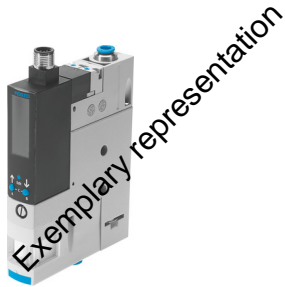


Vacuum generator OVEM

FESTO

Part number: 539074



Data sheet

Overall data sheet – Individual values depend upon your configuration.

Feature	Value
KC characters	KC EMC
Nominal width of Laval nozzle	0.45 mm ... 3 mm
Width dimension	20 mm ... 36 mm
Type code	OVEM
Muffler construction type	Open
Mounting position	Any
Ejector characteristics	Standard High suction rate High vacuum
Grade of filtration	40 µm
Manual override	Additionally via operating buttons Non-detenting
Integrated function	Shut off valve, electric Flow control Ejector pulse valve, electric Non-return valve Vacuum switch Pneumatic muffler open Air saving function, electrical Compressed air filter
Design	Modular
Short-circuit protection	yes
Measured variable	Relative pressure
Measuring principle	Piezoresistive
Switching element function	N/C contact N/O contact
Switching function	Threshold value with fixed hysteresis Window comparator Threshold value comparator
Valve function	Closed Open
Reverse polarity protection	for all electrical connections
Switching input to standard	IEC 61131-2
Display type	LED 4-character alphanumeric Back-lit LCD
Display range	-0.999 bar ... 0 bar
Display range	-29.5 inchHg ... 0 inchHg

Feature	Value
Displayable unit(s)	inchHg inchH2O bar
Threshold value setting range	-1 bar ... 0 bar
Hysteresis setting range	-0.9 bar ... 0 bar
Setting options	Via display and pushbuttons Teach-in IO-Link®
Switching position indication	LED LCD
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 rate with respect to atmosphere	6 l/min ... 348 l/min
Air supply time at nominal operating pressure	0.2 s ... 4.8 s
DC operating voltage range	20.4 V ... 27.6 V
Duty cycle	100%
Inductive protective circuit	Adapted to MZ, MY and ME coils
Insulation voltage	50 V
Idle current	<80 mA
Max. output current	100 mA
Residual current	0.1 mA
Switching output	2xPNP NPN PNP 2xNPN
Voltage drop	≤2 V
Coil characteristics	24 V DC: low-current phase 0.3 W, high-current phase 2.55 W
Surge resistance	0.8 kV
Overload protection	Available
Contamination level	3
Operating medium	Compressed air as per ISO 8573-1:2010 [7:4:4]
Information on operating and pilot media	Operation with oil lubrication not possible
CE marking (see declaration of conformity)	As per EU EMC directive
Corrosion resistance class (CRC)	2 - Moderate corrosion stress
Temperature of medium	0 °C ... 50 °C
Relative air humidity	5 - 85 %
Noise level at nominal operating pressure	45 dB(A) ... 77 dB(A)
Degree of protection	IP65
Protection class	III
Ambient temperature	0 °C ... 50 °C
Certification	c UL us - Listed (OL) RCM compliance mark
Max. tightening torque	0.8 Nm with internal 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, switching value 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	Diagnostics Teach channel Process data variable (PDV) Binary data channel (BDC) Identification
IO-Link®, communication mode	COM2 (38,4 kBd)
IO-Link®, port class	A
IO-Link®, process data width OUT	1 Byte
IO-Link®, process data content OUT	1 bit (vacuum ON/OFF) 1 bit (ejector pulse ON/OFF)
IO-Link®, process data width IN	2 Byte
IO-Link®, process data content IN	14 bit PDV (pressure measurement) 2 bit BDC (pressure monitoring)
IO-Link®, minimum cycle time	3.5 ms
IO-Link®, data memory required	500 byte
IO-Link®, device ID	0x00003E
Input switching logic	NPN (negative switching) PNP (positive switching)
Electrical connection	Plug M12x1 5-pin
Protection against tampering	Electronic interlock PIN code
Type of mounting	With through-hole With internal thread With accessories
Pneumatic connection 1	G1/4 1/8 NPT 1/4 NPT G1/8 QS-1/4 QS-8 QS-6 QS-5/16
Pneumatic connection 3	1/4 NPT G3/8 1/8 NPT G1/8 Pneumatic muffler Pneumatic muffler integrated QS-5/16 QS-8 QS-12 QS-16
Vacuum connection	1/4 NPT 1/8 NPT G1/4 1/2 NPT QS-12 QS-6 QS-8 QS-1/4 G1/8 QS-5/16 QS-16
Note on materials	Contains paint-wetting impairment substances RoHS-compliant
Seals material	HNBR NBR
Female nozzle material	POM
Compressed air filter material	Fabric PA Sintered steel
Material of filter housing	PA-reinforced

Feature	Value
Housing material	Wrought aluminum alloy Die-cast aluminum PA-reinforced
Hollow bolt material	Wrought aluminum alloy
Material of adjusting screw	Steel
Muffler material	PU foam POM Wrought aluminum alloy
Material of screws	Steel
Inspection window material	PA
Material of plug housing	Brass, nickel-plated
Material of pin contacts	Brass, gold-plated
Material of pins	Steel
Material of jet nozzle	Wrought aluminum alloy
Material of keypad	PA-reinforced TPE-U
Material of pneumatic fitting	Brass, nickel-plated Wrought aluminum alloy, anodized
Bracket material	Stainless steel