

4/2-Way, G 1/4



Advantages/Benefits

- ▶ Body material: polyamide
- ▶ Direct control via PLC as an option
- ▶ Suitable for manifold
- ▶ Manual override standard

Design/Function

Type 413 is a 4/2-way solenoid valve with a poppet design. An epoxy-encapsulated 3/2-way pilot solenoid valve provides the control.

The valve consists basically of two inter-connected 3/2-way valves of opposite function feeding ports A (normally closed) and B (normally open). A minimum pressure differential of 1 bar is required to provide reliable switching.

The valves can be multi-manifold mounted into assemblies on double-channel manifolds for main air supply and exhaust.

Applications

- Pneumatic control equipment
- Lubricated compressed air
- Control of pneumatic cylinders and actuators
- As a pilot valve for large, externally piloted valves, e.g. for breweries, swimming pools or water treatment
- Packaging machines
- Automation lines
- Handling systems

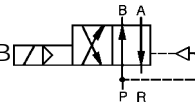
4/2-Way Solenoid Valve, Servo-assisted

Type 413

Technical Data

Circuit Function

G 4/2-way valve, when de-energized pressure port P connected with port B, port A exhausted



Body Material

Plastic valve with moulded-in metal threaded inserts

Specifications

Orifice DN [mm]	Q _{Nn} -Value Air ¹⁾ [l/min]	Pressure [bar]	Weight [kg]
6	900	1-10	0,40

¹⁾ Measured with 6 bar upstream pressure and 1 bar pressure drop across the valve at +20 °C.

All pressures quoted are gauge pressures with respect to the prevailing atmospheric pressure.

Operating Data (Valve)

Seal Materials/Fluids Handled/Temp.- Range

NBR Neutral fluids, e.g. compressed air
-10 to +60 °C

For more detailed information please refer to resistance chart (Leaflet-No. 1896009).

Max. ambient temperature +55 °C

Response times opening approx. 50 ms
closing approx. 30 ms

Times measured at outlet A or B from switching on until pressure rise to 90 % / pressure drops to 10 % of a max. working pressure of 6 bar.

Operating Data (Actuator)

Operating voltages 24, 42, 110, 230, 240 V/ 50 Hz, 110 V/ 60 Hz, 24, 110 V/=

Power consumption AC 3,5 VA/ 2 W (hold)
DC 2 W

Voltage tolerance ± 10%

Duty cycle 100% continuously rated

Cycling rate up to 600 c.p.m.,
depending on operating pressure

Rating with cable plug IP 65

Installation / Accessories

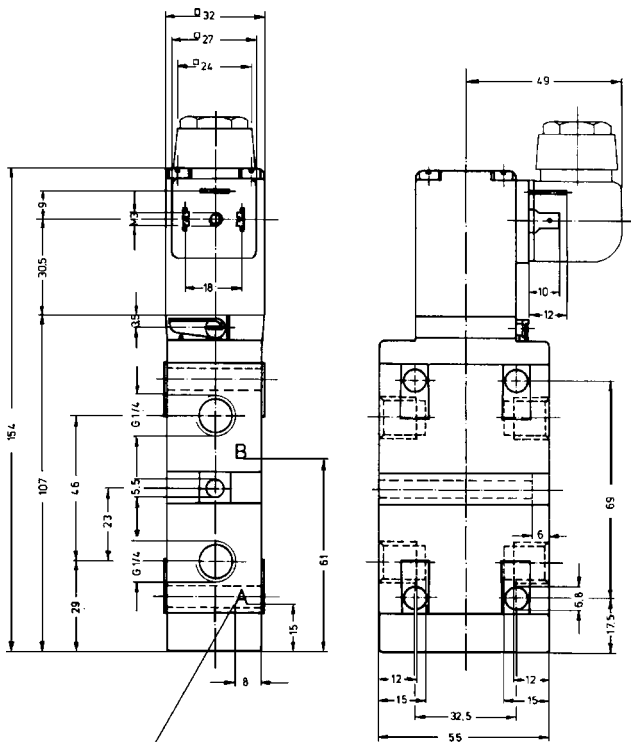
Installation as required

Electrical connection • cable plug for 7 mm ø cable (supplied as standard)

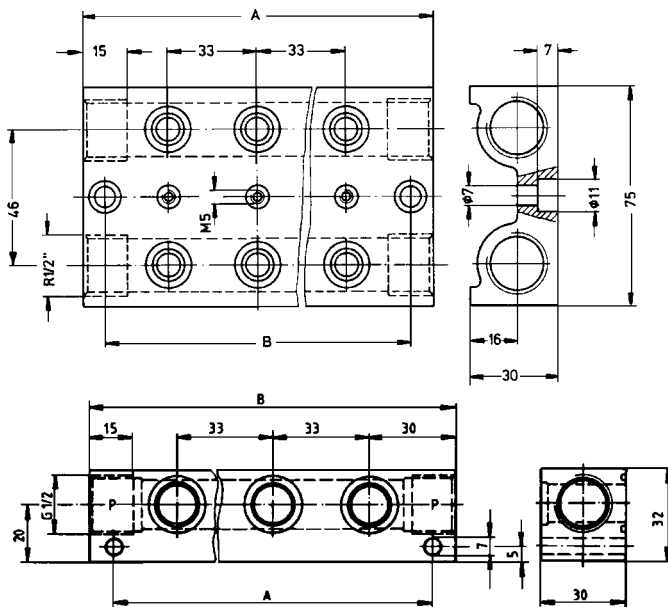
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Dimensions in mm



medium-sized letters 5
DIN 1451 printed



Order-No. for Light-Alloy Manifold

Double-Channel

(for pressure- and exhaust port) incl. mounting screws M 5 x 60 DIN 912 and O-rings 11 x 2,5:

	Overall Length A	Hole spacing B	Order-No.
2 valves	93	78	005 686 T
3 valves	126	111	005 688 D
4 valves	159	144	005 719 B
5 valves	192	177	005 696 V
6 valves	225	210	005 626 W
7 valves	258	243	005 738 E
8 valves	291	276	005 724 Y
9 valves	324	309	005 739 F
10 valves	357	342	005 740 L
11 valves	390	375	005 804 S
12 valves	423	408	005 700 M

Single-Channel

(for pressure port) including banjo bolts and seals

	Overall Length A	Hole Spacing B	Order-No.
2 valves	93	77	005 811 Q
3 valves	126	110	005 717 Z
4 valves	159	143	005 843 Y
5 valves	192	176	005 776 C
6 valves	225	209	005 718 A

Manifolds for 7 to 12 valves on request.

4/2-Way Solenoid Valve, Servo-assisted

Type 413

Ordering Chart (Other Versions on Request)

Circuit Function	Orifice DN [mm]	Flow Rate Air ¹⁾ Q/Nn [l/min]	Port Connection (ISO 228)	Pressure Range [bar]	Body Material	Seal Material	Weight [kg]	Voltage/ Frequency [V/Hz]	Order-No.
G	6,0	900	G 1/4	1-10	Polyamide	NBR	0,40	024/50	043 008 C
								024/=	041 439 W
								042/50	041 440 B
								110/50	042 400 D
								110/60	041 441 Y
								110/=	042 304 G
								230/50	041 442 Z
								240/50	042 071 Z

¹⁾ Measured with 6 bar upstream pressure and 1 bar pressure drop across the valve at +20 °C.