

Solenoid valve NAMUR types MNF 532 / MNF 532-dm and type MNI 52



Description

Solenoid valves are used for the electromagnetic pilot of pneumatic actuators in order to avoid multiple routing of compressed air lines.

A piston inside the solenoid valve is actuated by a continuous current or pulse (depending on the type of valve) and is brought into a defined position, by which the air path for the respective drive movement is predefined.

At least one movement of the control piston is ensured by an electromagnet. The second direction of movement is realized either by a mechanical return spring / air spring or by another electromagnet.

In most industrial applications, solenoid valves with an air or return spring are used which have a defined (safety) rest position (also called monostable). For maintaining the working position, a continuous current is required.


Bistable solenoid valves (with 2 solenoids) only require current for a short time to realize the desired piston position and then remain in the same position until they are switched again (pulse control).

These NAMUR solenoid valves can be mounted directly onto standardized pneumatic actuators according to NAMUR.

Optionally, AC or DC solenoids can be used.

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Special features

- **Solenoid valve NAMUR:**
Version with standard coil and connector plug. For cleaned and lubricated or non-lubricated compressed air with quality level 5 according to ISO 8573-1. In the temperature range below 0 °C, dried air must be used.
Types:
MNF 532, monostable
MNF 532-m,  II 2G Ex db mb IIC T5 Gb X, monostable
MNI 52, bistable
- **Version:**
MNF:
3/2- and 5/2-ways-solenoid valve with air spring return, easy switching from 5/2 to 3/2-way function due to innovative reversible seal and NAMUR adapter plate
MNI:
5/2-way-solenoid valve with pulse version
- **Emergency actuation:**
Standard, (made of brass), latching
- **Solenoid:**
DC, AC
- **Installation:**
Any
- **Materials:**
Body: Aluminium, anodized
Piston: stainless steel 1.4305 (SUS 303)
Screws: stainless steel 1.4301 (SUS 304)
NAMUR adapter plate: PA6 with 30% glass fiber content
Connector plug: PA6 with 30% glass fiber content
Coil body: thermoplastic polyester with 30% glass fiber content

- **Sealings:**
NBR
- **Ex version:**
with explosion-proof coil
- **Fail-safe position:**
MNF standard versions are equipped with wear- and maintenance-free air spring and move back to their basic position in case of power failure

Technical data		
	MNF 532 / MNF 532-dm	MNI 52
Air entry	G 1/4"	G 1/4"
Dimension	5,5 mm	7 mm
Air pressure	2 - 10 bar	2 - 10 bar
Temperature	-10 °C up to 50 °C	-10 °C up to 50 °C
Temperature Ex	-15 °C up to 50 °C	
Protection class	IP 65 - ISO 20653:2013-02	IP 65 - ISO 20653:2013-02
Voltage DC	12 V, 24 V	12 V, 24 V
Voltage AC	24 V, 48 V, 115 V, 230 V	24 V, 48 V, 115 V, 230 V
Power consumption DC	3 W	3 W
Power consumption AC	5 VA / 3,2 VA	5 VA
Switching time on	13ms	13ms
Switching time off	16ms	16ms
Air flow	950 l/min	1250 l/min

Solenoid valves, indirectly actuated, with emergency manual override

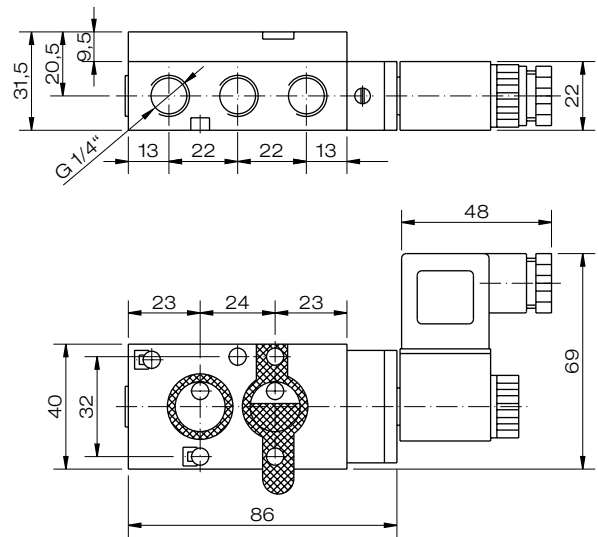
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Art.-no.	Type	Specification
236	MNF 532024DC-LED	3/2- and 5/2-way, NAMUR, monostable, for direct mounting
238	MNF 532230AC-LED	24 V DC, with connector plug incl. LED
239	MNF 532115AC-LED	230 V AC / 50 Hz, with connector plug incl. LED
240	MNF 532024DC-dm	115 V AC / 50 Hz, with connector plug incl. LED
241	MNF 532230AC-dm	24 V DC, II 2G Ex db mb IIC T5 Gb X
		230 V AC / 50 Hz, II 2G Ex db mb IIC T5 Gb X
		5/2-way, NAMUR, bistable, for direct mounting
245	MNI 52024DC-LED	bistable, 24 V DC, with 2 connector plug incl. LED
246	MNI 52230AC-LED	bistable, 230 V AC / 50 Hz, with 2 connector plug incl. LED
247	MNI 52115AC-LED	bistable, 115 V AC / 50 Hz, with 2 connector plug incl. LED

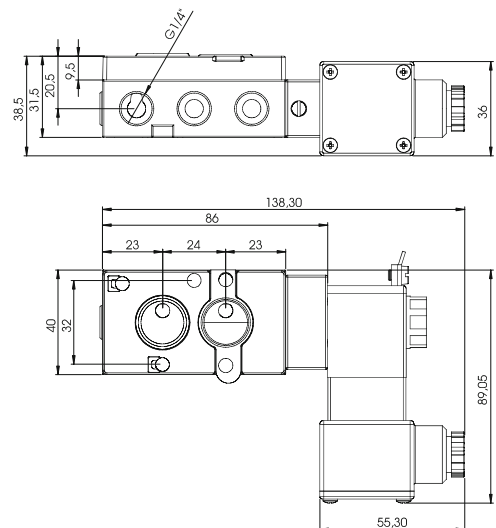
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Dimensions

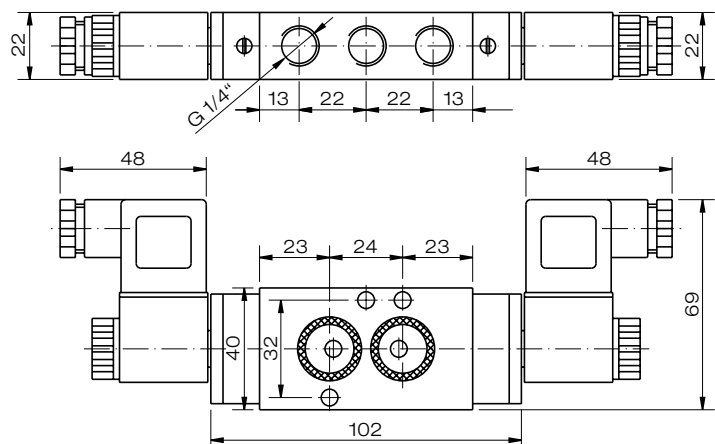
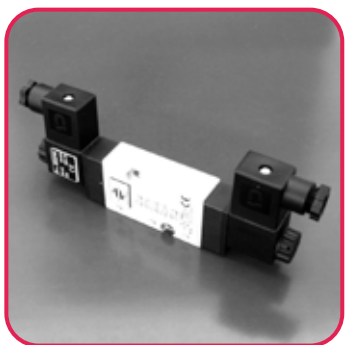
5/2-way and 3/2-way (type MNF 532) - monostable



5/2-way and 3/2-way (type MNF 532-dm) - monostable



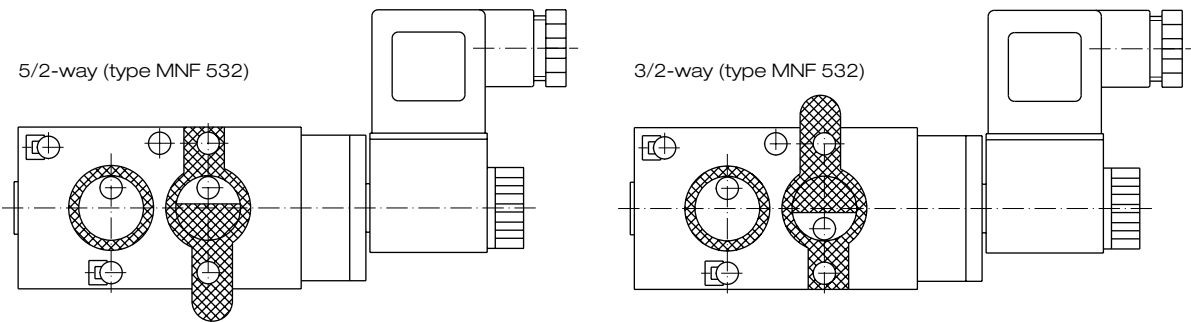
5/2-way (type MNI 52) - bistable



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Modification 5/2-way- to 3/2-way-function

1. Taking out the black NBR-reversing sealing
2. Turn the black reversing sealing by 180°
3. Insert the reversing sealling exactly into the contour of the NAMUR adapter plate



Functionality

MNF 532 / MNF 532-dm		MNI 52
3/2-way	5/2-way	5/2-way
