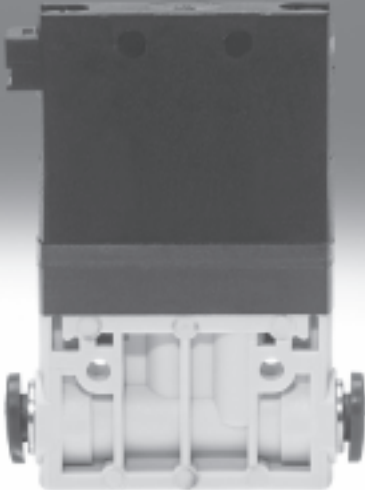


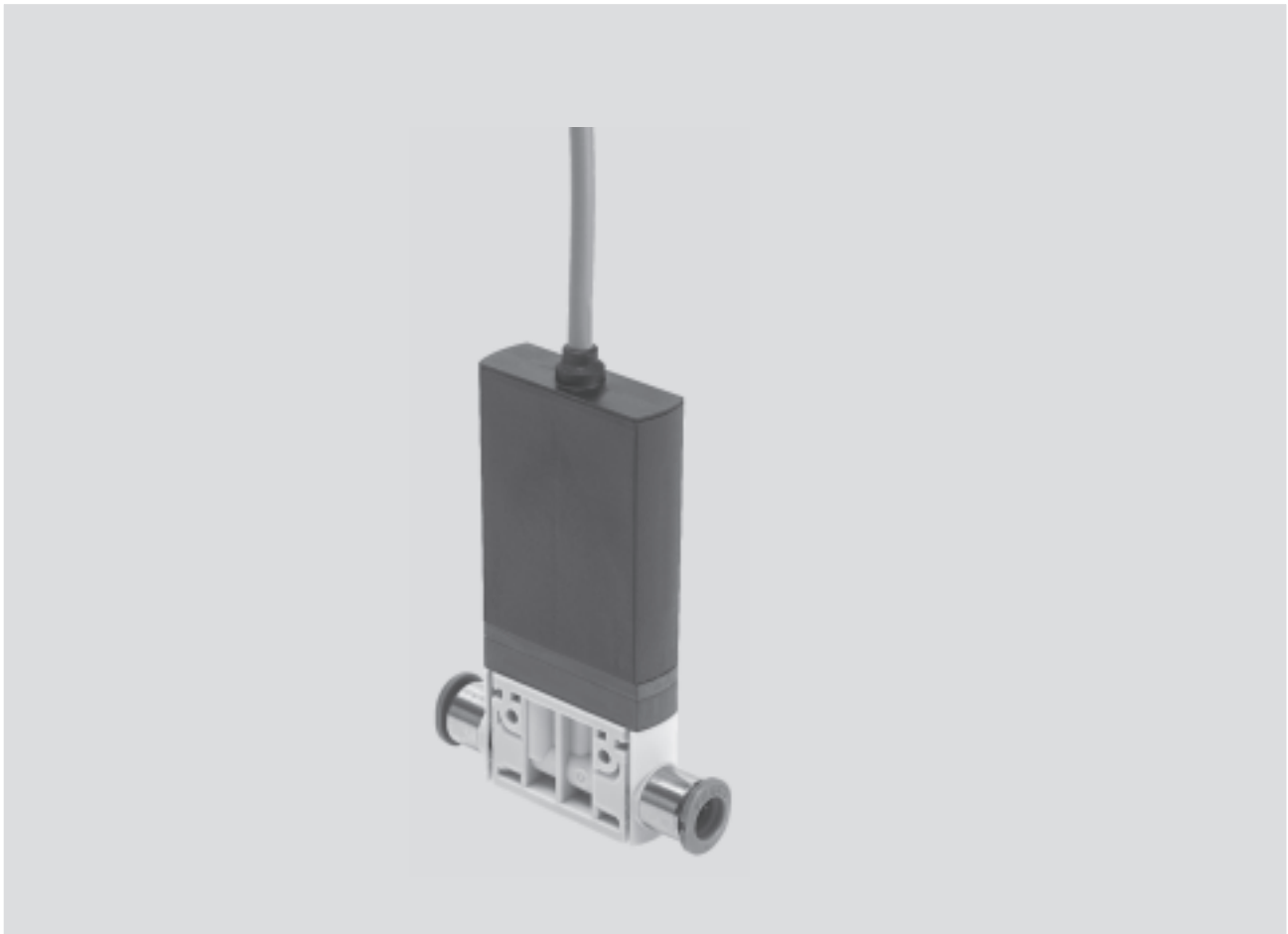
Solenoid valves MHJ, fast-switching valves, NPT



Solenoid valves MHJ, fast-switching valves, NPT

FESTO

Key features



Innovative

- Individual electrical connection via moulded-in connecting cable with switching electronics integrated in the valve
- Response times of less than one millisecond
- Signal control range 3 ... 30 V DC

Reliable

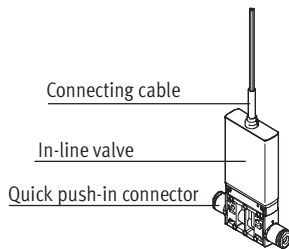
- Reliability of service thanks to valves that can be replaced quickly and easily
- No electrical plug connections thanks to integrated control electronics
- Up to 7 billion switching cycles

Solenoid valves MHJ, fast-switching valves, NPT

FESTO

Key features

MHJ



In-line valve

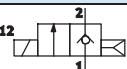
- Integrated quick push-in connector
- Electrical connection via moulded-in connecting cable

Integrated control electronics

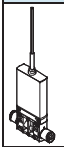
- Compact design
- Quick installation

Solenoid valves MHJ, fast-switching valves, NPT

Product range overview

Function	Circuit symbol	Design	Response time ¹⁾		Operating voltage [V DC]	→ Page/Internet
			Off	On		
2/2-way valve		In-line valve	-	-	24	7

1) Response times are dependent on pressure and voltage

Mounting options	
Design	In-line valve
MHJ with moulded-in connecting cable	
	Direct mounting ■

Solenoid valves MHJ, fast-switching valves, NPT

Type codes

MHJ 10 - S - 2,5 - QS-1/4 - MF

Valve series

MHJ	Fast-switching valves
-----	-----------------------

Width

10	10 mm
----	-------

Integrated controller

S	For MHJ10
---	-----------

Cable length for MHJ10

0,35	0.35 m
2,5	2.5 m

Push-in connector for in-line valves

QS-1/4	Push-in connector for tubing O.D. 1/4"
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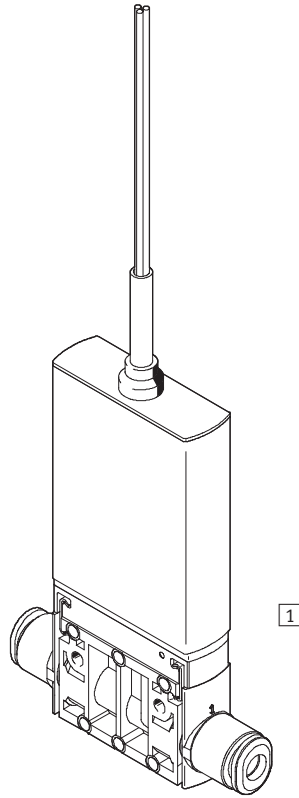
Flow class

MF	Medium flow
----	-------------

Solenoid valves MHJ, fast-switching valves, NPT

System overview

Individual valve

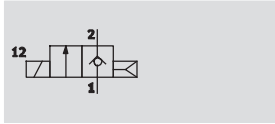


	Type	Brief description	→ Page/Internet
1	In-line valve	MHJ10-...-U 2/2-way solenoid valve	7

Solenoid valves MHJ, fast-switching valves, NPT

Technical data – In-line valve, 2/2-way valves

Function



Voltage

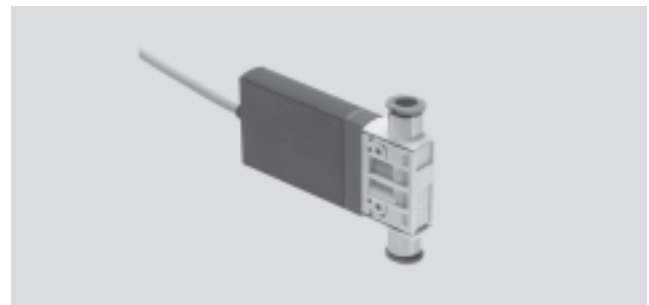
24 V DC

Pressure

+0.5 ... +6 bar

Temperature range

-5 ... +60 °C



2/2-way valve

General technical data		
Valve function		2/2-way, closed, single solenoid
Design		Poppet valve without spring return
Sealing principle		Hard
Service life in billions of switching cycles ¹⁾		5
Actuation type		Electric
Type of control		Direct
Direction of flow		Non-reversible
Mounting position		Any
Width	[mm]	10 ²⁾
Grid dimension	[mm]	10.5
Standard nominal flow rate	[l/min]	100
C value	[l/sbar]	0.4
b value		0.38
Type of mounting		In-line installation or via through-holes
Max. tightening torque for the mounting screws	[Nm]	0.7
Pneumatic connection 1 and 2		QS-1/4
Product weight	[g]	40

- 1) The long service life of the valves can only be achieved with the "hard" sealing principle, which, however, results in minor leakage when the valve is closed.
 2) Min. permitted grid dimension 10.5 mm

Operating and environmental conditions		
Operating medium		Compressed air in accordance with ISO 8573-1:2010 [7:4:4]
Note on operating/pilot medium		Operation with lubricated medium not possible
Operating pressure	[bar]	+0.5 ... +6
Ambient temperature	[°C]	-5 ... +60
Temperature of medium	[°C]	-5 ... +60
Corrosion resistance class CRC		2 ¹⁾
Certification		RoHS-compliant

- 1) Corrosion resistance class 2 according to Festo standard 940 070
 Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Solenoid valves MHJ, fast-switching valves, NPT

Technical data – In-line valve, 2/2-way valves

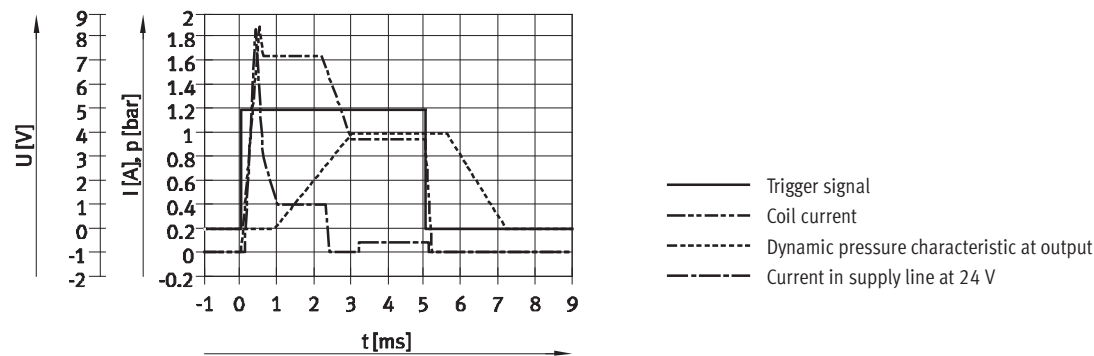
Electrical data			
Operating voltage	[V DC]	24 ±10% = 21.6 ... 26.4 ¹⁾	
Control signal range	[V DC]	3... 30	
Output	Low-current phase	[W]	2
Output	High-current phase	[W]	7
Protection class to EN 60529			IP65
Duty cycle	[%]	100 ²⁾	
Electrical connection			3-wire cable
CE mark			To EU EMC Directive ³⁾

- 1) For the switching operation, the current limiter, if available, must be set to at least 1.7 A.
- 2) Air must flow through the valve continuously.
- 3) Max. permissible cable length 2.5 m.

Response times ¹⁾ and switching frequencies		
Maximum switching frequency	[Hz]	1,000 ²⁾
Response times [ms]		
At 24 V DC and 0.5 bar	On	0.8
	Off	0.5
At 24 V DC and 4 bar	On	0.8
	Off	0.4
At 24 V DC and 6 bar	On	0.9
	Off	0.4

- 1) Tolerance ±15%
- 2) The ambient temperature must be limited with frequencies in excess of 200 Hz.

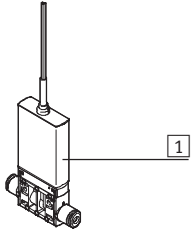
Current path MHJ10



Solenoid valves MHJ, fast-switching valves, NPT

Technical data – In-line valve, 2/2-way valves

Materials

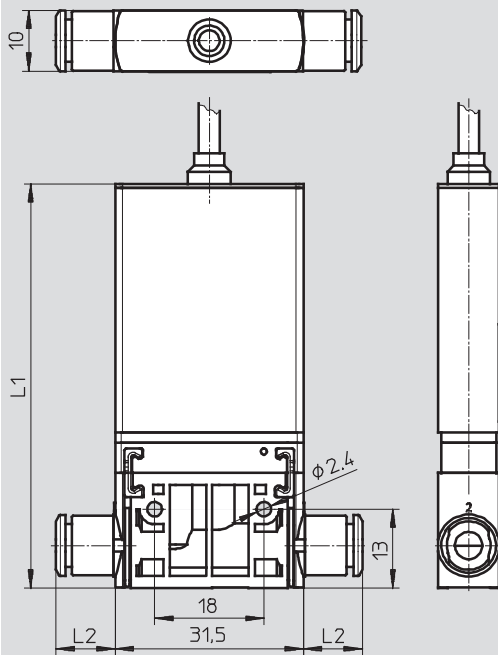


1	Housing	PA-reinforced
-	Seals	HNBR
-	Screws	Steel
-	Cable sheath	PUR

Dimensions

Download CAD Data → www.festo.com/us/cad

In-line valve with moulded-in connecting cable




Wiring allocation:
 BU = GND
 BN = Operating voltage positive
 BK = Trigger signal

L1 = 67.8 mm
 L2 = 9.5 mm

Solenoid valves MHJ, fast-switching valves, NPT

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Accessories

Ordering data				
Designation			Part No.	Type
	In-line valve with quick plug connector QS-1/4	Cable length 0.35 m	562172	MHJ10-S-0,35-QS-1/4-MF-U
		Cable length 2.5 m	565517	MHJ10-S-2,5-QS-1/4-MF-U

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