

# Vacuum generator OVEM-20-H-B-QO-CE-N-2P

Part number: 8023700

FESTO



## Data sheet

General operating condition

| Feature                       | Value   |
|-------------------------------|---|
| Nominal size, Laval nozzle    | 2 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               | Via display and keys  |
| Switching position indicator  | LCD   |
| Switching status indication   | Optical   |
| Setting range threshold value | -0.999 bar ... 0 bar  |
| Operating pressure            | 2 bar ... 8 bar   |

| Feature  | Value   |
|--|---|
| Operating pressure for max. vacuum                 | 5.3 bar   |
| Max. vacuum  | 93 %  |
| Nominal operating pressure                         | 6 bar   |
| Max. suction flow rate against atmosphere          | 86.5 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%  |
| Inductive protective circuit                       | Adapted to MZ, MY, ME coils                                 |
| 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                                       | ≤1.5 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 | 74 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                                     | 380 g   |
| Pressure measuring range                           | -1 bar ... 0 bar  |
| Accuracy in ± % FS                                 | 3 %FS   |
| Reproducibility of switching values FS             | 0.6 %   |
| Switching logic for inputs                         | PNP (positive switching)                                    |
| Electrical connection                              | M12x1<br>Plugs  |
| Type of mounting                                   | With through-hole<br>Via female thread<br>With accessories  |
| Pneumatic connection, port 1                       | QS-8  |
| Pneumatic connection, port 3                       | Integrated silencer   |
| 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 filter housing                            | PA-reinforced   |

| <b>Feature</b>              | <b>Value</b>                        |
|-----------------------------|-------------------------------------|
| Material housing            | Die-cast aluminium<br>PA-reinforced |
| Material hollow bolt        | Wrought aluminium alloy             |
| 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                 |
| Material bracket            | Stainless steel                     |