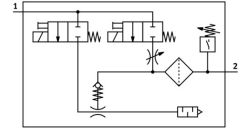



# Vacuum generator OVEM-20-H-B-PO-CE-N-1P

Part number: 8023701

FESTO



## Data sheet

 General operating condition

| Feature                                       | Value   |
|---|---|
| Nominal width of Laval nozzle                 | 2 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   |
| Integrated function                           | Ejector pulse valve, electric<br>Flow control<br>Shut off valve, electric<br>Compressed air filter<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/O contact   |
| Switching function                            | Threshold value comparator<br>Threshold value with fixed hysteresis   |
| Symbol  | 00992094  |
| Valve function                                | Closed  |
| Reverse polarity protection                   | for all electrical connections  |
| Switching input to standard                   | IEC 61131-2   |
| Display type                                  | LED   |
| Setting options                               | Teach-in  |
| Switching position indication                 | LED   |
| Switching status indication                   | Optical   |
| Setting range threshold value                 | -1 bar ... 0 bar  |
| Operating pressure                            | 2 bar ... 8 bar   |
| Operating pressure for max. vacuum            | 5.3 bar   |
| Max. vacuum                                   | 93 %  |
| Nominal operating pressure                    | 6 bar   |
| Max. suction rate with respect to atmosphere  | 86.5 l/min  |
| Air supply time at nominal operating pressure | 0.2 s   |
| DC operating voltage range                    | 20.4 V ... 27.6 V   |

| Feature                                      | Value   |
|--|---|
| Duty cycle                                   | 100%  |
| Inductive protective circuit                 | Adapted to MZ, MY and ME coils                                |
| Insulation voltage                           | 50 V  |
| Idle current                                 | <80 mA  |
| Max. output current                          | 100 mA  |
| Residual current                             | 0.1 mA  |
| Switching output                             | PNP   |
| Voltage drop                                 | ≤1.5 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    | 74 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                               | 415 g   |
| Pressure measuring range                     | -1 bar ... 0 bar  |
| Accuracy in ± % FS                           | 0.5 %FS   |
| Hysteresis                                   | 0.02 bar  |
| Reproducibility, switching value FS          | 0.6 %   |
| Input switching logic                        | PNP (positive switching)                                      |
| Electrical connection                        | 5-pin<br>M12x1<br>Plug  |
| Type of mounting                             | With through-hole<br>With internal thread<br>With accessories |
| Pneumatic connection 1                       | G1/4  |
| Pneumatic connection 3                       | Pneumatic muffler integrated                                  |
| 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                                |
| Material of filter housing                   | PA-reinforced   |
| Housing material                             | Die-cast aluminum<br>PA-reinforced                            |
| Hollow bolt material                         | Wrought aluminum alloy  |
| Material of adjusting screw                  | Steel   |

| <b>Feature</b>                | <b>Value</b>                      |
|-------------------------------|-----------------------------------|
| Muffler material              | Wrought aluminum alloy<br>PU foam |
| Material of screws            | Steel                             |
| 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            | PA-reinforced                     |
| Material of pneumatic fitting | Brass, nickel-plated              |
| Bracket material              | Stainless steel                   |