Vacuum generator
OVEM

Part number: 539074

General operating condition

Data sheet

Overall data sheet – Individual values depend upon your configuration.

Feature	Value
Nominal width of Laval nozzle	0.45 mm ... 3 mm
Width dimension	20 mm ... 36 mm
Muffler construction type	Open
Mounting position	Any
Ejector characteristics	High suction flow High vacuum Standard
Grade of filtration	40 µm
Manual override	Non-detenting Also via control keys
Integrated function	Ejector pulse valve, electric Flow control valve Electric on-off valve Filter Electric air-saving function Check valve Muffler open Vacuum switch
Structural design	Modular
Short-circuit protection	Yes
Measured variable	Relative pressure
Measuring principle	Piezoresistive
Switching element function	NC 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
Switching input to standard	IEC 61131-2
Display type	4-digit, alphanumeric Backlit LCD LED
Display range	-0.999 bar ... 0 bar
Display range	-29.5 inHg ... 0 inHg
Displayable unit(s)	bar In H2O In Hg
Setting range hysteresis	-0.9 bar ... 0 bar

Feature	Value
Setting options	IO-Link® Teach-in Via display and keys
Switching position indication	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 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	2xNPN 2xPNP NPN PNP
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
Certification	RCM compliance mark c UL us - Listed (OL)
KC characters	KC-EMV
CE marking (see declaration of conformity)	As per EU EMC directive
UKCA marking (see declaration of conformity)	To UK instructions for EMC
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
Corrosion resistance class (CRC)	2 - Moderate corrosion stress
LABS (PWIS) conformity	VDMA24364-B2-L VDMA24364 Zone III
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
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	Binary data channel (BDC) Process data variable (PDV) Identification Diagnostics Teach channel
IO-Link®, communication mode	COM2 (38,4 kBd)
IO-Link®, port class	A
IO-Link®, process data width OUT	1 bytes
IO-Link®, process data content OUT	1 bit (ejector pulse ON/OFF) 1 bit (vacuum 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	M12x1 Plug
Protection against tampering	PIN code Electronic locking mechanism
Type of mounting	With through-hole With internal thread With accessories
Pneumatic connection 1	QS-1/4 QS-5/16
Pneumatic connection 3	QS-16 QS-5/16 Muffler Integrated muffler
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
Seals material	HNBR NBR
Female nozzle material	POM
Compressed air filter material	Fabric PA Sintered steel
Material of filter housing	PA-reinforced
Housing material	Die-cast aluminum Wrought aluminum alloy PA-reinforced
Hollow bolt material	Wrought aluminum alloy
Material of adjusting screw	Steel
Muffler material	Wrought aluminum alloy POM PU foam
Material of screws	Steel
Inspection window material	PA
Material of plug housing	Brass, nickel-plated
Material of pin contacts	Gold-plated brass

Feature	Value
Material of pins	Steel
Material of jet nozzle	Wrought aluminum alloy
Material of keypad	PA-reinforced TPE-U
Material of pneumatic fitting	Wrought aluminum alloy, anodized Brass, nickel-plated
Bracket material	High-grade steel