

# Vacuum generator OVEM-14-H-B-GO-CE-N-2N

Part number: 540014

FESTO



## Data sheet

 General operating condition

| Feature                       | Value   |
|-------------------------------|---|
| Nominal width of Laval nozzle | 1.4 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               | Via display and pushbuttons   |
| Switching position indication | 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            | 3.6 bar   |
| Max. vacuum                                   | 93 %  |
| Nominal operating pressure                    | 6 bar   |
| Max. suction rate with respect to atmosphere  | 50.5 l/min  |
| Air supply time at nominal operating pressure | 0.2 s   |
| DC operating voltage range                    | 20.4 V ... 27.6 V   |
| Duty cycle                                    | 100%  |
| Inductive protective circuit                  | Adapted to MZ, MY and ME coils                                |
| Insulation voltage                            | 50 V  |
| Idle current                                  | <70 mA  |
| Max. output current                           | 100 mA  |
| Residual current                              | 0.1 mA  |
| Switching output                              | 2xNPN   |
| 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     | 77 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                                | 385 g   |
| Pressure measuring range                      | -1 bar ... 0 bar  |
| Accuracy in ± % FS                            | 3 %FS   |
| Reproducibility, switching value FS           | 0.6 %   |
| Input switching logic                         | NPN (negative switching)                                      |
| Electrical connection                         | 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                             | G1/4  |
| 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   |

| <b>Feature</b>                | <b>Value</b>                       |
|-------------------------------|------------------------------------|
| 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 keypad            | TPE-U                              |
| Material of pneumatic fitting | Wrought aluminum alloy, anodized   |