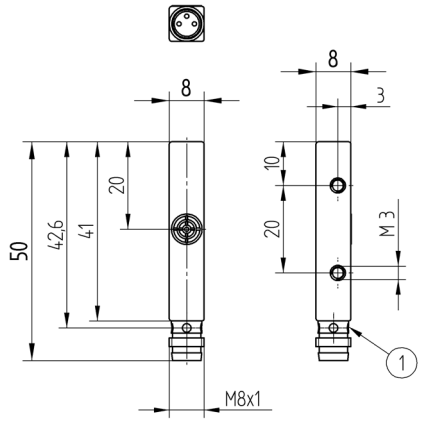
# Inductive Proximity Switch

# IO020BK50VB8

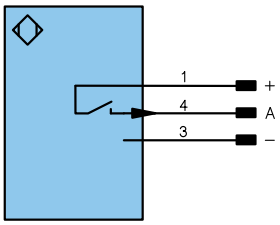
Part Number

## Technical Data

| | |
|---|---|
| **Inductive Data** | |
| Switching Distance | 2 mm |
| Correction Factors V2A/CuZn/Al | 0,73/0,49/0,39 |
| Mounting | flush |
| Mounting A/B/C/D in mm | 0/16/6/0 |
| Switching Hysteresis | < 15 % |
| **Electrical Data** | |
| Supply Voltage | 10...30 V DC |
| Current Consumption (Ub = 24 V) | < 6 mA |
| Switching Frequency | 1500 Hz |
| Temperature Drift | < 10 % |
| Temperature Range | -25...80 °C |
| Switching Output Voltage Drop | < 2,5 V |
| Switching Output / Switching Current | 100 mA |
| Residual Current Switching Output | < 100 µA |
| Short Circuit Protection | yes |
| Reverse Polarity and Overload Protection | yes |
| Protection Class | III |
| **Mechanical Data** | |
| Housing Material | Plastic |
| Full Encapsulation | yes |
| Degree of Protection | IP67 |
| Connection | M8 × 1; 3-pin |
| Stock Type | ● |
| PNP NO | ● |
| Connection Diagram No. | 102 |
| Suiting Connection Technology No. | 6 |



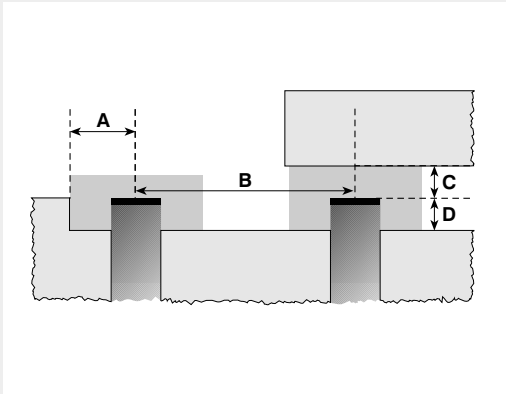

1 = Switching Status Indicator
All dimensions in mm (1 mm = 0.03937 Inch)




Legend

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| + | Supply Voltage + | | U | Test Input | | PoE | Power over Ethernet |
| – | Supply Voltage 0 V | | Ū | Test Input inverted | | | |
| ~ | Supply Voltage (AC Voltage) | | W | Trigger Input | | | |
| A | Switching Output | (NO) | O | Analog Output | | | |
| Ā | Switching Output | (NC) | O– | Ground for the Analog Output | | Wire Colors according to DIN IEC 757 | |
| V | Contamination/Error Output | (NO) | BZ | Block Discharge | | | |
| V̄ | Contamination/Error Output | (NC) | AMV | Valve Output | | BK | Black |
| E | Input (analog or digital) | | a | Valve Control Output + | | BN | Brown |
| T | Teach Input | | b | Valve Control Output 0 V | | RD | Red |
| Z | Time Delay (activation) | | SY | Synchronization | | OG | Orange |
| S | Shielding | | E+ | Receiver-Line | | YE | Yellow |
| RxD | Interface Receive Path | | S+ | Emitter-Line | | GN | Green |
| TxD | Interface Send Path | | ⏚ | Grounding | | BU | Blue |
| RDY | Ready | | SnR | Switching Distance Reduction | | VT | Violet |
| GND | Ground | | Rx+/– | Ethernet Receive Path | | GY | Grey |
| CL | Clock | | Tx+/– | Ethernet Send Path | | WH | White |
| E/A | Output/Input programmable | | Bus | Interfaces-Bus A(+)/B(–) | | PK | Pink |
| | IO-Link | | La | Emitted Light disengageable | | GNYE | Green Yellow |

## Mounting




Specifications are subject to change without notice