SGSSA4-300Q8
Safety Technology – Multi-Beam Safety Light Curtain Transceiver

Technical data

Type	SGSSA4-300Q8
ID	3803231
Optical data	
Function	Light screen
Light type	IR
Wavelength	950 nm
Optical resolution	300 mm
Range	500…6500 mm
Scan field	900 mm
Number of beams	4
With muting function	no
Scan Code	None
Electrical data	
Operating voltage	19.2…28.8 VDC
DC rated operational current	≤ 500 mA
Max. current safe output	500 mA
Short-circuit protection	yes
Reverse polarity protection	yes
Output function	2 × OSSD, NO contacts, PNP
Protection class	III
Response time typical	< 12 ms
Mechanical data	
Design	Rectangular, SGS Safety Grid System
Dimensions	56.9 x 52 x 1006.35 mm
Housing material	Metal, AL, Yellow polyester
Pollution degree	2
Lens	plastic, PMMA
Electrical connection	Connector, M12 × 1
Number of cores	8
Ambient temperature	0…+55 °C
Storage temperature	-25…+70 °C
Relative humidity	15…95 %
Protection class	IP65
Power-on indication	LED, Green
Tests/approvals	
Vibration resistance	10-55 Hz bei 0,35 mm

Features

- Active emitter/receiver element
- Light beams: 4
- Resolution: 300 mm
- M12 male connector, 8-pin QD
- Scan codes, automatic/manual — start/restart, EDM
- Requires passive reflector element SGSB4-300
- Range: 6.5 m
- Operating voltage 24 VDC ±20 %
- Scan field: 900 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 an active transmitter/receiver unit and a passive reflector unit.
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 6.5 m (8 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.
The transceiver has a 7-segment diagnostic indicator 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

Accessories

Dimension drawing	Type	ID
	SGSB4-300	3803239