

# Light Curtain for Measuring Tasks

## OSEB152Z0103

Part Number



- Test input

### Technical Data

#### Optical Data

|                                |                |
|--------------------------------|----------------|
| Range                          | 3000 mm        |
| Measurement Field Height (MFH) | 150 mm         |
| Beam Distance                  | 30 mm          |
| Light Source                   | Infrared Light |
| Service Life (T = +25 °C)      | 100000 h       |

#### Electrical Data

|                                             |              |
|---------------------------------------------|--------------|
| Sensor Type                                 | Emitter      |
| Supply Voltage                              | 18...30 V DC |
| Current Consumption (U <sub>b</sub> = 24 V) | < 50 mA      |
| Temperature Drift                           | < 10 %       |
| Temperature Range                           | -25...60 °C  |
| Reverse Polarity Protection                 | yes          |
| Test input                                  | yes          |
| Protection Class                            | III          |

#### Mechanical Data

|                      |                |
|----------------------|----------------|
| Housing Material     | Aluminum       |
| Degree of Protection | IP65           |
| Connection           | M12 × 1; 4-pin |

#### Safety-relevant Data

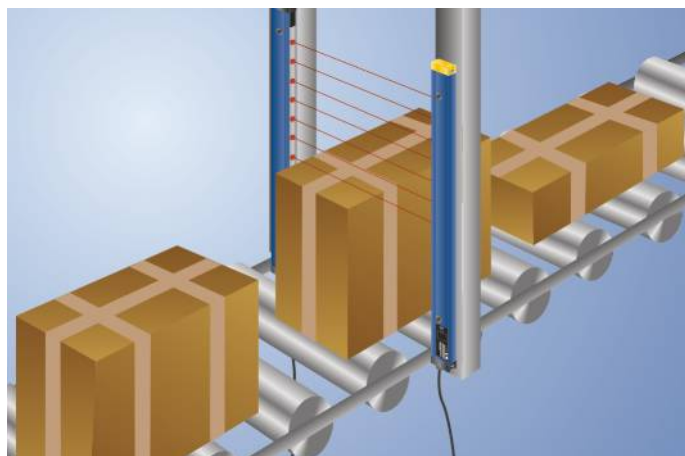
|                        |          |
|------------------------|----------|
| MTTFd (EN ISO 13849-1) | 1106,6 a |
|------------------------|----------|

|                                   |      |
|-----------------------------------|------|
| Connection Diagram No.            | 1018 |
| Control Panel No.                 | EB2  |
| Suitable Connection Equipment No. | 2    |

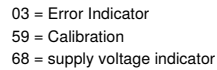
### Suitable Receiver

OEEB152U0135

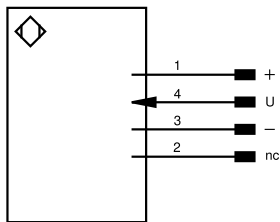
As these light curtains for measurement tasks are equipped with an integrated evaluation unit, external connection units are not needed. Objects are both recognized (via the digital output) and measured (via the analog output). The light curtains can be set up easily using the menu-controlled graphic display. Convenient parametrization and quick diagnosis is possible via the IO-Link interface.



## EB2



1018



| Legend                                                                              |                                            |                     |                                |                                        |                     |
|-------------------------------------------------------------------------------------|--------------------------------------------|---------------------|--------------------------------|----------------------------------------|---------------------|
| +                                                                                   | Supply Voltage +                           | nc                  | Not connected                  | EN <sub>RS422</sub>                    | Encoder B/B' (TTL)  |
| -                                                                                   | Supply Voltage 0 V                         | U                   | Test Input                     | EN <sub>A</sub>                        | Encoder A           |
| ~                                                                                   | Supply Voltage (AC Voltage)                | $\bar{U}$           | Test Input inverted            | EN <sub>B</sub>                        | Encoder B           |
| A                                                                                   | Switching Output (NO)                      | W                   | Trigger Input                  | AM <sub>IN</sub>                       | Digital output MIN  |
| $\bar{A}$                                                                           | Switching Output (NC)                      | W-                  | Ground for the Trigger Input   | AM <sub>AX</sub>                       | Digital output MAX  |
| V                                                                                   | Contamination/Error Output (NO)            | O                   | Analog Output                  | AO <sub>K</sub>                        | Digital output OK   |
| $\bar{V}$                                                                           | Contamination/Error Output (NC)            | O-                  | Ground for the Analog Output   | SY <sub>IN</sub>                       | Synchronization In  |
| E                                                                                   | Input (analog or digital)                  | BZ                  | Block Discharge                | SY <sub>OUT</sub>                      | Synchronization OUT |
| T                                                                                   | Teach Input                                | AM <sub>V</sub>     | Valve Output                   | ÖLT                                    | Brightness output   |
| Z                                                                                   | Time Delay (activation)                    | a                   | Valve Control Output +         | M                                      | Maintenance         |
| S                                                                                   | Shielding                                  | b                   | Valve Control Output 0 V       | rsv                                    | Reserved            |
| RxD                                                                                 | Interface Receive Path                     | SY                  | Synchronization                | Wire Colors according to DIN IEC 60757 |                     |
| TxD                                                                                 | Interface Send Path                        | SY-                 | Ground for the Synchronization |                                        |                     |
| RDY                                                                                 | Ready                                      | E+                  | Receiver-Line                  | BK                                     | Black               |
| GND                                                                                 | Ground                                     | S+                  | Emitter-Line                   | BN                                     | Brown               |
| CL                                                                                  | Clock                                      | $\pm$               | Grounding                      | RD                                     | Red                 |
| E/A                                                                                 | Output/Input programmable                  | SnR                 | Switching Distance Reduction   | OG                                     | Orange              |
|  | IO-Link                                    | Rx+/-               | Ethernet Receive Path          | YE                                     | Yellow              |
| PoE                                                                                 | Power over Ethernet                        | Tx+/-               | Ethernet Send Path             | GN                                     | Green               |
| IN                                                                                  | Safety Input                               | Bus                 | Interfaces-Bus A(+)/B(-)       | BU                                     | Blue                |
| QSSD                                                                                | Safety Output                              | La                  | Emitted Light disengageable    | VT                                     | Violet              |
| Signal                                                                              | Signal Output                              | Mag                 | Magnet activation              | GY                                     | Grey                |
| BI <sub>D+/-</sub>                                                                  | Ethernet Gigabit bidirect. data line (A-D) | RES                 | Input confirmation             | WH                                     | White               |
| EN <sub>RS422</sub>                                                                 | Encoder 0-pulse 0/0' (TTL)                 | EDM                 | Contact or Monitoring          | PK                                     | Pink                |
| PT                                                                                  | Platinum measuring resistor                | EN <sub>RS422</sub> | Encoder A/Ä (TTL)              | GNYE                                   | Green/Yellow        |