# SEFG481

Part Number



- **Higher levels of safety and availability thanks to intelligent muting functions**
- **Multifunctional thanks to measuring function**
- **Quick duplication of settings via microSD memory card**
- **Simple configuration and diagnosis with wTeach2 software**

The safety light curtain can be flexibly integrated into systems thanks to the well-conceived mounting technology and the compact housing. Alignment of the emitter and the receiver is simplified by the visible red light and the signal strength display. User-friendly wTeach2 software make settings and diagnosis via the IO-Link interface extremely easy. Settings can be subsequently saved to a microSD card and quickly duplicated on other products. Extensive muting functions ensure an ideal solution for every application, in order to safely transport objects into and out of the danger zone.

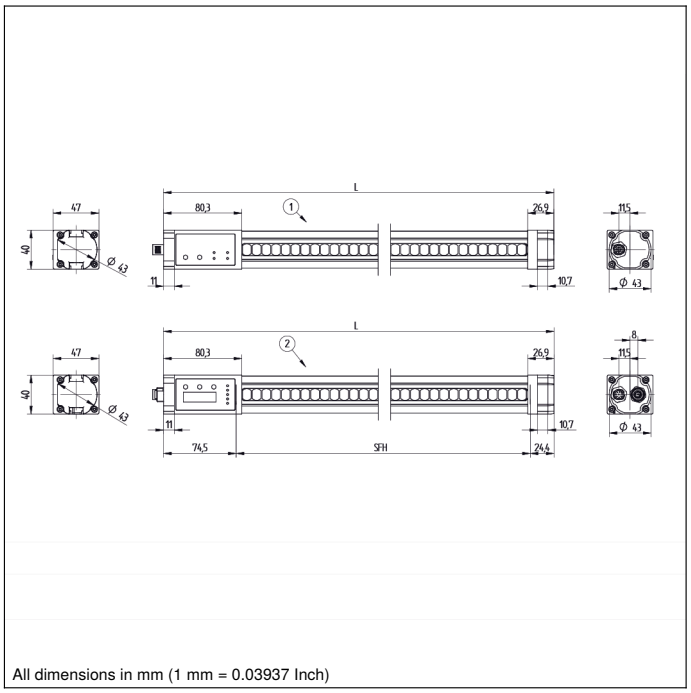


## Technical Data

| | |
|---|---|
| **Optical Data** | |
| Range | 0,25...7 m |
| Housing Length (L) | 1760 mm |
| Safety Field Height (SFH) | 1662 mm |
| Resolution | 14 mm |
| Light Source | Red Light |
| Wavelength | 630 nm |
| Max. Ambient Light | 10000 Lux |
| Opening Angle | ± 2,5 ° |
| **Electrical Data** | |
| Sensor Type | Set |
| Supply Voltage | 19,2...28,8 V DC |
| Response Time | 27 ms |
| Temperature Range | -30...55 °C |
| Storage temperature | -30...70 °C |
| No. Safety Outputs (OSSDs) | 2 |
| Safety Output Voltage Drop | ≤ 2,3 V |
| PNP Safety Output/Switching Current | ≤ 300 mA |
| Number of Signal Outputs | 1 |
| Signal Output Voltage Drop | < 2,5 V |
| Signal Output/Switching Current | < 100 mA |
| Short Circuit and Overload Protection | yes |
| Interface | IO-Link V1.1 |
| Protection Class | III |
| **Mechanical Data** | |
| Housing Material | Aluminum |
| Disc Material | Polycarbonate |
| Degree of Protection | IP65/IP67 |
| **Safety-relevant Data** | |
| ESPE Type (EN 61496) | 4 |
| Performance Level (EN ISO 13849-1) | Cat. 4 PL e |
| Mission Time TM (EN ISO 13849-1) | 20 a |
| Safety Integrity Level (EN 61508) | SIL3 |
| Safety Integrity Level (EN 62061) | SILCL3 |
| **Function** | |
| Finger Protection | yes |
| Scope of Functions | Muting |
| Scope of delivery | ZEFX001 mounting |
| Scope of delivery (Emitter; Receiver) | SEFG541; SEFG681 |
| IO-Link | ● |
| Connection Diagram No. | 1029 1030 1031 |
| Control Panel No. | A38 A39 |
| Suitable Connection Equipment No. | 35 89 |
| Suitable Mounting Technology No. | 860 870 880 |

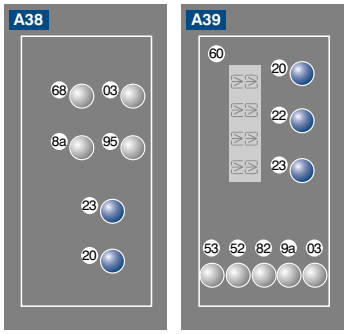
## Complementary Products

| |
|---|
| IO-Link Master |
| Laser Alignment Tool Z98G001 |
| LED indicator strip set Z99G011 |
| microSD card ZNNG013 |
| Protection column with Z2SU003 path-folding mirror |
| Protection columns with/without protective screen (Z2SS003/ Z2SM003) |
| Safety Relay SG4-00VA000R2, SR4B3B01S, SR4D3B01S |
| ZEMG003 and ZEMG009 test rods |
| ZFBB001 muting connection box |
| ZMZG005 muting arm |

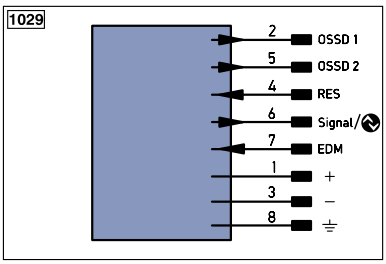


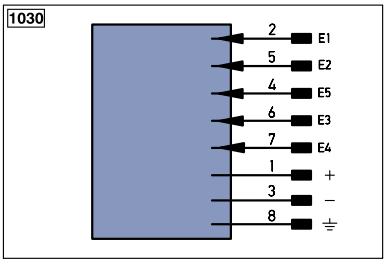

All dimensions in mm (1 mm = 0.03937 Inch)

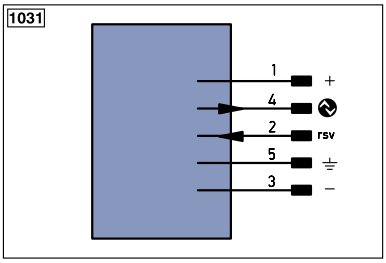
## Ctrl. Panel




03 = Error Indicator
20 = Enter Button
22 = UP Button
23 = Down Button
52 = OSSD ON
53 = OSSD OFF
60 = Display
68 = Supply Voltage Indicator
82 = Acknowledgement Request
8a = Coding
95 = Diagnosis/Large Detection Range
9a = Weak signal




### Legend

| | |
|---|---|
| + | Supply Voltage + |
| – | Supply Voltage 0 V |
| ~ | Supply Voltage (AC Voltage) |
| A | Switching Output (NO) |
| Ā | Switching Output (NC) |
| V | Contamination/Error Output (NO) |
| V̄ | Contamination/Error Output (NC) |
| E | Input (analog or digital) |
| T | Teach Input |
| Z | Time Delay (activation) |
| S | Shielding |
| RxD | Interface Receive Path |
| TxD | Interface Send Path |
| RDY | Ready |
| GND | Ground |
| CL | Clock |
| E/A | Output/Input programmable |
| | IO-Link |
| PoE | Power over Ethernet |
| IN | Safety Input |
| OSSD | Safety Output |
| Signal | Signal Output |
| BI_D+/- | Ethernet Gigabit bidirect. data line (A-D) |
| EN0 RS422 | Encoder 0-pulse 0-0̄ (TTL) |
| PT | Platinum measuring resistor |
| nc | not connected |
| U | Test Input |
| Ū | Test Input inverted |
| W | Trigger Input |
| W– | Ground for the Trigger Input |
| O | Analog Output |
| O– | Ground for the Analog Output |
| BZ | Block Discharge |
| AW | Valve Output |
| a | Valve Control Output + |
| b | Valve Control Output 0 V |
| SY | Synchronization |
| SY– | Ground for the Synchronization |
| E+ | Receiver-Line |
| S+ | Emitter-Line |
| ⏚ | Grounding |
| SnR | Switching Distance Reduction |
| Rx+/– | Ethernet Receive Path |
| Tx+/– | Ethernet Send Path |
| Bus | Interfaces-Bus A(+)/B(–) |
| La | Emitted Light disengageable |
| Mag | Magnet activation |
| RES | Input confirmation |
| EDM | Contactor Monitoring |
| ENA RS422 | Encoder A/Ā (TTL) |
| ENB RS422 | Encoder B/B̄ (TTL) |
| ENA | Encoder A |
| ENB | Encoder B |
| AMIN | Digital output MIN |
| AMAX | Digital output MAX |
| AOK | Digital output OK |
| SY In | Synchronization In |
| SY OUT | Synchronization OUT |
| OLT | Brightness output |
| M | Maintenance |
| rsv | reserved |

Wire Colors according to IEC 60757

| | |
|---|---|
| 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 |

Specifications are subject to change without notice