


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

Part number: 8070096

FESTO



Data sheet

 General operating condition

Feature	Value
Nominal size, Laval nozzle	2 mm
Grid dimension	36 mm
Silencer design	Open
Mounting position	optional
Ejector characteristic	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
Symbol	00992094
Valve function	Closed
Reverse polarity protection	For all electrical connections
Standard switching input	IEC 61131-2
Display type	4-place alphanumeric Back-lit LCD
Indicating range	-0.999 bar ... 0 bar
Displayable units	bar
Setting range hysteresis	-0.9 bar ... 0 bar
Setting options	IO-Link® Via display and keys
Switching position indicator	LCD
Switching status indication	Optical
Setting range threshold value	-0.999 bar ... 0 bar

Feature	Value
Operating pressure	2 bar ... 8 bar
Operating pressure for max. vacuum	4 bar
Max. vacuum	93 %
Nominal operating pressure	6 bar
Max. suction flow rate against atmosphere	98 l/min
Air supply time at nominal operating pressure	0.2 s
Operational voltage range DC	20.4 V ... 27.6 V
Duty cycle	100%
Insulation voltage	50 V
No-load supply current	<70 mA
Max. output current	100 mA
Off-state current	0.1 mA
Switching 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
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 zone III
Media temperature	0 °C ... 50 °C
Relative air humidity	5 - 85 %
Sound pressure level at nominal operating pressure	62 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	825 g
Pressure measuring range	-1 bar ... 0 bar
Accuracy in ± % FS	3 %FS
Reproducibility of switching values FS	0.6 %
Protocol	IO-Link®
IO-Link, Protocol version	Device V 1.1
IO-Link, Profile	Smart sensor profile
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)

Feature	Value
IO-Link, Min. cycle time	3.5 ms
IO-Link, Data storage required	500 Byte
IO-Link, Device ID	0x00003E
Electrical connection	M12x1 Plugs
Protection against tampering	Electronic interlock
Type of mounting	With through-hole Via female thread With accessories
Pneumatic connection, port 1	QS-10
Pneumatic connection, port 3	Silencer
Vacuum connection	QS-12
Note on materials	RoHS-compliant
Material seals	HNBR NBR
Material receiver nozzle	POM
Material filter	Fabric 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	Gold-plated brass
Material pins	Steel
Material transmitter nozzle	Wrought aluminium alloy
Material keypad	TPE-U
Material fitting	Nickel-plated brass