Directly operated solenoid valves Series A

2/2 way, 3/2 way N.C. and N.O.
monostable, bistable (with magnetic memory)
Ports M5, G1/8, cartridge ø4

The Series A solenoid valves are of the directly operated type and can be used with dry or lubricated air.
They are available in the 2/2 and 3/2-way versions with normally closed (N.C.) or normally open (N.O.) operation.
They are also supplied in versions which differ with respect to the body type, the threaded ports and the orifice, as indicated in the tables for each type, in order to satisfy various operating and installation requirements.

The electromagnet (or solenoid) is separate and can be easily and rapidly replaced without interfering with the pressurised part of the valve.
This series of solenoid valves has different types of solenoids which can be interchanged on the same mechanical part. The choice of solenoid determines the performance of the solenoid valve (consumption and pressure).

GENERAL DATA

Construction	poppet-type
Valve group	2/2, 3/2-way / pos. N.C. or N.O.
Materials	body OT58 (nickel - plated) or technopolymer - other parts: stainless steel, NBR seals
Ports	M5, G1/8, cartridge ø 4
Installation	in any position
Temperature	0 ÷ 60°C (with dry air -20°C)
Operating pressure	bar (see table)
Nominal flowrate	Qn (see table)
Nominal diameter	ø (see table)
Fluid	filtered air, without lubrication. If lubricated air is used, it is recommended to use ISOVG3 oil. The lubrication should never be interrupted.

CODING EXAMPLE

A	3	3	1	-	0	C	2	-	U	7	7

A SERIES

3 BODY DESIGN:
1 = base (24x24 mm) interface rotatable through 360°
2 = base (24x24 mm) fixed interface
3 = threaded body
4 = rapid exhaust body
5 = base with ISO standard interface, fixed body in technopolymer
6 = (16x16 mm) interface rotatable through 360°
A = single manifold
B = 2-part manifold
C = 3-part manifold
D = 4-part manifold
E = 5-part manifold
F = 6-part manifold
G = 7-part manifold
H = 8-part manifold
K = 9-part manifold
L = 10-part manifold
M = 11-part manifold
N = 12-part manifold
P = 13-part manifold
R = 14-part manifold
S = 15-part manifold

3 N° OF PORTS:
2 = 2 ways
3 = 3 ways

1 FUNCTION:
1 = N.C. (normally closed)
2 = N.O. (normally opened)
3 = N.O. in line.

0 PORTS:

	1	2	3
0	M5	M5	M5
1	G1 /8	G1/8	M5
3	M5	G1/8 male	M5
4	M5	G1/8 male	M5 with manual override
A	rotatable O-Ring interface		M5
B	fixed O-Ring interface		M5
C	Cartridge Ø 4		

C NOMINAL DIAMETER:
C = Ø 1,5
D = Ø 2
E = Ø 2,5

2 BODY MATERIAL:
2 = OT58 Aluminium.
3 = technopolymer.

U ENCAPSULATING MATERIAL:
G = PA
U = PET
A = PPS
H = PA6VO

7 SOLENOID DIMENSIONS:
7 = 22x22
8 = 30x30
9 = 22x58

7 SOLENOID VOLTAGE:
See Solenoids section pag. 2.2.35.01

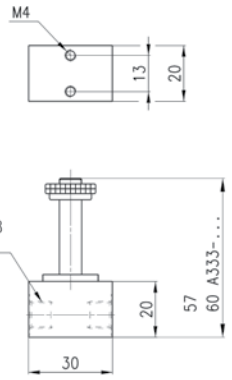
Table for the identification of the solenoids according valve type

Valve function 2/2 : For vacuum application connect the vacuum in “2”
Valve function 3/2 : For vacuum application connect the vacuum in “1”
Note : For solenoid Mod. (2/2 N.O.) contact our technical staff

Mod.	Solenoids 3W working pressure (bar)	Solenoids 4-5 W working pressure (bar)	Solenoids 3,5 VA working pressure (bar)
Valve function 2/2 N.C.	min - max	min - max	min - max
A321-0C2	- 0,9 ÷ 8	- 0,9 ÷ 15	- 0,9 ÷ 15
A321-1C2	- 0,9 ÷ 8	- 0,9 ÷ 15	- 0,9 ÷ 15
A321-1D2	- 0,9 ÷ 4	- 0,9 ÷ 9	- 0,9 ÷ 9
A321-1E2	- 0,9 ÷ 1	- 0,9 ÷ 6	- 0,9 ÷ 6
Valve function 2/2 N.A.	min - max	min - max	min - max
A322-0C2	2 ÷ 10	- 0,9 ÷ 10	- 0,9 ÷ 10
A322-1C2	2 ÷ 10	- 0,9 ÷ 10	- 0,9 ÷ 10
Valve function 3/2 N.C.	min - max	min - max	min - max
A331-0C2	2 ÷ 10	- 0,9 ÷ 10	- 0,9 ÷ 10
A331-1C2	2 ÷ 10	- 0,9 ÷ 10	- 0,9 ÷ 10
A331-3C2	2 ÷ 10	- 0,9 ÷ 10	- 0,9 ÷ 10
A331-4C2	2 ÷ 10	- 0,9 ÷ 10	- 0,9 ÷ 10
A431-1C2	2 ÷ 10	2 ÷ 10	2 ÷ 10
A531-BC2	2 ÷ 10	- 0,9 ÷ 10	- 0,9 ÷ 10
A631-AC2	2 ÷ 10	- 0,9 ÷ 10	- 0,9 ÷ 10
AA31-0C2	2 ÷ 10	- 0,9 ÷ 10	- 0,9 ÷ 10
AA31-0C3	2 ÷ 8	- 0,9 ÷ 8	- 0,9 ÷ 8
AA31-CC2	2 ÷ 10	- 0,9 ÷ 10	- 0,9 ÷ 10
AA31-CC3	2 ÷ 8	- 0,9 ÷ 8	- 0,9 ÷ 8
Valve function 3/2 N.A.	min - max	min - max	min - max
A332-0C2	- 0,9 ÷ 7	- 0,9 ÷ 7	- 0,9 ÷ 7
A332-1C2	- 0,9 ÷ 7	- 0,9 ÷ 7	- 0,9 ÷ 7
A333-0C2	- 0,9 ÷ 7	-	- 0,9 ÷ 10
A333-1C2	- 0,9 ÷ 7	-	- 0,9 ÷ 10
AA33-0C2	- 0,9 ÷ 7	-	- 0,9 ÷ 10
AA33-0C3	- 0,9 ÷ 7	-	- 0,9 ÷ 8
AA33-CC3	- 0,9 ÷ 7	-	- 0,9 ÷ 10

2/2 and 3/2-way solenoid valves Mod. A32 and Mod. A33

The 2/2 and 3/2 - way solenoid valves, for individual assembly, are available for normally closed or normally open operation.
The ports on the body may be G1/8 or M5, while the outlet which is provided is always M5.

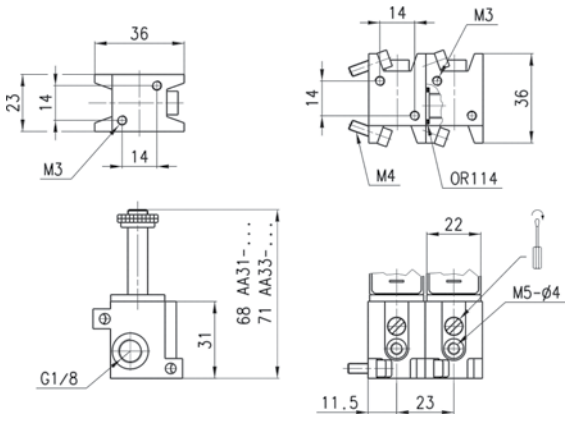


Mod.	Ports	Function	Orifice Ø mm	Qn (Nl/min)	Symbol
A321-0C2-*	M5	2/2 N.C.	1,5	50	E
A321-1C2-*	G1/8	2/2 N.C.	1,5	57	E
A321-1D2-*	G1/8	2/2 N.C.	2	97	E
A321-1E2-*	G1/8	2/2 N.C.	2,5	132	E
A322-0C2-*	M5	2/2 N.O.	1,8	68	G
A322-1C2-*	G1/8	2/2 N.O.	1,8	82	G
A331-0C2-*	M5	3/2 N.C.	1,5	52	A
A331-1C2-*	G1/8	3/2 N.C.	1,5	57	A
A332-0C2-*	M5	3/2 N.O.	1,5	53	C
A332-1C2-*	G1/8	3/2 N.O.	1,5	65	C
A333-0C2-*	M5	3/2N.O. in line	1,5	58	C
A333-1C2-*	G1/8	3/2N.O. in line	1,5	69	C

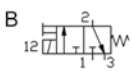
Note. For the use of N.O. valves in line, use the coil model U771 or U7K1 or G771 or G7K1.

3/2-way solenoid valve Mod. AA31...

The 3/2 - way solenoid valves for manifold assembly are available in the N.C. (normally closed) version, with 1/8" ports at the manifold inlet, and may be used with M5 threading or with a dia. 4 cartridge.

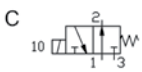


Mod.	Inlet / outlet	Function	Orifice Ø mm	Manual override bistable	Qn (Nl/min)	Symbol
AA31-0C2-*	G1/8 M5	3/2 N.C.	1,5	Yes	53	B
AA31-CC2-*	G1/8 04	3/2 N.C.	1,5	Yes	55	B
AA31-0C3-*	G1/8 M5	3/2 N.C.	1,5	Yes	53	B
AA33-0C2-*	G1/8 M5	3/2 N.O. in line	1,5	No	53	C
AA33-CC2-*	G1/8 04	3/2 N.O. in line	1,5	No	55	C
AA33-0C3-*	G1/8 M5	3/2 N.O. in line	1,5	No	53	C
AA31-CC3-*	G1/8 04	3/2 N.C.	1,5	Yes	55	B
AA33-CC3-*	G1/8 04	3/2 N.O. in line	1,5	No	65	C



Note. For the use of N.O. valves in line, use the coil model U771 or U7K1 or G771 or G7K1.

The body is supplied complete



with O-ring and screws.

*choose solenoid required.

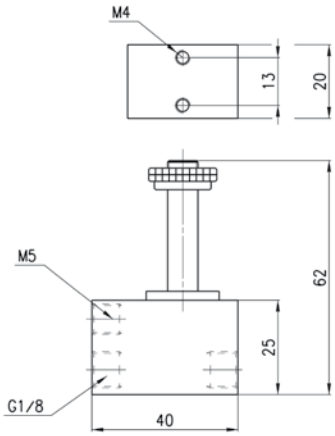
2

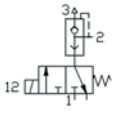
CONTROL

3/2-way solenoid valve Mod. A43

* choose solenoid required

The 3/2 - way N.C. solenoid valve, with G1/8 ports, incorporates a rapid exhaust valve.
It is particularly suitable for operating small single-acting cylinders.



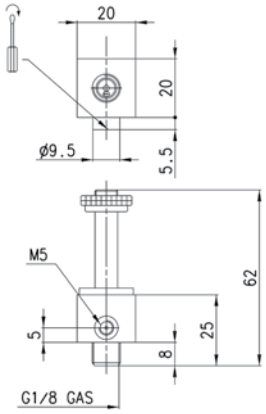


Mod.	Ports	Function	Orifice Ø mm	Qn (Nl/min)
A431-1C2-*	G1/8	N.C.	1.5	36

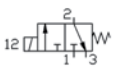
3/2-way solenoid valve Mod. A33

The body has an outlet with a G1/8 male thread which can be screwed directly onto the component to be operated. The inlet port is MS threaded.

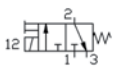
*choose solenoid required.



A



B



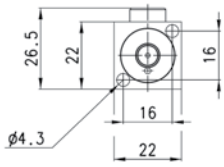
Mod.	Inlet / outlet	Function	Orifice Ø min	Man. override bistable	Qn (Nl/min)	Symbol
A331-3C2-*	M5/ G1/8	N.C.	1.5	no	55	A
A331-4C2-*	M5/ G1/8	N.C.	1.5	yes	55	B

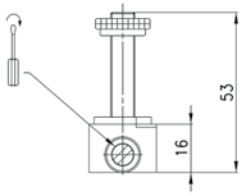
3/2-way solenoid valve Mod. A63

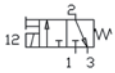
The 3/2 - way N.C. solenoid valve is designed to be mounted directly onto machine parts by two screws.
A sealing action is ensured by two concentric O-rings which allow the body to be adjusted through 360°.

These solenoid valves are provided with a manual override for bistable or monostable operation.

*choose solenoid required.







Mod.	Interface	Function	Orifice Ø min	Qn (Nl/min)
A631 -AC2-*	OR	N.C.	1,5	70

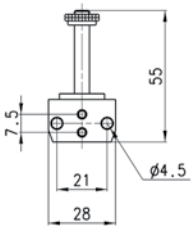
3/2 -way solenoid valve Mod. A53

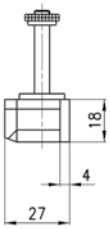
The 3/2 - way N.C. solenoid valve has been designed so as to be mounted on valves with an ISO interface.
The interface, according to CNOMO norm, is interchangeable with all ISO versions.

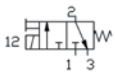
These solenoid valves are equipped with a manual override for bistable and monostable operation.

Exists only with plastic body.

*choose solenoid required.







Mod.	Interface	Function	Orifice Ø min	Qn (Nl/min)
A531-BC2-*	OR	N.C.	1,5	70