Product Data

Electrical Data

	SGT (Transmitter)	SGR (Receiver)
Supply voltage	12 – 36 Vdc	
Current consumption	100 mA	50 mA
Max. output load	-	200 mA
Reverse polarity protected	Yes	
Short circuit protected	-	Yes

Environmental Data

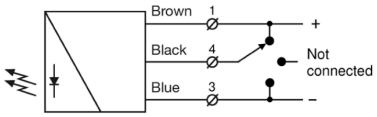
Light immunity @ 5° incidence	> 100.000 lux
Temperature, operation	-20 to + 65 °C
Sealing class	IP 54
Approvals	CE

Available Models

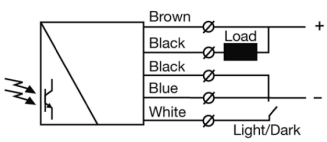
	Model	Output	Output Mode	Sensing Range
Transmitter	SGT 2-200-040-020-A1-x-00-3F	-	-	0 – 4m. (slim line)
Receiver	SGR 2-200-040-020-A1-x-07-3F	Solid State Relay	Light/Dark	0 – 3 m. (leading edge)

Connection

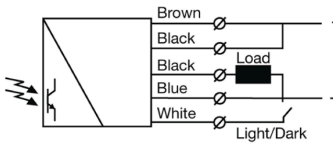
Wiring Diagrams



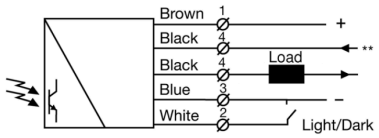
Transmitter SGT 2-40



Receiver SGR 2-40 as NPN



Receiver SGR 2-40 as PNP



** Max. 24 V ac / 36 V dc

Receiver SGR 2-40 with separate load supply.

Installation & Adjustments

Output Logic

Detection	Output mode	Output status	Output indicator (yellow led)
Object Present	Dark operated (White wire connected to Blue wire)	Closed	On
	Light operated (White wire disconnected)	Open	Off
Object Absent	Dark operated (White wire connected to Blue wire)	Open	Off
	Light operated (White wire disconnected)	Closed	On

Adjustment

On the SG 2-40 no initial set up or adjustments are required, due the automatic signal-tracking (AST) feature, that adjusts automatically each individual beam on the system.

1	Mount the transmitter (SGT) and receiver (SGR) facing each other and correctly aligned.
2	Wire the sensor according to the wiring diagram. Make sure the load does not exceed 200 mA.
3	Check for correct wiring before turning power on.
4	When the power on indicator (green LEDs) are on, the system is operating. If the Status indicator (red LED) is constant on the SGR cannot see the SGT.
Note:	In dynamic installations: - For initial setup, ensure that the doors where the light curtains are installed are in the fully open position. - In order to prevent vandalism Telco recommends that the detectors are placed at least 5 mm in the door.

SGT Control Input

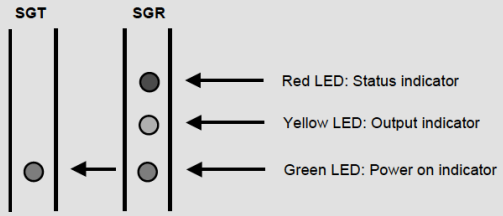
SGT

Model	Black wire connected to 0V - GND	Black wire not connected (NC)	Black wire connected to +supply
SGT 2-200-040-020-A1-x-00-3F	Upper 20 channels are disabled	No channels are disabled	Upper 10 channels are disabled

The upper channels can be disabled in the SGT by connecting the black wire on the SGT to + supply or 0V - GND as described above.
The SGR will detect that channels are disabled in the SGT within few seconds after power is turned on and will now not respond to obstructions on these channels.
When disabling channels or changing the number of channels to be disabled do always follow the below mentioned 5 steps strictly.

1	Remove power to the SGR and the SGT.
2	Connect the black wire on the SGT to the correct position as mentioned above.
3	Remove any obstruction between the rails that are not in alignment with the channels with are going to be disabled.
4	Turn on the power to the SGR and the SGT.
5	Do always leave the black wire connected to + supply or 0V - GND when disabling channels.

Indicators

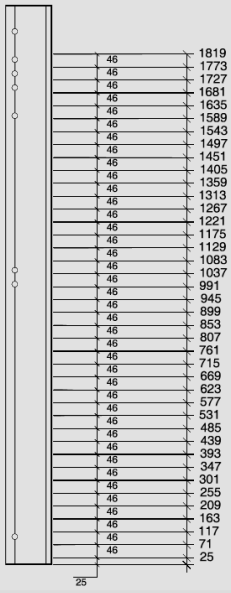


Troubleshooting

Probable Reason	Corrective Action
1. Symptom: Status indicator (Red LED) on SGR is constant on.	
SGT is not emitting	Check supply and cable to the SGT
SGT is disabled	Enable the SGT
The rails are out of sensing range	Reduce the distance between the rails.
The synchronization beam is blocked	Remove obstruction or replace detectors.
2. Symptom: Output indicator (Yellow LED) is flashing	
Severe electrical interference	Remove SGR and SGT supply cable from high voltage cables
Severe ambient light	Change position of SGT and SGR
Cross talk from another light curtain	Change position of SGT and SGR
3. Symptom: Output indicator (Yellow LED) on SGR is constant on.	
One or more beams are blocked	Remove obstruction
SGR can not disable/blank channels	Remove obstruction – check black wire connection on SGT

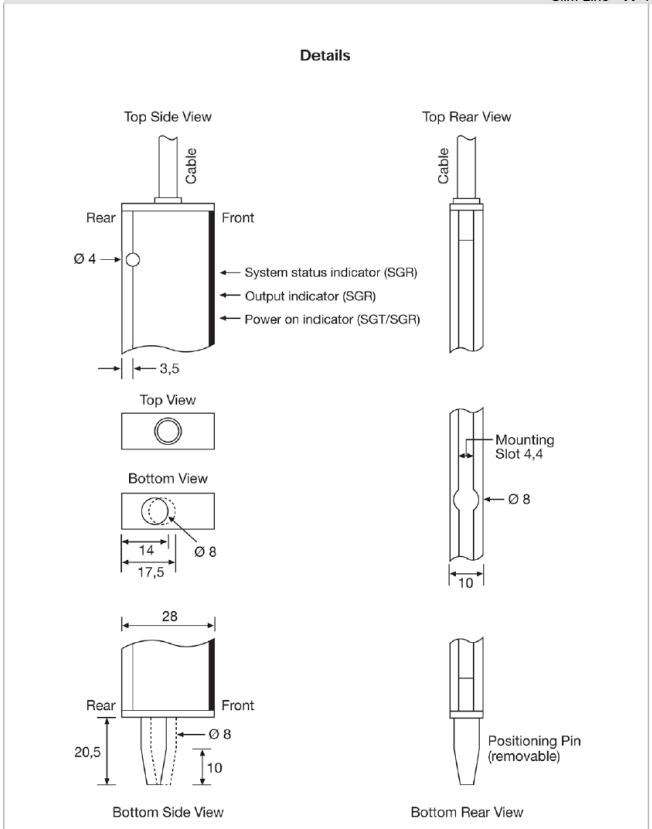
Position of Channels & Channel spacing

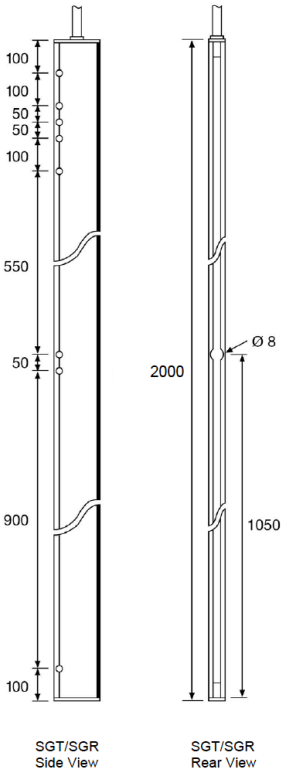
46 mm channel spacing



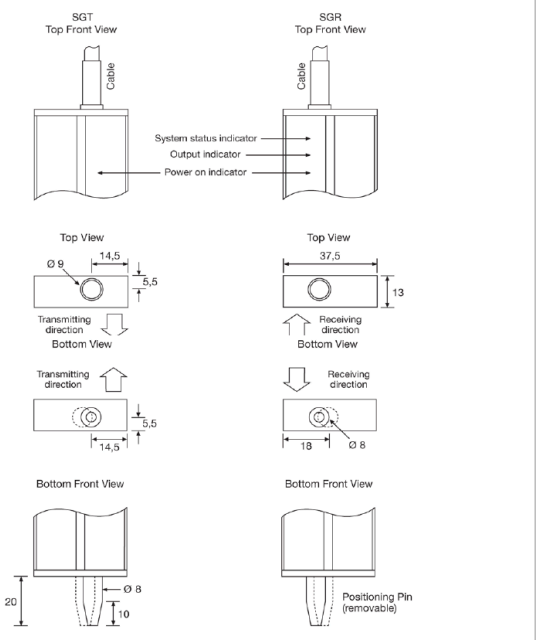
Dimensions and Descriptions

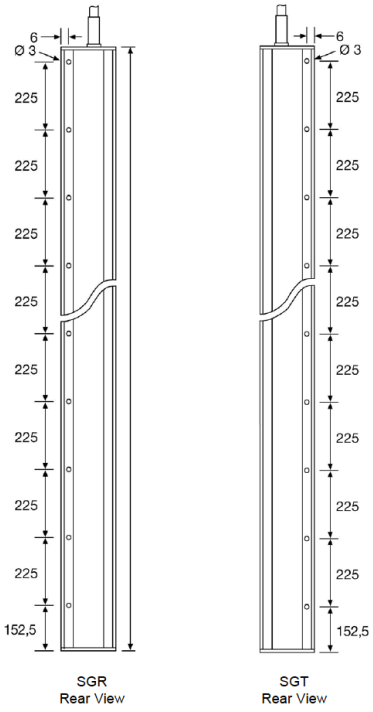
Slim Line "A" Housing – IP 54





Leading Edge "B" Housing – IP 54





Warning

This device is not to be used for Personnel Protection in Machine Guarding Safety applications. This device does not include the self-checking redundant circuitry necessary to allow its use in personnel machine guarding stand-alone safety applications.