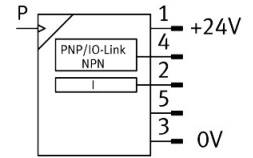


# Air gap sensor SOPA-CM2H-R1-HQ6-PNLK-A-M12

Part number: 8093821

**FESTO**



[PDF](#) General operating condition

## Data sheet

| Feature                                      | Value                                                                                      |
|----------------------------------------------|--------------------------------------------------------------------------------------------|
| Symbol                                       | 00997316                                                                                   |
| Approval                                     | RCM trademark<br>c UL us - Recognized (OL)                                                 |
| CE mark (see declaration of conformity)      | To EU EMC Directive<br>In accordance with EU RoHS Directive                                |
| UKCA marking (see declaration of conformity) | To UK instructions for EMC<br>To UK RoHS instructions                                      |
| KC mark                                      | KC-EMV                                                                                     |
| Note on materials                            | RoHS-compliant                                                                             |
| Detected variable                            | Distance                                                                                   |
| 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 to ISO 8573-1:2010 [7:4:4]                                                  |
| Note on operating and pilot medium           | Lubricated operation possible (in which case lubricated operation will always be required) |
| 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 or N/O contact, switchable                                                             |
| Max. output current                          | 100 mA                                                                                     |
| Analogue output                              | 4 - 20 mA                                                                                  |
| Starting value of distance characteristic    | 0 µm                                                                                       |
| End value of distance characteristic         | 300 µm                                                                                     |
| Rise time                                    | 22 ms                                                                                      |
| Max. load resistance current output          | 500 Ohm                                                                                    |
| Short circuit current rating                 | yes                                                                                        |
| Protocol                                     | IO-Link®                                                                                   |
| IO-Link, Protocol version                    | Device V 1.1                                                                               |
| IO-Link, Profile                             | Smart sensor profile                                                                       |

| Feature                                              | Value                                                                                                           |
|------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| IO-Link, Function classes                            | Process data variable (PDV)<br>Identification<br>Diagnostics<br>Teach channel<br>Switching signal channel (SSC) |
| IO-Link, communication mode                          | COM2 (38.4 kBaud)                                                                                               |
| IO-Link, SIO-Mode support                            | Yes                                                                                                             |
| IO-Link, Port class                                  | A                                                                                                               |
| IO-Link, Process data length OUT                     | 0 bytes                                                                                                         |
| IO-Link, Process data length IN                      | 2 bytes                                                                                                         |
| 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 IN                             | 14-bit supply pressure                                                                                          |
| IO-Link, Min. cycle time                             | 3 ms                                                                                                            |
| IO-Link, Data storage required                       | <500 Byte                                                                                                       |
| Operational voltage range DC                         | 22.8 V ... 26.4 V                                                                                               |
| Max. current consumption                             | 440 mA                                                                                                          |
| Reverse polarity protection                          | For all electrical connections                                                                                  |
| Electrical connection 1, connection type             | Plugs                                                                                                           |
| Electrical connection 1, connector system            | M12x1, A-coded to EN 61076-2-101                                                                                |
| Electrical connection 1, number of connections/cores | 5                                                                                                               |
| Electrical connection 1, type of mounting            | Screw-type lock<br>Not rotatable                                                                                |
| Electrical connection 1, compatible type of mounting | Compatible with rotatable screw-type lock                                                                       |
| Electrical connection 1, connection pattern          | 00991172                                                                                                        |
| Type of mounting                                     | Either:<br>With through-hole<br>With H-rail                                                                     |
| Pneumatic connection                                 | QS-6                                                                                                            |
| Product weight                                       | 570 g                                                                                                           |
| Material housing                                     | PA-reinforced                                                                                                   |
| Display type                                         | Illuminated LCD, multi-colour                                                                                   |
| Setting options                                      | IO-Link®<br>Teach-in<br>Via display and keys                                                                    |
| Protection against tampering                         | Electronic interlock                                                                                            |
| Degree of protection                                 | IP65                                                                                                            |
| Corrosion resistance class CRC                       | 2 - Moderate corrosion stress                                                                                   |
| LABS (PWIS) conformity                               | VDMA24364-C1-L                                                                                                  |