

# Light Curtain for Measuring Tasks

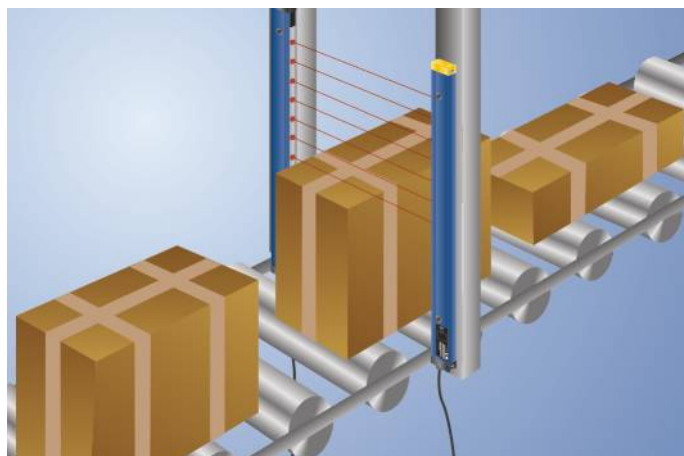
## OEEB153U0135

Part Number



- 360° visible switching status display
- Graphical display for easy operation
- Integrated evaluation unit
- Object detection and measurement

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.



### Technical Data

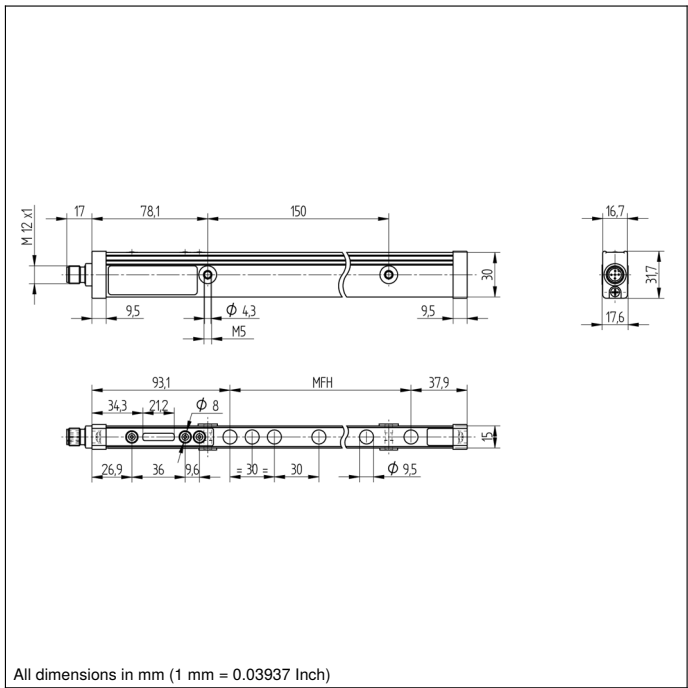
| Optical Data                                |                  |
|---------------------------------------------|------------------|
| Range                                       | 3000 mm          |
| Measurement Field Height (MFH)              | 1500 mm          |
| Beam Distance                               | 30 mm            |
| Light Source                                | Infrared Light   |
| Service Life (T = +25 °C)                   | 100000 h         |
| Max. Ambient Light                          | 10000 Lux        |
| Opening Angle                               | 10 °             |
| Electrical Data                             |                  |
| Sensor Type                                 | Receiver         |
| Supply Voltage                              | 18...30 V DC     |
| Current Consumption (U <sub>b</sub> = 24 V) | < 50 mA          |
| Switching Frequency                         | 10 Hz            |
| Response Time                               | 52 ms            |
| On-/Off-Delay                               | 0...10 s         |
| Temperature Drift                           | < 10 %           |
| Temperature Range                           | -25...60 °C      |
| Number of Switching Outputs                 | 2                |
| Switching Output Voltage Drop               | < 2,5 V          |
| Switching Output/Switching Current          | 100 mA           |
| Residual Current Switching Output           | < 50 µA          |
| Analog Output                               | 0...10 V         |
| Short Circuit and Overload Protection       | yes              |
| Reverse Polarity Protection                 | yes              |
| Lockable                                    | yes              |
| Interface                                   | IO-Link V1.0     |
| Protection Class                            | III              |
| Mechanical Data                             |                  |
| Setting Method                              | Menu (OLED)      |
| Housing Material                            | Aluminum         |
| Degree of Protection                        | IP65             |
| Connection                                  | M12 × 1; 4/5-pin |
| Safety-relevant Data                        |                  |
| MTTFd (EN ISO 13849-1)                      | 87,49 a          |
| PNP NC                                      | ●                |
| IO-Link                                     | ●                |
| Connection Diagram No.                      | 188              |
| Control Panel No.                           | EB3              |
| Suitable Connection Equipment No.           | 2 35             |

### Suitable Emitter

|                                                                                                          |
|----------------------------------------------------------------------------------------------------------|
| OSEB153Z0103                                                                                             |
| Display brightness may decrease with age. This does not result in any impairment of the sensor function. |

### Complementary Products

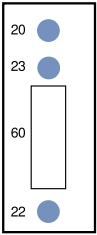
|                             |
|-----------------------------|
| Analog Evaluation Unit AW02 |
| IO-Link Master              |
| Software                    |



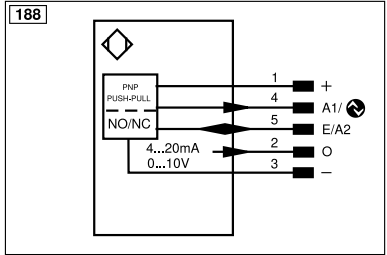
All dimensions in mm (1 mm = 0.03937 Inch)

## Ctrl. Panel

EB3



20 = Enter key  
22 = Up key  
23 = Down key  
60 = display



| Legend    |                                            |           |                                |                                        |                     |
|-----------|--------------------------------------------|-----------|--------------------------------|----------------------------------------|---------------------|
| +         | Supply Voltage +                           | nc        | Not connected                  | ENBRS422                               | Encoder B/B (TTL)   |
| -         | Supply Voltage 0 V                         | U         | Test Input                     | ENA                                    | Encoder A           |
| ~         | Supply Voltage (AC Voltage)                | Ü         | Test Input inverted            | ENb                                    | Encoder B           |
| A         | Switching Output (NO)                      | W         | Trigger Input                  | AMIN                                   | Digital output MIN  |
| Ä         | Switching Output (NC)                      | W-        | Ground for the Trigger Input   | AMAX                                   | Digital output MAX  |
| V         | Contamination/Error Output (NO)            | O         | Analog Output                  | AOK                                    | Digital output OK   |
| Ȳ         | Contamination/Error Output (NC)            | O-        | Ground for the Analog Output   | SY In                                  | Synchronization In  |
| E         | Input (analog or digital)                  | BZ        | Block Discharge                | SY OUT                                 | Synchronization OUT |
| T         | Teach Input                                | Amv       | Valve Output                   | OLT                                    | 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 | BK                                     | Black               |
| RDY       | Ready                                      | E+        | Receiver-Line                  | BN                                     | Brown               |
| GND       | Ground                                     | S+        | Emitter-Line                   | RD                                     | Red                 |
| CL        | Clock                                      | ±         | Grounding                      | OG                                     | Orange              |
| E/A       | Output/Input programmable                  | SnR       | Switching Distance Reduction   | YE                                     | Yellow              |
| IO-Link   | IO-Link                                    | Rx+/-     | Ethernet Receive Path          | GN                                     | Green               |
| PoE       | Power over Ethernet                        | Tx+/-     | Ethernet Send Path             | BU                                     | Blue                |
| IN        | Safety Input                               | Bus       | Interfaces-Bus A(+)/B(-)       | VT                                     | Violet              |
| OSSD      | Safety Output                              | La        | Emitted Light disengageable    | GY                                     | Grey                |
| Signal    | Signal Output                              | Mag       | Magnet activation              | WH                                     | White               |
| BL_D+/-   | Ethernet Gigabit bidirect. data line (A-D) | RES       | Input confirmation             | PK                                     | Pink                |
| ENo RS422 | Encoder 0-pulse 0/Ü (TTL)                  | EDM       | Contact Monitoring             | GNYE                                   | Green/Yellow        |
| PT        | Platinum measuring resistor                | ENARIS422 | Encoder A/A (TTL)              |                                        |                     |