

Safety Light Curtain Set

Finger Protection

SEMG437

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 confidently solve all basic tasks. The basic function protection mode, restart inhibit and protection monitoring are standard and can be easily configured. The protective field always extends up to the end of the housing without protrusion. As a result, protection is easily provided even in confined installation conditions. The adequate mounting angle ZEMX001 is included in the delivery.



Technical Data

| Optical Data | |
|---------------------------|------------|
| Range | 0,25...6 m |
| Housing Length (L) | 1060 mm |
| Safety Field Height (SFH) | 1061 mm |
| Resolution | 14 mm |
| Light Source | Red Light |
| Wave Length | 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 | 16,5 ms |
| Temperature Range | -25...55 °C |
| Storage temperature | -25...60 °C |
| No. Safety Outputs (OSSDs) | 2 |
| Safety Output Voltage Drop | < 2,3 V |
| PNP Safety Output/Switching Current | 300 mA |
| 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 |
| Protection Class | III |

| Mechanical Data | |
|----------------------|---------------|
| Housing Material | Aluminum |
| Disk Material | Polycarbonate |
| Degree of Protection | IP65/IP67 |
| Connection | M12 × 1 |
| Cable Length | 300 mm |

| Safety-relevant Data | |
|------------------------------------|----------------|
| ESPE Type (EN 61496) | 4 |
| Safety Category (EN ISO 13849-1) | 4 |
| Performance Level (EN ISO 13849-1) | PL e |
| PFHD | 1,60 × E-8 1/h |
| Service Life TM (EN ISO 13849-1) | 20 a |
| Safety Integrity Level (EN 61508) | SIL3 |
| Safety Integrity Level (EN 62061) | SILCL3 |

| Function | |
|-----------------------|-----|
| Finger Protection | yes |
| Restart Inhibit | yes |
| Safety Operating Mode | yes |
| Contactor Monitoring | yes |

| | |
|---------------------------------------|------------------|
| Scope of delivery | Mounting ZEMX001 |
| Scope of delivery (Emitter; Receiver) | SEMG537; SEMG637 |

| | | | |
|------------------------------------|------------|------------|------------|
| Connection Diagram No. | 361 | 362 | |
| Control Panel No. | SR4 | SR5 | |
| Suitable Connection Technology No. | 35 | 89 | |
| Suitable Mounting Technology No. | 790 | 810 | 820 |

Complementary Products

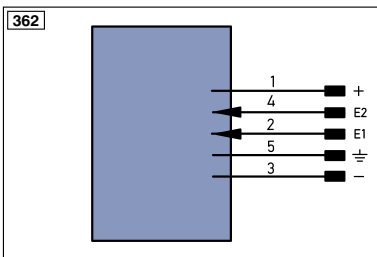
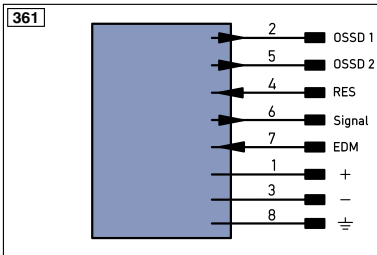
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|---|
| Path-Folding Mirror Z2UG003 |
| Protection Column with Path-Folding Mirror SZ000EU125NN01 |
| Protection Column with Protective Screen SZ000EG125NN01 |
| Safety Relay SG4-00VA000R2, SR4B3B01S, SR4D3B01S |
| Software |



Ctrl. Panel



- 03 = Error Indicator
- 04 = Function Indicator
- 52 = OSSD ON
- 53 = OSSD OFF
- 64 = Diagnosis/Test
- 82 = Acknowledgement Request
- 94 = Diagnosis
- 95 = Diagnosis/Large Detection Range
- 96 = Diagnosis/Signal weak
- 97 = Diagnosis/Contactor Monitoring
- 98 = Diagnosis/Synchronization



Legend

| | | | | | |
|-----------|--|---------------------------|------------------------------|--------|---------------------|
| + | Supply Voltage + | PT | Platinum measuring resistor | ENa | Encoder A |
| - | Supply Voltage 0 V | nc | not connected | ENb | Encoder B |
| ~ | Supply Voltage (AC Voltage) | U | Test Input | AMIN | Digital output MIN |
| A | Switching Output (NO) | U | Test Input inverted | AMAX | Digital output MAX |
| Ā | Switching Output (NC) | W | Trigger Input | AOK | Digital output OK |
| V | Contamination/Error Output (NO) | O | Analog Output | SY In | Synchronization In |
| ṽ | Contamination/Error Output (NC) | O- | Ground for the Analog Output | SY OUT | Synchronization OUT |
| E | Input (analog or digital) | BZ | Block Discharge | Out | Brightness output |
| T | Teach Input | AW | Valve Output | M | Maintenance |
| Z | Time Delay (activation) | a | Valve Control Output + | | |
| S | Shielding | b | Valve Control Output 0 V | | |
| RxD | Interface Receive Path | SY | Synchronization | | |
| TxD | Interface Send Path | E+ | Receiver-Line | | |
| RDY | Ready | S+ | Emitter-Line | | |
| GND | Ground | $\frac{\square}{\square}$ | Grounding | | |
| CL | Clock | SnR | Switching Distance Reduction | | |
| E/A | Output/Input programmable | Rx+/- | Ethernet Receive Path | | |
| | IO-Link | Tx+/- | Ethernet Send Path | | |
| PoE | Power over Ethernet | Bus | Interfaces-Bus A(+)/B(-) | | |
| IN | Safety Input | La | Emitted Light disengageable | | |
| OSSD | Safety Output | Mag | Magnet activation | | |
| Signal | Signal Output | RES | Input confirmation | | |
| Bl..D+/- | Ethernet Gigabit bidirect. data line (A-D) | EDM | Contactor Monitoring | | |
| EN0..5422 | Encoder 0-pulse 0-0 (TTL) | ENAR5422 | Encoder A/Ā (TTL) | | |
| | | ENBR5422 | Encoder B/B̄ (TTL) | | |

Wire Colors according to DIN IEC 757

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

