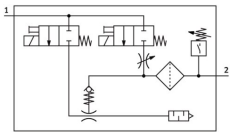
# Vacuum generator
# OVEM-07-H-B-QO-CE-N-LK

Part number: 8037694





General operating condition

## Data sheet

| Feature | Value |
|---|---|
| Nominal width of Laval nozzle | 0.7 mm |
| Width dimension | 20 mm |
| Muffler construction type | Open |
| Mounting position | Any |
| Ejector characteristics | High vacuum<br>Standard |
| Grade of filtration | 40 µm |
| Manual override | Non-detenting<br>Additionally via operating buttons |
| Integrated function | Ejector pulse valve, electric<br>Flow control<br>On/off valve, electric<br>Filter<br>Air saving function, electrical<br>Non-return valve<br>Pneumatic muffler open<br>Vacuum switch |
| Structural design | Modular |
| Short-circuit protection | yes |
| Measured variable | Relative pressure |
| Measuring principle | Piezoresistive |
| Switching element function | N/C contact<br>N/O contact |
| Switching function | Window comparator<br>Threshold value comparator |
| Symbol | 00992094 |
| Valve function | Closed |
| Reverse polarity protection | for all electrical connections |
| Switching input to standard | IEC 61131-2 |
| Display type | 4-character alphanumeric<br>Back-lit LCD |
| Display range | -0.999 bar ... 0 bar |
| Displayable unit(s) | bar |
| Setting range hysteresis | -0.9 bar ... 0 bar |
| Setting options | IO-Link®<br>Via display and pushbuttons |
| Switching position indication | 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 | 4.1 bar |
| Max. vacuum | 93 % |
| Nominal operating pressure | 6 bar |
| Max. suction rate with respect to atmosphere | 16 l/min |
| Air supply time at nominal operating pressure | 0.4 s |
| DC operating voltage range | 20.4 V ... 27.6 V |
| Duty cycle | 100% |
| Insulation voltage | 50 V |
| Max. output current | 100 mA |
| Residual current | 0.1 mA |
| Switching output | 2xPNP |
| Voltage drop | ≤1.8 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<br>c UL us - Listed (OL) |
| KC characters | KC EMC |
| 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 zone III |
| Temperature of medium | 0 °C ... 50 °C |
| Relative air humidity | 5 - 85 % |
| Noise level at nominal operating pressure | 58 dB(A) |
| Degree of protection | IP65 |
| Protection class | III |
| Ambient temperature | 0 °C ... 50 °C |
| Max. tightening torque | 0.8 Nm with internal thread<br>2.5 Nm with through-hole |
| Product weight | 330 g |
| Pressure measuring range | -1 bar ... 0 bar |
| Accuracy in ± % FS | 3 %FS |
| Reproducibility, switching value 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)<br>Process data variable (PDV)<br>Identification<br>Diagnostics<br>Teach channel |
| 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 (ejector pulse ON/OFF)<br>1 bit (vacuum ON/OFF) |
| IO-Link®, process data width IN | 2 Byte |
| IO-Link®, process data content IN | 14 bit PDV (pressure measurement)<br>2 bit BDC (pressure monitoring) |
| IO-Link®, minimum cycle time | 3.5 ms |

| Feature | Value |
|---|---|
| IO-Link®, data memory required | 500 byte |
| IO-Link®, device ID | 0x00003E |
| Electrical connection | 5-pin<br>M12x1<br>Plug |
| Protection against tampering | Electronic interlock |
| Type of mounting | With through-hole<br>With internal thread<br>With accessories |
| Pneumatic connection 1 | QS-8 |
| Pneumatic connection 3 | QS-8 |
| Vacuum connection | QS-8 |
| Note on materials | RoHS-compliant |
| Seals material | NBR |
| Female nozzle material | POM |
| Compressed air filter material | Fabric<br>PA<br>Sintered steel |
| Housing material | Die-cast aluminum<br>PA-reinforced |
| Material of adjusting screw | Steel |
| Muffler material | Wrought aluminum alloy<br>PU foam |
| 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 | TPE-U |
| Material of pneumatic fitting | Brass, nickel-plated |