

# Safety Light Curtain

## Hand Protection

# SEMG514

Part Number



- Easy configuration via wiring
- Protection field over the entire length of the housing for an installation without protrusion
- Quick alignment through visible red light
- Slim design for easy integration

These safety light curtains complete all basic tasks with ease. The basic functions of safety operating mode, restart inhibit and contactor monitoring are integrated as standard and can be easily configured. Without protrusion, the safety field always extends to the end of the housing. This makes it easy to secure even in confined installation conditions.



## Technical Data

### Optical Data

|                           |             |
|---------------------------|-------------|
| Range                     | 0,25...14 m |
| Housing Length (L)        | 611 mm      |
| Safety Field Height (SFH) | 626 mm      |
| Resolution                | 30 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 (U <sub>b</sub> = 24 V) | 75 mA            |
| Temperature Range                           | -25...55 °C      |
| Storage temperature                         | -25...60 °C      |
| Reverse Polarity Protection                 | yes              |
| Protection Class                            | III              |

### Mechanical Data

|                      |                  |
|----------------------|------------------|
| Housing Material     | Aluminum         |
| Disc Material        | Polycarbonate    |
| Degree of Protection | IP65/IP67        |
| Connection           | M12 × 1; 4/5-pin |
| Cable Length         | 300 mm           |

### 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

|                    |                |
|--------------------|----------------|
| Hand Protection    | yes            |
| Scope of functions | Basic function |

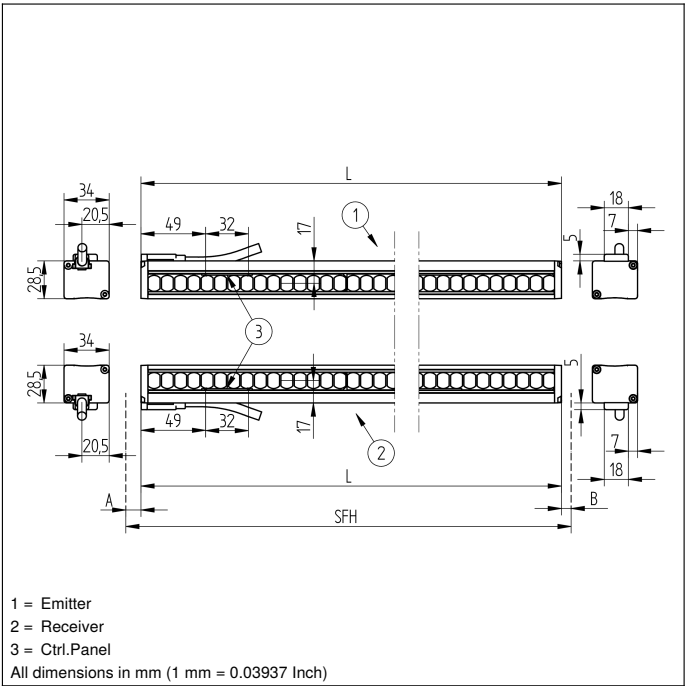
|                                   |                 |
|-----------------------------------|-----------------|
| Connection Diagram No.            | 362             |
| Control Panel No.                 | SR4             |
| Suitable Connection Equipment No. | 2 35            |
| Suitable Mounting Technology No.  | 701 790 810 820 |

## Suitable Receiver

SEMG614

## Complementary Products

|                                                           |
|-----------------------------------------------------------|
| Path-Folding Mirror Z2UG002                               |
| Protection Column with Path-Folding Mirror SZ000EU125NN01 |
| Protection Column with Protective Screen SZ000EG125NN01   |
| Protection column with protective screen Z2SS001          |
| Protection column with Z2SU001 deflection mirror          |
| Software                                                  |

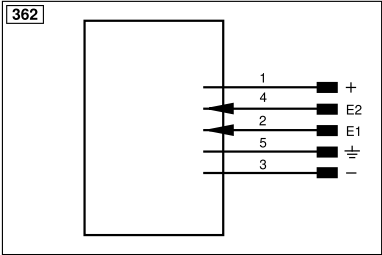


**Ctrl. Panel**

**SR4**

- 64
- 94
- 94
- 95
- 03
- 04

- 03 = Error Indicator
- 04 = Function Indicator
- 64 = Diagnosis/Test
- 94 = Diagnosis
- 95 = Diagnosis/Large Detection Range



| 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  |  |  |
| Ā         | 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   |                                            | 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 0/0 (TTL)                  | EDM       | Contact Monitoring             | GNYE                                   | Green/Yellow        |  |  |
| PT        | Platinum measuring resistor                | ENARIS422 | Encoder A/A (TTL)              |                                        |                     |  |  |

