


Solenoid valves MVH-B, Tiger 2000

FESTO

Technical data – 5/2-way valves

-  - Flow rate
750 ... 2000 l/min

-  - Voltage
24 V DC

Wearing parts kits
→ 38



General technical data						
Pneumatic connection	G1/8		G1/4		G3/8	
Reset method	Mechanical	Pneumatic	Mechanical	Pneumatic	Mechanical	Pneumatic
Valve function	5/2-way, single solenoid					
Design	Poppet seat	Piston spool	Poppet seat	Piston spool	Piston spool	
Lap	Underlap	Overlap	Underlap	Overlap	Overlap	
Sealing principle	Soft					
Actuation type	Electrical					
Control type	Pilot-actuated					
Pilot air supply	Internal or external					
Flow direction	Reversible or non-reversible (see switching symbol)					
Exhaust air function	With flow control					
Manual override	Non-detenting					
Mounting type	With through-hole					
Mounting position	Any					
b value	0.34	–	0.29	0.38	–	–
c value	[l/s bar]	3	–	5.5	6.35	–
Nominal width	[mm]	5	8	7	10	12
Standard flow rate	[l/min.]	750	1000	1300	1600	2000
Grid dimension	[mm]	27		33		41
Valve width	[mm]	26		32		40
Product weight	[g]	230	290	360	440	750

Safety data		
Max. switching frequency	[Hz]	3
Max. positive test pulse with 0 signal	[µs]	2200
Max. negative test pulse with 1 signal	[µs]	3700

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Operating and environmental conditions							
Pneumatic connection		G1/8		G1/4		G3/8	
Reset method		Mechanical	Pneumatic	Mechanical	Pneumatic	Mechanical	Pneumatic
Operating medium		Compressed air to ISO 8573-1:2010 [7:4:4]					
Pilot medium (with external pilot air supply)		Compressed air to ISO 8573-1:2010 [7:4:4]					
Note on operating/pilot medium		Operation with lubricated medium possible (in which case lubricated operation will always be required)					
Operating pressure	Internal pilot air supply	[bar]	2 ... 10	3 ... 10	2 ... 10	3 ... 10	2.5 ... 10
	External pilot air supply	[bar]	0 ... 10	−0.9 ... +10	0 ... 10	−0.9 ... +10	−0.9 ... +10
Pilot pressure		[bar]	2 ... 10	3 ... 10	1.5 ... 10	3 ... 10	2.5 ... 10
Storage temperature		[°C]	−40 ... +60				
Ambient temperature		[°C]	−5 ... +50				
Temperature of medium		[°C]	−5 ... +50				
Corrosion resistance class CRC ¹⁾			1				

1) Corrosion resistance class CRC 1 to Festo standard FN 940070

Low corrosion stress. For dry indoor applications or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).

Electrical			
V solenoid coil			
Electrical connection		To EN 175301-803, type B	
Permissible voltage fluctuations		[%]	± 10
Operating voltage	DC voltage	[V DC]	24
Characteristic coil data	DC voltage	[W]	2.5
Degree of protection to EN 60529		IP65 (in combination with plug socket)	

Valve switching times [ms]						
Type	MVH-5-1/8-B	MVH-5-1/8-L-B	MVH-5-1/4-B	MVH-5-1/4-L-B	MVH-5-3/8-B	MVH-5-3/8-L-B
	MVH-5-1/8-S-B	MVH-5-1/8-L-S-B	MVH-5-1/4-S-B	MVH-5-1/4-L-S-B	MVH-5-3/8-S-B	MVH-5-3/8-L-S-B
Reset method	Mechanical	Pneumatic	Mechanical	Pneumatic	Mechanical	Pneumatic
On	20	30	15, 19	28	22	22
Off	36	25	36, 41	37	60	60

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Ordering data					
Circuit symbol	Description of valves with V solenoid coil	Voltage	Pneumatic connection	Part No.	Type
	Pneumatic reset method Internal pilot air supply	24 V DC	G1/8	19749	MVH-5-1/8-L-B
			G1/4	31009	MVH-5-1/4-L-B
			G3/8	14947	MVH-5-3/8-L-B
	Pneumatic reset method External pilot air supply	24 V DC	G1/8	19750	MVH-5-1/8-L-S-B
			G1/4	33184	MVH-5-1/4-L-S-B
			G3/8	33180	MVH-5-3/8-L-S-B
	Mechanical reset method Internal pilot air supply	24 V DC	G1/8	19779	MVH-5-1/8-B
			G1/4	19701	MVH-5-1/4-B
			G3/8	14945	MVH-5-3/8-B
	Mechanical reset method External pilot air supply	24 V DC	G1/8	30996	MVH-5-1/8-S-B
			G1/4	15903	MVH-5-1/4-S-B
	Mechanical reset method External pilot air supply	24 V DC	G3/8	15342	MVH-5-3/8-S-B

Ordering data – Wearing parts kits		
Pneumatic connection	Part No.	Type
G1/8	125071	MVH-5-1/8-B
G1/4	115588	MVH-5-1/4-B
G3/8	115074	MVH-5-3/8-B