

# Safety Light Array

## Body Protection

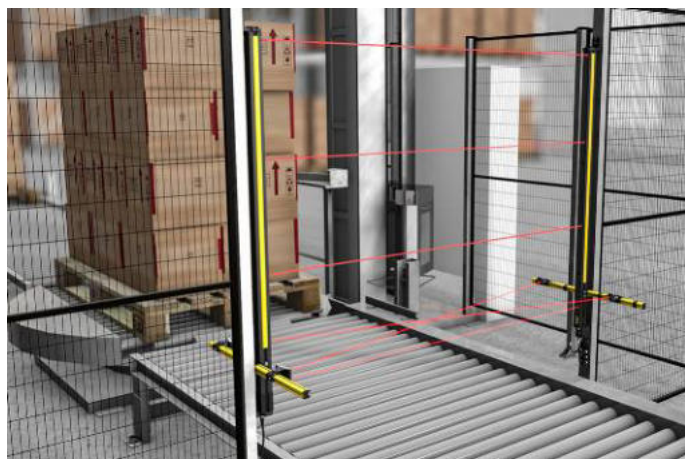
# SEFB623

Part Number



- Multifunctional thanks to measuring function
- Quick alignment through visible red light
- Simple configuration and diagnosis with wTeach2 software

The safety light array can be attached anywhere thanks to the T nut and mounting bracket. The visible red light and signal strength display make it easy to align the emitter and the receiver. Safety mode, restart prevention, and contactor monitoring are included as standard functions. The protective equipment can be configured using the user-friendly IO-Link and wenglor software wTeach2. Optional LED indicators visualize switch states or error messages



## Technical Data

### Optical Data

|                    |            |
|--------------------|------------|
| Range              | 0,5...50 m |
| Beam Distance      | 400 mm     |
| Number of Beams    | 3          |
| Light Source       | Red Light  |
| Max. Ambient Light | 10000 Lux  |
| Opening Angle      | ± 2,5 °    |

### Electrical Data

|                                             |                  |
|---------------------------------------------|------------------|
| Sensor Type                                 | Receiver         |
| Supply Voltage                              | 19,2...28,8 V DC |
| Current Consumption (U <sub>b</sub> = 24 V) | ≤ 350 mA         |
| Response Time                               | 15 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              |
| Reverse Polarity Protection                 | yes              |
| Interface                                   | IO-Link V1.1     |
| Protection Class                            | III              |

### Mechanical Data

|                      |               |
|----------------------|---------------|
| Housing Material     | Aluminum      |
| Disc Material        | Polycarbonate |
| Degree of Protection | IP65/IP67     |
| Connection           | M12 × 1       |

### 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

|                    |                |
|--------------------|----------------|
| Body Protection    | yes            |
| Scope of Functions | Basic Function |
| IO-Link            | ●              |

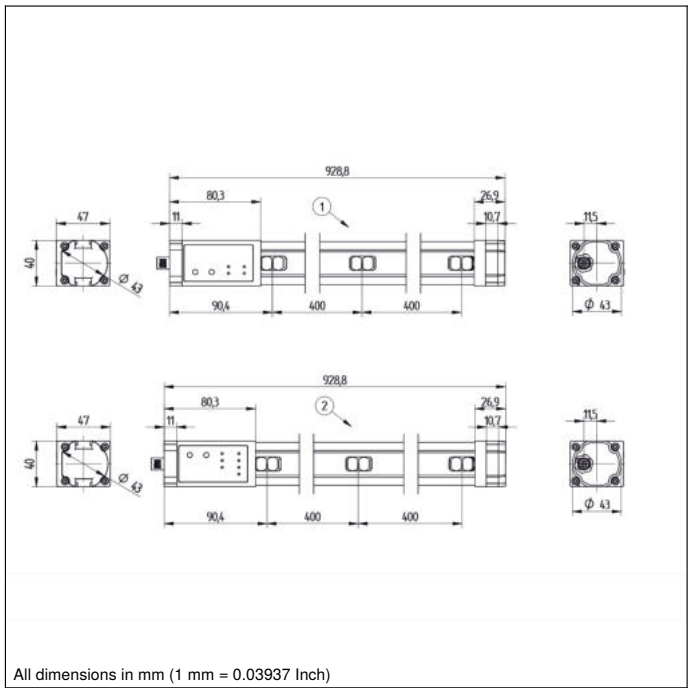
|                                   |             |
|-----------------------------------|-------------|
| Connection Diagram No.            | 1029        |
| Control Panel No.                 | A40         |
| Suitable Connection Equipment No. | 89          |
| Suitable Mounting Technology No.  | 860 870 880 |

## Suitable Emitter

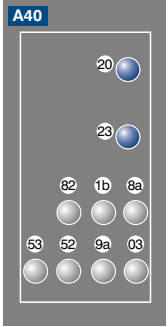
SEFB513

## Complementary Products

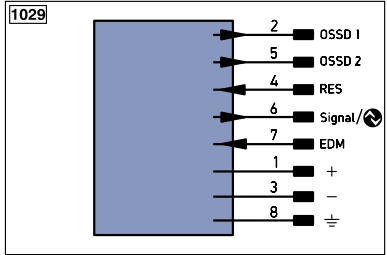
|                                                           |
|-----------------------------------------------------------|
| Connection Box for Muting Sensors                         |
| IO-Link Master                                            |
| Muting Sensor Set                                         |
| Path-Folding Mirror Z2UG001                               |
| Protection Column with Path-Folding Mirror SZ000EU125NN01 |
| Protection Column with Protective Screen Z2SS001          |
| Safety Relay SG4-00VA000R2, SR4B3B01S, SR4D3B01S          |
| Software                                                  |



### Ctrl. Panel



- 03 = Error Indicator
- 20 = Enter Button
- 22 = UP Button
- 23 = Down Button
- 52 = OSSD ON
- 53 = OSSD OFF
- 60 = Display
- 82 = Acknowledgement Request
- 9a = Weak signal



### Legend

|           |                                            |       |                                |
|-----------|--------------------------------------------|-------|--------------------------------|
| +         | Supply Voltage +                           | PT    | Platinum measuring resistor    |
| -         | Supply Voltage 0 V                         | nc    | not connected                  |
| ~         | Supply Voltage (AC Voltage)                | U     | Test Input                     |
| A         | Switching Output (NO)                      | U     | Test Input inverted            |
| Ā         | Switching Output (NC)                      | W     | Trigger Input                  |
| V         | Contamination/Error Output (NO)            | W-    | Ground for the Trigger Input   |
| Ṽ         | Contamination/Error Output (NC)            | O     | Analog Output                  |
| E         | Input (analog or digital)                  | O-    | Ground for the Analog Output   |
| T         | Teach Input                                | BZ    | Block Discharge                |
| Z         | Time Delay (activation)                    | AWV   | Valve Output                   |
| S         | Shielding                                  | a     | Valve Control Output +         |
| RxD       | Interface Receive Path                     | b     | Valve Control Output 0 V       |
| TxD       | Interface Send Path                        | SY    | Synchronization                |
| RDY       | Ready                                      | SY-   | Ground for the Synchronization |
| GND       | Ground                                     | E+    | Receiver-Line                  |
| CL        | Clock                                      | S+    | Emitter-Line                   |
| E/A       | Output/Input programmable                  | ⊕     | Grounding                      |
| IO-Link   | IO-Link                                    | SnR   | Switching Distance Reduction   |
| PoE       | Power over Ethernet                        | Rx+/- | Ethernet Receive Path          |
| IN        | Safety Input                               | Tx+/- | Ethernet Send Path             |
| OSSD      | Safety Output                              | Bus   | Interfaces-Bus A(+)/B(-)       |
| Signal    | Signal Output                              | La    | Emitted Light disengageable    |
| BL-D+/-   | Ethernet Gigabit bidirect. data line (A-D) | Mag   | Magnet activation              |
| EN0 RS422 | Encoder 0-pulse 0-0 (TTL)                  | RES   | Input confirmation             |
|           |                                            | EDM   | Contacting Monitoring          |

|                                    |                     |
|------------------------------------|---------------------|
| ENAR5422                           | Encoder A/Ā (TTL)   |
| EN0 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        |

