

# SGSSP2-500Q88

## Safety Technology – Multi-Beam Safety Light Curtain

### Emitter/Receiver

#### Technical data

|                              |                                     |
|------------------------------|-------------------------------------|
| Type                         | SGSSP2-500Q88                       |
| ID no.                       | 3803217                             |
| <b>Optical data</b>          |                                     |
| Function                     | Light screen                        |
| Light type                   | IR                                  |
| Wavelength                   | 950 nm                              |
| Optical resolution           | 500 mm                              |
| Range                        | 0.5...30                            |
| Scan field                   | 500 mm                              |
| Number of beams              | 2                                   |
| With muting function         | no                                  |
| Scan Code                    | Adjustable                          |
| <b>Electrical data</b>       |                                     |
| Operating voltage            | 19.2...28.8 VDC                     |
| DC rated operational current | ≤ 500 mA                            |
| Max. current safe output     | 0.5 mA                              |
| Short-circuit protection     | yes                                 |
| Reverse polarity protection  | yes                                 |
| Output function              | 2 × OSSD, NO contacts, PNP          |
| Protection class             | III                                 |
| Response time typical        | < 12 ms                             |
| <b>Mechanical data</b>       |                                     |
| Design                       | Rectangular, SGS Safety Grid System |
| Dimensions                   | 56.9 x 52 x 606.35 mm               |
| Housing material             | Metal, AL, Yellow polyester         |
| Pollution degree             | 2                                   |
| Lens                         | plastic, PMMA                       |
| Electrical connection        | Connectors, M12 × 1                 |
| Number of cores              | 8 Receiver, 8 Emitter               |
| Ambient temperature          | 0...+55 °C                          |
| Storage temperature          | -25...+70 °C                        |
| Relative humidity            | 15...95 %                           |
| Protection class             | IP65                                |
| Power-on indication          | LED, Green                          |
| <b>Tests/approvals</b>       |                                     |
| Vibration resistance         | 10-55 Hz bei 0,35 mm                |

#### Features

- Emitter/receiver pair
- Light beams: 2
- Resolution: 500 mm
- Receiver: M12 male connector, 8-pin
- Emitter: M12 male connector, 8-pin
- Scan codes, automatic/manual — start/restart, EDM
- Range: 30 m
- Operating voltage 24 VDC ±20 %
- Scan field: 500 mm
- SIL 3 (IEC 61508)
- PL e (ISO 13849-1)

#### Functional principle

The SGS multi-beam safety light barrier is a two-part system consisting of a transmitter and receiver unit.

The models are available in 2-beam (500 mm resolution), 3-beam (400 mm resolution) or 4-beam (300 mm and 400 mm resolution) versions.

The detection range extends from 0.5 m to 30 m (long-range models up to 60 m) and is reduced when using deflection mirrors.

The SGS system can be configured for trip output (automatic start/restart) or latch output (manual start/restart).

If the light beams are interrupted, two redundant safety outputs (OSSDs) switch off. Both the transmitter and receiver have 7-segment diagnostic indicators and individual LEDs for continuous indication of the operating status, configuration and error conditions.

## Technical data

|                                      |                              |
|--------------------------------------|------------------------------|
| Shock test                           | 10 g bei 16 ms (6000 Zyklen) |
| PL acc. to DIN EN 13849-1:2008       | e                            |
| Category acc. to DIN EN 13849-1:2008 | 4                            |
| SIL according IEC 61508              | 3                            |
| Useful Lifetime                      | 20 years                     |