

vacuum generator OVEM-20-H-C-QO-CE-N-LK

Part number: 8070096

FESTO



Data sheet

Feature	Value
Nominal size, Laval nozzle	2 mm
Grid dimension	36 mm
Design, silencer	open
Assembly position	Any
Ejector characteristic	High vacuum Standard
Grade of filtration	40 µm
Manual override	Pushing Additionally via operating buttons
Integrated function	Ejector pulse valve, electrical Flow control valve Electrical on-off valve Filter Air saving function, electrical Non-return valve Open silencer Vacuum switch
Design structure	modular
Short circuit strength	Yes
Measured variable	Relative pressure
Measuring principle	Piezoresistive
Switching element function	Normally closed contact Normally open contact
Switching function	Window comparator Threshold value comparator
Valve function	closed
Polarity protected	for all electrical connections
Standard switching input	IEC 61131-2
Type of display	4-place alphanumeric Backlit LCD
Indicating range [bar]	-0.999 ... 0 bar
Unit(s) that can be displayed	bar
Hysteresis adjustment range [bar]	-0.9 ... 0 bar
Setting options	IO-Link Via display and buttons
Switching position indicator	LCD
Operating status display	Optical
Threshold setting range	-0.999 ... 0 bar
Operating pressure	2 ... 8 bar
Operating pressure for max. vacuum	4 bar
Max. vacuum	93 %
Nominal operating pressure	6 bar
Max. suction rate with respect to atmosphere	98 l/min
Air supply time at nominal operating pressure	0.2 s
Operating voltage range DC	20.4 ... 27.6 V
Duty cycle	100 %

Feature	Value
Insulation voltage	50 V
Idle current	< 70 mA
Max. output current	100 mA
Residual current	0.1 mA
Switch output	2xPNP
Voltage drop	≤ 1.8 V
Characteristic coil data	24 V DC: low-current phase 0.3 W, high-current phase 2.55 W
Surge strength	0.8 kV
Overload withstand capability	Available
Degree of contamination	3
Authorisation	RCM Mark c UL us - Listed (OL)
KC mark	KC-EMV
CE mark (see declaration of conformity)	to EU directive for EMC
UKCA marking (see declaration of conformity)	To UK instructions for EMC
Operating medium	Compressed air in accordance with ISO8573-1:2010 [7:4:4]
Note on operating and pilot medium	Lubricated operation not possible
Corrosion resistance classification CRC	2 - Moderate corrosion stress
PWIS conformity	VDMA24364 zone III
Medium temperature	0 ... 50 °C
Relative air humidity	5 - 85 %
Noise level at nominal operating pressure	62 dB(A)
Protection class	IP65
Safety class	III
Ambient temperature	0 ... 50 °C
Max. tightening torque	0.8 Nm with female thread 2.5 Nm with clearance hole
Product weight	825 g
Pressure measuring range	-1 ... 0 bar
Accuracy, FS	3 %FS
Switching point reproducibility, FS	0.6 %
Protocol	IO-Link
IO-Link, protocol	Device V 1.1
IO-Link, profile	Smart sensor profile
IO-Link, function classes	Binary Data Channels (BDC) Process Data Variable (PDV) Identification diagnosis Teach channel
IO-Link, communication mode	COM2 (38,4 kBaud)
IO-Link, port type	A
IO-Link, process data width OUT	1 Byte
IO-Link, process data content OUT	1 bit (ejector pulse IN/OUT) 1 bit (vacuum ON/OFF)
IO-Link, process data width IN	2 Byte
IO-Link, process data content IN	14 bit PDV (pressure reading) 2 bit BDC (pressure monitoring)
IO-Link, minimum cycle time	3,5 ms
IO-Link, data memory required	0.5 Kilobyte
IO-Link, device ID	0x00003E
Electrical connection	5-pin M12x1 Plug
Protection against manipulation	Electronic locking
Mounting type	with through hole with internal (female) thread with accessories
Pneumatic connection, port 1	QS-10
Pneumatic connection, port 3	Silencer
Vacuum connection	QS-12
Materials note	Conforms to RoHS

Feature	Value
Material seals	HNBR NBR
Material receiver nozzle	POM
Material filter	Mesh PA Sintered steel
Material filter housing	PA-reinforced
Material housing	Wrought Aluminium alloy PA-reinforced
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	Brass, gold-plated
Material pins	Steel
Material transmitter nozzle	Wrought Aluminium alloy
Material keypad	TPE-U
Material fitting	Nickel-plated brass