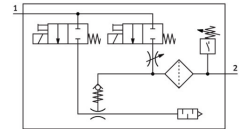


# Vacuum generator OVEM-10-H-B-QO-CE-N-LK

Part number: 8037695

**FESTO**



 General operating condition

## Data sheet

| Feature                       | Value                                                                                                                                                               |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Nominal size, Laval nozzle    | 0.95 mm                                                                                                                                                             |
| Grid dimension                | 20 mm                                                                                                                                                               |
| Silencer design               | Open                                                                                                                                                                |
| Mounting position             | optional                                                                                                                                                            |
| Ejector characteristic        | High vacuum<br>Standard                                                                                                                                             |
| Grade of filtration           | 40 µm                                                                                                                                                               |
| Manual override               | Non-detenting<br>Additionally via operating buttons                                                                                                                 |
| Integrated function           | Electric ejector pulse valve<br>Flow control<br>Electric on-off valve<br>Filter<br>Air saving function, electrical<br>Check valve<br>Open silencer<br>Vacuum switch |
| Design                        | Modular                                                                                                                                                             |
| Short circuit current rating  | 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                                                                                                                                      |
| Standard switching input      | IEC 61131-2                                                                                                                                                         |
| Display type                  | 4-place alphanumeric<br>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®<br>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                 | 3.5 bar                                                                                                    |
| Max. vacuum                                        | 93 %                                                                                                       |
| Nominal operating pressure                         | 6 bar                                                                                                      |
| Max. suction flow rate against atmosphere          | 19.5 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                                                                                                       |
| 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<br>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 | 73 dB(A)                                                                                                   |
| Degree of protection                               | IP65                                                                                                       |
| Protection class                                   | III                                                                                                        |
| Ambient temperature                                | 0 °C ... 50 °C                                                                                             |
| Max. tightening torque                             | 0.8 Nm with female 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 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)<br>Process data variable (PDV)<br>Identification<br>Diagnostics<br>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)<br>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)<br>2 bit BDC (pressure monitoring)                                 |
| IO-Link, Min. cycle time                           | 3.5 ms                                                                                                     |

| Feature                        | Value                                                      |
|--------------------------------|------------------------------------------------------------|
| IO-Link, Data storage required | 500 Byte                                                   |
| IO-Link, Device ID             | 0x00003E                                                   |
| Electrical connection          | 5-pin<br>M12x1<br>Plugs                                    |
| Protection against tampering   | Electronic interlock                                       |
| Type of mounting               | With through-hole<br>Via female thread<br>With accessories |
| Pneumatic connection, port 1   | QS-8                                                       |
| Pneumatic connection, port 3   | QS-8                                                       |
| Vacuum connection              | QS-8                                                       |
| Note on materials              | RoHS-compliant                                             |
| Material seals                 | NBR                                                        |
| Material receiver nozzle       | POM                                                        |
| Material filter                | Fabric<br>PA<br>Sintered steel                             |
| Material housing               | Die-cast aluminium<br>PA-reinforced                        |
| Material adjusting screw       | Steel                                                      |
| Material silencer              | Wrought aluminium alloy<br>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                                        |