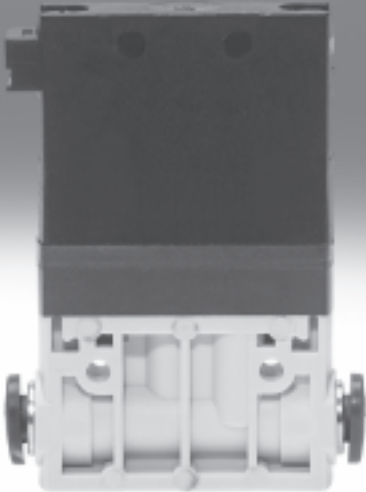


Solenoid valves MHJ, fast-switching valves, NPT



# 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

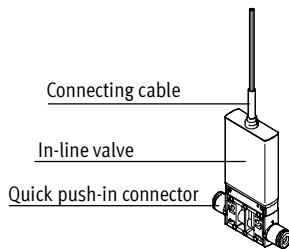
- Reliability of service thanks to valves that can be replaced quickly and easily
- No electrical plug connections thanks to integrated control electronics
- Up to 7 billion switching cycles

# Solenoid valves MHJ, fast-switching valves, NPT

FESTO

Key features

MHJ



## In-line valve

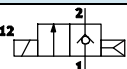
- Integrated quick push-in connector
- Electrical connection via moulded-in connecting cable

## Integrated control electronics

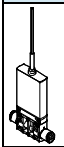
- Compact design
- Quick installation

# Solenoid valves MHJ, fast-switching valves, NPT

Product range overview

Function	Circuit symbol	Design	Response time <sup>1)</sup>		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
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**Width**

10	10 mm
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**Integrated controller**

S	For MHJ10
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**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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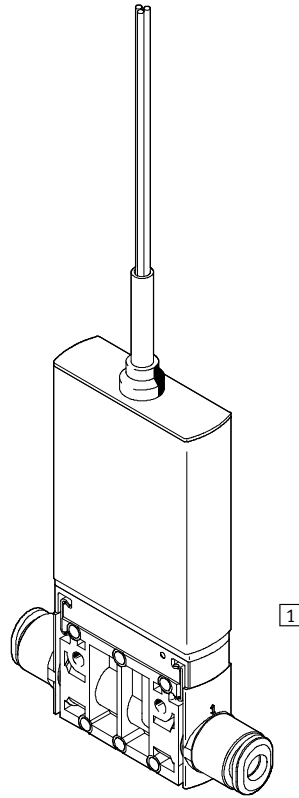
**Flow class**

MF	Medium flow
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# Solenoid valves MHJ, fast-switching valves, NPT

System overview

## Individual valve

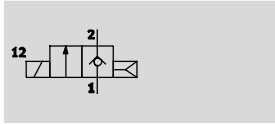





	Type	Brief description	→ Page/Internet
1	In-line valve	MHJ10-...-U 2/2-way solenoid valve	7

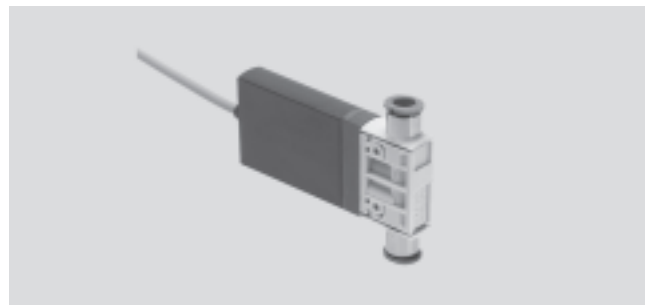
# Solenoid valves MHJ, fast-switching valves, NPT

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 <sup>1)</sup>	5
Actuation type	Electric
Type of control	Direct
Direction of flow	Non-reversible
Mounting position	Any
Width [mm]	10 <sup>2)</sup>
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 <sup>1)</sup>
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

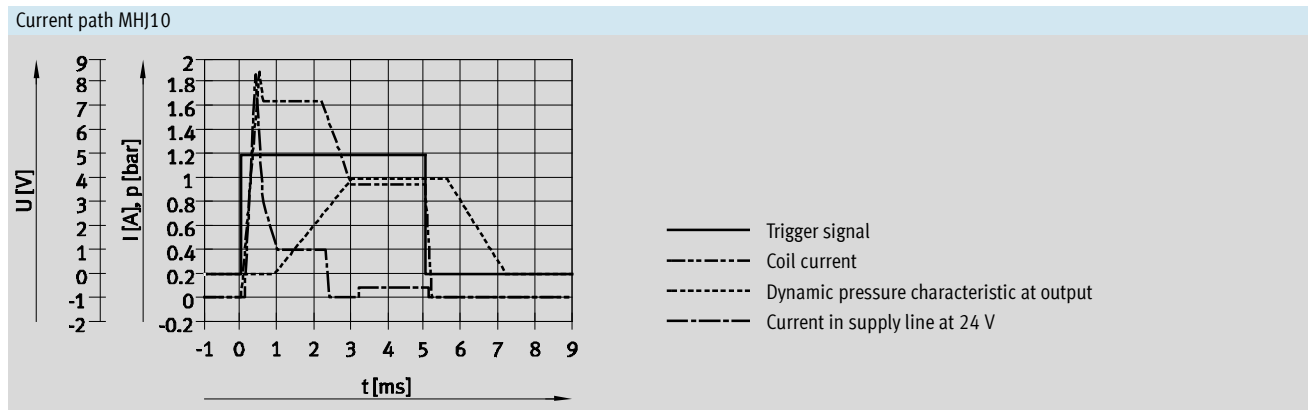
Technical data – In-line valve, 2/2-way valves

Electrical data			
Operating voltage	[V DC]	24 ±10% = 21.6 ... 26.4 <sup>1)</sup>	
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 <sup>2)</sup>	
Electrical connection			3-wire cable
CE mark			To EU EMC Directive <sup>3)</sup>

- 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 <sup>1)</sup> and switching frequencies		
Maximum switching frequency	[Hz]	1,000 <sup>2)</sup>
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.

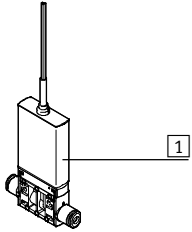




# Solenoid valves MHJ, fast-switching valves, NPT

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

## Materials

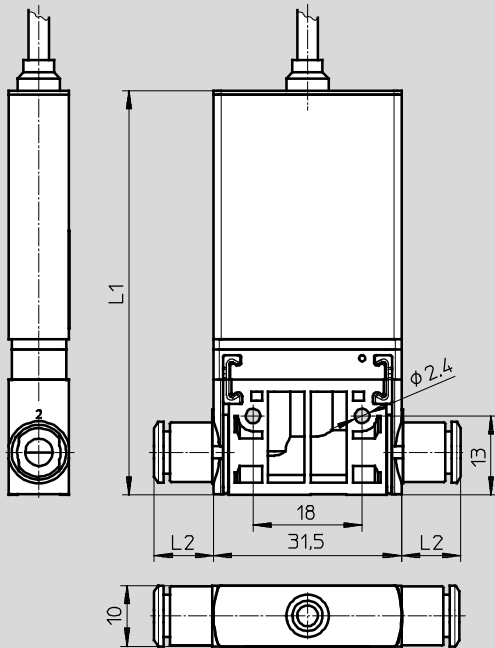


1	Housing	PA-reinforced
-	Seals	HNBR
-	Screws	Steel
-	Cable sheath	PUR

## Dimensions

Download CAD data → [www.festo.com](http://www.festo.com)

In-line valve with moulded-in connecting cable



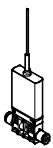
Wiring allocation:  
 BU = GND  
 BN = Operating voltage positive  
 BK = Trigger signal

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