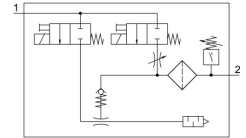


# Vacuum generator OVEM-05-H-B-QO-CE-N-1PD

Part number: 8037697

**FESTO**



## Data sheet

| Feature                       | Value                                                                                                                                                                                                |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| KC characters                 | KC EMC                                                                                                                                                                                               |
| Nominal width of Laval nozzle | 0.45 mm                                                                                                                                                                                              |
| Width dimension               | 20 mm                                                                                                                                                                                                |
| Type code                     | OVEM                                                                                                                                                                                                 |
| 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>Air saving function, electrical<br>Non-return valve<br>Pneumatic muffler open<br>Vacuum switch |
| 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 threshold value | -0.999 bar ... 0 bar                                                                                                                                                                                 |
| Setting range hysteresis      | -0.9 bar ... 0 bar                                                                                                                                                                                   |
| Setting options               | Via display and pushbuttons                                                                                                                                                                          |
| Switching position indication | LCD                                                                                                                                                                                                  |
| Switching status indication   | Optical                                                                                                                                                                                              |

| Feature                                       | Value                                                          |
|-----------------------------------------------|----------------------------------------------------------------|
| Operating pressure                            | 2 bar ... 8 bar                                                |
| Operating pressure for max. vacuum            | 5.1 bar                                                        |
| Max. vacuum                                   | 93 %                                                           |
| Nominal operating pressure                    | 6 bar                                                          |
| Max. suction rate with respect to atmosphere  | 6 l/min                                                        |
| Air supply time at nominal operating pressure | 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                              | PNP                                                            |
| Voltage drop                                  | ≤2 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                                                              |
| 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                    |
| CE marking (see declaration of conformity)    | As per EU EMC directive                                        |
| Corrosion resistance class (CRC)              | 2 - Moderate corrosion stress                                  |
| Temperature of medium                         | 0 °C ... 50 °C                                                 |
| Relative air humidity                         | 5 - 85 %                                                       |
| Noise level at nominal operating pressure     | 51 dB(A)                                                       |
| Degree of protection                          | IP65                                                           |
| Protection class                              | III                                                            |
| Ambient temperature                           | 0 °C ... 50 °C                                                 |
| Certification                                 | RCM compliance mark<br>c UL us - Listed (OL)                   |
| Max. tightening torque                        | 0.8 Nm with internal thread<br>2.5 Nm with through-hole        |
| Product weight                                | 325 g                                                          |
| Pressure measuring range                      | -1 bar ... 0 bar                                               |
| Accuracy in ± % FS                            | 3 %FS                                                          |
| Reproducibility, switching value FS           | 0.6 %                                                          |
| Input switching logic                         | PNP (positive switching)                                       |
| Electrical connection                         | 5-pin<br>M12x1<br>Plug                                         |
| Protection against tampering                  | PIN code                                                       |
| Type of mounting                              | With through-hole<br>With internal thread<br>With accessories  |
| Pneumatic connection 1                        | QS-6                                                           |
| Pneumatic connection 3                        | Pneumatic muffler integrated                                   |
| Vacuum connection                             | QS-6                                                           |
| Note on materials                             | Contains paint-wetting impairment substances<br>RoHS-compliant |
| Seals material                                | NBR                                                            |
| Female nozzle material                        | POM                                                            |
| Compressed air filter material                | Fabric<br>PA<br>Sintered steel                                 |

| Feature                       | Value                              |
|-------------------------------|------------------------------------|
| Material of filter housing    | PA-reinforced                      |
| 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               |