

# SLSP14-300Q88

## Light Screen for Machine Safety Applications – Emitter/Receiver Pair



### Technical data

|                                      |                                   |
|--------------------------------------|-----------------------------------|
| Type                                 | SLSP14-300Q88                     |
| ID                                   | 3072380                           |
| <b>Optical data</b>                  |                                   |
| Function                             | Light screen                      |
| Light type                           | IR                                |
| Wavelength                           | 950 nm                            |
| Optical resolution                   | 14 mm                             |
| Range                                | 100...6000 mm                     |
| Scan field                           | 300 mm                            |
| Number of beams                      | 40                                |
| With muting function                 | no                                |
| Scan Code                            | Adjustable                        |
| <b>Electrical data</b>               |                                   |
| Operating voltage                    | 20...28 VDC                       |
| Residual ripple                      | < 10 % U <sub>ss</sub>            |
| DC rated operational current         | ≤ 375 mA                          |
| No-load current                      | ≤ 275 mA                          |
| Max. current safe output             | 500 mA                            |
| Short-circuit protection             | yes                               |
| Reverse polarity protection          | yes                               |
| Output function                      | 2 x NC (normally closed), 2 x PNP |
| Current output                       | 0...500 mA                        |
| Number of safe semiconductor outputs | 2                                 |
| Response time typical                | < 15 ms                           |
| With restart interlock               | yes                               |
| Blanking function                    | yes                               |

### Features

- Emitter with male M12 × 1, 8-pin
- Receiver with male M12 × 1, 8-pin
- Blanking function
- Protection class IP65
- Adjustment via DIP switch
- Operating voltage 24 VDC ±15 %
- Resolution 14 mm
- Scan field 300 mm
- All devices incl. 2 EZA-MBK-11 mounting brackets; 900 mm devices and longer additionally incl. 1 EZA-MBK-12
- Personnel safety Cat 4, PL e acc. to EN ISO 13849-1:2008
- Type 4 according to IEC 61496-1,-2
- SIL 3 to IEC 61508

### Wiring diagram



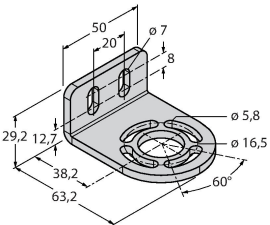
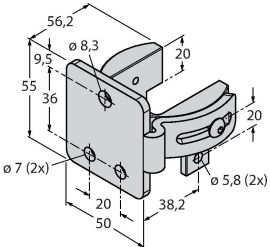
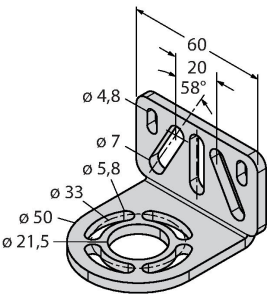
Technical data

| Mechanical data       |                             |
|-----------------------|-----------------------------|
| Design                | Rectangular, EZ-Screen      |
| Dimensions            | 45 x 36 x 372 mm            |
| Housing material      | Metal, AL, Yellow polyester |
| Lens                  | plastic, Acrylic            |
| Cascadable            | No                          |
| Electrical connection | Connector, M12 x 1          |
| Number of cores       | 8                           |
| Ambient temperature   | 0...+50 °C                  |
| Protection class      | IP65                        |
| Power-on indication   | LED, Green                  |
| Switching state       | 2-color LED, Red            |
| Tests/approvals       |                             |
| Vibration resistance  | 10-55 Hz at 0.35 mm         |
| Shock test            | 10 g at 16 ms (6000 cycles) |
| Approvals             | CE, cULus listed            |

Functional principle

The high-resolution safety light screen for personnel protection consists of an emitter and a receiver. The system is optically synchronized, making the wiring between emitter and receiver redundant. The receiver's safety switching outputs are directly connected to a load relay and trigger an immediate stop of the dangerous machine cycle. Personnel safety degree type 4 acc. to IEC 61496 is fulfilled through 2 channel monitoring of the switching device and the multiple-redundant construction with mutual processor control.

Accessories

|                                                                                     |                                                                                                     |                                                                                      |                                                                                                     |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| EZA-MBK-11                                                                          | 3071470                                                                                             | EZA-MBK-12                                                                           | 3071756                                                                                             |
|  | Mounting bracket, steel, black-finished, for EZ-ARRAY and EZ-SCREEN standard and cascade 14 & 30 mm |  | Mounting bracket, steel, black-finished, for EZ-ARRAY and EZ-SCREEN standard and cascade 14 & 30 mm |
| EZA-MBK-20                                                                          | 3072587                                                                                             |                                                                                      |                                                                                                     |
|  | Mounting bracket, steel, black-finished, for EZ-ARRAY and EZ-SCREEN standard 14 & 30 mm             |                                                                                      |                                                                                                     |

Accessories

| Dimension drawing                                                                   | Type     | ID      |                                                                                                          |
|-------------------------------------------------------------------------------------|----------|---------|----------------------------------------------------------------------------------------------------------|
|  | QDE-815D | 3070883 | Connection cable for safety light screens, PVC, yellow, length 4.57 m, female connection, M12 x 1, 8-pin |

| Dimension drawing                                                                 | Type            | ID      |                                                                                                                            |
|-----------------------------------------------------------------------------------|-----------------|---------|----------------------------------------------------------------------------------------------------------------------------|
|  | QDE-825D        | 3070884 | Connection cable for safety light screens, PVC, yellow, length 7.62 m, female connection, M12 x 1, 8-pin                   |
|  | QDE-850D        | 3070885 | Connection cable for safety light screens, PVC, yellow, length 15.3 m, female connection, M12 x 1, 8-pin                   |
|  | QDE-875D        | 3071466 | Connection cable for safety light screens, PVC, yellow, length 22.9 m, female connection, M12 x 1, 8-pin                   |
|  | QDE-8100D       | 3071467 | Connection cable for safety light screens, PVC, yellow, length 30.5 m, female connection, M12 x 1, 8-pin                   |
|                                                                                   | DEE2R-81D       | 3072205 | Connection cable, PVC, yellow, length: 0.31 m, female M12 x 1 - male M12, 8-pin                                            |
|                                                                                   | DEE2R-83D       | 3072206 | Connection cable, PVC, yellow, length: 0.91 m, female M12 x 1 - male M12, 8-pin                                            |
|                                                                                   | DEE2R-88D_      | 3072635 | Connection cable, PVC, yellow, length: 2.44 m, female M12 x 1 - male M12, 8-pin                                            |
|                                                                                   | DEE2R-815D      | 3072207 | Connection cable, PVC, yellow, length: 4.57 m, female M12 x 1 - male M12, 8-pin                                            |
|                                                                                   | DEE2R-825D      | 3072208 | Connection cable, PVC, yellow, length: 7.62 m, female M12 x 1 - male M12, 8-pin                                            |
|                                                                                   | DEE2R-850D      | 3072209 | Connection cable, PVC, yellow, length: 15.2 m, female M12 x 1 - male M12, 8-pin                                            |
|                                                                                   | DEE2R-875D      | 3072210 | Connection cable, PVC, yellow, length: 22.9 m, female M12 x 1 - male M12, 8-pin                                            |
|                                                                                   | DEE2R-8100D     | 3072211 | Connection cable, PVC, yellow, length: 30.5 m, female M12 x 1 - male M12, 8-pin                                            |
|                                                                                   | CSB-M1280M1280  | 3075375 | Y-piece, PVC, yellow, with male M12 x 1, 8-pin on 2 x 0.3 m cable, PVC, yellow, with female M12 x 1, 8-pin                 |
|                                                                                   | CSB-M1281M1281  | 3073252 | Y-piece, PVC, yellow, length: 0.3 m with male, M12 x 1, 8-pin on 2 x 0.3 m cable, PVC, yellow, with female, M12 x 1, 8-pin |
|                                                                                   | CSB-M1288M1281  | 3073253 | Y-piece, PVC, yellow, length: 2.5 m with male, M12 x 1, 8-pin on 2 x 0.3 m cable, PVC, yellow, with female, M12 x 1, 8-pin |
|                                                                                   | CSB-M12815M1281 | 3073254 | Y-piece, PVC, yellow, length: 4.6 m with male, M12 x 1, 8-pin on 2 x 0.3 m cable, PVC, yellow, with female, M12 x 1, 8-pin |
|                                                                                   | CSB-M12825M1281 | 3073255 | Y-piece, PVC, yellow, length: 7.6 m with male, M12 x 1, 8-pin on 2 x 0.3 m cable, PVC, yellow, with female, M12 x 1, 8-pin |

| Dimension drawing | Type      | ID      |                                                                                                                  |
|-------------------|-----------|---------|------------------------------------------------------------------------------------------------------------------|
|                   | DEE2R-88D | 3094306 | Connection cable, PVC, yellow, length: 2.44 m, M12 × 1 female connector, 8-pin, on M12 × 1 male connector, 8-pin |