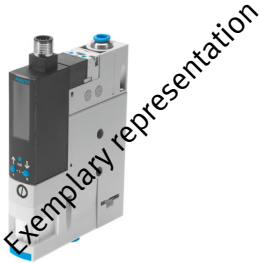


Vacuum generator OVEM

Part number: 539074

FESTO



 General operating condition

Data sheet

Overall data sheet – Individual values depend upon your configuration.

Feature	Value
Nominal size, Laval nozzle	0.45 mm ... 3 mm
Grid dimension	20 mm ... 36 mm
Silencer design	Open
Mounting position	optional
Ejector characteristic	High suction rate High vacuum Standard
Grade of filtration	40 µm
Manual override	Non-detenting Additionally via operating buttons
Integrated function	Electric ejector pulse valve Flow control Electric on-off valve Filter Air saving function, electrical Check valve Open silencer Vacuum switch
Design	Modular
Short circuit current rating	yes
Measured variable	Relative pressure
Measuring principle	Piezoresistive
Switching element function	N/C contact N/O contact
Switching function	Window comparator Threshold value comparator Threshold value with fixed hysteresis
Valve function	Closed Open
Reverse polarity protection	For all electrical connections
Standard switching input	IEC 61131-2
Display type	4-place alphanumeric Back-lit LCD LED
Indicating range	-0.999 bar ... 0 bar
Indicating range	-29.5 inHg ... 0 inHg
Displayable units	bar inH ₂ O inHg
Setting range hysteresis	-0.9 bar ... 0 bar

Feature	Value
Setting options	IO-Link® Teach-in Via display and keys
Switching position indicator	LCD LED
Switching status indication	Optical
Setting range threshold value	-1 bar ... 0 bar
Operating pressure	2 bar ... 8 bar
Operating pressure for max. vacuum	3.5 bar ... 5.3 bar
Max. vacuum	93 %
Nominal operating pressure	6 bar
Max. suction flow rate against atmosphere	6 l/min ... 348 l/min
Air supply time at nominal operating pressure	0.2 s ... 4.8 s
Operational voltage range DC	20.4 V ... 27.6 V
Duty cycle	100%
Inductive protective circuit	Adapted to MZ, MY, ME coils
Insulation voltage	50 V
No-load supply current	<80 mA
Max. output current	100 mA
Off-state current	0.1 mA
Switching output	2xNPN 2xPNP NPN PNP
Voltage drop	≤2 V
Characteristic coil data	24 V DC: low-current phase 0.3 W, high-current phase 2.55 W
Immunity to surge	0.8 kV
Overload protection	Available
Pollution degree	3
Approval	RCM trademark c UL us listed (OL)
KC mark	KC-EMV
CE mark (see declaration of conformity)	To EU EMC Directive
UKCA marking (see declaration of conformity)	To UK instructions for EMC
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4]
Note on operating and pilot medium	Lubricated operation not possible
Corrosion resistance class CRC	2 - Moderate corrosion stress
LABS (PWIS) conformity	VDMA24364-B2-L VDMA24364 zone III
Media temperature	0 °C ... 50 °C
Relative air humidity	5 - 85 %
Sound pressure level at nominal operating pressure	45 dB(A) ... 77 dB(A)
Degree of protection	IP65
Protection class	III
Ambient temperature	0 °C ... 50 °C
Max. tightening torque	0.8 Nm with female thread 2.5 Nm with through-hole
Product weight	285 g ... 885 g
Pressure measuring range	-1 bar ... 0 bar
Accuracy in ± % FS	0.5 %FS ... 3 %FS
Hysteresis	0.02 bar
Reproducibility of switching values FS	0.6 %
Protocol	IO-Link®
IO-Link, Protocol version	Device V 1.1
IO-Link, Profile	Smart sensor profile

Feature	Value
IO-Link, Function classes	Binary data channel (BDC) Process data variable (PDV) Identification Diagnostics Teach channel
IO-Link, communication mode	COM2 (38.4 kBaud)
IO-Link, Port class	A
IO-Link, Process data length OUT	1 bytes
IO-Link, Process data content OUT	1 bit (ejector pulse IN/OUT) 1 bit (vacuum ON/OFF)
IO-Link, Process data length IN	2 bytes
IO-Link, Process data content IN	14 bit PDV (pressure measurement value) 2 bit BDC (pressure monitoring)
IO-Link, Min. cycle time	3.5 ms
IO-Link, Data storage required	500 Byte
IO-Link, Device ID	0x00003E
Switching logic for inputs	NPN (negative switching) PNP (positive switching)
Electrical connection	5-pin M12x1 Plugs
Protection against tampering	PIN code Electronic interlock
Type of mounting	With through-hole Via female thread With accessories
Pneumatic connection, port 1	G1/8 G1/4 1/8 NPT 1/4 NPT QS-6 QS-8 QS-1/4 QS-5/16
Pneumatic connection, port 3	G1/8 G3/8 1/8 NPT 1/4 NPT QS-8 QS-12 QS-16 QS-5/16 Silencer Integrated silencer
Vacuum connection	G1/8 G1/4 1/8 NPT 1/4 NPT 1/2 NPT QS-6 QS-8 QS-12 QS-16 QS-1/4 QS-5/16
Note on materials	RoHS-compliant
Material seals	HNBR NBR
Material receiver nozzle	POM
Material filter	Fabric PA Sintered steel
Material filter housing	PA-reinforced

Feature	Value
Material housing	Die-cast aluminium Wrought aluminium alloy PA-reinforced
Material hollow bolt	Wrought aluminium alloy
Material adjusting screw	Steel
Material silencer	Wrought aluminium alloy POM PU foam
Material screws	Steel
Material screen	PA
Material connector housing	Nickel-plated brass
Material electrical contact	Gold-plated brass
Material pins	Steel
Material transmitter nozzle	Wrought aluminium alloy
Material keypad	PA-reinforced TPE-U
Material fitting	Anodised wrought aluminium alloy Nickel-plated brass
Material bracket	Stainless steel