

Miniature valves MH1

FESTO



Mini

Highlights

- Proven VUVG technology
- Holding current reduction
- Protection classes IP65 and IP40
- Suitable for vacuum
- A range of voltage variants
- UL certification
- Highly visible LED
- Supplied pre-assembled and tested on request

Extremely small, fast, flexible and durable – that sums up the MH1. Its size makes it ideal in tight spaces and it comes complete with vacuum functions. It is totally reliable, even during 24-hour operation and with 100% duty cycles.

New: the pilot valves VUVG in the MH1 range. This further expands the plug and connection concepts for the miniature valves with IP40 and IP65 protection, adding an M8 connection with IP65 protection.

Extremely small

Yet with a high flow rate. The 2/2-way version boasts 14 l/min and the 3/2-way version 10 l/min.

Proven VUVG technology

The normally closed 3/2-way pilot valve VUVG is really worth the money. Customers who already use the VUVG get double the benefit, as having E-boxes and cables that are identical to the VUVG further reduces their management and warehousing costs.

Economical and fast

With response times of approximately 4 ms, there's nothing left to be desired where speed is concerned. Vacuum functions can also be easily implemented. The 100% duty cycle and the three-shift operation guarantee maximum cost-effectiveness.

Extremely versatile

It can be linked up via pneumatic or electrical multi-pin connectors. Electrical connections can be placed horizontally, at the top or bottom; it can also be mounted on printed circuit boards – connections included.

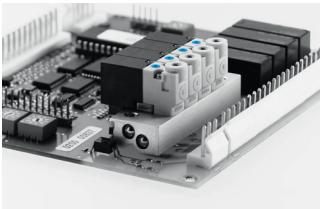
Miniature valves MH1

Technical data			
Function	2/2-way valve Normally closed*	3/2-way valve Normally open	3/2-way valve Normally closed
Standard nominal flow rate [l/min]	14	10	10
Switching time on/off [ms]	4/5	4/4	4/4
Width [mm]	10		
Operating pressure [bar]	-0.9 ... 2	0 ... 6**	0 ... 8**
Operating voltage	• 5 V DC • 12 V DC • 24 V DC with LED		• 5 V DC • 12 V DC • 24 V DC • 24 V AC
Protection class	IP40	IP40	IP40 IP65
Power consumption [W]	1	1.1	1.1 0.35 [with holding current reduction]
System expansion	• Electrical multi-pin linking (Sub-D) is possible, as is pneumatic multiple connector plate connection or • mounting and electrical connection directly on a PCB (PCB assembly) • Option of LED and detenting/non-detenting manual override for all sub-base versions		

* 2x2/2 sub-base valve available with ejector pulse for vacuum applications
 ** Vacuum operation possible with the correct connections (vacuum at port 3)
 Please be aware that there may be restrictions depending on the combination.

Small valves for a wide range of applications

Miniature valves are not just designed for the electronics industry, they are also suitable for the light assembly, medical technology and semiconductor industries. In short, anywhere where extremely compact, fast-switching valves are required, or where pilot valves are needed for valves that come into contact with media, e.g. in the process industry.

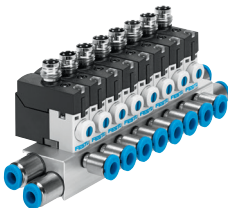


Valve manifold for PCB assembly

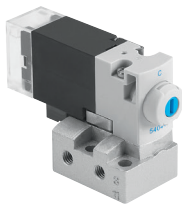
Configuration examples



In-line valve manifold with semi-inline (plug-in), pre-mounted on a PR manifold (electrical multi-pin)



New: the pilot valves VUVG in the MH1 range, pre-mounted on a PR manifold (individual connection)



Individual sub-base valve (MHA1) with LED (plug-in connector)

Versatile connection concepts

Suitable for a range of requirements thanks to individual sub-base connections or variants pre-mounted on a PR manifold. Extremely versatile thanks to electrical connection in three different directions.

Additional components for E-boxes with the new MH1 variant

VAVE-L1-... E-boxes for pilot valves VUVG:

S2/H2

S3/H3

L 1...4

K 6...9

Please be aware that if you want to choose an MH1 variant for which the cables and E-boxes are identical to the VUVG, you have to make sure that the plug-in direction on the valve is "TE".