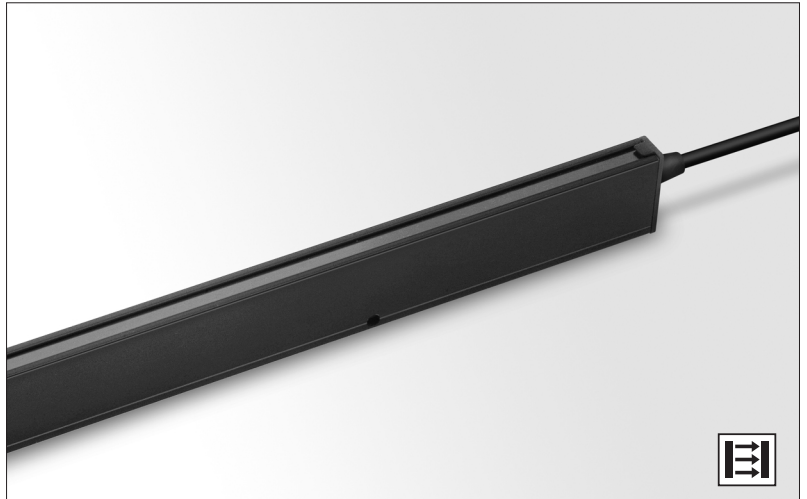


Description

- 1-10 metre sensing range
- 34 to 194 cross scanning beams
- Active height of 650 mm to 1800 mm
- Detector length of 850 mm to 2000 mm
- Cable or plug connection
- Automatic sensitivity adjustment
- Water-resistant, slim line (12x30 mm) detector housing
- Power, output and signal status indicators
- 12 – 36 V dc supply voltage
- 5 wire, solid state relay output
- Test input



The SG 10 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 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, with wire selectable light or dark 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. Transmitter and receiver detectors are optically synchronised.

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

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 | | | | | |
|--|--|---|--------------------------|---|--------------------------|
| | | 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 | | 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 or 40 | | 8, 12, 16 or 20 | |
| Number of cross scanning beams | | 74, 114, 154 or 194 | | 34, 54, 74 or 94 | |
| Active height | | 695, 1065, 1430 or 1800 mm | | 650, 1020, 1385 or 1755 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 | | - | < 165 ms | - | < 85 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 | | 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 | | 3 x 0,20 mm ² | 5 x 0,20 mm ² | 3 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 |

Available Types

Water-Resistant Slim Line C

| Transmitter Detector | 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 | | |
| | | | | | | - | - | SGT 10-085-008-B1-C-01-5 | SGT 10-085-008-B1-C-01-0.5-J5 | |
| 850 mm | 650 mm | 8 | 34 | 92 mm | - | - | SGT 10-085-016-A1-C-01-5 | SGT 10-085-016-A1-C-01-0.5-J5 | 10 m | |
| | 695 mm | 16 | 74 | 46 mm | | | SGT 10-125-012-B1-C-01-5 | SGT 10-125-012-B1-C-01-0.5-J5 | | |
| 1250 mm | 1020 mm | 12 | 54 | 92 mm | | | SGT 10-125-024-A1-C-01-5 | SGT 10-125-024-A1-C-01-0.5-J5 | | |
| | 1065 mm | 24 | 114 | 46 mm | | | SGT 10-160-016-B1-C-01-5 | SGT 10-160-016-B1-C-01-0.5-J5 | | |
| 1600 mm | 1385 mm | 16 | 74 | 92 mm | | | SGT 10-160-032-A1-C-01-5 | SGT 10-160-032-A1-C-01-0.5-J5 | | |
| | 1430 mm | 32 | 154 | 46 mm | | | SGT 10-200-020-B1-C-01-5 | SGT 10-200-020-B1-C-01-0.5-J5 | | |
| 2000 mm | 1755 mm | 20 | 94 | 92 mm | | | SGT 10-200-040-A1-C-01-5 | SGT 10-200-040-A1-C-01-0.5-J5 | | |
| | 1800 mm | 40 | 194 | 46 mm | | | | | | |

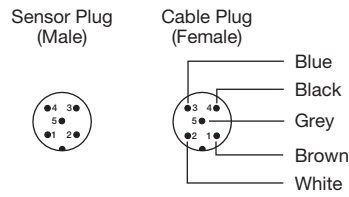
| Receiver Detector | Housing Length | Active Height | Number of Channels | Number of Beams | Beam Spacing | Connection | | 5 m cable | 0.5 m cable with 5 pin, M12 plug | Range |
|-------------------|----------------|---------------|--------------------|-----------------|-------------------|-------------------|--------------------------|-------------------------------|----------------------------------|-------|
| | | | | | | Output | | Order reference | | |
| | | | | | | Solid State Relay | Light/Dark | SGR 10-085-008-B1-C-07-5 | SGR 10-085-008-B1-C-07-0.5-J5 | |
| 850 mm | 650 mm | 8 | 34 | 92 mm | Solid State Relay | Light/Dark | SGR 10-085-016-A1-C-07-5 | SGR 10-085-016-A1-C-07-0.5-J5 | 1-10 m | |
| | 695 mm | 16 | 74 | 46 mm | | | SGR 10-125-012-B1-C-07-5 | SGR 10-125-012-B1-C-07-0.5-J5 | | |
| 1250 mm | 1020 mm | 12 | 54 | 92 mm | | | SGR 10-125-024-A1-C-07-5 | SGR 10-125-024-A1-C-07-0.5-J5 | | |
| | 1065 mm | 24 | 114 | 46 mm | | | SGR 10-160-016-B1-C-07-5 | SGR 10-160-016-B1-C-07-0.5-J5 | | |
| 1600 mm | 1385 mm | 16 | 74 | 92 mm | | | SGR 10-160-032-A1-C-07-5 | SGR 10-160-032-A1-C-07-0.5-J5 | | |
| | 1430 mm | 32 | 154 | 46 mm | | | SGR 10-200-020-B1-C-07-5 | SGR 10-200-020-B1-C-07-0.5-J5 | | |
| 2000 mm | 1755 mm | 20 | 94 | 92 mm | | | SGR 10-200-040-A1-C-07-5 | SGR 10-200-040-A1-C-07-0.5-J5 | | |
| | 1800 mm | 40 | 194 | 46 mm | | | | | | |

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

Connections

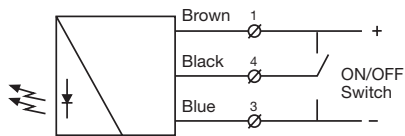
| | Cable | M12 Plug/Cable |
|------------------------|-------|----------------|
| Supply + | Brown | Pin 1/Brown |
| Supply - | Blue | Pin 3/Blue |
| SGT test input | Black | Pin 4/Black |
| SGR output | Black | Pin 4/Black |
| SGR output | Black | Pin 5/Grey |
| SGR light/dark control | White | Pin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

5 pin, M12

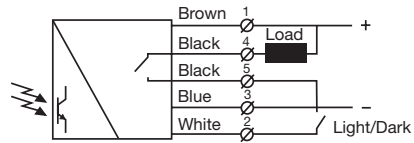


Refer to page 155 for extension cables

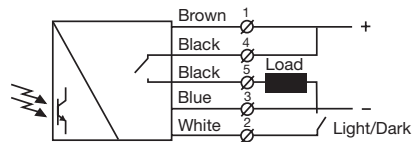
Wiring Diagrams



SGT 10
Connect black test input wire to + or - to disable SGT



SGR 10 (load as NPN)

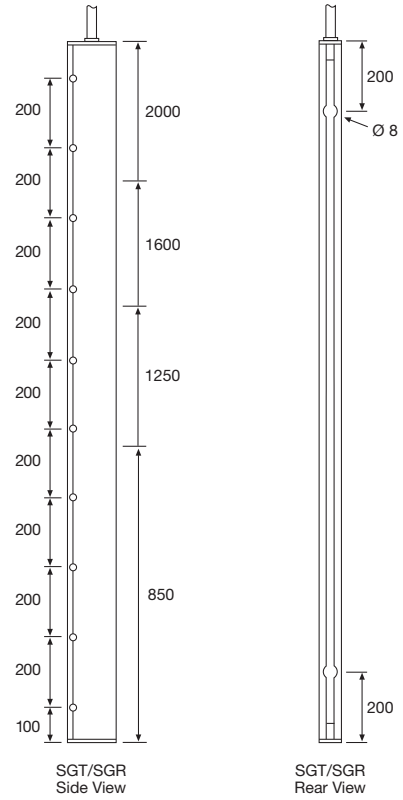
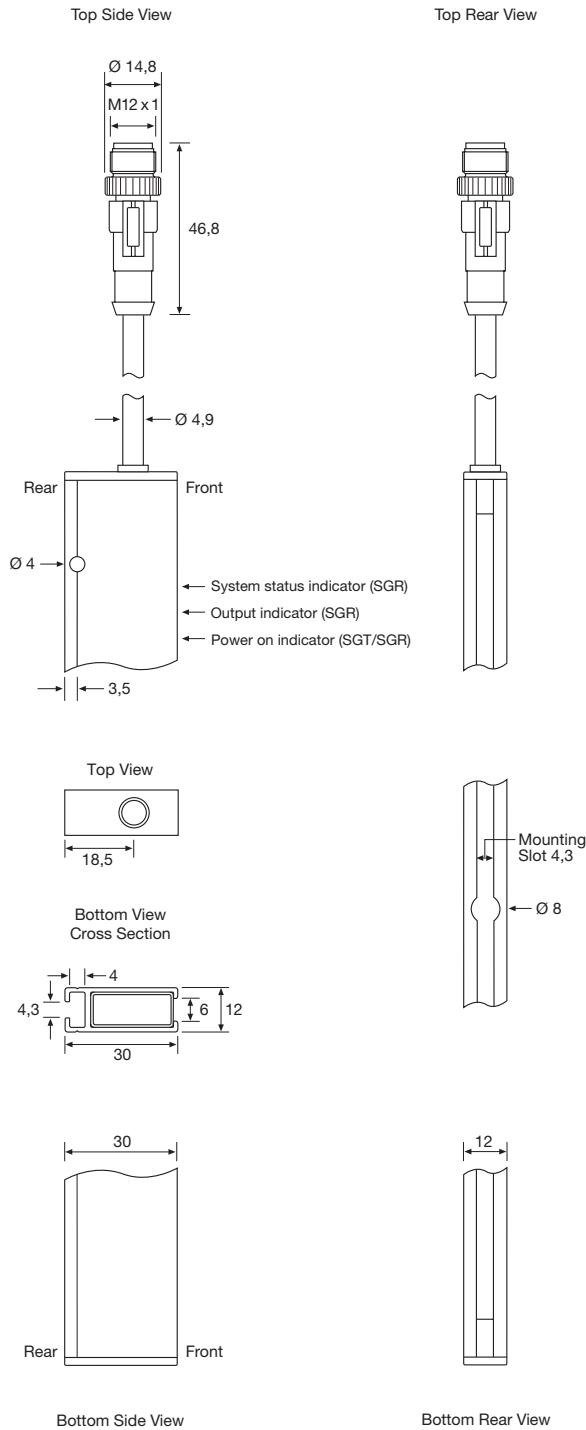


SGR 10 (load as PNP)

Dimensions and Descriptions

Water-Resistant Slim Line C

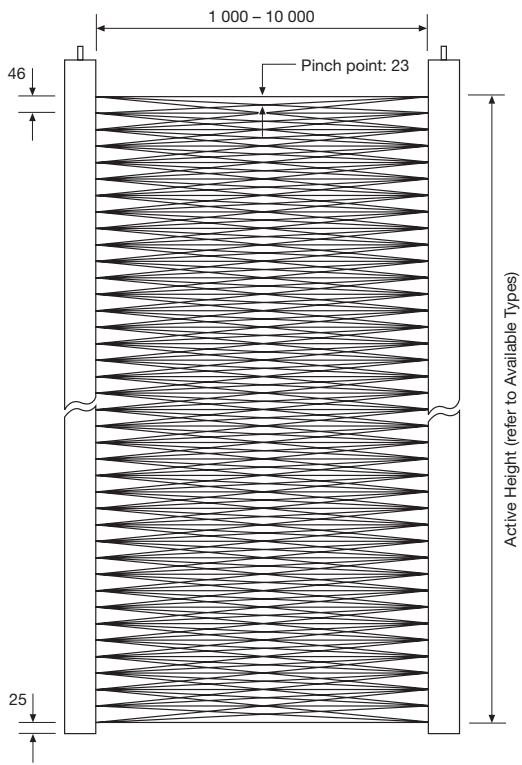
Details



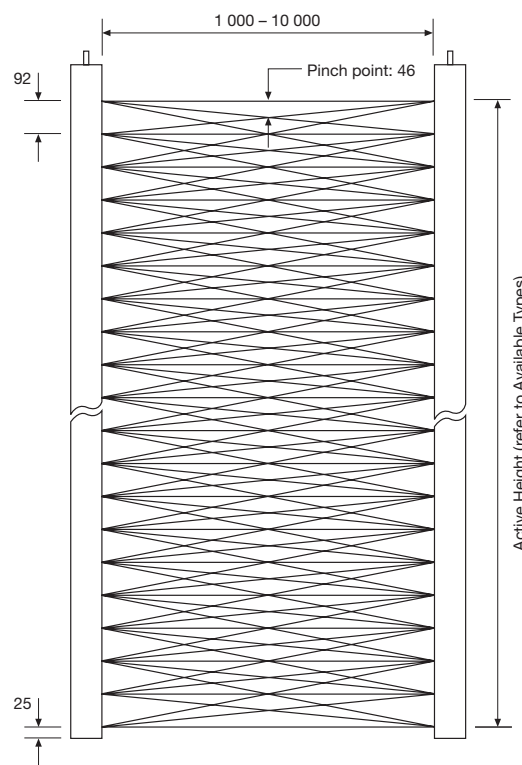
Note: Drawing shows model with M12 plug

(Units in mm)

Beam Patterns



46 mm channel spacing

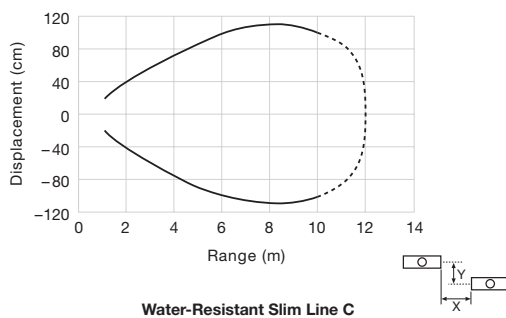


92 mm channel spacing

(Units in mm)

Sensing Characteristics

Parallel Displacement



Water-Resistant Slim Line C

Telco reserves the right to change specifications without notice.