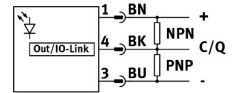


# Diffuse sensor SOOE-BS-R-PNLK-T

Part number: 8075664

FESTO



 [General operating condition](#)

## Data sheet

| Feature                                      | Value   |
|--|---|
| Design                                       | Block design  |
| Conforms to standard                         | EN 60947-5-2  |
| Symbol                                       | 00995956  |
| Approval                                     | RCM<br>c UL us - Listed (Oil)   |
| 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 RoHS instructions   |
| Certificate issuing authority                | UL E232949  |
| Note on materials                            | RoHS compliant  |
| Measuring principle                          | Optoelectronic  |
| Detection method                             | Diffuse sensor with background clipping   |
| Type of light                                | Red<br>LED  |
| Max. light spot                              | 20 mm at a sensing range of 350 mm  |
| Min. object diameter                         | 10 mm   |
| Operating distance                           | 5 mm ... 350 mm   |
| Ambient temperature                          | -40 °C ... 60 °C  |
| Max. black-white difference                  | 15 %  |
| Reference material                           | Standard white 90%, 100x100 mm  |
| Switching output                             | Push-pull   |
| Switching element function                   | Switchable<br>PNP light switching<br>NPN dark switching   |
| Hysteresis                                   | 21 mm   |
| Max. switching frequency                     | 500 Hz  |
| Max. output current                          | 100 mA  |
| Voltage drop                                 | 0 V ... 1.5 V   |
| Timer function                               | Via IO-Link®  |
| Short circuit current rating                 | Pulsed  |
| 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 kBaud)                       |
| IO-Link, SIO-Mode support                            | Yes                                     |
| IO-Link, Port class                                  | A                                       |
| IO-Link, Process data length OUT                     | 2 bit                                   |
| IO-Link, Process data content OUT                    | 1 bit (emitter disable)<br>1 bit (Hold) |
| IO-Link, Process data length IN                      | 1 bit                                   |
| IO-Link, Process data content IN                     | 1 bit SSC (Switching Signal)            |
| IO-Link, Min. cycle time                             | 2.3 ms                                  |
| IO-Link, Data storage required                       | 2000 Byte                               |
| Operational voltage range DC                         | 10 V ... 30 V                           |
| Residual ripple                                      | 10%                                     |
| No-load supply current                               | 25 mA                                   |
| Reverse polarity protection                          | For all electrical connections          |
| Electrical connection 1, connection type             | Plug                                    |
| Electrical connection 1, connector system            | M8x1, A-coded, to EN 61076-2-104        |
| Electrical connection 1, number of connections/cores | 3                                       |
| Electrical connection 1, type of mounting            | Screw-type lock                         |
| Electrical connection 1, connection pattern          | 00991155                                |
| Material electrical contact                          | Gold-plated brass                       |
| Type of mounting                                     | Via through-hole for M3 screw           |
| Tightening torque                                    | 0.8 Nm                                  |
| Mounting position                                    | Any                                     |
| Product weight                                       | 10 g                                    |
| Material housing                                     | Makrolon®<br>PLEXIGLAS®                 |
| Ready status indication                              | Green LED                               |
| Switching status indication                          | Yellow LED                              |
| Setting options                                      | IO-Link®<br>Poti<br>Teach-in            |
| Setting range lower limit                            | 25 mm                                   |
| Setting range upper limit                            | 350 mm                                  |
| Degree of protection                                 | IP65<br>IP67<br>IP69K                   |
| Insulation voltage                                   | 500 V                                   |
| Immunity to surge                                    | 1 kV                                    |
| Corrosion resistance class CRC                       | 1 - Low corrosion stress                |
| LABS (PWIS) conformity                               | VDMA24364 zone III                      |
| Pollution degree                                     | 3                                       |