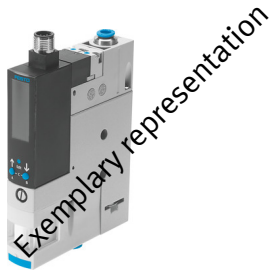


Vacuum generator OVEM

Part number: 539074

FESTO



Data sheet

Overall data sheet – Individual values depend upon your configuration.

Feature	Value
KC mark	KC-EMV
Nominal size, Laval nozzle	0.45 mm ... 3 mm
Grid dimension	20 mm ... 36 mm
Short type code	OVEM
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 inchHg ... 0 inchHg

Feature	Value
Displayable units	bar inchH2O inchHg
Setting range threshold value	-1 bar ... 0 bar
Setting range hysteresis	-0.9 bar ... 0 bar
Setting options	IO-Link® Teach-in Via display and keys
Switching position indicator	LCD LED
Switching status indication	Optical
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
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4]
Note on operating and pilot medium	Lubricated operation not possible
CE mark (see declaration of conformity)	To EU EMC Directive
Corrosion resistance class CRC	2 - Moderate corrosion stress
Temperature of medium	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
Approval	RCM trademark c UL us listed (OL)
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	1/4 NPT 1/8 NPT G1/4 G1/8 QS-1/4 QS-5/16 QS-6 QS-8
Pneumatic connection, port 3	G1/8 G3/8 1/8 NPT 1/4 NPT QS-5/16 QS-8 QS-12 QS-16 Silencer Integrated silencer
Vacuum connection	G1/4 G1/8 1/8 NPT 1/4 NPT 1/2 NPT QS-1/4 QS-5/16 QS-6 QS-8 QS-12 QS-16
Note on materials	Contains paint-wetting impairment substances 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