

Electropneumatically and pneumatically operated valves Series 4

3/2, 5/2 and 5/3 way C.C. C.O. C.P.
Ports G1/8 - G1/4 - G1/2



The Series 4 valves have been designed with 3/2, 5/2, 5/3 in two main versions which are:

- Electropneumatically actuated and spring
- Electropneumatically actuated and return

Series 4 can be operated by Series U or G solenoids (22x22) except for the G1/2 version which uses the Series 6 (32x32).

Series 4 is equipped with a manual override which permits a stable operation.

GENERAL DATA

Construction	spool - type (pilot operated)
Valve group	3/2 - 2x3/2 - 5/2 - 5/3 way / pos.
Materials	aluminium body, stainless steel spool, NBR seals
Ports	G1/8 - G1/4 - G1/2
Installation	in any position
Operating temperature	0 + 60°C (using dry air at -20°C)
Operating pressure	see tables
Fluid	filtered air, without lubricant *If lubricated air is used, it is recommended to use ISOVG32 oil. Once applied the lubrication should never be interrupted.

CODING EXAMPLE

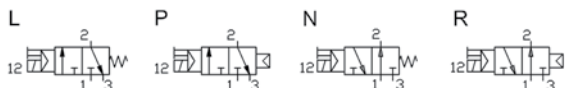
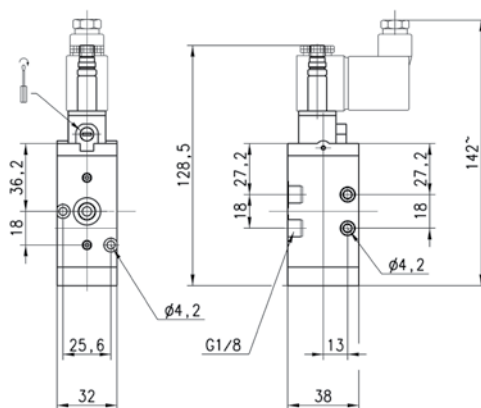
4	5	4	-	015	-	22	-	U	7	7
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4	SERIES:
5	N° OF PORTS/POSITIONS: 3 = 3/2 N.C. 4 = 3/2 N.O. 5 = 5/2 6 = 5/3 C.C. 7 = 5/3 C.O.
4	PORTS: 8 = G1/8 4 = G1/4 2C = G1/2
015	ACTUATION: 011 = double solenoid (horizontal solenoids) V11 = double solenoid (vertical solenoids) only Series 4 G1/4 015 = single solenoid, spring return (horizontal solenoids) V15 = single solenoid, spring return (vertical solenoid) only Series 4 G1/4 016 = single solenoid, pneumatic spring return (horizontal solenoid) V16 = single solenoid, pneumatic spring return (vertical solenoid) only Series 4 G1/4 33 = pneumatic pneumatic 34 = pneumatic differential 35 = pneumatic spring
22	SOLENOID INTERFACE: 22 = mech. sol. 22 x 22 50 = mech. sol. 32 x 32 - only G1/2
U	SOLENOID MATERIAL: U = PET G = PA A6 = PPS H8 = PA 6 V0
7	SOLENOID DIMENSIONS: 6 = 32 x 32 only G1/2 7 = 22 x 22 8 = 30 x 30 9 = 22 x 58
7	SOLENOID VOLTAGE See solenoids page 2.2.35.01

3/2-way solenoid valve G1/8, monostable - Mod 438 and Mod.448



The Series 4, G1/8, 3/2-way solenoid valves, which have electropneumatic actuation and spring return, are available in the N.C. (closed) or N.O. (open) version.

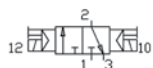
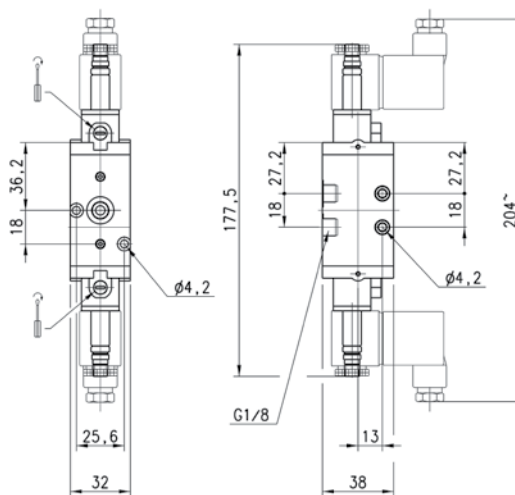


Mod.	Function	Flow rate NI/min	Operating pressure (bar)	Symbol
438-015-22	3/2 N.C.	650	2,5 ± 10	L
438-016-22	3/2 N.O.	650	2,5 ± 10	P
448-015-22	3/2 N.C.	650	2,5 ± 10	N
448-016-22	3/2 N.O.	650	2,5 ± 10	R

3/2-way solenoid valve G1/8, bistable - Mod 438...



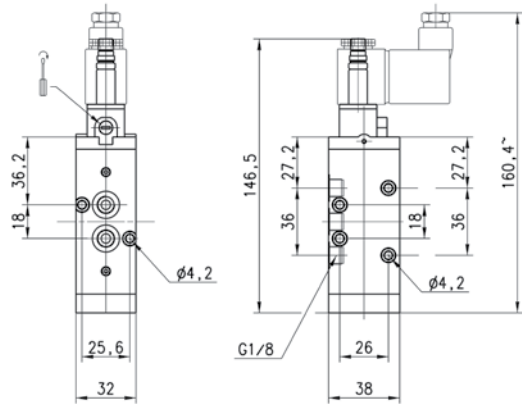
The Series 4, G1/8, 3/2 - way solenoid valves, which have electropneumatic actuation and return, assume the N.C. (closed) or N.O. (open) operating status depending on the last pulse received.



Mod.	Function	Flow rate NI/min	Operating pressure (bar)
438-011-22	3/2	650	2 ± 10

5/2-way solenoid valves, G1/8, monostable - Mod 458...

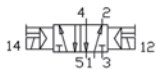
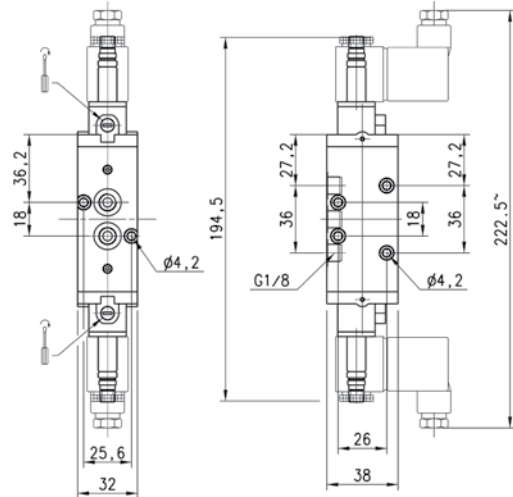
The Series 4, G1/8, 5/2 - way solenoid valves, which have electropneumatic actuation and spring return, are suitable for operating double - acting cylinders.



Mod.	Function	Flow rate NI/min	Operating pressure (bar)	Symbol
458-015-22	5/2	650	2,5 ± 10	V
458-016-22	5/2	650	2,5 ± 10	Z

5/2-way solenoid valves, G1/8, bistable - Mod 458...

The Series 4, G1/8, 5/2 - way solenoid valves, with electropneumatic actuation and return, are suitable for operating double - acting cylinders.

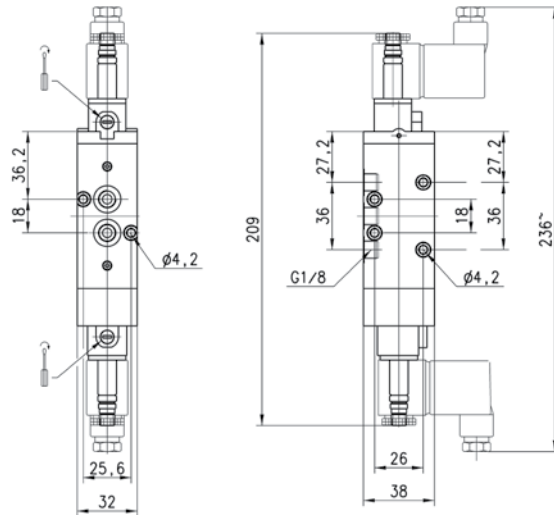


Mod.	Function	Flow rate NI/min	Operating pressure (bar)
458-011-22	5/2	650	2 ± 10

5/3-way solenoid valve, G1/8 Mod. 468 and Mod. 478



Series 4, 5/3 -way.
C.C. = Centres closed
C.O. = Centres open

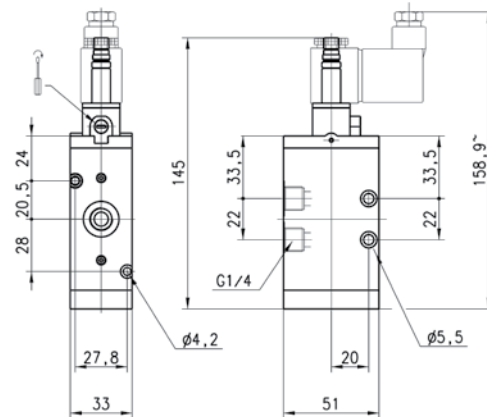
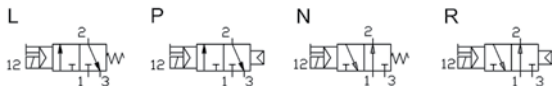


Mod.	Function	Flow rate NI/min	Operating pressure (bar)	Symbol
468-011-22	5/3 C.C.	600	2 + 10	B1
478-011-22	5/3 C.O.	600	2 + 10	C1

3/2-way solenoid valve, G1/4, monostable Mod. 434 and Mod. 444



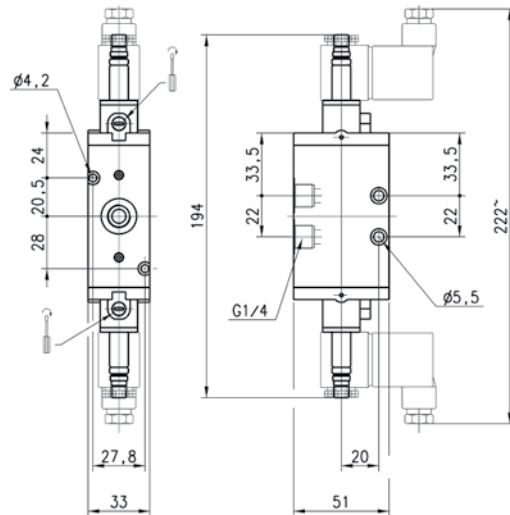
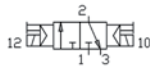
The Series 4, G1/4, 3/2 - way solenoid valves, which have electropneumatic actuation and spring return, are available in the N.C. (closed) or N.O. (open) version.



Mod.	Function	Flow rate NI/min	Operating pressure (bar)	Symbol
434-015-22	3/2 N.C.	1250	2 + 10	L
434-016-22	3/2 N.C.	1250	2 + 10	P
444-015-22	3/2 N.O.	1250	2 + 10	N
444-016-22	3/2 N.O.	1250	2 + 10	R

3/2-way solenoid valve, G1/4, bistable Mod. 434

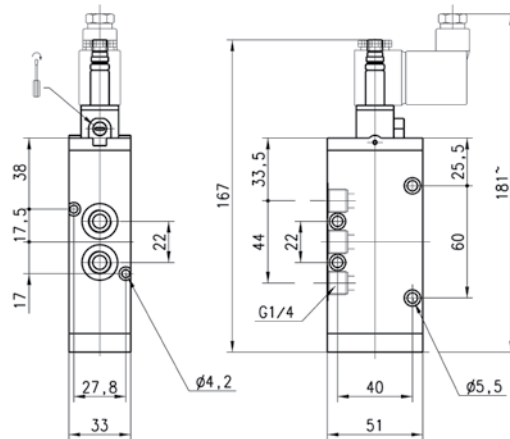
The Series 4, G1/4, 3/2 - way solenoid valves, which have electropneumatic actuation and return, assume the N.C. (closed) or N.O. (open) position depending on the last pulse received.



Mod.	Function	Flow rate NI/min	Operating pressure (bar)
434-011-22	3/2	1250	2 + 10

5/2-way solenoid valve, G1/4, monostable Mod. 454...

The Series 4, G1/4, 5/2 - way solenoid valves, which have electropneumatic actuation and spring return, are suitable for operating double-acting cylinders.

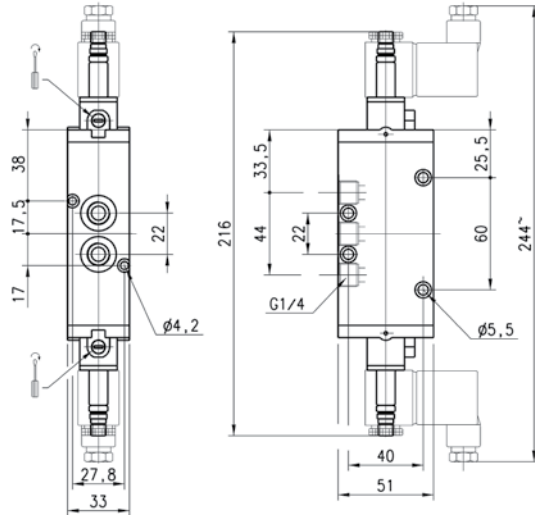
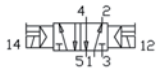


Mod.	Function	Flow rate NI/min	Operating pressure (bar)	Symbol
454-015-22	5/2	1250	2,5 + 10	V
454-016-22	5/2	1250	2,5 + 10	Z

5/2-way solenoid valve, G1/4, bistable Mod. 454...



The Series 4, G1/4, 5/2-way solenoid valves, which have electropneumatic actuation and return, are suitable for operating double - acting cylinders.

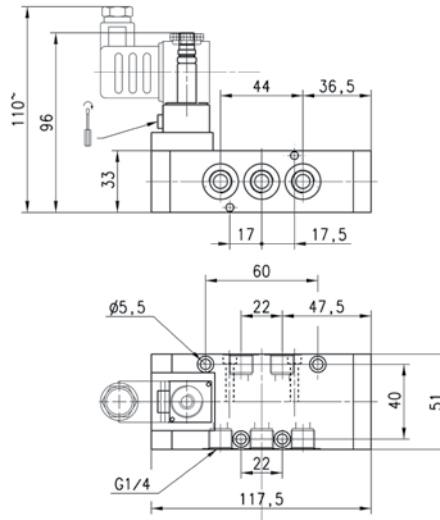


Mod.	Function	Flow rate NI/min	Operating pressure (bar)
454-011-22	5/2	1250	2 + 10

5/2-way solenoid valve, G1/4, monostable Mod. 454...



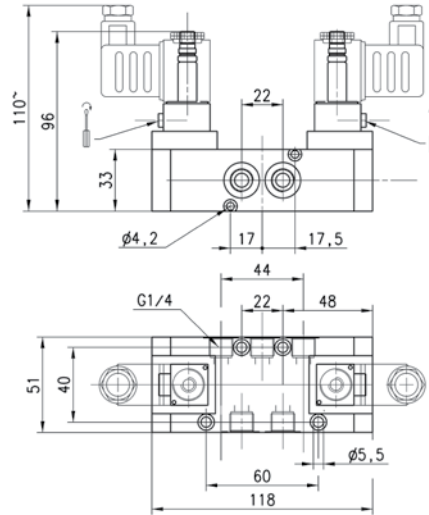
The Series 4, G1/4, 5/2 - way solenoid valves, which have electropneumatic actuation and spring or pneumatic spring return are suitable for operating double - acting cylinders.



Mod.	Function	Flow rate NI/min	Operating pressure (bar)	Symbol
454-V15-22	5/2	1250	2,5 + 10	V
454-V16-22	5/2	1250	2,5 + 10	Z

5/2-way solenoid valve, G1/4, bistable Mod. 454...

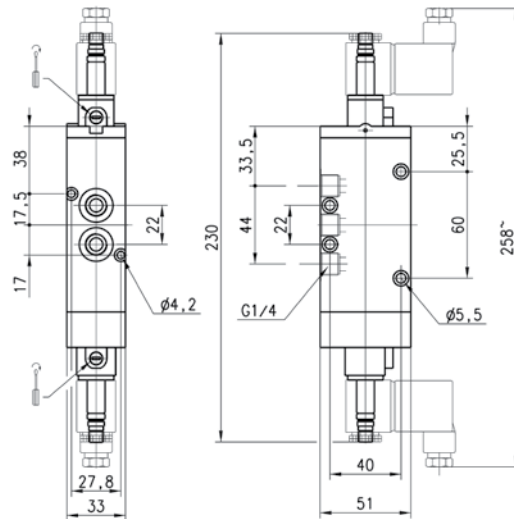
The Series 4, G1/4, 5/2-way solenoid valves, which have electropneumatic actuation and return, are suitable for operating double - acting cylinders.



Mod.	Function	Flow rate NI/min	Operating pressure (bar)
454-V11-22	5/2	1250	2 + 10

5/3-way solenoid valve, G1/4 Mod. 464... and Mod. 474...

Series 4, 5/3-way.
C.C. = Centres closed
C.O. = Centres open

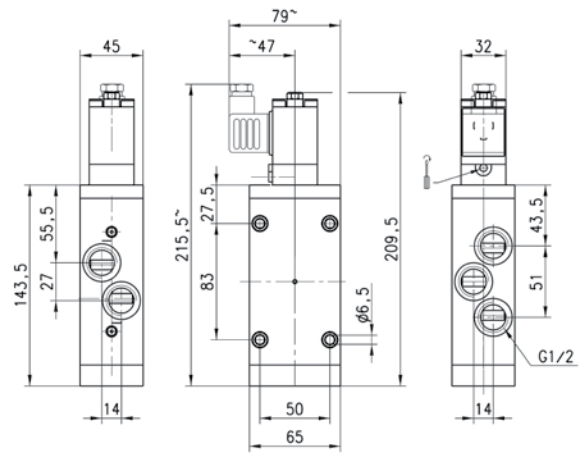


Mod.	Function	Flow rate NI/min	Operating pressure (bar)	Symbol
464-011-22	5/3 C.C.	1250	3 + 10	B1
474-011-22	5/3 C.O.	1250	3 + 10	C1

5/2 -way solenoid valve, G1/2, monostable Mod. 452...



The Series 4, G1/2, 5/2-way solenoid valves, which have electropneumatic actuation and spring or pneumatic spring return are suitable for operating double - acting cylinders.

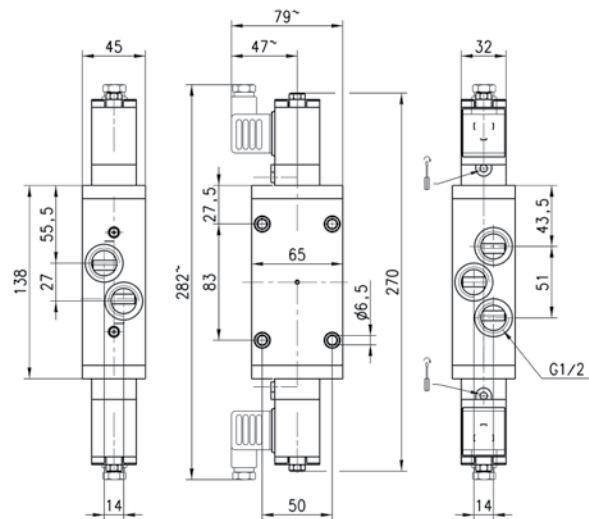


Mod.	Function	Flow rate NI/min	Operating pressure (bar)	Symbol
452C-015-50-A6*	5/2	2500	2,5 ÷ 10	V
452C-016-50-A6*	5/2	2500	2,5 ÷ 10	Z

5/2-way solenoid valve, G1/2, bistable Mod. 452...

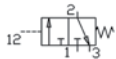
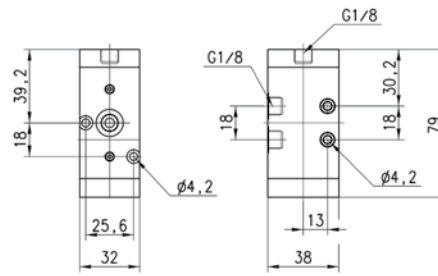


The Series 4, G1/2, 5/2 - way solenoid valves, which have electropneumatic actuation and return, are suitable for operating double - acting cylinders.



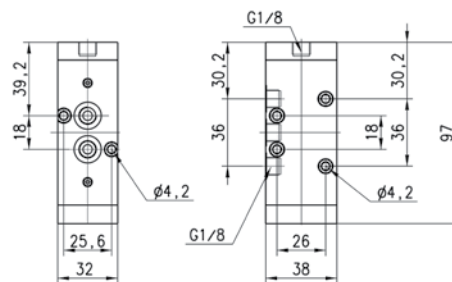
Mod.	Function	Flow rate NI/min	Operating pressure (bar)
452C-011-50-A6*	5/2	2500	2 ÷ 10

3/2-way valve, G1/8 port, monostable



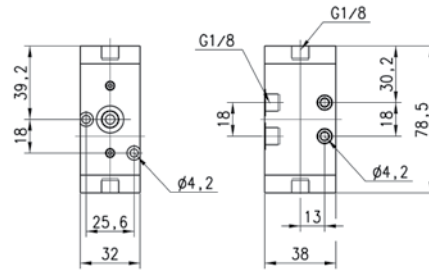
Mod.	Mounting	Function	Flow rate NI/min	min. pil P.
438-35	without base/on manifold	3/2 N.C.	700	2,5 bar

5/2-way valve, G1/8 port, monostable

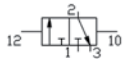


Mod.	Mounting	Function	Flow rate NI/min	min. pil P.
458-35	without base/on manifold	5/2	700	2,5 bar

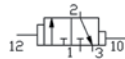
3/2-way valve, G1/8 port, bistable



I1

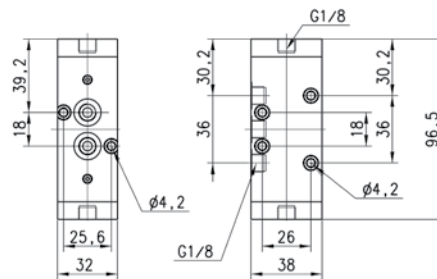


M1

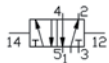


Mod.	Mounting	Function	Flow rate NI/min	min. pil P.	Symbol
438-33	without base/on manifold	3/2 N.C.	700	2 bar	I1
438-34	without base/on manifold	3/2 N.C.	700	2bar	M1

5/2-way valve, G1/8 port, bistable



R1

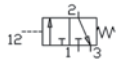
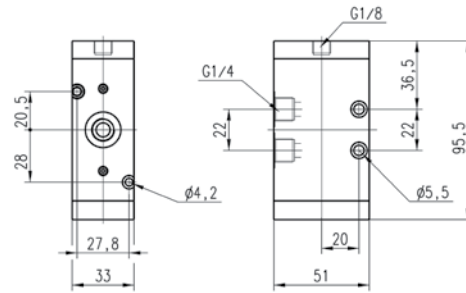


T1



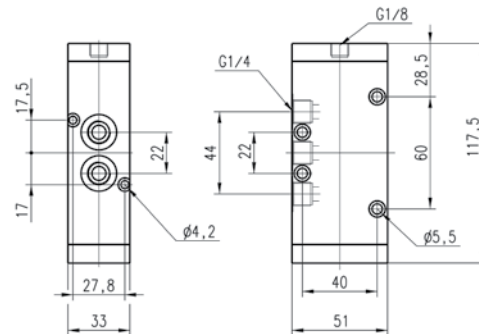
Mod.	Mounting	Function	Flow rate NI/min	min. pil P.	Symbol
458-33	without base/on manifold	5/2	700	2 bar	R1
458-34	without base/on manifold	5/2	700	2 bar	T1

3/2-way valve, G1/4 port, monostable



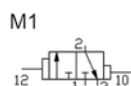
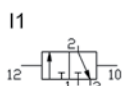
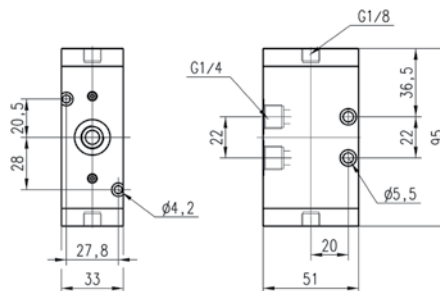
Mod.	Mounting	Function	Flow rate NI/min	min. pil P.
434-35	without base/on manifold	3/2 N.C.	1250	2,5 bar

5/2-way valve, G1/4 port, monostable



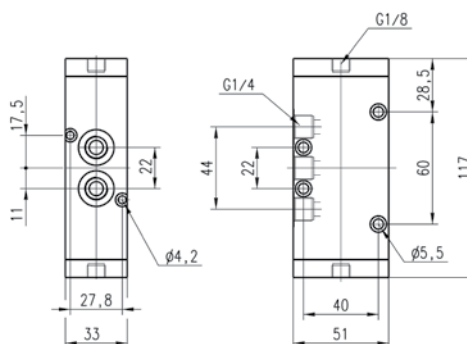
Mod.	Mounting	Function	Flow rate NI/min	min. pil P.
454-35	without base/on manifold	5/2	1250	2,5 bar

3/2-way valve, G1/4 port, bistable



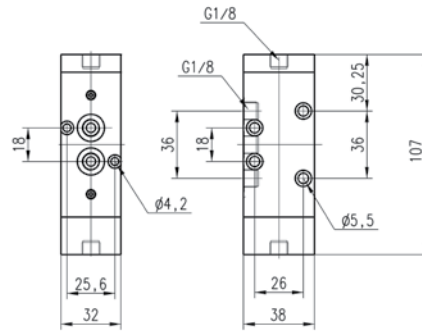
Mod.	Mounting	Function	Flow rate NI/min	min. pil P.	Symbol
434-33	without base/on manifold	3/2 N.C.	1250	2 bar	I1
434-34	without base/on manifold	3/2 N.C.	1250	2 bar	M1

5/2-way valve, G1/4 port, bistable



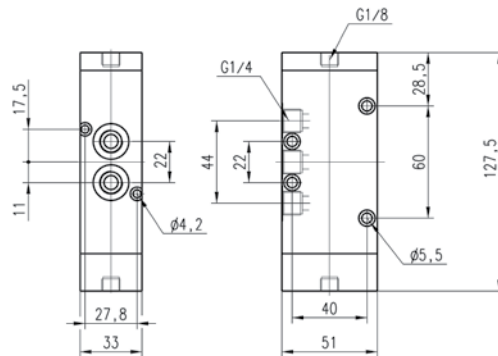
Mod.	Mounting	Function	Flow rate NI/min	min. pil P.	Symbol
454-33	without base/on manifold	5/2	1250	2 bar	R1
454-34	without base/on manifold	5/2	1250	2 bar	T1

5/3-way C.C. valve, G1/8, monostable, with central stable position



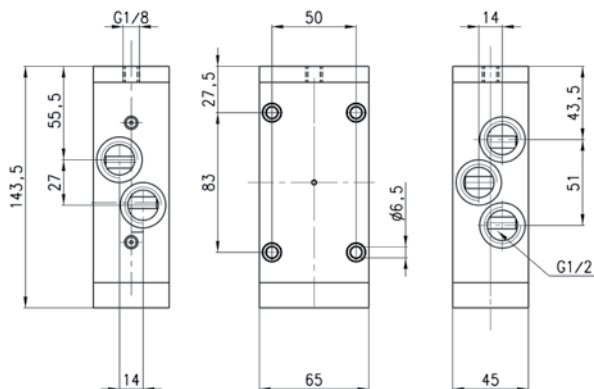
Mod.	Mounting	Function	Flow rate NI/min	P.min pil
468-33	without base/on manifold	5/3 C.C.	700	2,5 bar

5/3-way C.C. C.O. valve, G1/4, monostable, central stable position



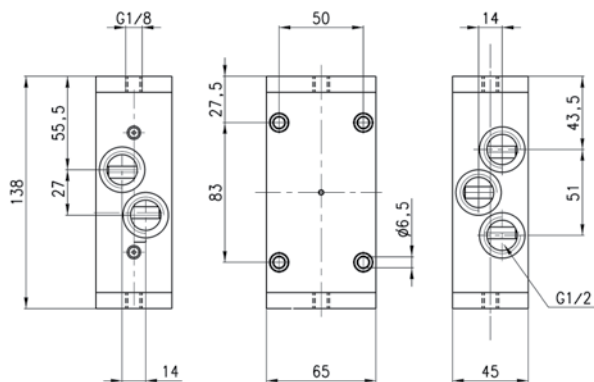
Mod.	Mounting	Function	Flow rate NI/min	P. min pil.	Symbol
464-33	without base/on manifold	5/3 C.C.	1250	2,5 bar	U1
474-33	without base/on manifold	5/3 C.O.	1200	2,5 bar	V1

5/2-way valve, G1/2 port, monostable

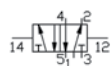


Mod.	Mounting	Function	Flow rate NI/min	P. min pil.
452C-35	in line	5/2	2500	2,5 bar

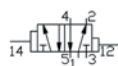
5/2-way valve, G1/2 port, bistable



R1



T1



Mod.	Mounting	Function	Flow rate NI/min	P. min pil.	Symbol
452C-33	in line	5/2	2500	2 bar	R1
452C-34	in line	5/2	2500	2 bar	T1

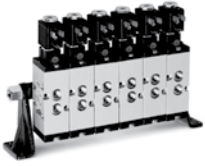
Manifold bars with separate exhausts (low version)

out of production

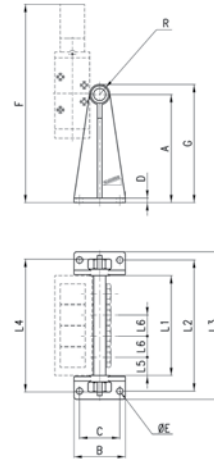
For Series 4 valves, G1/8 and G1/4.

The following is supplied:

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



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



DIMENSIONS

Mod.	N° of valves	A	B	C	D	ØE	F	G	R	L1	L2	L3	L4	L5	L6	Suitable for
CNV-418-2	2	73	56	44	5	7	189	83	G1/4	73	107	125	106	20	33	Series 4-G1/8
CNV-418-3	3	73	56	44	5	7	189	83	G1/4	106	140	158	139	20	33	Series 4-G1/8
CNV-418-4	4	73	56	44	5	7	189	83	G1/4	139	173	191	172	20	33	Series 4-G1/8
CNV-418-5	5	73	56	44	5	7	189	83	G1/4	172	206	224	205	20	33	Series 4-G1/8
CNV-418-6	6	73	56	44	5	7	189	83	G1/4	205	239	257	238	20	33	Series 4-G1/8
CNV-414-2	2	95	56	44	5	7	221	110	G3/8	86	128	148	120	25	36	Series 4-G1/4
CNV-414-3	3	95	56	44	5	7	221	110	G3/8	122	164	184	156	25	36	Series 4-G1/4
CNV-414-4	4	95	56	44	5	7	221	110	G3/8	158	200	220	192	25	36	Series 4-G1/4
CNV-414-5	5	95	56	44	5	7	221	110	G3/8	194	236	256	228	25	36	Series 4-G1/4
CNV-414-6	6	95	56	44	5	7	221	110	G3/8	230	272	292	264	25	36	Series 4-G1/4

Manifold bars with separate exhausts (high version)

out of production

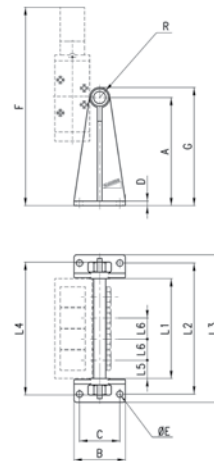
For Series 4 valves, G1/8 and G1/4.

The following is supplied:

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



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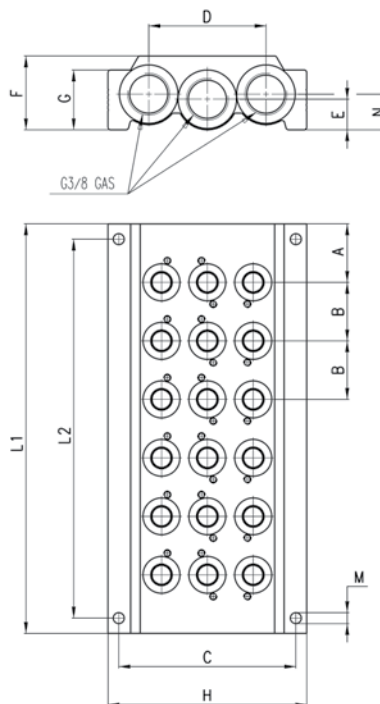
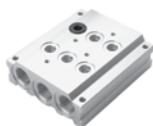


DIMENSIONS

Mod.	N° of valves	A	B	C	D	ØE	F	G	R	L1	L2	L3	L4	L5	L6	Suitable for
CNV-428-2	2	118	56	44	5	7	234	128	G1/4	73	107	125	106	20	33	Series 4-G1/8
CNV-428-3	3	118	56	44	5	7	234	128	G1/4	106	140	158	139	20	33	Series 4-G1/8
CNV-428-4	4	118	56	44	5	7	234	128	G1/4	139	173	191	172	20	33	Series 4-G1/8
CNV-428-5	5	118	56	44	5	7	234	128	G1/4	172	206	224	205	20	33	Series 4-G1/8
CNV-428-6	6	118	56	44	5	7	234	128	G1/4	205	239	257	238	20	33	Series 4-G1/8
CNV-424-2	2	133	56	44	5	7	259	148	G3/8	86	128	148	120	25	36	Series 4-G1/4
CNV-424-3	3	133	56	44	5	7	259	148	G3/8	122	164	184	156	25	36	Series 4-G1/4
CNV-424-4	4	133	56	44	5	7	259	148	G3/8	158	200	220	192	25	36	Series 4-G1/4
CNV-424-5	5	133	56	44	5	7	259	148	G3/8	194	236	256	228	25	36	Series 4-G1/4
CNV-424-6	6	133	56	44	5	7	259	148	G3/8	230	272	292	264	25	36	Series 4-G1/4

Manifold base with common exhausts

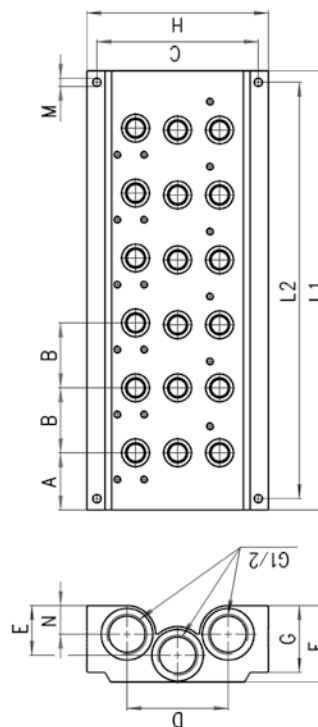
For valves Series 4, G1/8 (3/2, 5/2 or 5/3 - ways).
 The following is supplied :
 1x manifold
 1x pair of fixing screws per valve position
 3x OR seal per valve position
 2x guides per valve position



DIMENSIONS												
Mod.	A	B	C	D	E	F	G	H	L1	L2	M	N
CNVL-42	28	33	69,5	46	12	29	23,5	78	89	77	4,3	14
CNVL-43	28	33	69,5	46	12	29	23,5	78	122	110	4,3	14
CNVL-44	28	33	69,5	46	12	29	23,5	78	155	143	4,3	14
CNVL-45	28	33	69,5	46	12	29	23,5	78	188	176	4,3	14
CNVL-46	28	33	69,5	46	12	29	23,5	78	221	209	4,3	14

Manifold base with common exhausts

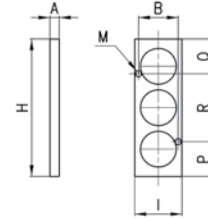
For valves Series 4, G1/4 (3/2, 5/2 or 5/3 - ways).
 The following is supplied :
 1x manifold
 1x pair of fixing screws per valve position
 3x OR seal per valve position
 2x guides per valve position



DIMENSIONS												
Mod.	A	B	C	D	E	F	G	H	L1	L2	M	N
CNVL-52	30	34	84,5	53	26	40	35	95	94	82	4,3	15
CNVL-53	30	34	84,5	53	26	40	35	95	128	116	4,3	15
CNVL-54	30	34	84,5	53	26	40	35	95	162	150	4,3	15
CNVL-55	30	34	84,5	53	26	40	35	95	196	184	4,3	15
CNVL-56	30	34	84,5	53	26	40	35	95	230	218	4,3	15

Blanking plate for CNVL manifolds

The item is used to blank one or more stations on a manifold base Mod.CNVL...,
The following is supplied:
2x fixing screws
3x O-Rings

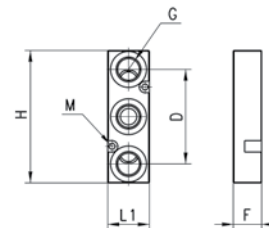


DIMENSIONS

Mod.	A	B	H	I	M	P	Q	R
CNVL/2 (series 4-1/8)	5	25,6	52	32	4,2	17	17	18
CNVL/3 (series 4-1/4)	5	27,8	70	32,5	4,2	7,5	3,5	59

Intermediate plate for manifold with outlets

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

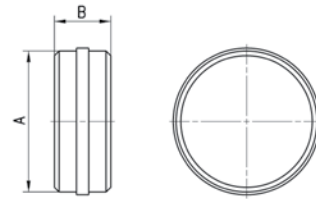


DIMENSIONS

Mod.	G	H	M	G	L1	D
CNVL-4P	G1/4	73	3,2	29	25	50

Diaphragm

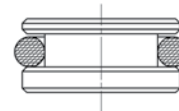
MODULES SEPARATION BLANKING PLUG



DIMENSIONS			
Mod.	A	B	Supply
CNVL-4H-TP	23,8	8	T=1+3+5 U=1 J=3+5

Blanking plug for TCNVL manifolds

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



DIMENSIONS	
Mod.	Series
TCNVL-3	4 G1/8
TCNVL-5	4 G1/4