

Description

- 0-2,5 m sensing range
- 74 to 194 cross scanning beams
- Active height of 695 mm to 1800 mm
- Detector length 890 mm to 2000 mm
- Plug connection, 3 pin M8 connector
- Automatic sensitivity adjustment
- Slim line (10x28 mm) partially moulded or water-resistant slim line (12x30 mm) detector housing
- Power, output and system status indicators
- 12-36 V dc supply voltage
- PNP transistor output
- Test input
- Time-out function
- Static and dynamic applications
- Compliant with railway norms acc. EN 50155 and EN 50121-3-2



The SG 05 light curtain system, designed for the railway and transportation door industry, consists of a self-contained transmitter SGT and receiver, SGR, which are to be positioned opposite of each other. The detectors are housed in a sturdy aluminium profile available in a 10 x 28 mm slim line design with partial epoxy moulding (AM) or 12 x 30 mm water-resistant slim line design (C).

The SGR is supplied with a 12-36 V dc power supply with a PNP transistor output for both output status and time-out status. The test input in the SGT may be used for either disabling or enabling the transmitting power temporarily for test purposes.

The light curtains also include a time-out function which allows up to 5 beams to be automatically ignored if permanently obstructed for

20 seconds or more. If the time-out mode is activated, then it will be indicated by a pulse sequence alarm on the signal output.

The advanced automatic signal-tracking (AST) feature ensures that no onsite set up or adjustments are required. The signal level of each channel is adjusted automatically compensating for misalignment and contamination during operation. Transmitter and receiver are optically synchronised. The system can be used both in static and dynamic installations.

Both the transmitter and receiver detectors are protected against reverse polarity of power supplies, control input and output signals. The output is also protected against short circuit and inductive loads.

Technical Data

			SGT	SGR
Supply voltage			12-36 V dc	
Current consumption			Max. 100 mA	50 mA
Output rating			–	200 mA
Short circuit protected			–	Yes
Reverse polarity protected			Yes	
Light source			Infrared (940 nm)	–
Number of channels (diodes per detector)			16, 24, 32 or 40	
Number of cross scanning beams			74, 114, 154 or 194	
Active height			695, 1065, 1430 or 1800 mm	
Channel spacing			46 mm	
Bottom spacing Ch 1			25 mm	
Pinch point beam spacing			23 mm	
Response time			–	< 80 ms
Power on indicator			Green LED	
Output indicator			–	Yellow LED
System status / Time-out indicator			–	Red LED
Time-out function			Up to 5 beams	
Housing dimensions (w x d)	Slim Line	AM	10 x 28 mm	
	Slim Line	C	12 x 30 mm	
Housing material	Profile		Aluminium (black anodised)	
	Lens cover		Polycarbonate	
Connection			3 pin, M8 plug	

Environmental Data

Light immunity @ 5° incidence		100 000 lux
Temperature, operation		-20 to +65 °C
Temperature, storage		-40 to +80 °C
Sealing class	AM housing	IP 54
	C housing	IP 67
Approvals		CE
		EN 50155, EN 50121-3-2 (EMC) and IEC 61373 §8, §9, §10 (environment)

Available Types

Slim Line AM

	Housing Length	Active Height	Number of Channels	Number of Beams	Beam Spacing	Connection		3 pin, M8 plug	Range
						Output		Order Reference	
Transmitter	890 mm	695 mm	16	74	46 mm	-	-	SGT 05-089-016C-A1-AM-01-T3	2,5 m
	1270 mm	1065 mm	24	114				SGT 05-127-024C-A1-AM-01-T3	
	1600 mm	1430 mm	32	154				SGT 05-160-032C-A1-AM-01-T3	
	2000 mm	1800 mm	40	194				SGT 05-200-040C-A1-AM-01-T3	
Receiver	890 mm	695 mm	16	74	46 mm	PNP	NC	SGR 05-089-016C-A1-AM-62-T3	0-2,5 m
	1270 mm	1065 mm	24	114				SGR 05-127-024C-A1-AM-62-T3	
	1600 mm	1430 mm	32	154				SGR 05-160-032C-A1-AM-62-T3	
	2000 mm	1800 mm	40	194				SGR 05-200-040C-A1-AM-62-T3	

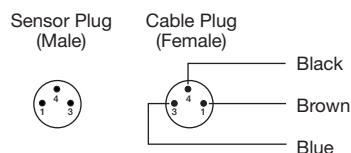
Slim Line C

	Housing Length	Active Height	Number of Channels	Number of Beams	Beam Spacing	Connection		3 pin, M8 plug	Range
						Output		Order reference	
Transmitter	890 mm	695 mm	16	74	46 mm	-	-	SGT 05-089-016C-A1-C-01-T3	2,5 m
	1270 mm	1065 mm	24	114				SGT 05-127-024C-A1-C-01-T3	
	1650 mm	1430 mm	32	154				SGT 05-165-032C-A1-C-01-T3	
	2000 mm	1800 mm	40	194				SGT 05-200-040C-A1-C-01-T3	
Receiver	890 mm	695 mm	16	74	46 mm	PNP	NC	SGR 05-089-016C-A1-C-62-T3	0-2,5 m
	1270 mm	1065 mm	24	114				SGR 05-127-024C-A1-C-62-T3	
	1650 mm	1430 mm	32	154				SGR 05-165-032C-A1-C-62-T3	
	2000 mm	1800 mm	40	194				SGR 05-200-040C-A1-C-62-T3	

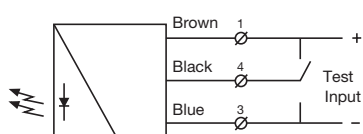
Note: 1. The transmitter SGT and receiver SGR set must have the same number of channels.

Connections

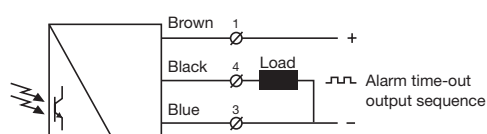
	M8 Plug / Cable	3 pin, M8	
Supply +	Pin 1 / Brown	Sensor Plug (Male)	Cable Plug (Female)
Supply -	Pin 3 / Blue		
PNP Output (SGR)	Pin 4 / Black		
Test Input (SGT)	Pin 4 / Black		



Wiring Diagrams



SGT 05

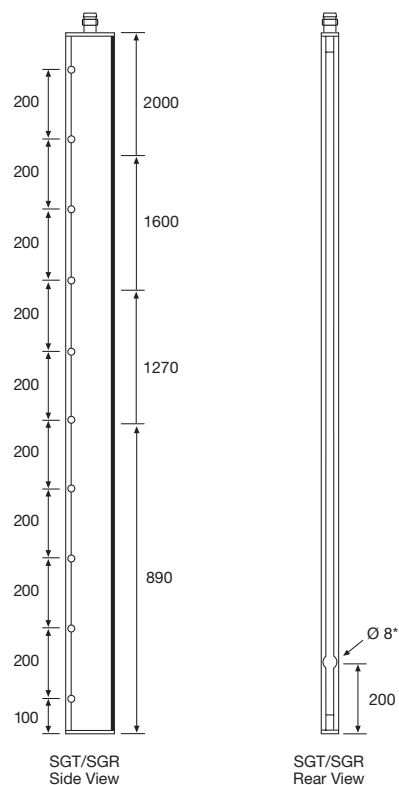
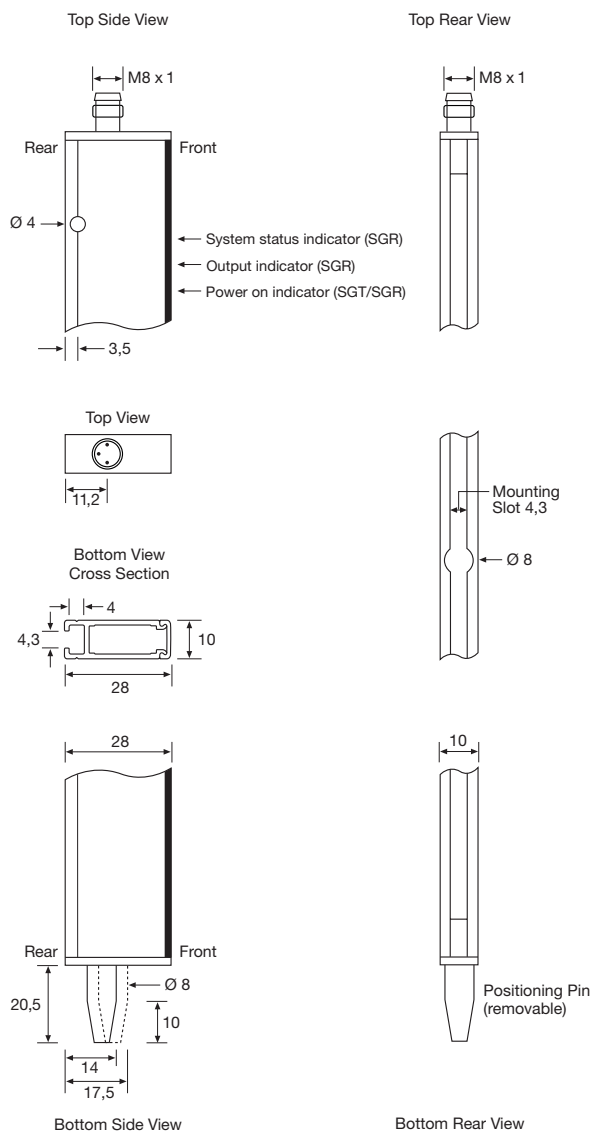


SGR 05

Dimensions and Descriptions

Slim Line AM

Details



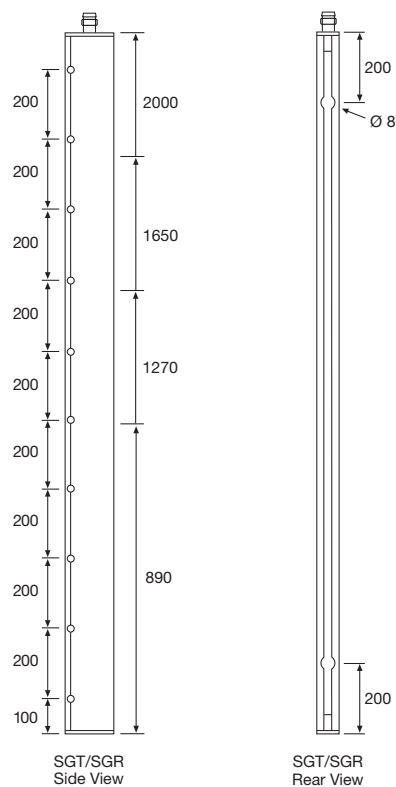
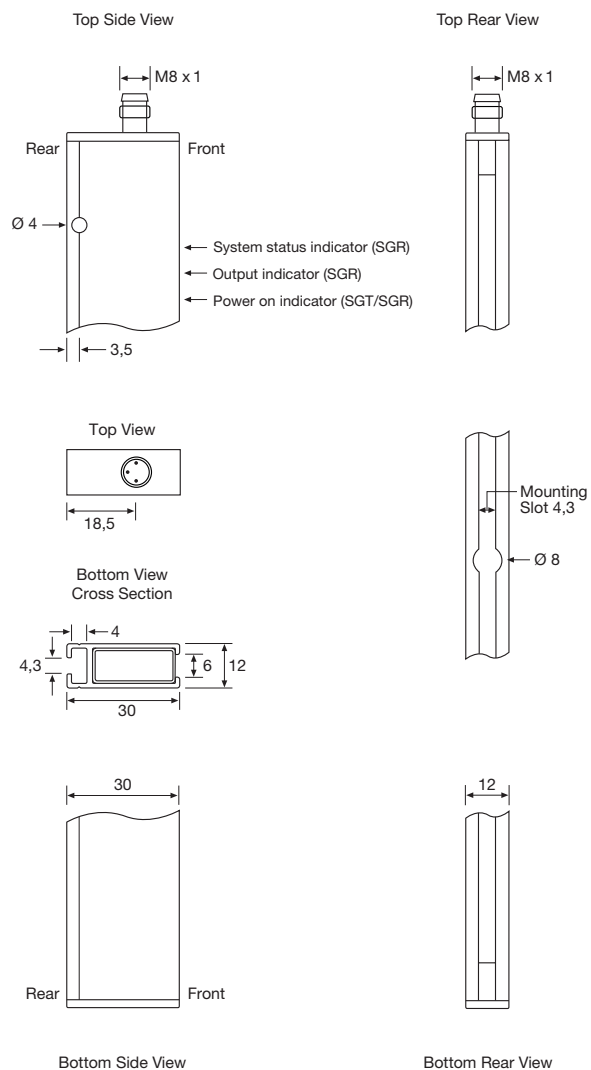
* On the 2000 mm length version, the slot hole is located at the centre of the profile

(Units in mm)

Dimensions and Descriptions

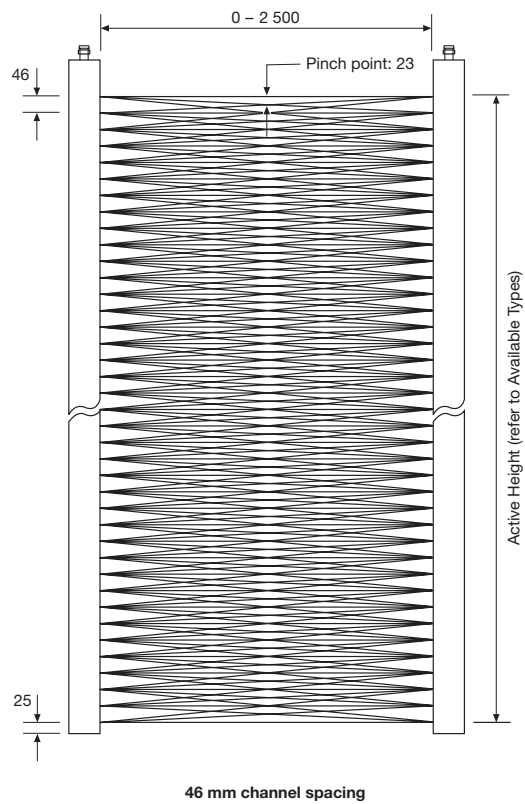
Water-Resistant Slim Line C

Details



(Units in mm)

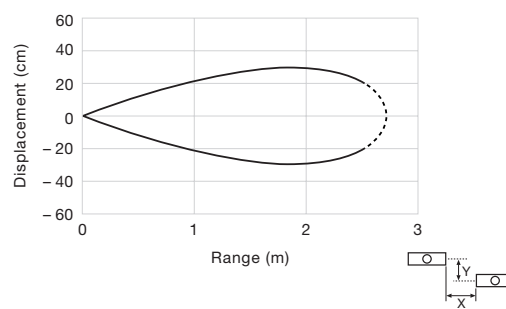
Beam Patterns



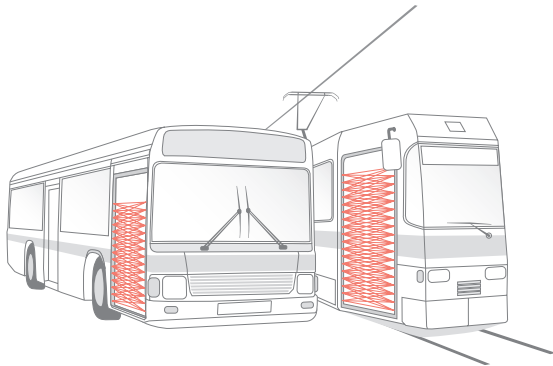
(Units in mm)

Sensing Characteristics

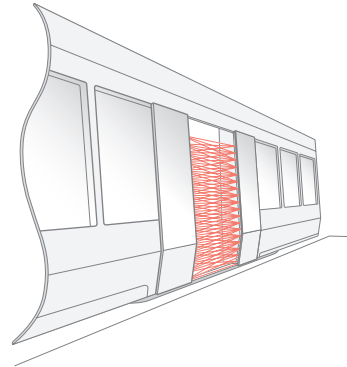
Parallel Displacement



Applications



PUBLIC TRANSPORTATION
Bus and Trams



PUBLIC TRANSPORTATION
Trains

Telco reserves the right to change specifications without notice.