

# Series MD lockable isolation 3/2-way valves

Ports with interchangeable cartridges: threaded (1/8, 1/4, 3/8) or integrated with super-rapid fitting for tube with  $\varnothing$  6, 8 and 10 mm

Modular

Manual, electro-pneumatic, servo-pilot and pneumatic control



- » Standard tamperproof lock-out (manual valve)
- » 24 V, 110 V or 230 V coils
- » Solenoid valve with or without manual override available in different types
- » Additional air intakes with the same characteristics of the inlet air (line)

The Series MD offers multi-sector solutions that ensure saving in terms of installation time, space and costs.

Series MD lockable isolation valves allow the inlet and exhaust of compressed air from the plant and can meet several application requirements.

The electric version can be equipped with different options of manual override (Push & Turn, Push-in, retaining lever). Moreover, a version without override is also available.

The manually operated valve can be locked thanks to the use of padlocks.

## GENERAL DATA

Construction	modular, compact, spool-type
Materials	see TABLE OF MATERIALS on the following page
Ports	with interchangeable cartridges: 1/8, 1/4 and 3/8 threaded, integrated with super-rapid fitting for tube with $\varnothing$ 6, 8 and 10 mm
Fixing	in-line; wall-mounting by means of through holes in the body or with a support bracket; panel-mounting (for manually operated version only)
Operating temperature	-5°C ÷ 50°C up to 16 bar
Operating pressure	Manual valve: -0.8 bar ÷ 10 bar Electro-pneumatic valve: 2 bar ÷ 10 bar Servopilot or pneumatic valve: -0.8 bar ÷ 10 bar (with pilot 2 ÷ 10 bar)
Nominal flow	see FLOW DIAGRAMS on the following pages
Nominal exhaust flow at 6 bar with $\Delta p = 1$ bar	850 NL/min
Fluid	compressed air

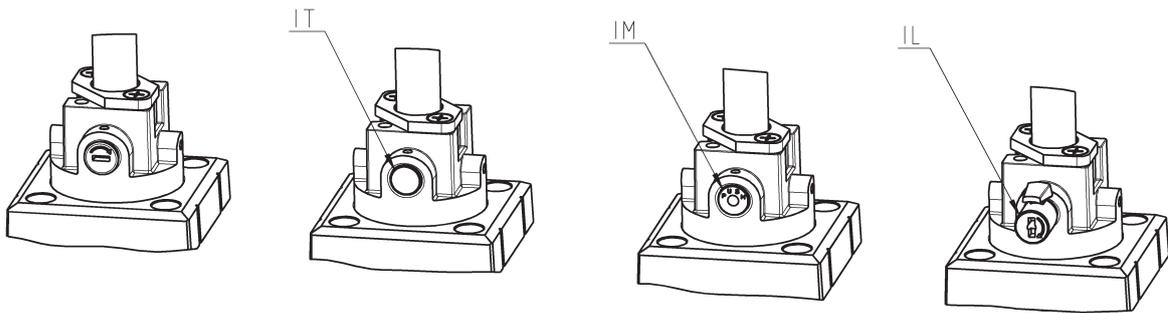
**CODING EXAMPLE**

<b>MD</b>	<b>1</b>	<b>-</b>	<b>V</b>	<b>01</b>	<b>-</b>	<b>1/8</b>
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<b>MD</b>	SERIES	
<b>1</b>	DIMENSION: 1 = 42 mm	
<b>V</b>	3/2-WAY VALVE	
<b>01</b>	DESIGN TYPE: 01 = lockable manual control 16 = electro-pneumatic control, Push & Turn manual override 16IL = electro-pneumatic control, bistable manual override, lever type	16IM = electro-pneumatic control, monostable manual override 16IT = electro-pneumatic control without manual override 36 = pneumatic control
<b>1/8</b>	PORTS (IN - OUT) *: = without cartridges 1/8 = G1/8 1/4 = G1/4 3/8 = G3/8 6 = tube Ø6 8 = tube Ø8 10 = tube Ø10	

\* NOTE: if the inlet (IN) cartridge is different from the outlet (OUT) cartridge, both dimensions shall be indicated.  
Example: MD1-V01-1/4-1/8

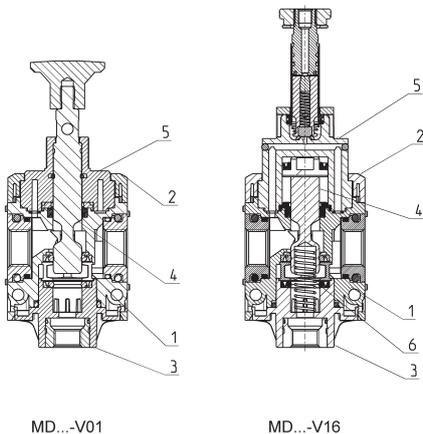
**TYPES OF MANUAL OVERRIDE**



Push & Turn manual override

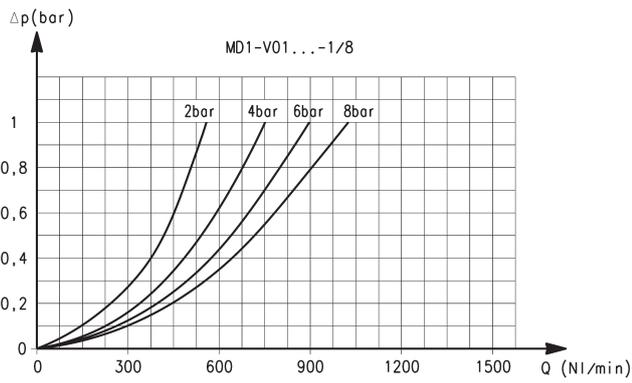
IT = without manual override  
IL = bistable manual override, lever type  
IM = monostable manual override

**Series MD lockable isolation 3/2-way valves - materials**



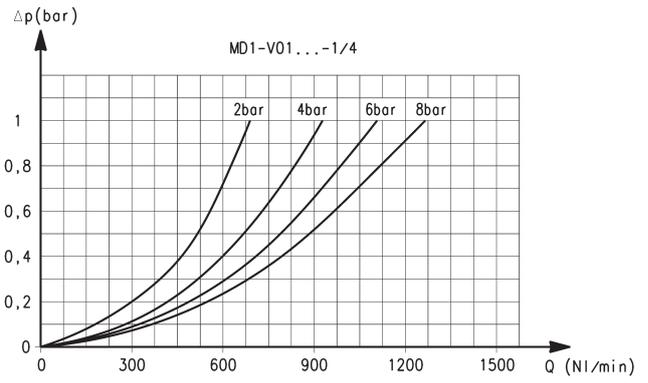
PARTS	MATERIALS
<b>1 = Body</b>	Polyamide
<b>2 = Covering</b>	Polyamide
<b>3 = Plug</b>	Polyamide
<b>4 = Spool</b>	Anodized aluminium
<b>5 = End-cover</b>	Polyamide
<b>6 = Lower spring</b>	Stainless steel
<b>Seals</b>	NBR

**FLOW DIAGRAMS for manually operated models**



Ports with interchangeable G1/8 threaded cartridges

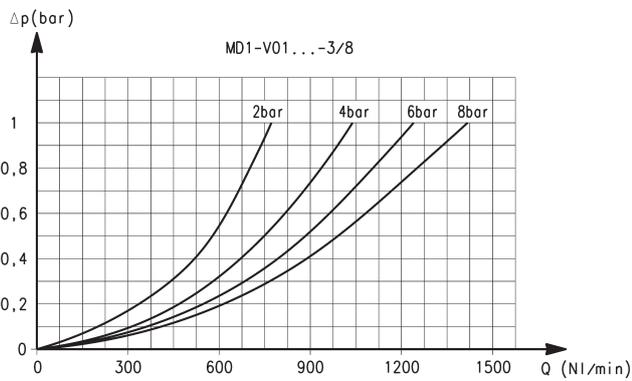
Δp = Pressure drop (bar)  
Q = Flow (NL/min)



Ports with interchangeable G1/4 threaded cartridges

Δp = Pressure drop (bar)  
Q = Flow (NL/min)

**FLOW DIAGRAM for manually operated models**

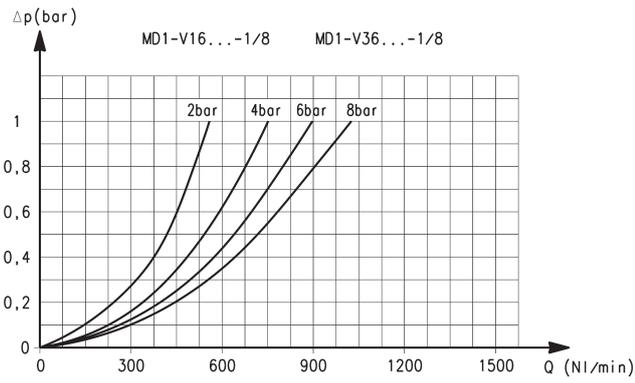


Ports with interchangeable G3/8 threaded cartridges

Δp = Pressure drop (bar)  
Q = Flow (NL/min)

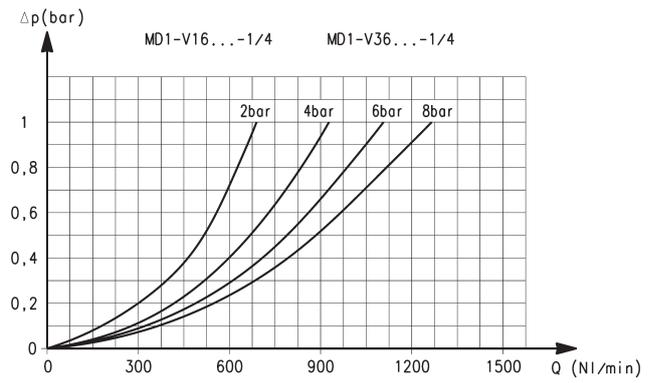
**FLOW DIAGRAMS for electro-pneumatically or pneumatically operated models**

SERIES MD 3/2-WAY ISOLATION VALVES



Ports with interchangeable G1/8 threaded cartridges

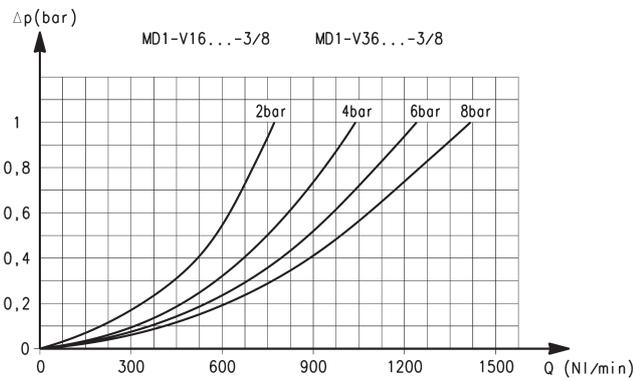
$\Delta p$  = Pressure drop (bar)  
 $Q$  = Flow (NL/min)



Ports with interchangeable G1/4 threaded cartridges

$\Delta p$  = Pressure drop (bar)  
 $Q$  = Flow (NL/min)

**FLOW DIAGRAM for electro-pneumatically or pneumatically operated models**



Ports with interchangeable G3/8 threaded cartridges

$\Delta p$  = Pressure drop (bar)  
 $Q$  = Flow (NL/min)

### Manually operated valves - dimensions

Fig. 1 = closed valve  
Fig. 2 = open valve



VN27 = Lockable bistable manual valve 3/2

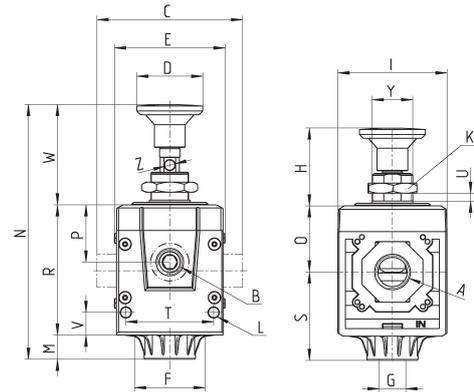
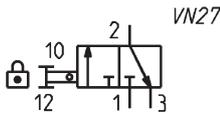


Fig.1

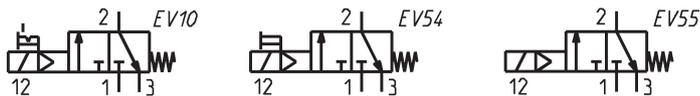
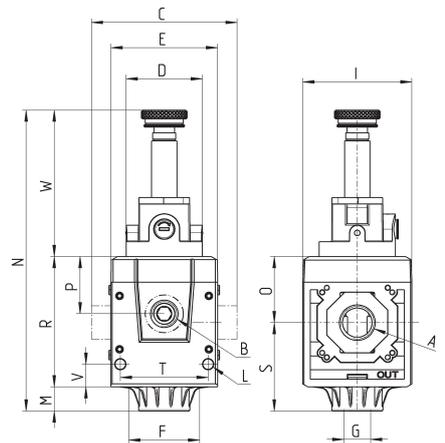
Fig.2

Mod.	A	B	C	D	E	F	G	H	I	K	L	M	N	O	P	R	S	T	U	V	W	Y	Z	Weight (Kg)
MD1-V01	-	G1/8	42	Ø26	42	28.5	G1/8	31	43	19	Ø4	9.5	101	26.2	22.7	51.7	35.1	34.6	0-8	9	39.8	M16X1	Ø4.5	0.2
MD1-V01-1/8	G1/8	G1/8	42	Ø26	42	28.5	G1/8	31	43	19	Ø4	9.5	101	26.2	22.7	51.7	35.1	34.6	0-8	9	39.8	M16X1	Ø4.5	0.2
MD1-V01-1/4	G1/4	G1/8	42	Ø26	42	28.5	G1/8	31	43	19	Ø4	9.5	101	26.2	22.7	51.7	35.1	34.6	0-8	9	39.8	M16X1	Ø4.5	0.2
MD1-V01-3/8	G3/8	G1/8	42	Ø26	42	28.5	G1/8	31	43	19	Ø4	9.5	101	26.2	22.7	51.7	35.1	34.6	0-8	9	39.8	M16X1	Ø4.5	0.2
MD1-V01-6	Ø6	G1/8	47	Ø26	42	28.5	G1/8	31	43	19	Ø4	9.5	101	26.2	22.7	51.7	35.1	34.6	0-8	9	39.8	M16X1	Ø4.5	0.2
MD1-V01-8	Ø8	G1/8	62	Ø26	42	28.5	G1/8	31	43	19	Ø4	9.5	101	26.2	22.7	51.7	35.1	34.6	0-8	9	39.8	M16X1	Ø4.5	0.2
MD1-V01-10	Ø10	G1/8	67	Ø26	42	28.5	G1/8	31	43	19	Ø4	9.5	101	26.2	22.7	51.7	35.1	34.6	0-8	9	39.8	M16X1	Ø4.5	0.2

### Electro-pneumatically operated valves - dimensions



- \* = add:
- IL for the version with bistable manual override, lever type (EV10)
  - IM for the version with monostable manual override (EV54)
  - IT for the version without manual override (EV55)

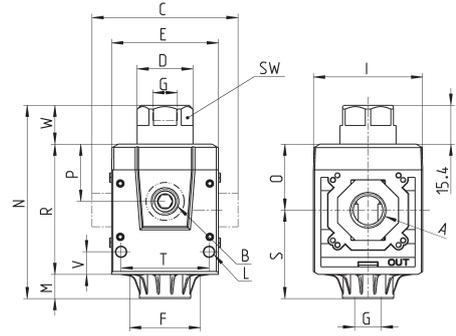
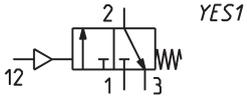


Mod.	A	B	C	D	E	F	G	I	L	M	N	O	P	R	S	T	V	W	Weight (Kg)
MD1-V16*	-	G1/8	42	Ø30	42	28.5	G1/8	43	Ø4	9.5	119.4	26.2	22.7	51.7	35.1	34.6	9	58.2	0.2
MD1-V16*-1/8	G1/8	G1/8	42	Ø30	42	28.5	G1/8	43	Ø4	9.5	119.4	26.2	22.7	51.7	35.1	34.6	9	58.2	0.2
MD1-V16*-1/4	G1/4	G1/8	42	Ø30	42	28.5	G1/8	43	Ø4	9.5	119.4	26.2	22.7	51.7	35.1	34.6	9	58.2	0.2
MD1-V16*-3/8	G3/8	G1/8	42	Ø30	42	28.5	G1/8	43	Ø4	9.5	119.4	26.2	22.7	51.7	35.1	34.6	9	58.2	0.2
MD1-V16*-6	Ø6	G1/8	47	Ø30	42	28.5	G1/8	43	Ø4	9.5	119.4	26.2	22.7	51.7	35.1	34.6	9	58.2	0.2
MD1-V16*-8	Ø8	G1/8	62	Ø30	42	28.5	G1/8	43	Ø4	9.5	119.4	26.2	22.7	51.7	35.1	34.6	9	58.2	0.2
MD1-V16*-10	Ø10	G1/8	67	Ø30	42	28.5	G1/8	43	Ø4	9.5	119.4	26.2	22.7	51.7	35.1	34.6	9	58.2	0.2

**Pneumatically operated valves - dimensions**



YES1 = pneumatically operated valve, 3/2, monostable, mechanical spring



SERIES MD 3/2-WAY ISOLATION VALVES

Mod.	A	B	C	D	E	F	G	I	L	M	N	O	P	R	S	T	V	W	SW	Weight (Kg)
<b>MD1-V36</b>	-	G1/8	42	Ø22	42	28.5	G1/8	43	Ø4	9.5	76.6	26.2	22.7	51.7	35.1	34.6	9	15.4	20	0.2
<b>MD1-V36-1/8</b>	G1/8	G1/8	42	Ø22	42	28.5	G1/8	43	Ø4	9.5	76.6	26.2	22.7	51.7	35.1	34.6	9	15.4	20	0.2
<b>MD1-V36-1/4</b>	G1/4	G1/8	42	Ø22	42	28.5	G1/8	43	Ø4	9.5	76.6	26.2	22.7	51.7	35.1	34.6	9	15.4	20	0.2
<b>MD1-V36-3/8</b>	G3/8	G1/8	42	Ø22	42	28.5	G1/8	43	Ø4	9.5	76.6	26.2	22.7	51.7	35.1	34.6	9	15.4	20	0.2
<b>MD1-V36-6</b>	Ø6	G1/8	47	Ø22	42	28.5	G1/8	43	Ø4	9.5	76.6	26.2	22.7	51.7	35.1	34.6	9	15.4	20	0.2
<b>MD1-V36-8</b>	Ø8	G1/8	62	Ø22	42	28.5	G1/8	43	Ø4	9.5	76.6	26.2	22.7	51.7	35.1	34.6	9	15.4	20	0.2
<b>MD1-V36-10</b>	Ø10	G1/8	67	Ø22	42	28.5	G1/8	43	Ø4	9.5	76.6	26.2	22.7	51.7	35.1	34.6	9	15.4	20	0.2