

Valves and Solenoid valves Series 3

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

Construction	spool - type
Valve group	2x3/2 - 3/2 - 5/2 - 5/3-way CC CO CP
Materials	AL body, stainless steel spool, NBR seals
Ports	G1/8 - G1/4
Installation	in any position
Operating temperature	0 ÷ 60°C (with dry air at -20°C)
Operating pressure	see tables
Fluid	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

3	3	8	D	-	015	-	02	-	U	7	7	
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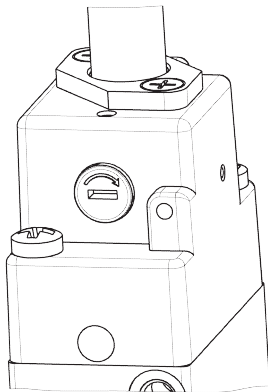
3	SERIES
3	NUMBER OF WAYS - POSITIONS: 3 = 3/2 NC 4 = 3/2 NO 5 = 5/2 6 = 5/3 CC 7 = 5/3 CO 8 = 5/3 CP 9 = 1x3/2 NC + 1x3/2 NO
8	PORTS: 8 = G1/8 4 = G1/4
D	VERSION: = standard D = double valve 2x3/2 L = for manifold assembly (only for solenoid valves 3/2 with G1/8 ports)
015	ACTUATION: 011 = double solenoid 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
22	SOLENOID INTERFACE: 02 = mech. sol. 22 x 22
U	SOLENOID MATERIAL: U = PET G = PA A8 = PPS H8 = PA 6 V0
7	SOLENOID DIMENSIONS: 7 = 22 x 22 8 = 30 x 30
7	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)

2

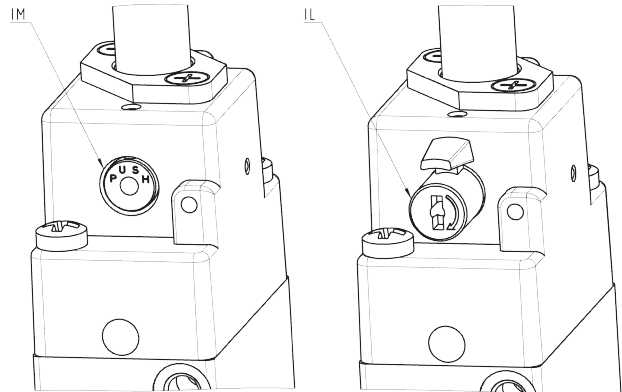
CONTROL

TYPES OF MANUAL OVERRIDE

New



Example of solenoid valve with a bistable standard manual override.

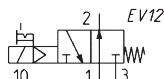
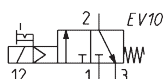
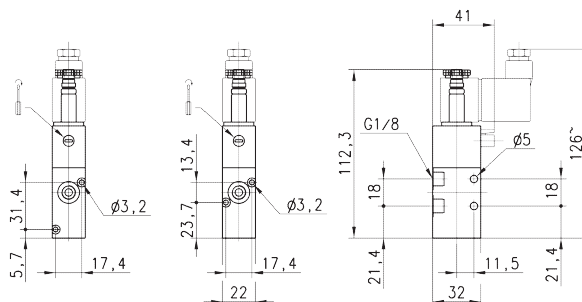


Example of solenoid monostable valve (IM) and bistable valve with a lever type manual override (IL). Both versions are available on demand. To order them it is necessary to add IM or IL at the end of the code. Code ex.: 454-015-22-U77IL.

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.

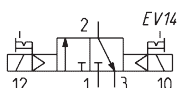
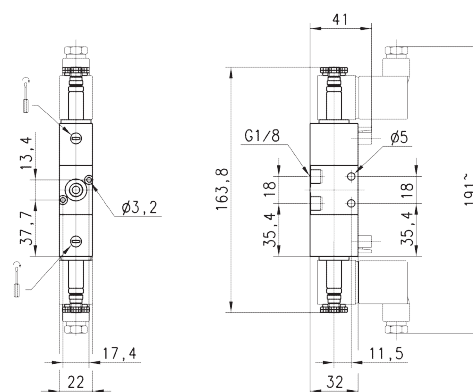


Mod.	Mounting	Function	Flow rate (NI/min)	Operating pressure (bar)	Symbol
338-015-02	in-line	3/2 NC	700	2,5 ÷ 10	EV10
338L-015-02	on manifold	3/2 NC	700	2,5 ÷ 10	EV10
348-015-02	in-line	3/2 NO	700	2,5 ÷ 10	EV12
348L-015-02	on manifold	3/2 NO	700	2,5 ÷ 10	EV12

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



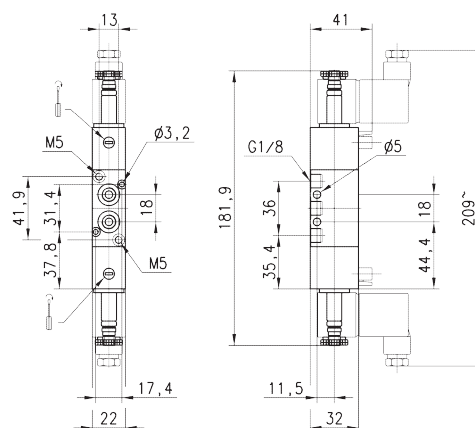
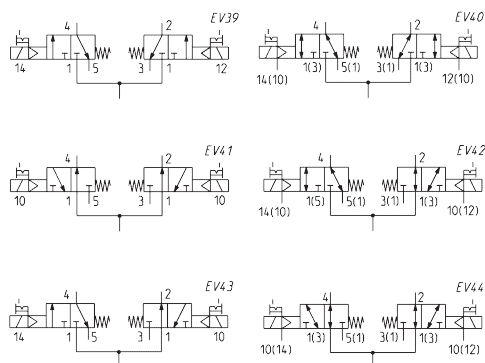
These solenoid valves, which have electropneumatic actuation and return, assume the NC (closed) or NO (open) position depending on the last pulse received.



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...

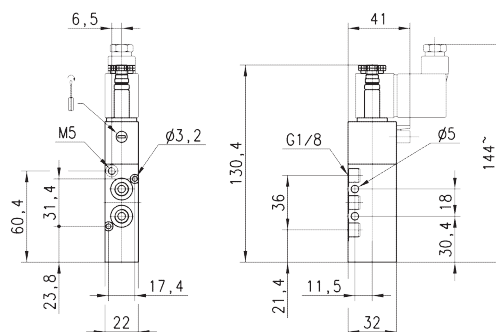
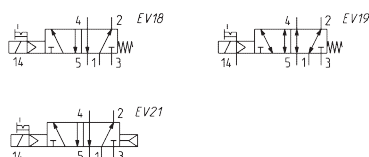
These solenoid valves are available in versions with 2 x 3/2 valves in the same valve.



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

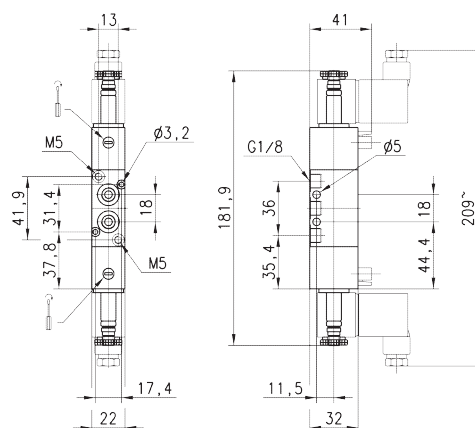
These solenoid valves, which have electropneumatic actuation and spring return, are suitable for operating double-acting cylinders.



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

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

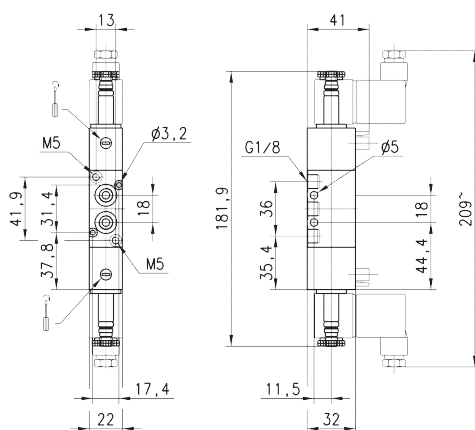
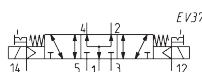
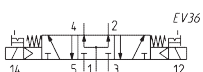
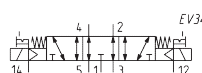
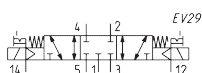
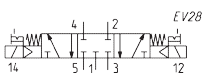
These solenoid valves, which have electropneumatic actuation and spring return, are suitable for operating double-acting cylinders.



Mod.	Function	Flow rate (Nl/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...

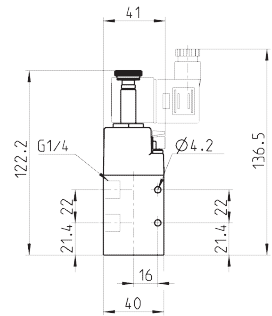
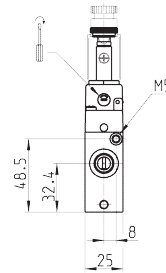
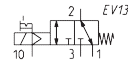
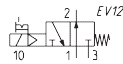
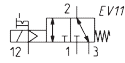
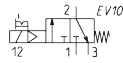
CC = Centres Closed CO = Centres Open CP = Pressure Centres



Mod.	Function	Flow rate (Nl/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...

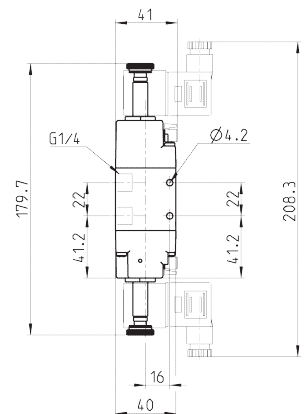
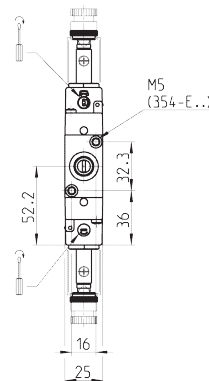
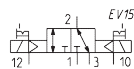
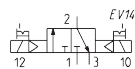
These solenoid valves, which have electropneumatic actuation and spring return, are available in the NC (closed) or NO (open) version.



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...

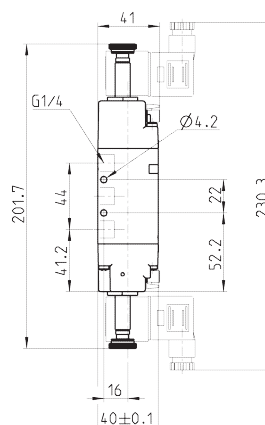
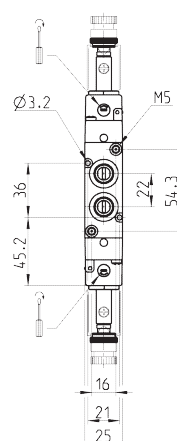
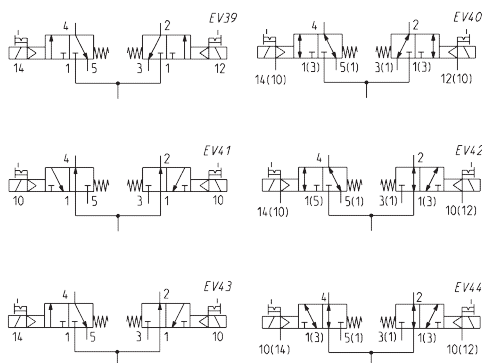
These solenoid valves, which have electropneumatic actuation and return assume the NC (closed) or NO (open) position depending on their last pulse received.



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...

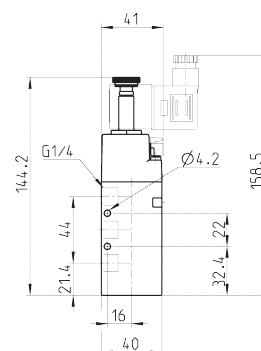
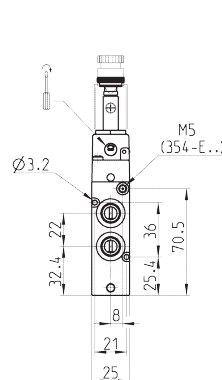
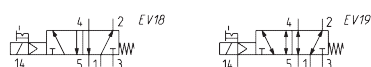
These solenoid valves are available in versions with 2 x 3/2 valves in the same valve.



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...

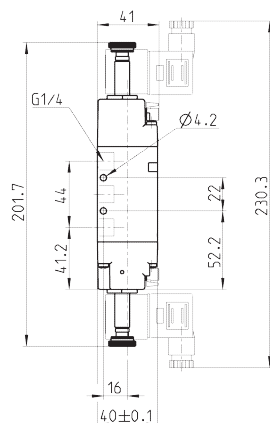
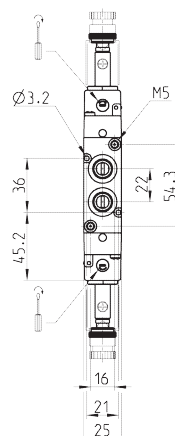
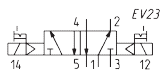
These solenoid valves, which have electropneumatic actuation and spring return, are suitable for operating double-acting cylinders.



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...

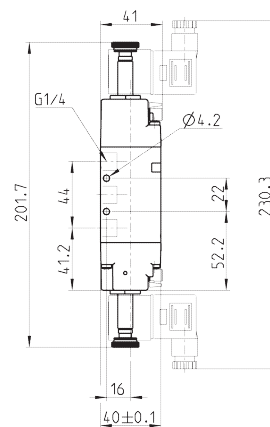
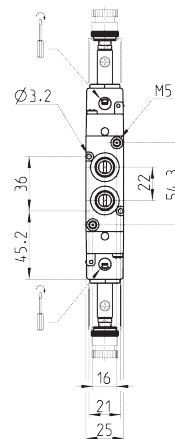
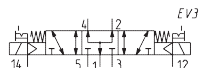
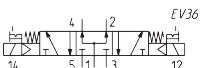
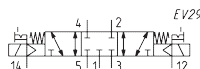
These solenoid valves, which have electropneumatic actuation and spring return, are suitable for operating double-acting cylinders.



Mod.	Function	Flow rate (Nl/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 (Nl/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

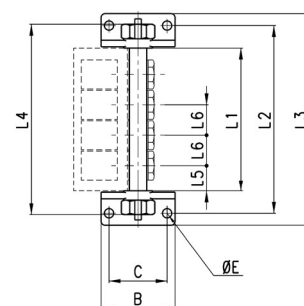
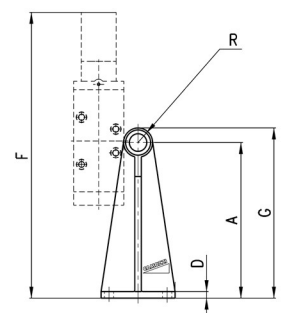
Manifold bars with separate exhausts (low version)

out of production



The following is supplied:

- 2x feet
- 1x manifold
- 1x inlet fitting
- 1x plug
- 4x washers



DIMENSIONS

Mod.	Nr of valves	A	B	C	D	ØE	F	G	R	L1	L2	L3	L4	L5	L6	Suitable for Series
CNV-318-2	2	73	56	44	5	7	178	83	G1/4	63	97	115	99	20	23	3 - G1/8
CNV-318-3	3	73	56	44	5	7	178	83	G1/4	86	120	138	119	20	23	3 - G1/8
CNV-318-4	4	73	56	44	5	7	178	83	G1/4	109	143	161	142	20	23	3 - G1/8
CNV-318-5	5	73	56	44	5	7	178	83	G1/4	132	166	184	165	20	23	3 - G1/8
CNV-318-6	6	73	56	44	5	7	178	83	G1/4	155	189	207	188	20	23	3 - G1/8

The fixing screws of the valves mod. 1635-01 and the washers mod. 2661 must be ordered separately.

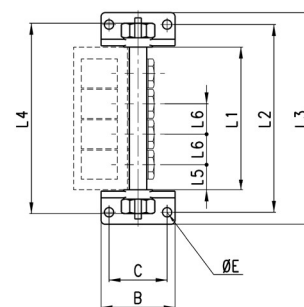
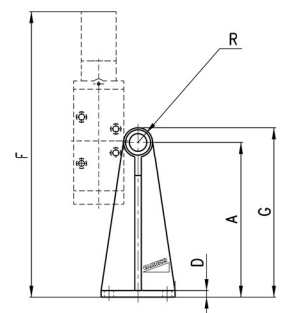
Manifold bars with separate exhausts (high version)

out of production



The following is supplied:

- 2x feet
- 1x manifold
- 1x inlet fitting
- 1x plug
- 4x washers



DIMENSIONS

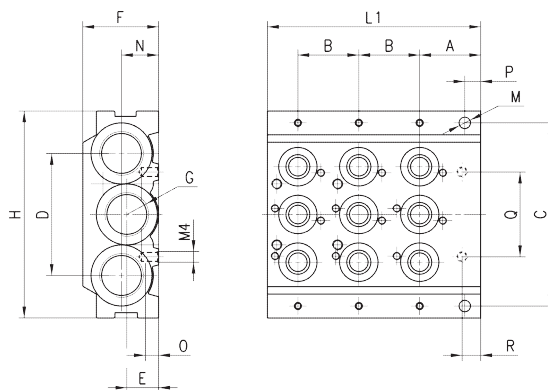
Mod.	Nr of valves	A	B	C	D	ØE	F	G	R	L1	L2	L3	L4	L5	L6	Suitable for Series
CNV-328-2	2	118	56	44	5	7	223	128	G1/4	63	97	115	99	20	23	3 - G1/8
CNV-328-3	3	118	56	44	5	7	223	128	G1/4	86	120	138	119	20	23	3 - G1/8
CNV-328-4	4	118	56	44	5	7	223	128	G1/4	109	143	161	142	20	23	3 - G1/8
CNV-328-5	5	118	56	44	5	7	223	128	G1/4	132	166	184	165	20	23	3 - G1/8
CNV-328-6	6	118	56	44	5	7	223	128	G1/4	155	189	207	188	20	23	3 - G1/8

The fixing screws of the valves mod. 1635-01 and the washers mod. 2661 must be ordered separately.



Initial / final Module with three positions - Mod. CNVL-...

The following is supplied:
 3x interface O-Rings manifold/manifold;
 2x fixing nuts;
 2x junction plugs;
 9x interface seals valve/manifold (CNVL-3H3)
 or 3x interface seals valve/manif. (CNVL-4H3);
 6x fixing screws for valves



DIMENSIONS

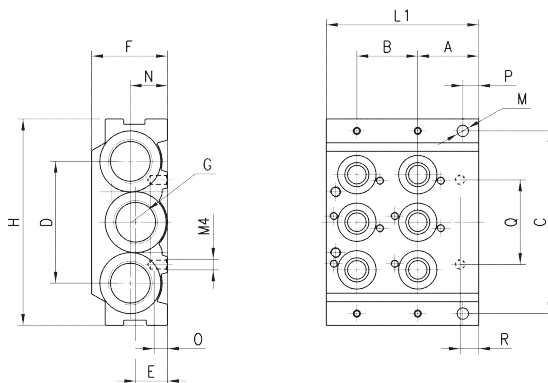
Mod.	A	B	C	D	E	F	H	L1	M	N	O	P	Q	R	G
CNVL-3H3	23	23	69,5	46	12	29	78	80,5	4,3	14	5	6	32	7	3/8
CNVL-4H3	26	26	88	60	14	29	98	91	4,3	-	5	5	38	7	1/2

CNVL-3H3: for Series 3, G1/8
 CNVL-4H3: for Series 3, G1/4



Initial / final Module with 2 positions - Mod. CNVL-...

Initial module with 2 positions
 The following is supplied:
 3x interface O-Rings manifold/manifold;
 2x fixing nuts;
 2x junction plugs;
 6x interface seals valve/manifold (CNVL-3H2)
 or 2x interface seals valve/manif. (CNVL-4H2);
 4x fixing screws for valves



DIMENSIONS

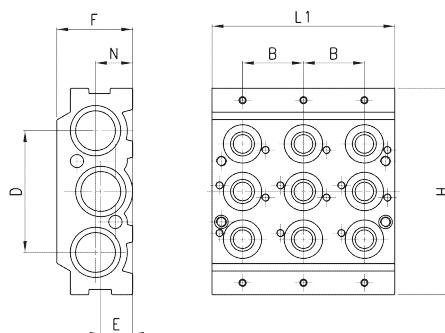
Mod.	A	B	C	D	E	F	H	L1	M	N	O	P	Q	R	G
CNVL-3H2	23	23	69,5	46	12	29	78	57,5	4,3	14	5	6	32	7	3/8
CNVL-4H2	26	26	88	60	14	29	98	65	4,3	-	5	5	38	7	1/2

CNVL-3H2: for Series 3, G1/8
 CNVL-4H2: for Series 3, G1/4



Intermediate module with 3 positions - Mod. CNVL-...

The following is supplied:
 3x interface O-Rings manifold/manifold;
 2x fixing nuts;
 2x junction plugs;
 9x interface seals valve/manifold (CNVL-3I3)
 or 3x interface seals valve/manif. (CNVL-4I3);
 6x fixing screws for valves



DIMENSIONS

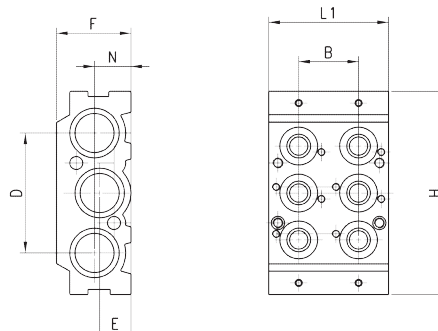
Mod.	B	D	E	F	H	L1	N
CNVL-3I3	23	46	12	29	78	69	14
CNVL-4I3	26	60	14	29	98	78	-

CNVL-3I3: for Series 3, G1/8
 CNVL-4I3: for Series 3, G1/4

Intermediate module with 2 positions - Mod. CNVL-...



The following is supplied:
 3x interface O-Rings manifold/manifold;
 2x fixing nuts;
 2x junction plugs;
 6x interface seals valve/manifold (CNVL-312)
 or 2x interface seals valve/manif. (CNVL-412);
 4x fixing screws for valves



DIMENSIONS

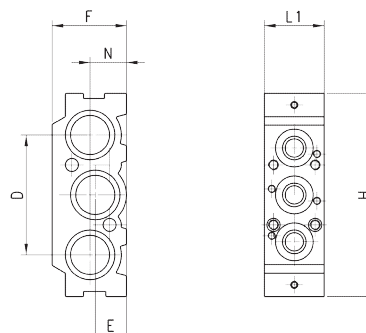
Mod.	B	D	E	F	H	L1	N
CNVL-312	23	46	12	29	78	46	14
CNVL-412	26	60	14	29	98	52	-

CNVL-312: for Series 3, G1/8
 CNVL-412: for Series 3, G1/4

Intermediate module with 1 position - Mod. CNVL-...



The following is supplied:
 3x interface O-Rings manifold/manifold;
 2x fixing nuts;
 2x junction plugs;
 3x interface seals valve/manifold (CNVL-311)
 or 1x interface seal valve/manif. (CNVL-411);
 2x fixing screws for valves



DIMENSIONS

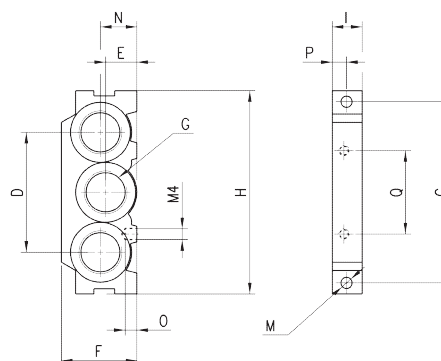
Mod.	D	E	F	H	L1	N
CNVL-311	46	12	29	78	23	14
CNVL-411	60	14	29	98	26	-

CNVL-311: for Series 3, G1/8
 CNVL-411: for Series 3, G1/4

Terminal module Mod. CNVL-*H



The following is supplied:
 2x fixing nuts



DIMENSIONS

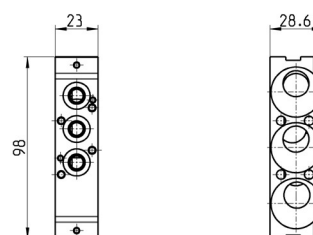
Mod.	C	D	E	F	H	I	M	N	O	P	Q	G
CNVL-3H	69,5	46	12	29	78	11,5	4,3	14	5	6	32	3/8
CNVL-4H	88	60	14	29	98	13	4,3	-	5	8	29	1/2

CNVL-3H: for Series 3, G1/8
 CNVL-4H: for Series 3, G1/4

Interface module manifold between Series 3 G1/8 and G1/4



The following is supplied:
 3x interface seal
 2x screws
 2x pins
 4x plugs
 6x O-Rings



Mod.

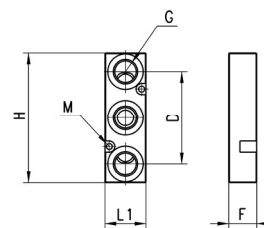
CNVL-4H-3H

It is possible to seat 1 valve,
 series 3 with G1/8 port.

Intermediate plate for additional inlet and exhaust pressure



The following is supplied:
3x O-Rings
2x fixing screws



DIMENSIONS

Mod.	G	H	M	F	L1	D	F
CNVL-3P	G1/4	70	3.2	29	22	50	15
CNVL-4P	G1/4	73	3.2	29	25	50	20

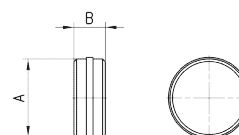
CNVL-3P: for Series 3, G1/8
CNVL-4P: for Series 3, G1/4

Separation diaphragm

For separation of channel: 1 - 3 - 5.



The following is supplied:
1x diaphragm



DIMENSIONS

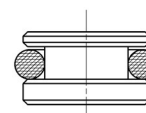
Mod.	A	B
CNVL-3H-TP	15.6	6
CNVL-4H-TP	23.8	8

CNVL-3H-TP: for Series 3, G1/8
CNVL-4H-TP: for Series 3, G1/4

Blanking plug for TCNVL manifolds



The following is supplied:
1x blanking plug
1x O-Ring



Mod.

TCNVL/3

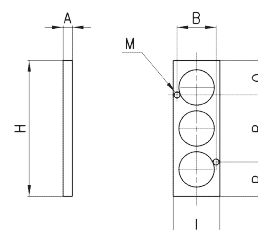
TCNVL/3: for Series 3 G1/8

Blanking plate for CNVL manifolds, Mod. CNVL...

It is used to blank one or more stations on a manifold base Mod.CNVL...



The following is supplied:
2x fixing screws
3x O-Rings



DIMENSIONS

Mod.	A	B	H	I	M	P	Q	R
CNVL/1	5	17.4	52	22	3.2	10.3	10.3	31.4
CNVL/4	5	21	73	25	3.2	18.5	18.5	36

CNVL/1: for Series 3 G1/8
CNVL/4: for Series 3 G1/4