

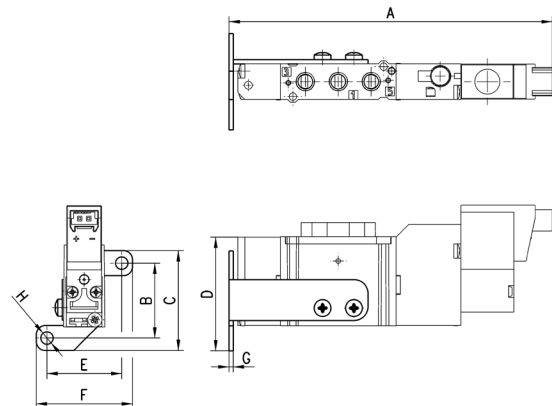


DIMENSIONS									
Mod.	Size	A	B	C	D	E	F	G	H
B1-E521	10,5	27	33,5	43,4	28,5	31,5	14,2	1,2	3,5

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



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

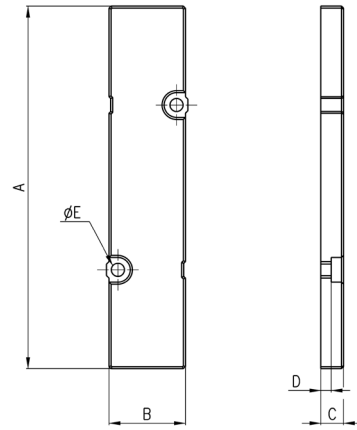


DIMENSIONS									
Mod.	Size	A	B	C	D	E	F	G	H
B2-E521	10,5	90,8	21	28	31,9	21	27	1,2	3,5

**Blanking plate for manifolds - valves with outlets on the body**



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

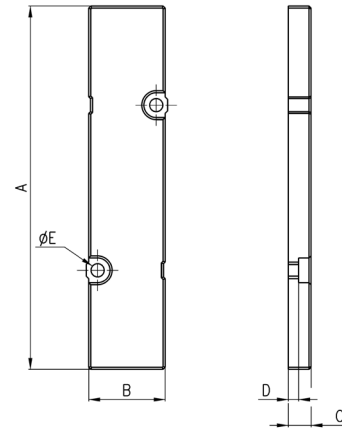


DIMENSIONS					
Mod.	Size	A	B	D	$\varnothing E$
TP-E521	10,5	66	10	3,5	2,1

**Blanking plate for manifolds - base mounted valves**



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

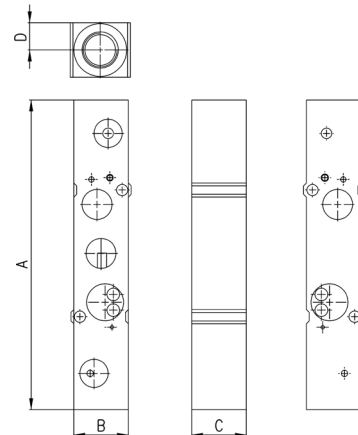


DIMENSIONS						
Mod.	Size	A	B	C	D	$\varnothing E$
TP-E520	10,5	66	10	6	3,5	2,1

**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.



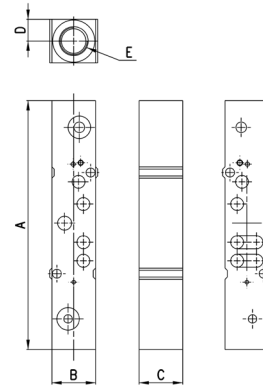
DIMENSIONS						
Mod.	Size	A	B	C	D	E
PCP-E521	10,5	72,5	10	10	5	M5



**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.

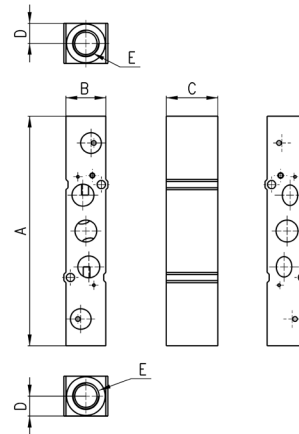


DIMENSIONS						
Mod.	Size	A	B	C	D	E
PCP-E520	10,5	72,5	10	10	5	M5

**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.

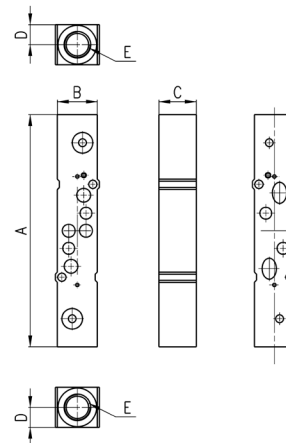


DIMENSIONS						
Mod.	Size	A	B	C	D	E
PCS-E521	10,5	76	10	10	5	M5

**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