Vacuum switches

Vacuum switch VS-V-M

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Our highlights...	Your advantages...
• Electronic vacuum switch	>Electronically precise switching
• Minimum weight due to plastic housing	>Minimum size and weight for use in applications with very dynamic movements such as handling systems and industrial robots
• Extremely small size	>Can be mounted directly on the suction pad, even in very restricted spaces

Applications

- Universal electronic vacuum switch for safety monitoring, optimisation of cycle times and regulation circuits
- Miniaturised design and low weight make the switch ideal for use in handling systems with very dynamic movements (industrial robots, pick and place systems, etc.)

Construction

- Electronic vacuum switch in a robust polycarbonate housing
- Vacuum connection via a flange or a 6 mm tube
- Switching point adjustable with a screw; hysteresis fixed
- Supply voltage optionally via 4-pin M8 screw connector or moulded-on cable
- Integrated LED for indication of the switching state

Suitability for branch-specific applications

Ordering designation Vacuum switch VS-V-M

Short designation	Measuring range	Shape	Connections	Switching function	Electrical connections
Example: VS	**V**	**M**	**A**	**PNP**	**M8-4**
VS	V...-1 to 0 bar	M...miniature design	-.... plug-in tube A... flange connection	PNP.... switches to + NPN... switches to -	K..... with cable M8-4... male connector M8, 4-pin

Ordering data Vacuum switch VS-V-M

Type	Part NO.
VS-V-M-PNP-K	10.06.02.00134
VS-V-M-NPN-K	10.06.02.00135
VS-V-M-PNP-M8-4	10.06.02.00140
VS-V-M-NPN-M8-4	10.06.02.00141
VS-V-M-A-PNP-M8-4	10.06.02.00146
VS-V-M-A-NPN-M8-4	10.06.02.00147

Ordering data accessories Vacuum switch VS-V-M

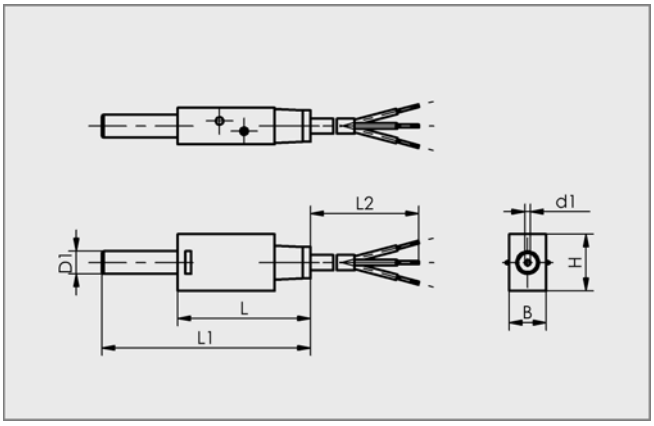
Connection cable (4-pole) Material PUR, 5 m, straight, with union nut M8	Material PUR, 5 m, 90°, with union nut M8	Suitable for switch type
10.06.02.00031	10.06.02.00032	VS-V-M-PNP-M8 VS-V-M-A-PNP-M8

Note: Further connection possibilities can be found under the heading "Connection options" in this section

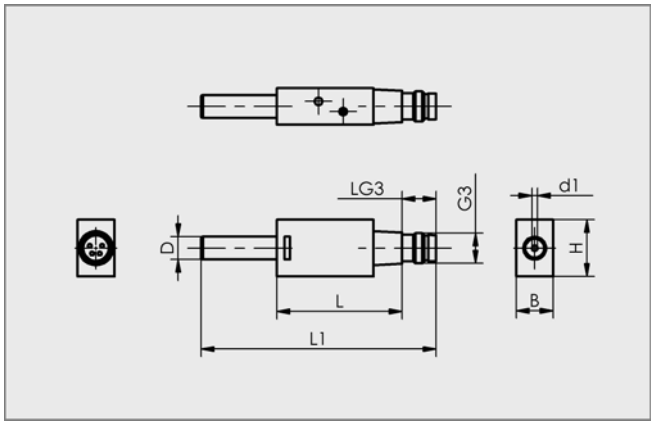
Technical data Vacuum switch VS-V-M

Type	VS-V-M-K	VS-V-M-M8-4	VS-V-M-A-M8-4
Measured medium	Non-aggressive gases; dry, oil-free air	Non-aggressive gases; dry, oil-free air	Non-aggressive gases; dry, oil-free air
Measuring range	-1...0 bar	-1...0 bar	-1...0 bar
Max. overpressure resistance [bar]	5	5	5
Repeatability	± 0.2% of max. set value	± 0.2% of max. set value	± 0.2% of max. set value
Hysteresis	Fixed: 2% of full-scale value	Fixed: 2% of full-scale value	Fixed: 2% of full-scale value
Switching capacity [mA]	125	125	125
On time [ms]	1	1	1
Indication	LED	LED	LED
Electrical connection	Cable	Male connect. M8-4	Male connect. M8-4
Measured medium connection	Tube D6	Tube D6	Thread 2xM1.6-F
Voltage	10-30V DC	10-30V DC	10-30V DC
Protection IP	IP 40	IP 40	IP 40
Temperature influence	± 3% of max. set value in the range 0 to 50° C	± 3% of max. set value in the range 0 to 50° C	± 3% of max. set value in the range 0 to 50° C
Operating temperature	0...50 °C	0...50 °C	0...50 °C
Weight [g]	70	6	6

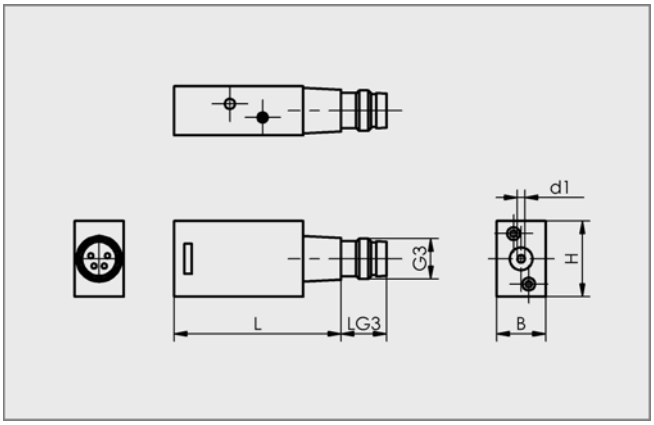
Design data Vacuum switch VS-V-M



VS-V-M-K



VS-V-M-M8-4



VS-V-M-A-M8-4

Type	Dimensions in mm								
	B	D	d1	G3	H	L	L1	L2	LG3
VS-V-M-K	9,7	6,0	1,5	-	15,0	35,5	55,5	3000	-
VS-V-M-M8-4	9,7	6,0	1,5	M8x1-M	15,0	33,0	62,0	-	9,0
VS-V-M-A-M8-4	9,7	-	1,5	M8x1-M	15,0	33,0	-	-	9,0