

Vacuum generators VAD-M

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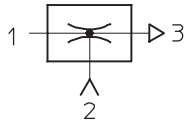
Vacuum generators

Key features

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Product overview

Vacuum generator



All Festo vacuum generators have a single-stage design and operate according to the venturi principle. The product families described below

have been designed for a wide range of applications. The different performance classes of the individual

product families make it possible to select vacuum generators tailored to suit specific requirements.

Standard and inline ejectors

VN-...

Technical data → Internet: vn



- Nominal size
0.45 ... 3 mm
- Max. vacuum
93%
- Temperature range
0 ... +60 °C
- A range of extremely effective generators suitable for use directly in the workplace
- Available as straight or T-shaped housing
- Low space requirement
- Low-cost
- No wearing parts
- Extremely fast evacuation time
- Vacuum switch (optional)
- Optional with additional functions:
 - integrated eject pulse
 - electric control for vacuum ON/OFF
 - combination of eject pulse and control

VAD-.../VAK-...

Technical data → Internet: vad



- Nominal size
0.5 ... 1.5 mm
- Max. vacuum
80%
- Temperature range
-20 ... +80 °C
- Range of vacuum generators with sturdy aluminium casing
- VAK-...: Built-in reservoir
- VAD-...: Connection for additional external reservoir
- Maintenance-free
- VAK-...: Reliable setting down of workpieces

Vacuum generators

Key features

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Compact ejectors

VADM-.../VADMI-...

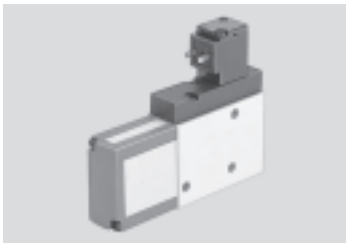
Technical data → Internet: [vadm](#)



- Nominal size
0.45 ... 3 mm
- Max. vacuum
88%
- Temperature range
0 ... +60 °C
- Compact design
- Minimal installation work required
- Short response times
- Built-in solenoid valve (on/off)
- VADMI-...: Additional built-in solenoid valve for ejector pulse
- Filter with display
- Air-saving circuit (optional)
- Vacuum switch (optional)
- Reliable setting down of workpieces

VAD-M-.../VAD-M-I-...

→ 6



- Nominal size
0.7 ... 2 mm
- Max. vacuum
85%
- Temperature range
0 ... +40 °C
- Compact design
- Minimal installation work required
- Short response times
- Built-in solenoid valve (on/off)
- VAD-M-I-...: Additional built-in solenoid valve for ejector pulse
- Reliable setting down of workpieces

Vacuum generators VAD-M

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Key features

At a glance

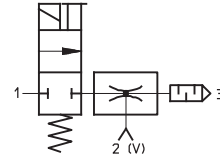
- Compact and sturdy design
- Short switching times thanks to integrated solenoid valves
- With manual override
- Maintenance-free because there are no moving parts
- With integrated silencer for reducing exhaust noise

Vacuum generators VAD-M...-I...

The compressed air supply of these vacuum generators is controlled by the built-in solenoid valve. When the electrical power supply is switched on, the valve is actuated and the flow of compressed air from 1 (P) to 3 (R) generates a vacuum at port 2, operating on the ejector principle.

Suction stops when the supply power to the valve is switched off. Workpieces with smooth, impervious surfaces are picked up and retained.

- Built-in solenoid valve for:
 - Vacuum ON/OFF

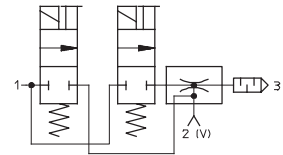


Vacuum generator VAD-M...-I... with ejector pulse

With two integrated solenoid valves for vacuum ON/OFF and ejector pulse for rapid purging of vacuum, plus manual override

Compressed air enters the vacuum generator following the application of a voltage signal to the integrated solenoid valve, thereby creating a vacuum. Once the voltage is switched off at the vacuum valve (B) and switched on at the ejector valve (A), the vacuum is rapidly purged at connection 2 (V) as a result of the application of pressure.

- Two integrated solenoid valves:
 - Vacuum ON/OFF
 - Ejector pulse



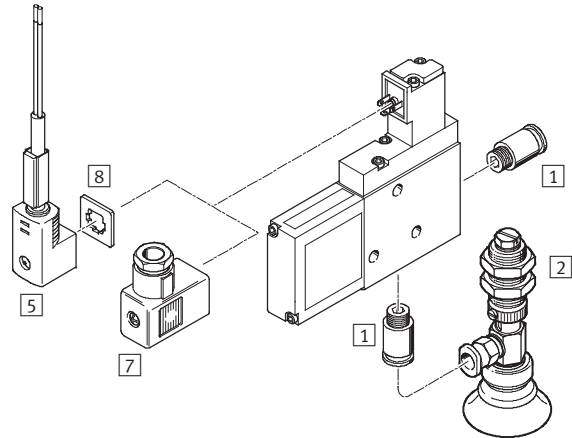
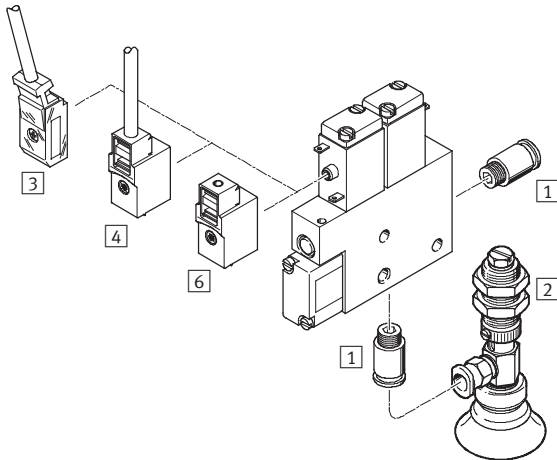
Vacuum generators VAD-M

Peripherals overview and type codes

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VAD-MYB

VAD-ME



Mounting attachments and accessories			
	VAD-MYB	VAD-ME	→ Page/Internet
1 Push-in fitting QS	■	■	qs
2 Suction gripper ESG	■	■	esg
3 Plug socket with cable KMYZ-2	■	—	kmyz-2
4 Plug socket with cable KMYZ-4	■	—	kmyz-4
5 Plug socket with cable KME-1	—	■	kme-1
6 Plug socket MSSD-ZBZC	—	■	mssd-zbzc
7 Plug socket MSSD-E	—	■	mssd-e
8 Illuminating seal ME-LD	—	■	me-ld

		VAD	—	MYB	—	I	—	1/8
Type								
VAD	Vacuum generator, electrical							
Solenoid coils								
MYB	Solenoid coil							
ME	Solenoid coil							
Functions								
I	With ejector pulse							
Connection sizes								
1/8	G1/8 thread							
1/4	G1/4 thread							
3/8	G3/8 thread							



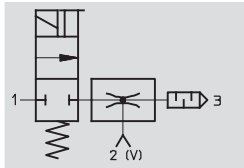
Possible combinations can be found in the ordering data.

Vacuum generators VAD-M

Technical data

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Function

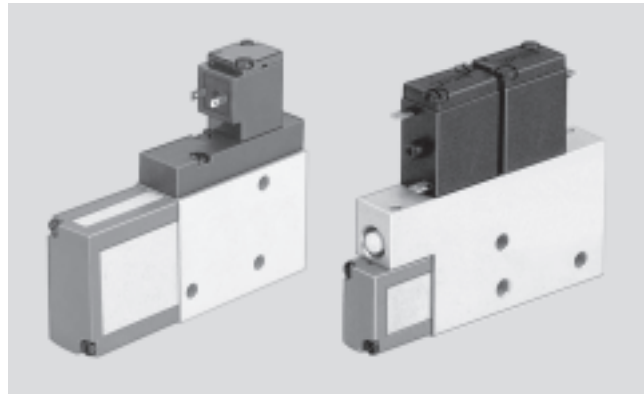


Temperature range

0 ... +40 °C

Pressure

1.5 ... 8 bar



General technical data				
Type	VAD-MYB-...		VAD-ME-...	
Size	G1/8	G1/8	G1/4	G3/8
Design	Slim rectangular			
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			
Mounting position	Any			
Ejector features	High vacuum			
Type of mounting	Via female threads			
Pneumatic connection 1/2	M5/G1/8	G1/8/G1/8	G1/8/G1/4	G1/4/G3/8
Nominal size of laval nozzle [mm]	0.7	0.95	1.4	2.0
Max. vacuum [%]	85			
Operating pressure [bar]	1.5 ... 8			
Duty cycle [%]	100			
Protection class	IP65			

Ambient conditions	
Variant	VAD-M...-...
Ambient temperature [°C]	0 ... +40
Corrosion resistance CRC ¹⁾	2

1) Corrosion resistance class 2 according to Festo standard 940 070

Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a surrounding industrial atmosphere or media such as cooling or lubricating agents.

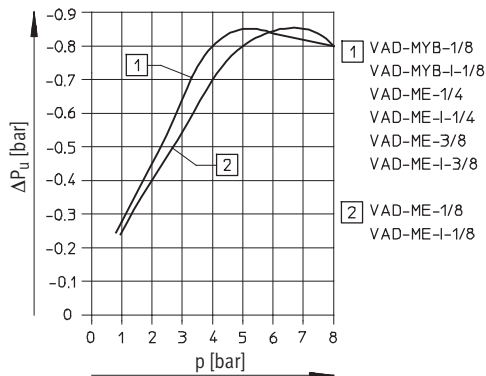
Weights [g]				
Type	VAD-MYB-...		VAD-ME-...	
Size	G1/8	G1/8	G1/4	G3/8
VAD-M...	80	125	210	240
VAD-M...-I-...	135	160	250	280

Vacuum generators VAD-M

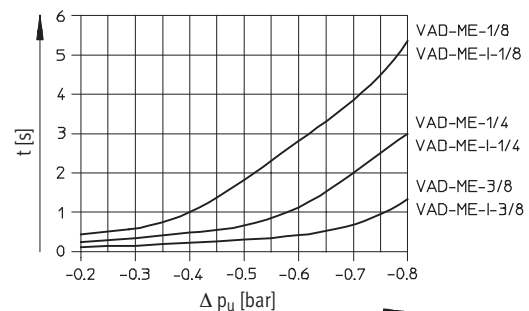
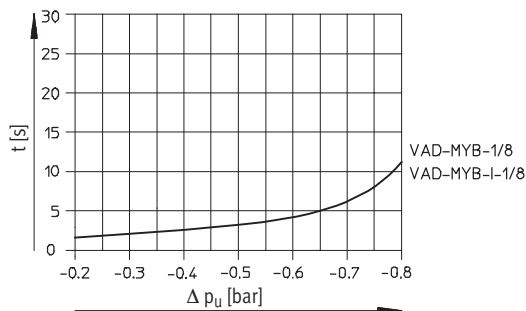
Technical data

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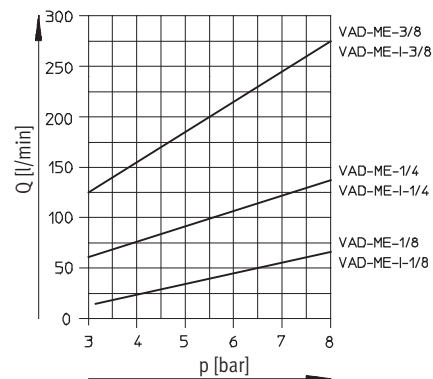
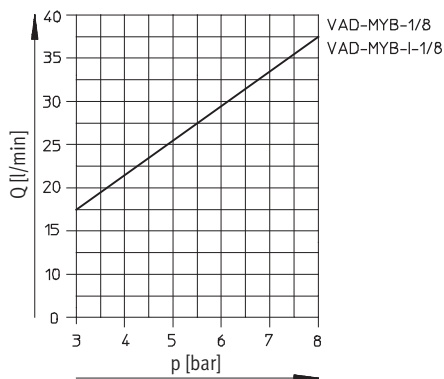
Vacuum ΔP_u as a function of operating pressure p



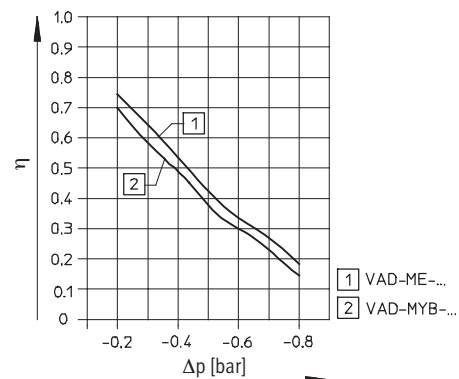
Evacuation time t [s] for 1 litre volume at 6 bar operating pressure



Air consumption Q as a function of operating pressure p



Efficiency η as a function of vacuum Δp at P_{nom} 6 bar



Vacuum generators VAD-M

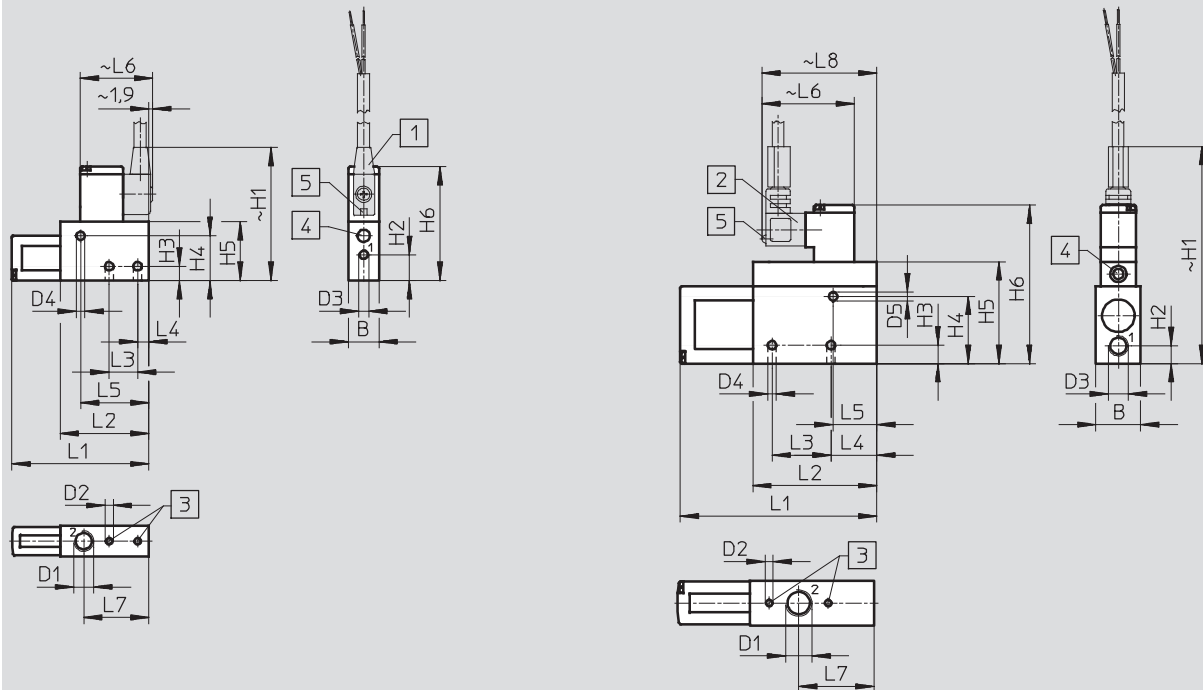
Technical data

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Dimensions

VAD-MYB-1/8

VAD-ME-1/8/-1/4/-3/8



1 Socket type KMYZ-2-24-... with 2-wire cable, 2.5 or 5 m long, Ø 3.4 mm (2x 0.25 mm²)

2 Socket type KME-1-24-... with 2-wire cable, 2.5 or 5 m long, Ø 5.6 mm (2x 0.75 mm²)

3 Mounting thread
4 Manual override
5 Yellow LED

Type	B	D1	D2	D3	D4	D5	H1	H2	H3	H4
VAD-MYB-1/8	15	G1/8	M4	M5	4.2	—	62.5	12.7	7	22
VAD-ME-1/8	18	G1/8	M4	G1/8	4.2	3.2	93	14.2	6.5	20
VAD-ME-1/4	22	G1/4	M4	G1/8	4.2	4.2	106.8	8.7	9	33
VAD-ME-3/8	22	G3/8	M5	G1/4	5.2	5.2	113.1	11	10	39

Type	H5	H6	L1	L2	L3	L4	L5	L6	L7	L8
VAD-MYB-1/8	29	56	67.2	43.5	14	5.5	33.5	34.6	—	—
VAD-ME-1/8	36	64	76	61	27	19	30.5	48	32.5	58
VAD-ME-1/4	50	77.8	96.6	61	29	22.5	21.5	48	37	58
VAD-ME-3/8	56	84.1	101.8	61	32	23.5	21.5	48	39.5	58

Vacuum generators VAD-M

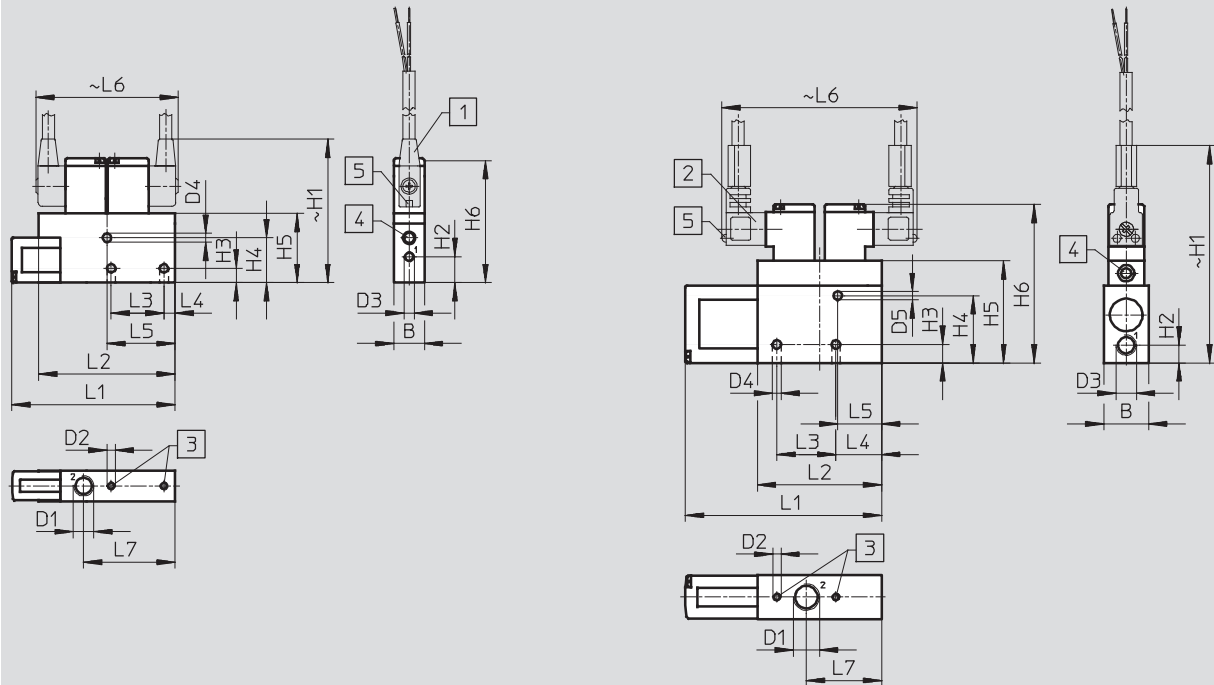
Technical data

FESTO

Dimensions

VAD-MYB-I-1/8

VAD-ME-I-1/8/-1/4/-3/8



1 Socket type KMYZ-2-24... with 2-wire cable, 2.5 or 5 m long, $\varnothing$ 3.4 mm (2x 0.25 mm²)

2 Socket type KME-1-24... with 2-wire cable, 2.5 or 5 m long, $\varnothing$ 5.6 mm (2x 0.75 mm²)

3 Mounting thread
4 Manual override
5 Yellow LED

Type	B1	D1	D2	D3	D4	D5	H1	H2	H3	H4
VAD-MYB-I-1/8	15	G1/8	M4	M5	4.2	–	67.5	12.7	7	22
VAD-ME-I-1/8	18	G1/8	M4	G1/8	4.2	3.2	93	14.2	6.5	20
VAD-ME-I-1/4	22	G1/4	M4	G1/8	4.2	4.2	106.8	8.7	9	33
VAD-ME-I-3/8	22	G3/8	M5	G1/4	5.2	5.2	113.1	11	10	39

Type	H5	H6	L1	L2	L3	L4	L5	L6	L7
VAD-MYB-I-1/8	34	58.5	80.2	67	26	5.5	33.5	70	45
VAD-ME-I-1/8	36	64	76	61	27	19	30.5	96	32.5
VAD-ME-I-1/4	50	77.8	96.6	61	29	22.5	21.5	96	37
VAD-ME-I-3/8	56	84	101.8	61	32	23.5	21.5	96	39.5

Ordering data

Pneumatic connection	Solenoid coils	Without ejector pulse		With ejector pulse	
		Part No.	Type	Part No.	Type
G1/8	MYB	35 553	VAD-MYB-1/8	35 530	VAD-MYB-I-1/8
G1/8	ME	35 554	VAD-ME-1/8	35 531	VAD-ME-I-1/8
G1/4	ME	35 555	VAD-ME-1/4	35 532	VAD-ME-I-1/4
G3/8	ME	35 556	VAD-ME-3/8	35 533	VAD-ME-I-3/8

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A Complete Suite of Automation Services

Our experienced engineers provide complete support at every stage of your development process, including: conceptualization, analysis, engineering, design, assembly, documentation, validation, and production.



Custom Automation Components
Complete custom engineered solutions



Custom Control Cabinets
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The Broadest Range of Automation Components

With a comprehensive line of more than 30,000 automation components, Festo is capable of solving the most complex automation requirements.



Electromechanical
Electromechanical actuators, motors, controllers & drives



Pneumatics
Pneumatic linear and rotary actuators, valves, and air supply



PLCs and I/O Devices
PLC's, operator interfaces, sensors and I/O devices

Supporting Advanced Automation... As No One Else Can!

Festo is a leading global manufacturer of pneumatic and electromechanical systems, components and controls for industrial automation, with more than 12,000 employees in 56 national headquarters serving more than 180 countries. For more than 80 years, Festo has continuously elevated the state of manufacturing with innovations and optimized motion control solutions that deliver higher performing, more profitable automated manufacturing and processing equipment. Our dedication to the advancement of automation extends beyond technology to the education and development of current and future automation and robotics designers with simulation tools, teaching programs, and on-site services.

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Festo Corporation is committed to supply all Festo products and services that will meet or exceed our customers' requirements in product quality, delivery, customer service and satisfaction.

To meet this commitment, we strive to ensure a consistent, integrated, and systematic approach to management that will meet or exceed the requirements of the ISO 9001 standard for Quality Management and the ISO 14001 standard for Environmental Management.



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