

Description

- 1-10 metre sensing range
- 34 to 274 cross scanning beams
- Active height of 650 mm to 2535 mm
- Length of 850 mm to 2800 mm
- Automatic sensitivity adjustment
- Water-resistant, slim line (12x30 mm) housing
- Power, output and signal status indicators
- 12-36 V dc supply voltage
- Master/Slave synchronisation and multiplexing
- 5 wire, solid state relay output
- Electrically synchronised
- Test input



The SG 10 M/S light curtain system 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 water-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, in light operated function. The system offers a Master set and Slave set which can be wire connected together to form a system of two light curtain sets which are synchronised and multiplexed, ensuring that optical cross-talk between the two sets is prevented. The Master set can also operate as a stand alone system. Transmitter and receiver light curtains are electrically synchronised.

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.

Specialised signal processing technology, designed for outdoor environments, reduces the risk of false detections of water, rain or snow that may pass between the light curtains during operation.

Both the transmitter and receiver units 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					
		46 mm channel spacing		92 mm channel spacing	
		SGT	SGR	SGT	SGR
Supply voltage		12-36 V dc			
Current consumption		Max. 100 mA	50 mA	Max. 100 mA	50 mA
Output rating	Solid state	-	200 mA	-	200 mA
Short circuit protected		-	Yes	-	Yes
Reverse polarity protected		Yes			
Light source		Infrared (880 nm)	-	Infrared (880 nm)	-
Number of channels (diodes per detector)		16, 24, 32, 40, 48 or 56		8, 12, 16, 20, 24 or 28	
Number of cross scanning beams		74, 114, 154, 194, 234 or 274		34, 54, 74, 94, 114 or 134	
Active height		695, 1065, 1430, 1800, 2165 or 2535 mm		650, 1020, 1385, 1755, 2120 or 2490 mm	
Channel spacing		Between channel 1 and bottom of housing: 25 mm Between other channels: 46 mm		Between channel 1 and bottom of housing: 25 mm Between other channels: 92 mm	
Distance between beams at pinch point		23 mm		46 mm	
Response time		-	< 170 ms	-	< 90 ms
Power on indicator		Green LED			
Output indicator		-	Yellow LED	-	Yellow LED
System status indicator		-	Red LED	-	Red LED
Time-out function		-			
Housing dimensions (w x d)	Slim Line C	12 x 30 mm			
Housing material	Profile	Aluminium (black anodised)			
	Lens cover	Polycarbonate			
Connection		5 m fixed cable or 0,5 m cable with 5 pin, M12 plug			
Cable, PVC Ø 4,9 mm		4 x 0,20 mm ²	5 x 0,20 mm ²	4 x 0,20 mm ²	5 x 0,20 mm ²

Environmental Data

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

Available Types

Slim Line C

MASTER

	Housing Length	Active Height	Number of Channels	Number of Beams	Beam Spacing	Connection		5 m cable	0.5 m cable with 5 pin, M12 plug	Range
						Output	Order Reference			
Transmitter	850 mm	650 mm	8	34	92 mm	-	-	SGT 10-085-008-B1-C-M-01-5	SGT 10-085-008-B1-C-M-01-0.5-J5	10 m
		695 mm	16	74	46 mm			SGT 10-085-016-A1-C-M-01-5	SGT 10-085-016-A1-C-M-01-0.5-J5	
	1250 mm	1020 mm	12	54	92 mm			SGT 10-125-012-B1-C-M-01-5	SGT 10-125-012-B1-C-M-01-0.5-J5	
		1065 mm	24	114	46 mm			SGT 10-125-024-A1-C-M-01-5	SGT 10-125-024-A1-C-M-01-0.5-J5	
	1600 mm	1385 mm	16	74	92 mm			SGT 10-160-016-B1-C-M-01-5	SGT 10-160-016-B1-C-M-01-0.5-J5	
		1430 mm	32	154	46 mm			SGT 10-160-032-A1-C-M-01-5	SGT 10-160-032-A1-C-M-01-0.5-J5	
	2000 mm	1755 mm	20	94	92 mm			SGT 10-200-020-B1-C-M-01-5	SGT 10-200-020-B1-C-M-01-0.5-J5	
		1800 mm	40	194	46 mm			SGT 10-200-040-A1-C-M-01-5	SGT 10-200-040-A1-C-M-01-0.5-J5	
	2400 mm	2120 mm	24	114	92 mm			SGT 10-240-024-B1-C-M-01-5	SGT 10-240-024-B1-C-M-01-0.5-J5	
		2165 mm	48	234	46 mm			SGT 10-240-048-A1-C-M-01-5	SGT 10-240-048-A1-C-M-01-0.5-J5	
	2800 mm	2490 mm	28	134	92 mm			SGT 10-280-028-B1-C-M-01-5	SGT 10-280-028-B1-C-M-01-0.5-J5	
		2535 mm	56	274	46 mm			SGT 10-280-056-A1-C-M-01-5	SGT 10-280-056-A1-C-M-01-0.5-J5	

Receiver	850 mm	650 mm	8	34	92 mm	Solid State Relay	LO (NC)	SGR 10-085-008-B1-C-M-07-5	SGR 10-085-008-B1-C-M-07-0.5-J5	1-10 m
		695 mm	16	74	46 mm			SGR 10-085-016-A1-C-M-07-5	SGR 10-085-016-A1-C-M-07-0.5-J5	
	1250 mm	1020 mm	12	54	92 mm			SGR 10-125-012-B1-C-M-07-5	SGR 10-125-012-B1-C-M-07-0.5-J5	
		1065 mm	24	114	46 mm			SGR 10-125-024-A1-C-M-07-5	SGR 10-125-024-A1-C-M-07-0.5-J5	
	1600 mm	1385 mm	16	74	92 mm			SGR 10-160-016-B1-C-M-07-5	SGR 10-160-016-B1-C-M-07-0.5-J5	
		1430 mm	32	154	46 mm			SGR 10-160-032-A1-C-M-07-5	SGR 10-160-032-A1-C-M-07-0.5-J5	
	2000 mm	1755 mm	20	94	92 mm			SGR 10-200-020-B1-C-M-07-5	SGR 10-200-020-B1-C-M-07-0.5-J5	
		1800 mm	40	194	46 mm			SGR 10-200-040-A1-C-M-07-5	SGR 10-200-040-A1-C-M-07-0.5-J5	
	2400 mm	2120 mm	24	114	92 mm			SGR 10-240-024-B1-C-M-07-5	SGR 10-240-024-B1-C-M-07-0.5-J5	
		2165 mm	48	234	46 mm			SGR 10-240-048-A1-C-M-07-5	SGR 10-240-048-A1-C-M-07-0.5-J5	
	2800 mm	2490 mm	28	134	92 mm			SGR 10-280-028-B1-C-M-07-5	SGR 10-280-028-B1-C-M-07-0.5-J5	
		2535 mm	56	274	46 mm			SGR 10-280-056-A1-C-M-07-5	SGR 10-280-056-A1-C-M-07-0.5-J5	

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

SLAVE

	Housing Length	Active Height	Number of Channels	Number of Beams	Beam Spacing	Connection		5 m cable	0.5 m cable with 5 pin, M12 plug	Range
						Output	Order Reference			
Transmitter	850 mm	650 mm	8	34	92 mm	-	-	SGT 10-085-008-B1-C-S-01-5	SGT 10-085-008-B1-C-S-01-0.5-J5	10 m
		695 mm	16	74	46 mm			SGT 10-085-016-A1-C-S-01-5	SGT 10-085-016-A1-C-S-01-0.5-J5	
	1250 mm	1020 mm	12	54	92 mm			SGT 10-125-012-B1-C-S-01-5	SGT 10-125-012-B1-C-S-01-0.5-J5	
		1065 mm	24	114	46 mm			SGT 10-125-024-A1-C-S-01-5	SGT 10-125-024-A1-C-S-01-0.5-J5	
	1600 mm	1385 mm	16	74	92 mm			SGT 10-160-016-B1-C-S-01-5	SGT 10-160-016-B1-C-S-01-0.5-J5	
		1430 mm	32	154	46 mm			SGT 10-160-032-A1-C-S-01-5	SGT 10-160-032-A1-C-S-01-0.5-J5	
	2000 mm	1755 mm	20	94	92 mm			SGT 10-200-020-B1-C-S-01-5	SGT 10-200-020-B1-C-S-01-0.5-J5	
		1800 mm	40	194	46 mm			SGT 10-200-040-A1-C-S-01-5	SGT 10-200-040-A1-C-S-01-0.5-J5	
	2400 mm	2120 mm	24	114	92 mm			SGT 10-240-024-B1-C-S-01-5	SGT 10-240-024-B1-C-S-01-0.5-J5	
		2165 mm	48	234	46 mm			SGT 10-240-048-A1-C-S-01-5	SGT 10-240-048-A1-C-S-01-0.5-J5	
	2800 mm	2490 mm	28	134	92 mm			SGT 10-280-028-B1-C-S-01-5	SGT 10-280-028-B1-C-S-01-0.5-J5	
		2535 mm	56	274	46 mm			SGT 10-280-056-A1-C-S-01-5	SGT 10-280-056-A1-C-S-01-0.5-J5	

SLAVE

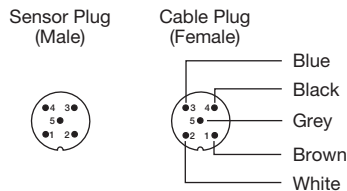
Receiver	Housing Length	Active Height	Number of Channels	Number of Beams	Beam Spacing	Connection		5 m cable		0.5 m cable with 5 pin, M12 plug		Range
							Output	Order Reference				
Receiver	850 mm	650 mm	8	34	92 mm	Solid State Relay	LO (NC)	SGR 10-085-008-B1-C-S-07-5	SGR 10-085-008-B1-C-S-07-0.5-J5	1-10 m		
		695 mm	16	74	46 mm			SGR 10-085-016-A1-C-S-07-5	SGR 10-085-016-A1-C-S-07-0.5-J5			
	1250 mm	1020 mm	12	54	92 mm			SGR 10-125-012-B1-C-S-07-5	SGR 10-125-012-B1-C-S-07-0.5-J5			
		1065 mm	24	114	46 mm			SGR 10-125-024-A1-C-S-07-5	SGR 10-125-024-A1-C-S-07-0.5-J5			
	1600 mm	1385 mm	16	74	92 mm			SGR 10-160-016-B1-C-S-07-5	SGR 10-160-016-B1-C-S-07-0.5-J5			
		1430 mm	32	154	46 mm			SGR 10-160-032-A1-C-S-07-5	SGR 10-160-032-A1-C-S-07-0.5-J5			
	2000 mm	1755 mm	20	94	92 mm			SGR 10-200-020-B1-C-S-07-5	SGR 10-200-020-B1-C-S-07-0.5-J5			
		1800 mm	40	194	46 mm			SGR 10-200-040-A1-C-S-07-5	SGR 10-200-040-A1-C-S-07-0.5-J5			
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Note: The transmitter SGT and receiver SGR set must have the same number of channels and beam spacing.

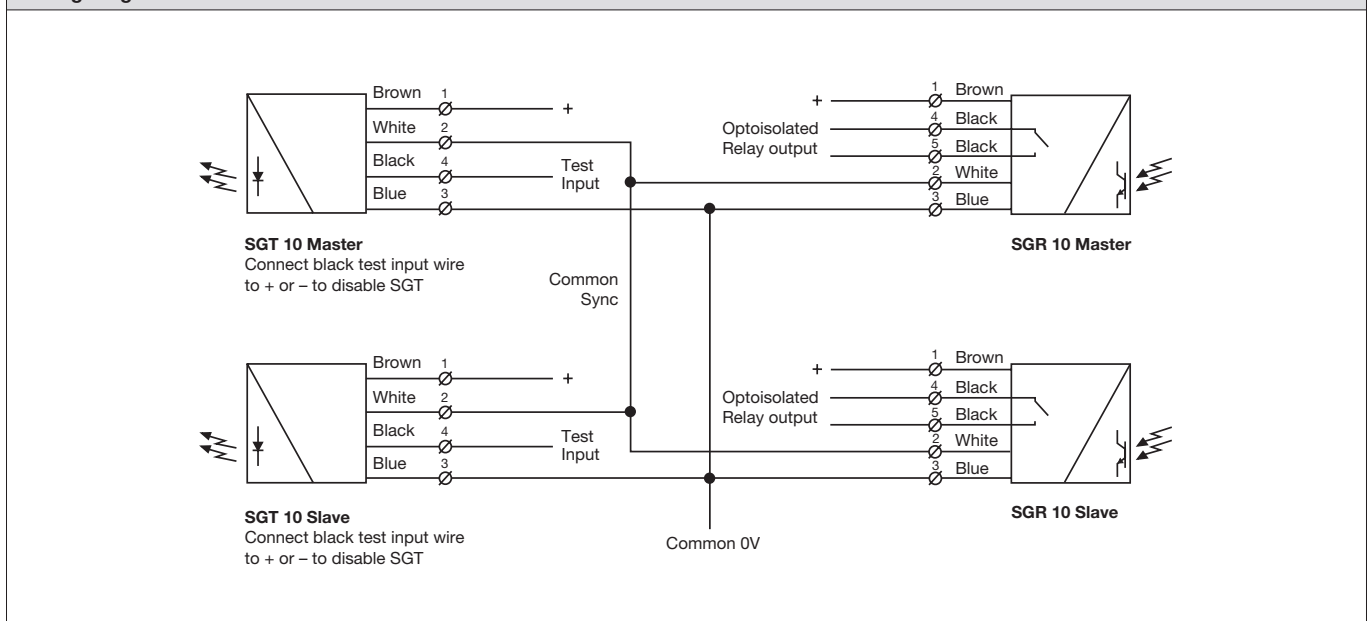
Connections

	Cable	M12 Plug / Cable
Supply +	Brown	Pin 1 / Brown
Common 0V	Blue	Pin 3 / Blue
SGT Test input	Black	Pin 4 / Black
SGR output	Black	Pin 4 / Black
SGR output	Black	Pin 5 / Grey
Common synchronisation	White	Pin 2 / White

5 pin, M12



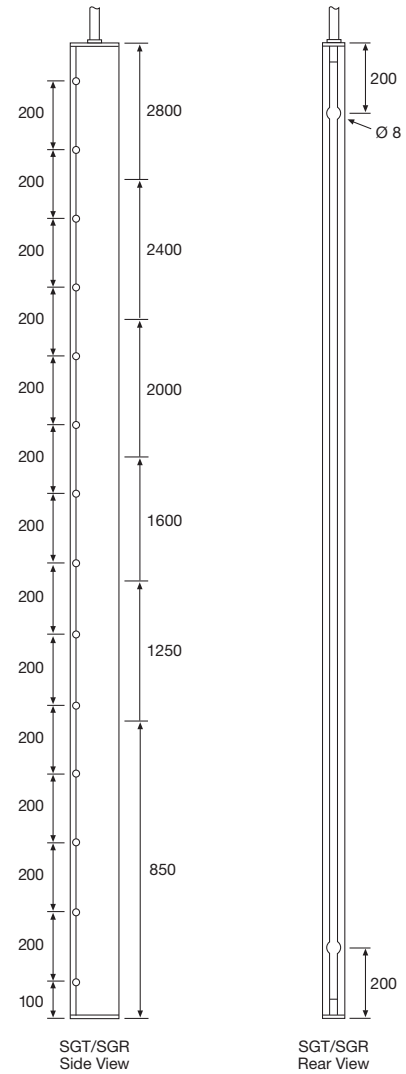
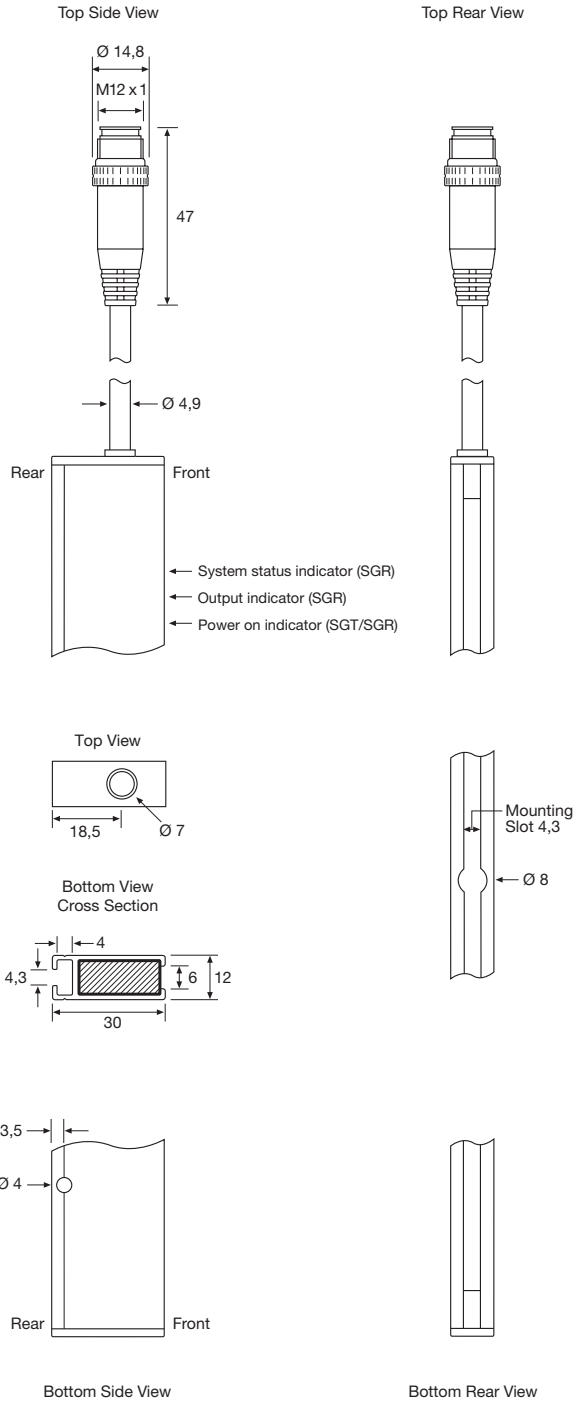
Wiring Diagrams



Dimensions and Descriptions

Slim Line C

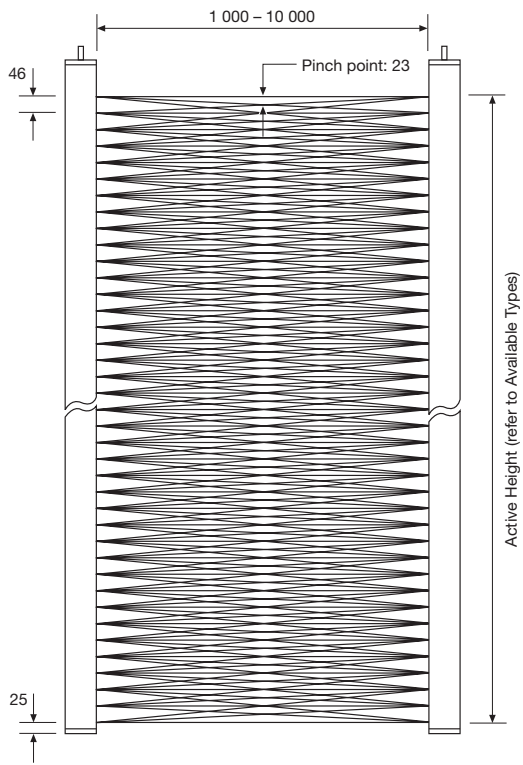
Details



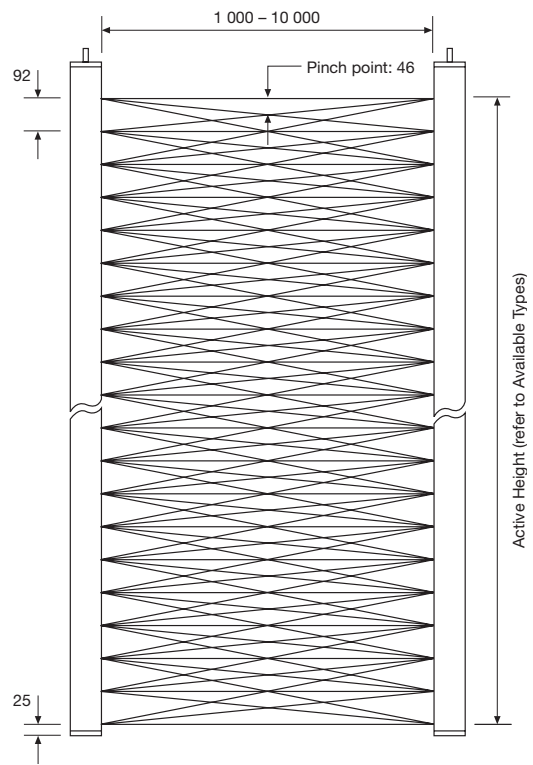
Note: Drawing shows model with M12 plug.

(Units in mm)

Beam Patterns



46 mm channel spacing

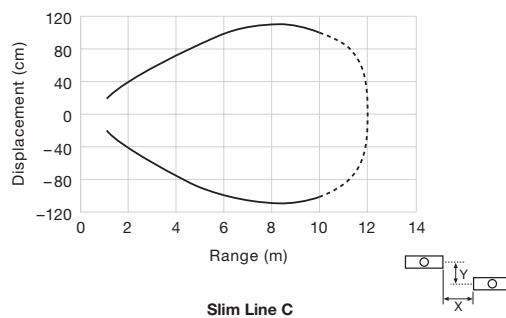


92 mm channel spacing

(Units in mm)

Sensing Characteristics

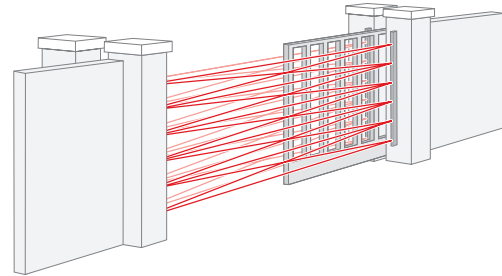
Parallel Displacement



Applications



INDUSTRIAL DOOR
Vehicle and pedestrian detection



GATES
Vehicle and pedestrian detection

Telco reserves the right to change specifications without notice.