SGSMP4-300Q128
Safety Technology – Multi-Beam Safety Light Curtain Emitter/Receiver

Technical data

Type	SGSMP4-300Q128
ID no.	3803227
Optical data	
Function	Light screen
Light type	IR
Wavelength	950 nm
Optical resolution	300 mm
Range	0.5…30
Scan field	900 mm
Number of beams	4
With muting function	yes
Scan Code	Adjustable
Electrical data	
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	< 14 ms
Mechanical data	
Design	Rectangular, SGS Safety Grid System
Dimensions	56.9 x 52 x 1000.35 mm
Housing material	Metal, AL, Yellow polyester
Pollution degree	2
Lens	plastic, PMMA
Electrical connection	Connectors, M12 × 1
Number of cores	12 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
Tests/approvals	
Vibration resistance	10-55 Hz bei 0,35 mm

Features

- Emitter/receiver pair
- Light beams: 4
- Resolution: 300 mm
- Receiver: M12 male connector, 12-pin and 5-pin (muting sensor)
- Emitter: M12 male connector, 8-pin
- Scan codes, automatic/manual — start/restart, integrated muting, EDM
- Range: 30 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 with integrated muting 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.
The connected sensors are monitored redundantly via the separate muting sensor connection at the receiver and automatically interrupt the protective function of the multi-beam safety light barrier during the safe part of the machine cycle.
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