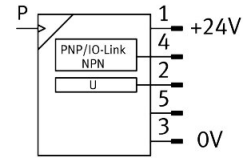


# Air gap sensor SOPA-CM3H-R1-HQ6-PNLK-VB-M12

Part number: 8093822

**FESTO**



[PDF](#) General operating condition

## Data sheet

| Feature                                      | Value                                                                                                           |
|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| Symbol                                       | 00997315                                                                                                        |
| Certification                                | RCM compliance mark<br>c UL us - Recognized (OL)                                                                |
| CE marking (see declaration of conformity)   | As per EU EMC directive<br>As per EU RoHS directive                                                             |
| UKCA marking (see declaration of conformity) | To UK instructions for EMC<br>To UK RoHS instructions                                                           |
| KC characters                                | KC EMC                                                                                                          |
| Note on materials                            | RoHS-compliant                                                                                                  |
| Detected variable                            | Gap                                                                                                             |
| Measuring principle                          | Pneumatic                                                                                                       |
| Sensing range                                | 20 µm ... 200 µm                                                                                                |
| Operating pressure                           | 4 bar ... 7 bar                                                                                                 |
| Supply pressure                              | 0.8 bar ... 1.6 bar                                                                                             |
| Operating medium                             | Compressed air as per ISO 8573-1:2010 [7:4:4]                                                                   |
| Information on operating and pilot media     | Operation with oil lubrication possible (required for further use)                                              |
| Ambient temperature                          | 0 °C ... 50 °C                                                                                                  |
| Repetition accuracy in ± µm                  | 2.5 µm                                                                                                          |
| Switching output                             | PNP/NPN switchable                                                                                              |
| Switching function                           | Window comparator<br>Threshold value with variable hysteresis                                                   |
| Switching element function                   | N/C contact/N/O contact switchable                                                                              |
| Max. output current                          | 100 mA                                                                                                          |
| Analog output                                | 0 - 10 V                                                                                                        |
| Distance characteristic curve start value    | 0 µm                                                                                                            |
| Distance characteristic curve end value      | 300 µm                                                                                                          |
| Rise time                                    | 22 ms                                                                                                           |
| Min. load resistance of voltage output       | 20 kOhm                                                                                                         |
| Short-circuit protection                     | yes                                                                                                             |
| Protocol                                     | IO-Link®                                                                                                        |
| IO-Link®, protocol version                   | Device V 1.1                                                                                                    |
| IO-Link®, profile                            | Smart sensor profile                                                                                            |
| IO-Link®, function classes                   | Process data variable (PDV)<br>Identification<br>Diagnostics<br>Teach channel<br>Switching signal channel (SSC) |

| Feature                                               | Value                                                                                              |
|-------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| IO-Link®, communication mode                          | COM2 (38,4 kBd)                                                                                    |
| IO-Link®, SIO mode support                            | Yes                                                                                                |
| IO-Link®, port class                                  | A                                                                                                  |
| IO-Link®, process data width OUT                      | 0 Byte                                                                                             |
| IO-Link®, process data width IN                       | 2 Byte                                                                                             |
| IO-Link®, process data content IN                     | 1-bit SSC (supply pressure monitoring)<br>10-bit PDV (distance)<br>2-bit SSC (distance monitoring) |
| IO-Link®, service data contents IN                    | 14-bit supply pressure                                                                             |
| IO-Link®, minimum cycle time                          | 3 ms                                                                                               |
| IO-Link®, data memory required                        | <500 byte                                                                                          |
| DC operating voltage range                            | 22.8 V ... 26.4 V                                                                                  |
| Max. current consumption                              | 550 mA                                                                                             |
| Reverse polarity protection                           | for all electrical connections                                                                     |
| Electrical connection 1, connection type              | Plug                                                                                               |
| Electrical connection 1, connection technology        | M12x1 A-coded as per EN 61076-2-101                                                                |
| Electrical connection 1, number of pins/wires         | 5                                                                                                  |
| Electrical connection 1, type of mounting             | Screw-type lock<br>not rotatable                                                                   |
| Electrical connection 1, type of mounting             | Compatible with screw lock rotatable                                                               |
| Electrical connection for input 1, connection pattern | 00991172                                                                                           |
| Type of mounting                                      | With through-hole<br>With H-rail                                                                   |
| Pneumatic connection                                  | QS-6                                                                                               |
| Product weight                                        | 630 g                                                                                              |
| Housing material                                      | PA-reinforced                                                                                      |
| Display type                                          | Illuminated LCD, multi-color                                                                       |
| Setting options                                       | IO-Link®<br>Teach-in<br>Via display and pushbuttons                                                |
| Protection against tampering                          | Electronic interlock                                                                               |
| Degree of protection                                  | IP65                                                                                               |
| Corrosion resistance class (CRC)                      | 2 - Moderate corrosion stress                                                                      |
| LABS (PWIS) conformity                                | VDMA24364-C1-L                                                                                     |