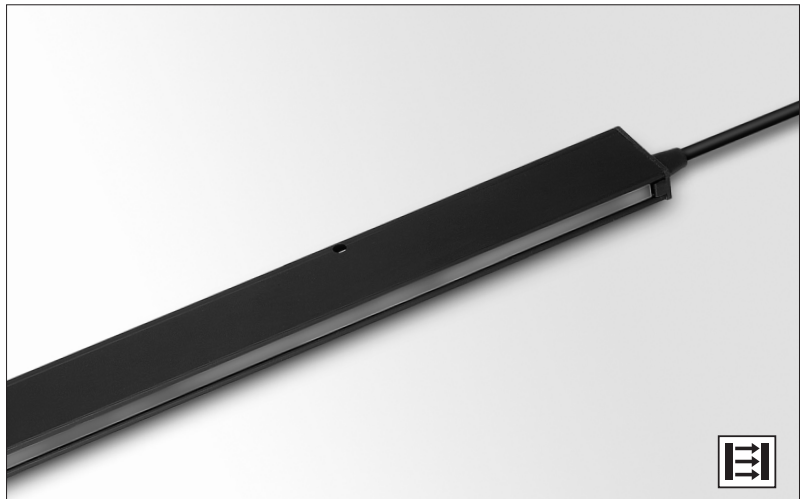


Description

- 1-10 metre sensing range
- 16 to 56 parallel beams
- Active height of 695 mm to 2535 mm
- Detector length of 850 mm to 2800 mm
- Cable or plug connection
- Automatic sensitivity adjustment
- Weather resistant, slim line (12 x 30 mm) detector housing
- Power, output and signal status indicators
- 12 – 36 V dc supply voltage
- Dynamic blanking function
- 5 wire, solid state relay output
- Test input



The SG 14 light curtain system consists of a self-contained transmitter detector, SGT and receiver detector, SGR, which are to be positioned opposite of each other. The detectors are housed in a weather resistant, aluminium profile available in a slim line design (12 x 30 mm).

The SGR is supplied with a 12 – 36 V dc power supply with a 5 wire, solid state relay output, with wire selectable dynamic blanking function. The test input in the SGT may be used for either disabling or enabling the transmitting power temporarily for test purposes.

The advanced automatic signal-tracking (AST) feature ensures that no onsite set up or adjustments are required. The signal level of each individual channel is adjusted automatically, which compensates for misalignment and contamination during operation.

The SG 14 series features the Dynamic Blanking Function which allows the detectors to be positioned in the guide tracks of an industrial door, where the door travels directly in front of the protection area, interrupting the beams sequentially from top to bottom. The special feature ensures that the system can distinguish between the closing door and an object by ignoring the beams that are interrupted by the moving door whilst leaving the remaining beams active to detect an object in the protection area.

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. 70 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, 40, 48 or 56	
Number of parallel beams	16, 24, 32, 40, 48 or 56	
Active height	695, 1065, 1430, 1800, 2165 or 2535 mm	
Channel spacing	Between channel 1 and bottom of housing: 25 mm Between other channels: 46 mm	
Response time	–	< 49 ms
Maximum / minimum blanking speed	1,6 m/s / 0.05 m/s	
Power on indicator	Green LED	
Output indicator	–	Yellow LED
System status indicator	–	Red LED
Connection	5 m fixed cable or 5 pin, M12 plug	
Housing dimensions (w x d)	12 x 30 mm	
Housing material	Aluminium	
Housing colour	Black anodized	
Front cover	Infrared transparent plastic	

Environmental Data

Light immunity @ 5° incidence	> 100 000 lux
Temperature, operation	-20 to +65 °C
Temperature, storage	-40 to +80 °C
Sealing class	IP 67
Approvals	CE

Available Types

	Housing Length	Active Height	Number of Channels	Beam Spacing	Connection		5 m cable	0.5 m cable with 5 pin, M12 plug
					Output		Order reference	
Transmitter Detector	850 mm	695 mm	16	46 mm	-	-	SGT 14-085-016-A1-C-01-5	SGT 14-085-016-A1-C-01-0.5-J5
	1250 mm	1065 mm	24				SGT 14-125-024-A1-C-01-5	SGT 14-125-024-A1-C-01-0.5-J5
	1600 mm	1430 mm	32				SGT 14-160-032-A1-C-01-5	SGT 14-160-032-A1-C-01-0.5-J5
	2000 mm	1800 mm	40				SGT 14-200-040-A1-C-01-5	SGT 14-200-040-A1-C-01-0.5-J5
	2400 mm	2165 mm	48				SGT 14-240-048-A1-C-01-5	SGT 14-240-048-A1-C-01-0.5-J5
	2800 mm	2535 mm	56				SGT 14-280-056-A1-C-01-5	SGT 14-280-056-A1-C-01-0.5-J5
Receiver Detector	850 mm	695 mm	16	46 mm	Solid State Relay	NO	SGR 14-085-016-A1-C-08-5	SGR 14-085-016-A1-C-08-0.5-J5
	1250 mm	1065 mm	24				SGR 14-125-024-A1-C-08-5	SGR 14-125-024-A1-C-08-0.5-J5
	1600 mm	1430 mm	32				SGR 14-160-032-A1-C-08-5	SGR 14-160-032-A1-C-08-0.5-J5
	2000 mm	1800 mm	40				SGR 14-200-040-A1-C-08-5	SGR 14-200-040-A1-C-08-0.5-J5
	2400 mm	2165 mm	48				SGR 14-240-048-A1-C-08-5	SGR 14-240-048-A1-C-08-0.5-J5
	2800 mm	2535 mm	56				SGR 14-280-056-A1-C-08-5	SGR 14-280-056-A1-C-08-0.5-J5
	850 mm	695 mm	16			NC	SGR 14-085-016-A1-C-09-5	SGR 14-085-016-A1-C-09-0.5-J5
	1250 mm	1065 mm	24				SGR 14-125-024-A1-C-09-5	SGR 14-125-024-A1-C-09-0.5-J5
	1600 mm	1430 mm	32				SGR 14-160-032-A1-C-09-5	SGR 14-160-032-A1-C-09-0.5-J5
	2000 mm	1800 mm	40				SGR 14-200-040-A1-C-09-5	SGR 14-200-040-A1-C-09-0.5-J5
	2400 mm	2165 mm	48				SGR 14-240-048-A1-C-09-5	SGR 14-240-048-A1-C-09-0.5-J5
	2800 mm	2535 mm	56				SGR 14-280-056-A1-C-09-5	SGR 14-280-056-A1-C-09-0.5-J5

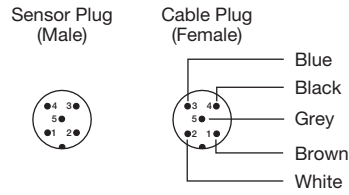
Note 1: The transmitter SGT and receiver SGR set must have the same number of channels.

2: Available upon request in slim line (10 x 28 mm) and leading edge (37,5 x 13 mm) black anodized aluminium profile housing.

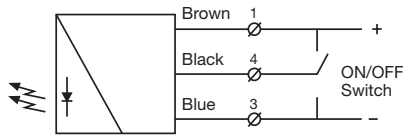
Connections

	Cable	M12 Plug/Cable
Supply +	Brown	Pin 1/Brown
Supply -	Blue	Pin 3/Blue
SGT test input	Black	Pin 4/Black
SGR output	Black	Pin 4/Black
SGR output	Black	Pin 5/Grey
SGR blanking function control	White	Pin 2/White

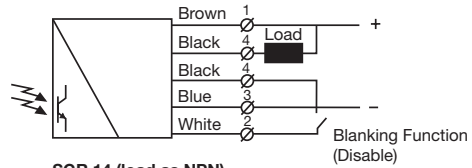
5 pin, M12



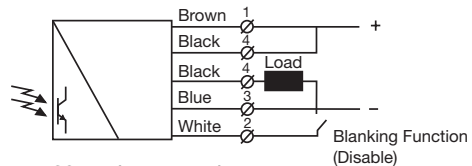
Wiring Diagrams



SGT 14
Connect black test input wire to + or - to disable SGT



SGR 14 (load as NPN)

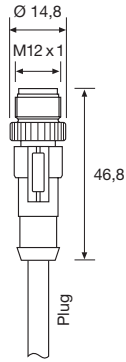


SGR 14 (load as PNP)

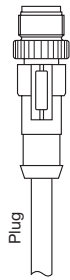
Dimensions and Descriptions

Details

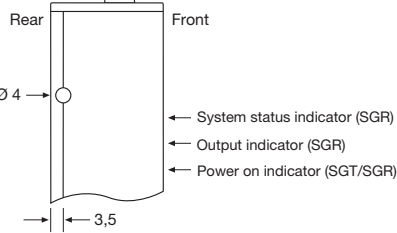
Top Side View



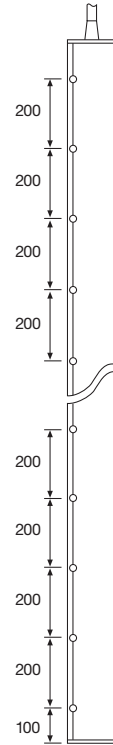
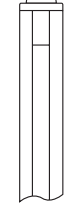
Top Rear View



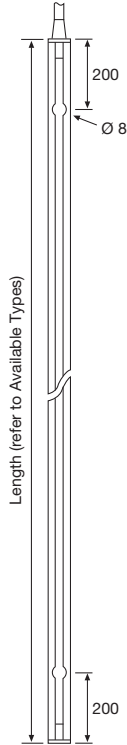
Cable



Cable

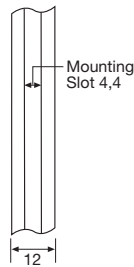


SGT/SGR Side View

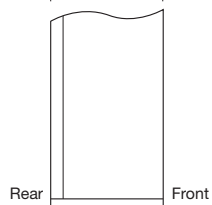


Length (refer to Available Types)

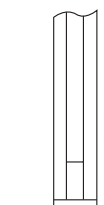
SGT/SGR Rear View



Bottom Side View



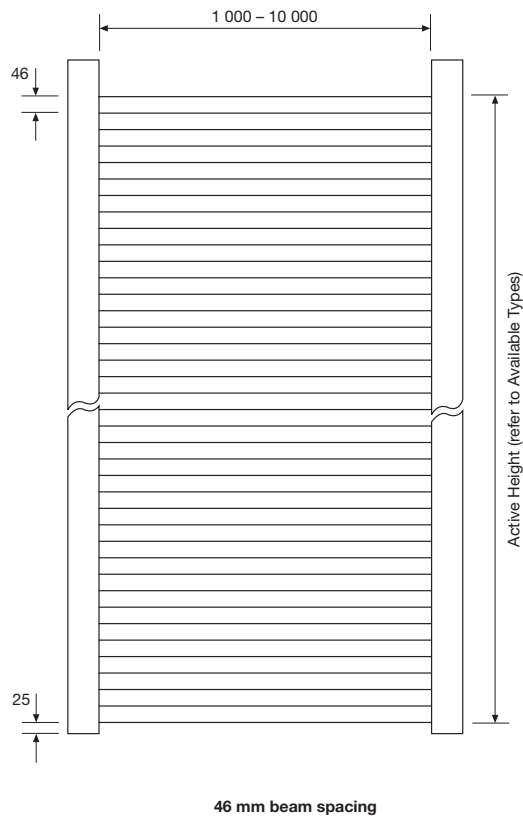
Bottom Side View



Bottom Rear View

(Units in mm)

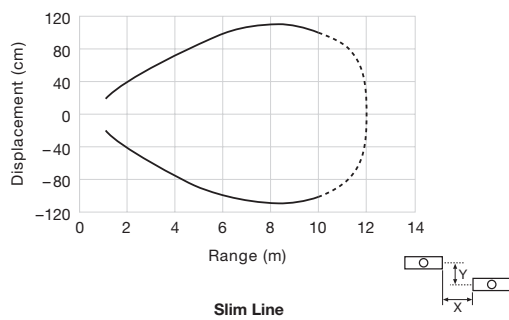
Beam Patterns



(Units in mm)

Sensing Characteristics

Parallel Displacement



Telco reserves the right to change specifications without notice.