

# Safety Light Curtain

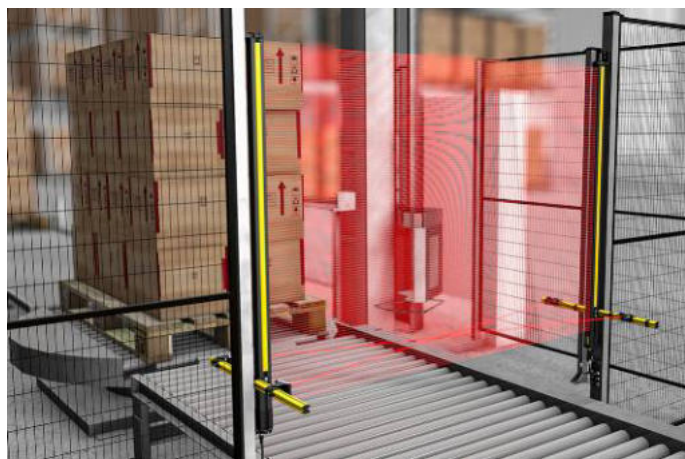
## Finger Protection

# SEFG540

Part Number



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 blanking and 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)                 | 1610 mm          |
| Safety Field Height (SFH)          | 1511 mm          |
| Resolution                         | 14 mm            |
| Light Source                       | Red Light        |
| Wavelength                         | 630 nm           |
| Opening Angle                      | ± 2,5 °          |
| Electrical Data                    |                  |
| Sensor Type                        | Emitter          |
| Supply Voltage                     | 19,2...28,8 V DC |
| Current Consumption (Ub = 24 V)    | ≤ 100 mA         |
| Response Time                      | 25,2 ms          |
| Temperature Range                  | -30...55 °C      |
| Storage temperature                | -30...70 °C      |
| Protection Class                   | III              |
| Mechanical Data                    |                  |
| Housing Material                   | Aluminum         |
| Disc Material                      | Polycarbonate    |
| Degree of Protection               | IP65/IP67        |
| Connection                         | M12 × 1; 5-pin   |
| 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 delivery                  | ZEFX001 mounting |
| IO-Link                            |                  |
| Connection Diagram No.             | 1031             |
| Control Panel No.                  | A38              |
| Suitable Connection Equipment No.  | 35               |
| Suitable Mounting Technology No.   | 860 870 880      |

## Suitable Receiver

SEFG640

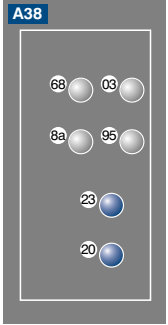
## Complementary Products

|                                                                      |
|----------------------------------------------------------------------|
| Protection column with Z2SU003 path-folding mirror                   |
| Protection columns with/without protective screen (Z2SS003/ Z2SM003) |
| Z0030 path-folding mirror                                            |

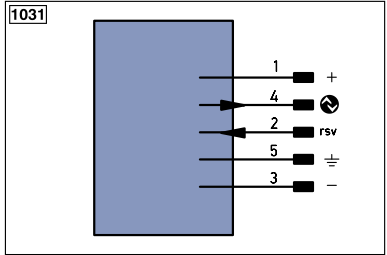


All dimensions in mm (1 mm = 0.03937 Inch)

### Ctrl. Panel



03 = Error Indicator  
68 = Supply Voltage Indicator  
8a = Coding  
95 = Diagnosis/Large Detection Range



### Legend

|           |                                            |       |                                |                                    |                     |
|-----------|--------------------------------------------|-------|--------------------------------|------------------------------------|---------------------|
| +         | Supply Voltage +                           | PT    | Platinum measuring resistor    | ENAR5422                           | Encoder A/Ā (TTL)   |
| -         | Supply Voltage 0 V                         | nc    | not connected                  | ENB5422                            | Encoder B/B̄ (TTL)  |
| ~         | Supply Voltage (AC Voltage)                | U     | Test Input                     | ENA                                | Encoder A           |
| A         | Switching Output (NO)                      | Ū     | Test Input inverted            | ENB                                | Encoder B           |
| Ā         | Switching Output (NC)                      | W     | Trigger Input                  | AMIN                               | Digital output MIN  |
| V         | Contamination/Error Output (NO)            | W-    | Ground for the Trigger Input   | AMAX                               | Digital output MAX  |
| Ū         | Contamination/Error Output (NC)            | O     | Analog Output                  | AOK                                | Digital output OK   |
| E         | Input (analog or digital)                  | O-    | Ground for the Analog Output   | SY in                              | Synchronization In  |
| T         | Teach Input                                | BZ    | Block Discharge                | SY OUT                             | Synchronization OUT |
| Z         | Time Delay (activation)                    | AMV   | Valve Output                   | OLT                                | Brightness output   |
| S         | Shielding                                  | a     | Valve Control Output +         | M                                  | Maintenance         |
| RxD       | Interface Receive Path                     | b     | Valve Control Output 0 V       | rsv                                | reserved            |
| TxD       | Interface Send Path                        | SY    | Synchronization                | Wire Colors according to IEC 60757 |                     |
| RDY       | Ready                                      | SY-   | Ground for the Synchronization | BK                                 | Black               |
| GND       | Ground                                     | E+    | Receiver-Line                  | BN                                 | Brown               |
| CL        | Clock                                      | S+    | Emitter-Line                   | RD                                 | Red                 |
| E/A       | Output/Input programmable                  | ⊕     | Grounding                      | OG                                 | Orange              |
| IO-Link   | IO-Link                                    | SnR   | Switching Distance Reduction   | YE                                 | Yellow              |
| PoE       | Power over Ethernet                        | Rx+/- | Ethernet Receive Path          | GN                                 | Green               |
| IN        | Safety Input                               | Tx+/- | Ethernet Send Path             | BU                                 | Blue                |
| OSSD      | Safety Output                              | Bus   | Interfaces-Bus A(+)/B(-)       | VT                                 | Violet              |
| Signal    | Signal Output                              | La    | Emitted Light disengageable    | GY                                 | Grey                |
| BI-D+/-   | Ethernet Gigabit bidirect. data line (A-D) | Mag   | Magnet activation              | WH                                 | White               |
| EN0 RS422 | Encoder 0-pulse 0-0 (TTL)                  | RES   | Input confirmation             | PK                                 | Pink                |
|           |                                            | EDM   | Contact Monitoring             | GNYE                               | Green/Yellow        |

