

# Inductive Sensor

with Standard Switching Distances

## IB040BM60VB3

Part Number



### Technical Data

#### Inductive Data

|                                |                |
|--------------------------------|----------------|
| Switching Distance             | 4 mm           |
| Correction Factors V2A/CuZn/Al | 0,77/0,50/0,48 |
| Mounting                       | flush          |
| Mounting A/B/C/D in mm         | 0/24/12/0      |
| Switching Hysteresis           | < 15 %         |

#### Electrical Data

|   |              |
|---|--------------|
| Supply Voltage                              | 10...30 V DC |
| Current Consumption (U <sub>b</sub> = 24 V) | < 6 mA       |
| Switching Frequency                         | 700 Hz       |
| Temperature Drift                           | < 10 %       |
| Temperature Range                           | -25...80 °C  |
| Switching Output Voltage Drop               | < 2,5 V      |
| Switching Output/Switching Current          | 200 mA       |
| Residual Current Switching Output           | < 100 µA     |
| Short Circuit Protection                    | yes          |
| Reverse Polarity and Overload Protection    | yes          |
| Protection Class                            | III          |

#### Mechanical Data

|                      |                     |
|----------------------|---------------------|
| Housing Material     | CuZn, nickel-plated |
| Full Encapsulation   | yes                 |
| Degree of Protection | IP67                |
| Connection           | M12 × 1; 4-pin      |

Stock Type



PNP NO



Connection Diagram No.

1021

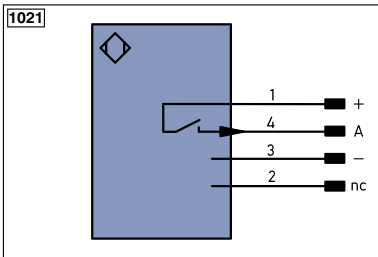
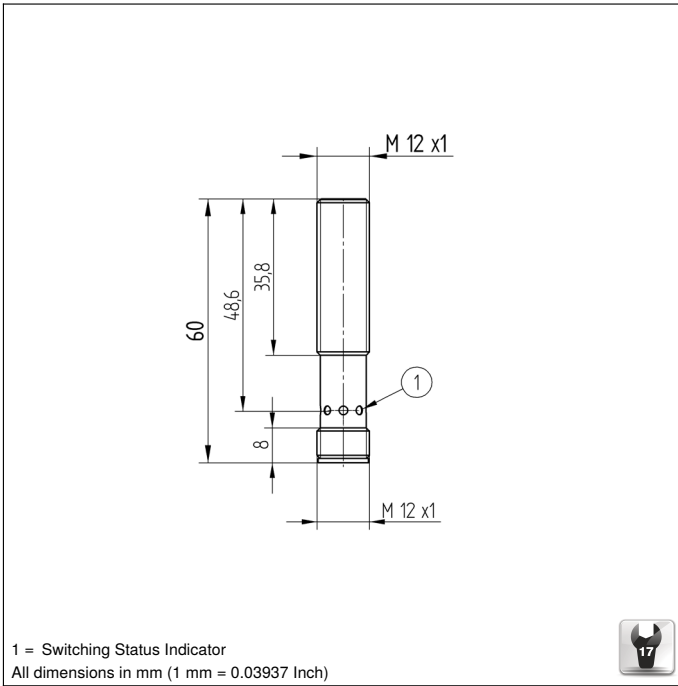
Suitable Connection Technology No.

2

Suitable Mounting Technology No.

170





### Legend

|        |                                 |                  |                              |
|--------|---------------------------------|------------------|------------------------------|
| +      | Supply Voltage +                | nc               | not connected                |
| -      | Supply Voltage 0 V              | U                | Test Input                   |
| ~      | Supply Voltage (AC Voltage)     | Ū                | Test Input inverted          |
| A      | Switching Output (NO)           | W                | Trigger Input                |
| Ā      | Switching Output (NC)           | O                | Analog Output                |
| V      | Contamination/Error Output (NO) | O-               | Ground for the Analog Output |
| ∇      | Contamination/Error Output (NC) | BZ               | Block Discharge              |
| E      | Input (analog or digital)       | AWV              | Valve Output                 |
| T      | Teach Input                     | a                | Valve Control Output +       |
| Z      | Time Delay (activation)         | b                | Valve Control Output 0 V     |
| S      | Shielding                       | SY               | Synchronization              |
| RxD    | Interface Receive Path          | E+               | Receiver-Line                |
| TxD    | Interface Send Path             | S+               | Emitter-Line                 |
| RDY    | Ready                           | ≡                | Grounding                    |
| GND    | Ground                          | S <sub>n</sub> R | Switching Distance Reduction |
| CL     | Clock                           | Rx+/-            | Ethernet Receive Path        |
| E/A    | Output/Input programmable       | Tx+/-            | Ethernet Send Path           |
|        | IO-Link                         | Bus              | Interfaces-Bus A(+)/B(-)     |
| PoE    | Power over Ethernet             | La               | Emitted Light disengageable  |
| IN     | Safety Input                    | Mag              | Magnet activation            |
| OSSD   | Safety Output                   | RES              | Input confirmation           |
| Signal | Signal Output                   | EDM              | Contactor Monitoring         |

### Wire Colors according to DIN IEC 757

|      |              |
|------|--------------|
| BK   | Black        |
| BN   | Brown        |
| RD   | Red          |
| OG   | Orange       |
| YE   | Yellow       |
| GN   | Green        |
| BU   | Blue         |
| VT   | Violet       |
| GY   | Grey         |
| WH   | White        |
| PK   | Pink         |
| GNYE | Green Yellow |

## Mounting

