

# Series 3 valves and solenoid valves

2x3/2, 3/2, 5/2 and 5/3-way CC CO CP  
Ports G1/8 and G1/4



Series 3 solenoid valves with G1/8 and G1/4 ports have been designed in the 3/2, 2 x 3/2, 5/2, 5/3 versions and with the following two devices of actuation:

- Electropneumatically actuated with mechanical spring return
- Electropneumatically actuated with external and internal air pressure supply

Series 3 valves are equipped with a manual override which allows a stable operation and they can use Series U or G solenoids (22x22).

Pneumatically actuated valves 3/2 NC become NO when the supply is on connection 3.

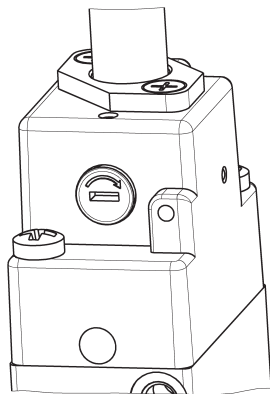
## GENERAL DATA

<b>Construction</b>	spool - type
<b>Valve group</b>	2x3/2 - 3/2 - 5/2 - 5/3-way CC CO CP
<b>Materials</b>	AL body, stainless steel spool, NBR seals
<b>Ports</b>	G1/8 - G1/4
<b>Installation</b>	in any position
<b>Operating temperature</b>	0 ÷ 60°C (with dry air at -20°C)
<b>Operating pressure</b>	see tables
<b>Fluid</b>	filtered air, without lubrication. If lubricated air is used, it is recommended to use ISOVG32 oil. Once applied the lubrication should never be interrupted.

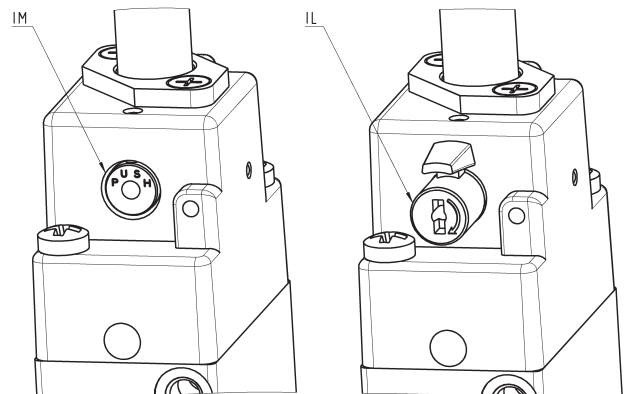
**CODING EXAMPLE**

<b>3</b>	<b>3</b>	<b>8</b>	<b>D</b>	<b>-</b>	<b>015</b>	<b>-</b>	<b>02</b>	<b>-</b>	<b>U7</b>	<b>7</b>
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<b>3</b>	SERIES
<b>3</b>	NUMBER OF WAYS - POSITIONS: 3 = 3/2 NC 4 = 3/2 NO 5 = 5/2 6 = 5/3 CC 7 = 5/3 CO 8 = 5/3 CP 9 = 1x3/2 NC + 1x3/2 NO
<b>8</b>	PORTS: 8 = G1/8 4 = G1/4
<b>D</b>	VERSION: = standard D = double valve 2x3/2 L = for manifold assembly (only for solenoid valves 3/2 with G1/8 ports)
<b>015</b>	ACTUATION: 011 = double solenoid 015 = single solenoid, spring return 016 = single solenoid, pneumatic spring return E11 = double solenoid external servo-command E15 = single solenoid, external servo-command 033 = pneumatic pneumatic 035 = pneumatic spring
<b>22</b>	SOLENOID INTERFACE: 02 = mech. sol. 22 x 22
<b>U7</b>	ENCAPSULATING MATERIAL / SOLENOID DIMENSIONS: A8 = PPS / 30 x 30 G7 = PA / 22 x 22 G8 = PA / 30 x 30 (24 V DC only) G9 = PA / 22 x 58 H8 = PA 6 V0 / 30 x 30 U7 = PET / 22 x 22
<b>7</b>	SOLENOID VOLTAGE: see the solenoids section from page 2.2.35.01
	TYPE OF MANUAL OVERRIDE: = bistable, standard IL = bistable, lever type (available on demand) IM = monostable (available on demand)

**TYPES OF MANUAL OVERRIDE**


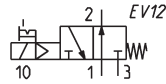
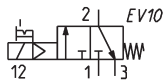
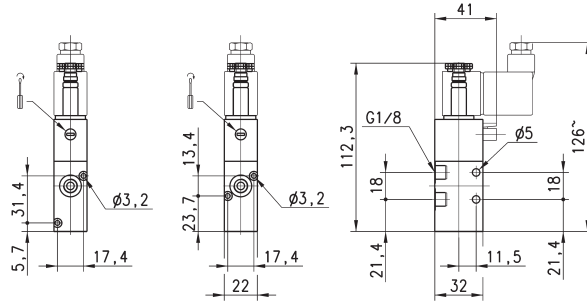
Example of solenoid valve with a bistable standard manual override.



Example of solenoid monostable valve (IM) and bistable valve with a lever type manual override (IL). Both versions are available on demand. To order them it is necessary to add IM or IL at the end of the code. Code ex.: 454-015-22-U77IL.

3/2-way solenoid valve, G1/8, monostable - Mod. 338..., Mod 348...

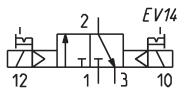
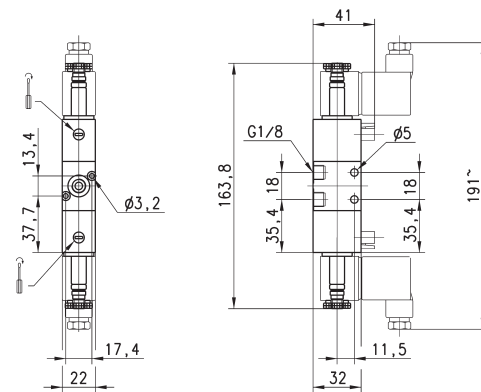
These solenoid valves, which have electropneumatic actuation and spring return, are available in the NC (closed) or NO (open) version.



Mod.	Mounting	Function	Flow rate (NI/min)	Operating pressure (bar)	Symbol
338-015-02	in-line	3/2 NC	700	2,5 ÷ 10	EV10
338L-015-02	on manifold	3/2 NC	700	2,5 ÷ 10	EV10
348-015-02	in-line	3/2 NO	700	2,5 ÷ 10	EV12
348L-015-02	on manifold	3/2 NO	700	2,5 ÷ 10	EV12

3/2-way solenoid valve, G1/8, bistable - Mod. 338...

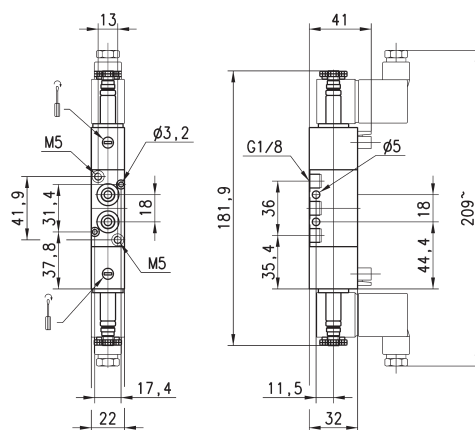
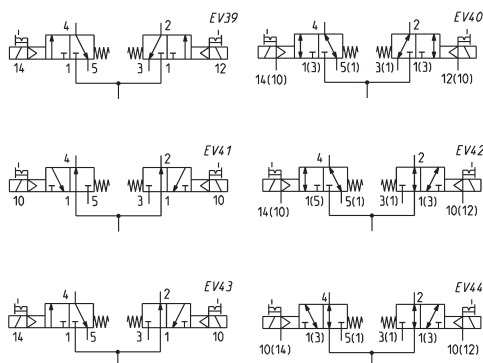
These solenoid valves, which have electropneumatic actuation and return, assume the NC (closed) or NO (open) position depending on the last pulse received.



Mod.	Mounting	Function	Flow rate (NI/min)	Operating pressure (bar)
338-011-02	in-line	3/2	700	1,5 ÷ 10
338L-011-02	on manifold	3/2	700	1,5 ÷ 10

## 2 x 3/2-way solenoid valve, G1/8 - Mod. 338D..., 348D... e 398D...

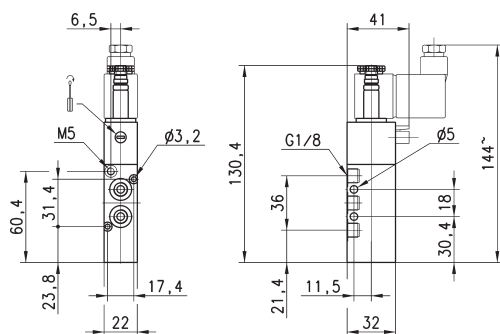
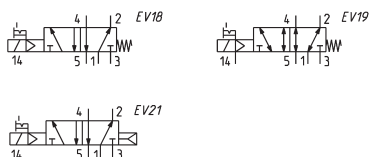
These solenoid valves are available in versions with 2 x 3/2 valves in the same valve.



Mod.	Function	Flow rate (NI/min)	Operating pressure (bar)	Pilot pressure (bar)	Symbol
<b>338D-015-02</b>	2 x 3/2 NC	700	2,5 + 10	-	EV39
<b>348D-015-02</b>	2 x 3/2 NO	700	2,5 + 10	-	EV41
<b>338D-E15-02</b>	2 x 3/2 NC	700	-0,9 + 10	2,5 + 10	EV40
<b>348D-E15-02</b>	2 x 3/2 NO	700	-0,9 + 10	2,5 + 10	EV44
<b>398D-015-02</b>	1 x 3/2 NC + 1 x 3/2 NO	700	2,5 + 10	-	EV43
<b>398D-E15-02</b>	1 x 3/2 NC + 1 x 3/2 NO	700	-0,9 + 10	2,5 + 10	EV42

## 5/2-way solenoid valve, G1/8, monostable - Mod. 358...

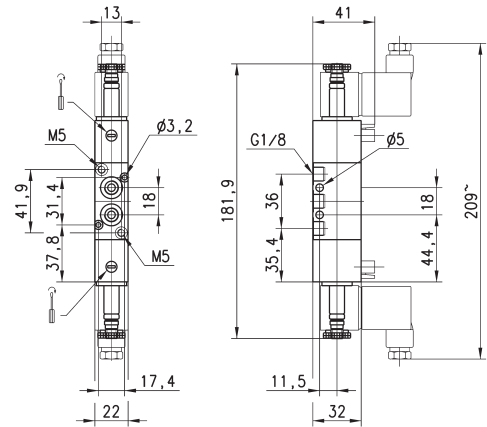
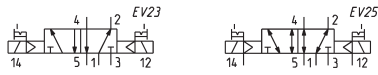
These solenoid valves, which have electropneumatic actuation and spring return, are suitable for operating double-acting cylinders.



Mod.	Function	Flow rate (NI/min)	Operating pressure (bar)	Pilot pressure (bar)	Symbol
<b>358-015-02</b>	5/2	700	2,5 + 10	-	EV18
<b>358-E15-02</b>	5/2	700	-0,9 + 10	2,5 + 10	EV19
<b>358-016-02</b>	5/2	700	2,5 + 10	-	EV21

5/2-way solenoid valve, G1/8, bistable - Mod. 358...

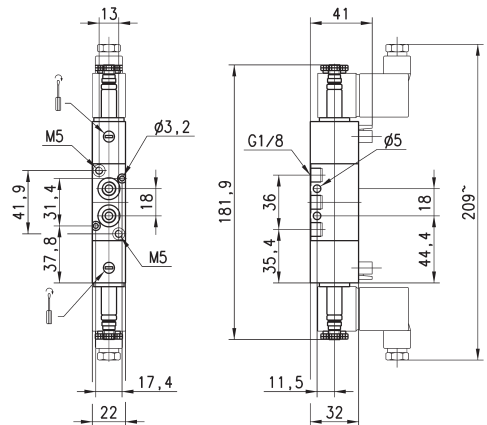
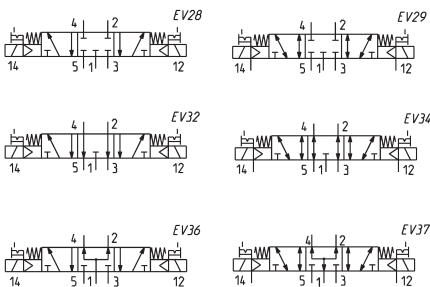
These solenoid valves, which have electropneumatic actuation and spring return, are suitable for operating double-acting cylinders.



Mod.	Function	Flow rate (NI/min)	Operating pressure (bar)	Pilot pressure (bar)	Symbol
358-011-02	5/2	700	1,5 + 10	-	EV23
358-E11-02	5/2	700	-0,9 + 10	1,5 + 10	EV25

5/3-way solenoid valve, G1/8, - Mod. 368... Mod. 378... Mod. 388...

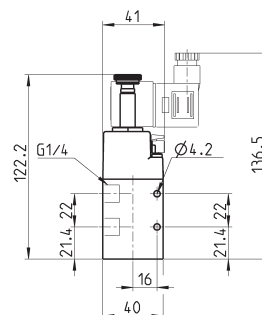
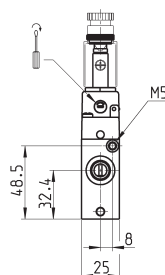
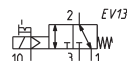
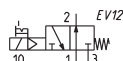
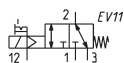
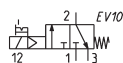
CC = Centres Closed CO = Centres Open CP = Pressure Centres



Mod.	Function	Flow rate (NI/min)	Operating pressure (bar)	Pilot pressure (bar)	Symbol
368-011-02	5/3 CC	700	2 + 10	-	EV28
368-E11-02	5/3 CC	700	-0,9 + 10	2 + 10	EV29
378-011-02	5/3 CO	700	2-10	-	EV32
378-E11-02	5/3 CO	700	-0,9 + 10	2 + 10	EV34
388-011-02	5/3 CP	700	2 + 10	-	EV36
388-E11-02	5/3 CP	700	-0,9 + 10	2 + 10	EV37

### 3/2-way solenoid valve, G1/4, monostable - Mod. 334... Mod 344...

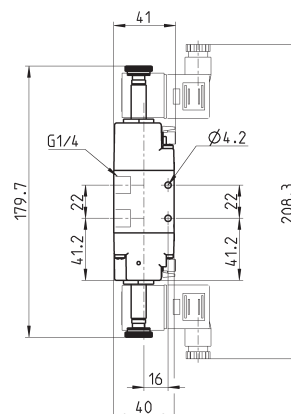
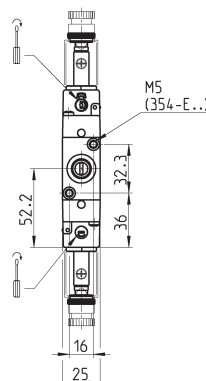
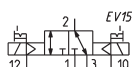
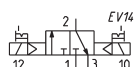
These solenoid valves, which have electropneumatic actuation and spring return, are available in the NC (closed) or NO (open) version.



Mod.	Mounting	Function	Flow rate (NI/min)	Operating pressure (bar)	Pilot pressure (bar)	Symbol
334-015-02	in-line	3/2 NC	1300	2.5 + 10	-	EV10
334-E15-02	in-line	3/2 NC	1300	-0.9 + 10	2.5 + 10	EV11
344-015-02	in-line	3/2 NO	1300	2.5 + 10	-	EV12
344-E15-02	in-line	3/2 NO	1300	-0.9 + 10	2.5 + 10	EV13

### 3/2-way solenoid valve, G1/4, bistable - Mod. 334...

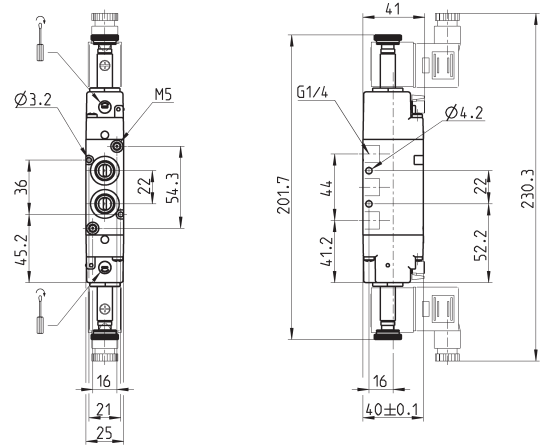
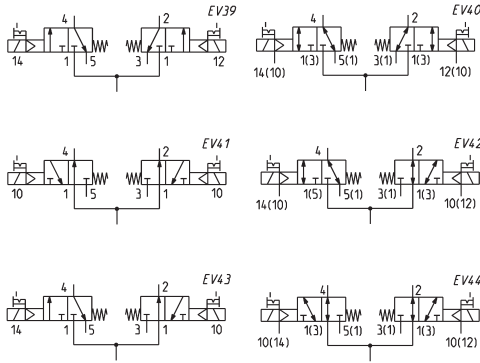
These solenoid valves, which have electropneumatic actuation and return assume the NC (closed) or NO (open) position depending on their last pulse received.



Mod.	Mounting	Function	Flow rate (NI/min)	Operating pressure (bar)	Pilot pressure (bar)	Symbol
334-011-02	in-line	3/2	1300	1.5 + 10	-	EV14
334-E11-02	in-line	3/2	1300	-0.9 + 10	2.5 + 10	EV15

### 2 x 3/2-way solenoid valve, G1/4 Mod. 334D... 344D... and 394D...

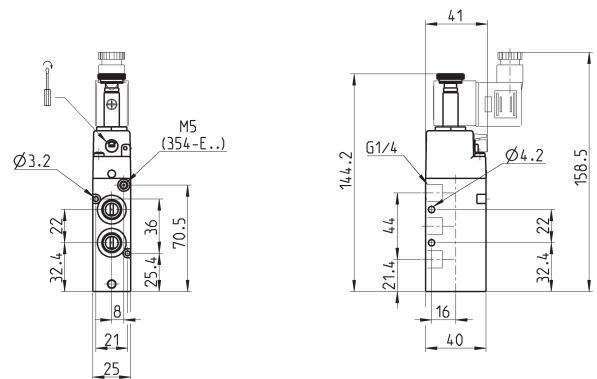
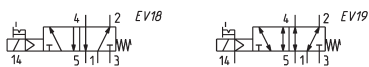
These solenoid valves are available in versions with 2 x 3/2 valves in the same valve.



Mod.	Function	Flow rate (Nl/min)	Operating pressure (bar)	Pilot pressure (bar)	Symbol
334D-015-02	2 x 3/2 NC	1200	2,5 + 10	-	EV39
344D-015-02	2 x 3/2 NO	1050	2,5 + 10	-	EV41
334D-E15-02	2 x 3/2 NC	1200	-0,9 + 10	2,5 + 10	EV40
344D-E15-02	2 x 3/2 NO	1050	-0,9 + 10	2,5 + 10	EV44
394D-015-02	1 x 3/2 NC + 1 x 3/2 NO	1050	2 + 10	-	EV43
394D-E15-02	1 x 3/2 NC + 1 x 3/2 NO	1050	-0,9 + 10	2,5 + 10	EV42

### 5/2-way solenoid valve, G1/4, monostable - Mod. 354...

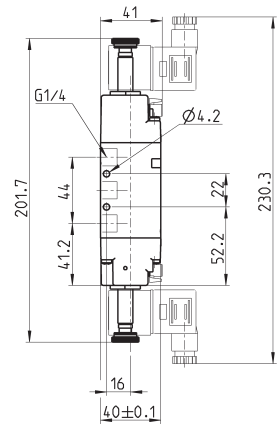
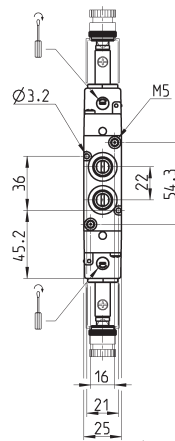
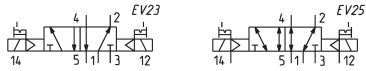
These solenoid valves, which have electropneumatic actuation and spring return, are suitable for operating double-acting cylinders.



Mod.	Function	Flow rate (Nl/min)	Operating pressure (bar)	Pilot pressure (bar)	Symbol
354-015-02	5/2	1300	2,5 + 10	-	EV18
354-E15-02	5/2	1300	-0,9 + 10	2,5 + 10	EV19

**5/2-way solenoid valve, G1/4, bistable - Mod. 354...**

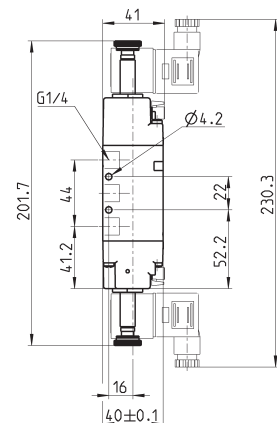
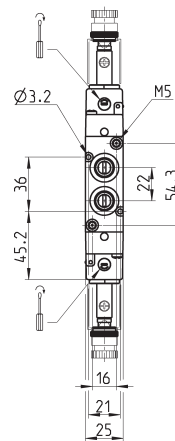
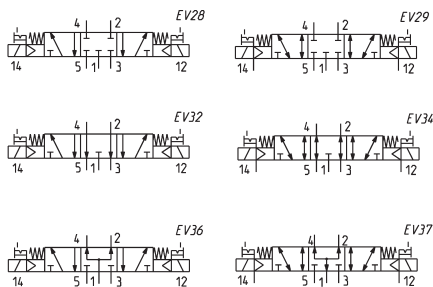
These solenoid valves, which have electropneumatic actuation and spring return, are suitable for operating double-acting cylinders.



Mod.	Function	Flow rate (NI/min)	Operating pressure (bar)	Pilot pressure (bar)	Symbol
354-011-02	5/2	1300	1,5 + 10	-	EV23
354-E11-02	5/2	1300	-0,9 + 10	2,5 + 10	EV25

**5/3-way solenoid valve, G1/4, - Mod. 364... Mod. 374... Mod. 384...**

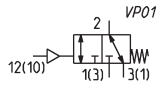
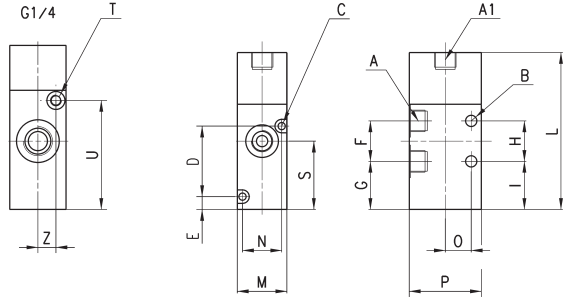
CC = Centres Closed CO = Centres Open CP = Pressure Centres



Mod.	Function	Flow rate (NI/min)	Operating pressure (bar)	Pilot pressure (bar)	Symbol
364-011-02	5/3 CC	1200	2,5 + 10	-	EV28
364-E11-02	5/3 CC	1200	-0,9 + 10	2,5 + 10	EV29
374-011-02	5/3 CO	1200	2,5 + 10	-	EV32
374-E11-02	5/3 CO	1200	-0,9 + 10	2,5 + 10	EV34
384-011-02	5/3 CP	1200	2,5 + 10	-	EV36
384-E11-02	5/3 CP	1200	-0,9 + 10	2,5 + 10	EV37



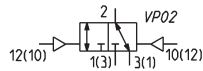
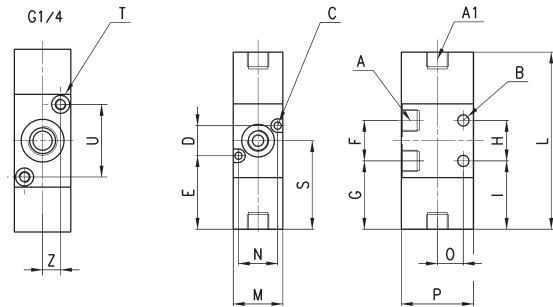
3/2-way valve, G1/8 or G1/4, monostable



DIMENSIONS

Mod.	Mounting	Function	Flow rate (NI/min)	Min. pilot pressure (bar)	Working pressure (bar)	A	A1	B	C	D	E	F	G	H	I	L	M	N	O	P	S	T	U	Z
<b>338-035</b>	in-line	3/2 NC	700	2.5	-0.9 + 10	G1/8	G1/8	5	3.2	-	5.7	18	21.4	18	21.4	69.8	22	-	11.5	32	30.4	-	-	-
<b>338L-035</b>	on manifold	3/2 NC	700	2.5	-0.9 + 10	G1/8	G1/8	-	3.2	31.4	5.7	18	21.4	-	21.4	69.8	22	17.4	11.5	32	30.4	-	-	-
<b>334-035</b>	in-line	3/2 NC	1300	3	-0.9 + 10	G1/4	-	4.1	-	-	22	21.4	22	21.4	73	25	-	16	40	32.4	M5	48.5	8	

3/2-way valve, G1/8 or G1/4, bistable

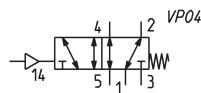
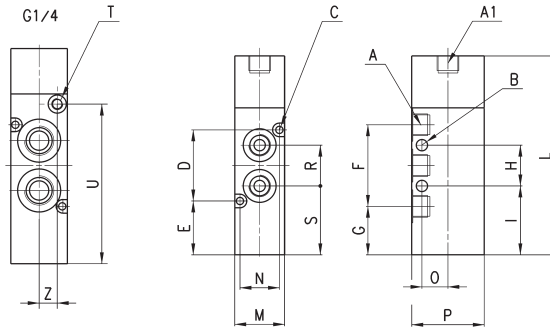


DIMENSIONS

Mod.	Mounting	Function	Flow rate (NI/min)	Min. pilot pressure (bar)	Working pressure (bar)	A	A1	B	C	D	E	F	G	H	I	L	M	N	O	P	S	T	U	Z
<b>338-033</b>	in-line	3/2	700	1.5	-0.9 + 10	G1/8	G1/8	5	-	-	18	30.4	18	30.4	78.8	22	-	11.5	32	41.7	-	-	-	-
<b>338L-033</b>	on manifold	3/2	700	1.5	-0.9 + 10	G1/8	G1/8	5	3.2	13.4	32.7	18	30.4	-	30.4	78.8	22	17.4	-	32	41.7	-	-	-
<b>334-033</b>	in-line	3/2	1300	2.5	-0.9 + 10	G1/4	-	4.1	-	-	22	29.7	22	29.7	81.3	25	-	16	40	40.7	M5	-	-	

**5/2-way valve, G1/8 or G1/4, monostable**

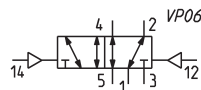
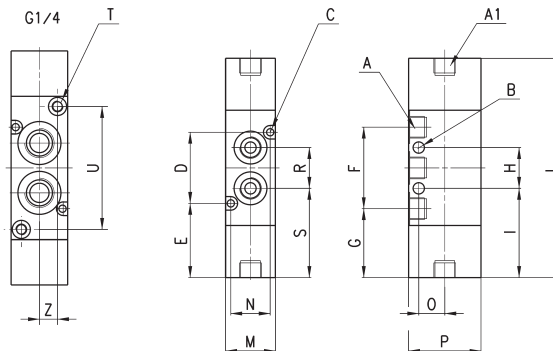
In-line or manifold mounting


**DIMENSIONS**

Mod.	Function	Flow rate (Nl/min)	min pilot pressure (bar)	Working pressure (bar)	A	A1	B	C	D	E	F	G	H	I	L	M	N	O	P	S	T	U	Z
358-035	5/2	700	2,5	-0,9 + 10	G1/8	G1/8	5	3,2	31,4	23,8	36	21,4	18	30,4	87,8	22	17,4	11,5	32	30,4	-	-	-
354-035	5/2	1300	3	-0,9 + 10	G1/4	-	4,1	3,2	36	25,4	44	21,4	22	30,4	95	25	21	16	40	32,4	M5	70,5	8

**5/2-way valve, G1/8 or G1/4, bistable**

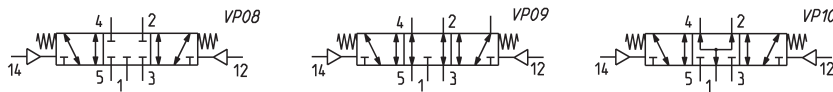
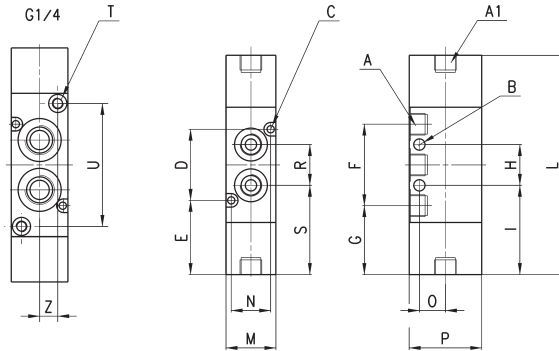
In-line or manifold mounting


**DIMENSIONS**

Mod.	Function	Flow rate (Nl/min)	min. pilot pressure (bar)	Working pressure (bar)	A	A1	B	C	D	E	F	G	H	I	L	M	N	O	P	S	T	U	Z
358-033	5/2	700	1,5	-0,9 + 10	G1/8	G1/8	5	3,2	31,4	32,8	36	30,4	18	39,4	96,8	22	17,4	11,5	32	39,4	-	-	-
354-033	5/2	1300	2,5	-0,9 + 10	G1/4	-	4,1	3,2	36	33,7	44	29,7	22	40,7	103,3	25	21	16	40	40,7	M5	54,3	8

5/3-way valve, G1/8 or G1/4

In-line or manifold mounting

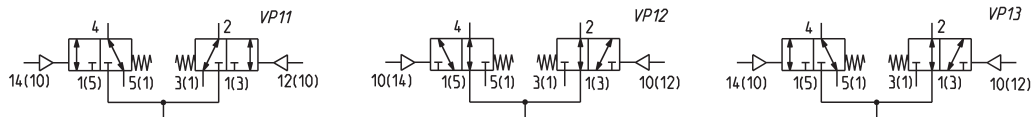
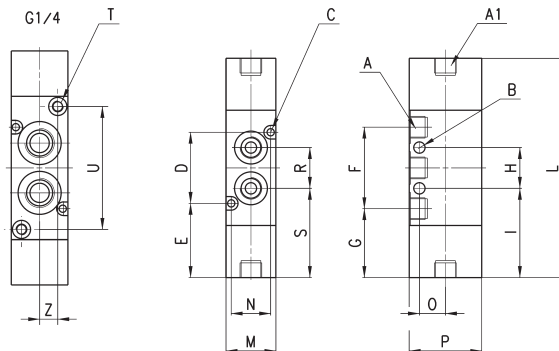


DIMENSIONS

Mod.	Function	Flow rate (NI/min)	Min. pilot press. (bar)	Working pressure (bar)	A	A1	B	C	D	E	F	G	H	I	L	M	N	O	P	S	T	U	Z	Symbol
368-033	5/3 CC	700	2,5	-0,9 + 10	G1/8	G1/8	5	3,2	31,4	32,8	36	30,4	18	39,4	96,8	22	17,4	11,5	32	39,4	-	-	-	VP08
364-033	5/3 CC	1200	2,5	-0,9 + 10	G1/4	-	4,1	3,2	36	33,7	44	29,7	22	40,7	103,3	25	21	16	40	40,7	M5	54,3	8	VP08
378-033	5/3 CO	700	2,5	-0,9 + 10	G1/8	G1/8	5	3,2	31,4	32,8	36	30,4	18	39,4	96,8	22	17,4	11,5	32	39,4	-	-	-	VP09
374-033	5/3 CO	1050	2,5	-0,9 + 10	G1/4	-	4,1	3,2	36	33,7	44	29,7	22	40,7	103,3	25	21	16	40	40,7	M5	54,3	8	VP09
388-033	5/3 CP	700	2,5	-0,9 + 10	G1/8	G1/8	5	3,2	31,4	32,8	36	30,4	18	39,4	96,8	22	17,4	11,5	32	39,4	-	-	-	VP10
384-033	5/3 CP	1050	2,5	-0,9 + 10	G1/4	-	4,1	3,2	36	33,7	44	29,7	22	40,7	103,3	25	21	16	40	40,7	M5	54,3	8	VP10

2 x 3/2-way valve, G1/8 or G1/4

In-line or manifold mounting



DIMENSIONS

Mod.	Function	Flow rate (NI/min)	min. pilot press. (bar)	Working pressure (bar)	A	A1	B	C	D	E	F	G	H	I	L	M	N	O	P	S	T	U	Z	Symbol
338D-035	2x3/2 NC	700	2,5	-0,9 + 10	G1/8	G1/8	5	3,2	31,4	32,8	36	30,4	18	39,4	96,8	22	17,4	11,5	32	39,4	-	-	-	VP11
334D-035	2x3/2 NC	1050	2,5	-0,9 + 10	G1/4	-	4,1	3,2	36	33,7	44	29,7	22	40,7	103,3	25	21	16	40	40,7	M5	54,3	8	VP11
348D-035	2x3/2 NO	700	2,5	-0,9 + 10	G1/8	G1/8	5	3,2	31,4	32,8	36	30,4	18	39,4	96,8	22	17,4	11,5	32	39,4	-	-	-	VP12
344D-035	2x3/2 NO	1050	2,5	-0,9 + 10	G1/4	-	4,1	3,2	36	33,7	44	29,7	22	40,7	103,3	25	21	16	40	40,7	M5	54,3	8	VP12
398D-035	2x3/2 NC/NO	700	2,5	-0,9 + 10	G1/8	G1/8	5	3,2	31,4	32,8	36	30,4	18	39,4	96,8	22	17,4	11,5	32	39,4	-	-	-	VP13
394D-035	2x3/2 NC/NO	1050	2,5	-0,9 + 10	G1/4	-	4,1	3,2	36	33,7	44	29,7	22	40,7	103,3	25	21	16	40	40,7	M5	54,3	8	VP13