SPACEGUARD™ SERIES

SGP 30

SENSOR PARTNERS

Description

- Diffuse proximity operation mode
- 0-1,3 metre sensing range
- 8 to 40 proximity channels
- Active height of 330 mm to 1800 mm
- Length of 510 mm to 1980 mm
- Plug connection
- Sensitivity adjustment via potentiometer
- Blanking function
- Water-resistant (23,4x30,9 mm) detector housing
- High tolerance to hostile environments
- Power, output and system status indicators
- 12-30 V dc supply voltage
- 5 wire, solid state relay output

The SGP 30 is a diffuse proximity light curtain system housed in a sturdy aluminium profile (23,4 x 30,9 mm) with a T-slot mounting rail, available in lengths from 510 mm to 1980 mm.

Multiple transmitter/receiver pairs generate an array of channels operating in diffuse proximity mode over the active zone of the profile. The system generates a discrete output whenever one or more of the channels are activated by emitted light from transmitter element being reflected back to the paired receiver.

The series is available with a 12-30 V dc supply voltage and a solid state

relay output, which has a choice of light or dark operation. Sensitivity is adjustable via an integral potentiometer.

The SGP 30 features a blanking function which is configurable using a control input to memorise the channels which detect an object (activated) during set-up, allowing those channels to be ignored when operation is resumed.

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

Technical Data

Supply voltage		12-30 V dc
Current consumption		120 mA (RMS)
Output rating	Solid state	200 mA
Short circuit protected		Yes
Reverse polarity protected		Yes
Light source		Infrared (880 nm)
Opening angle		+/– 10°
Number of proximity channel pairs		8, 16, 24, 32, 40
Active length		330, 695, 1065, 1430, 1800
Channel spacing		46 mm
Bottom spacing to channel pair 1		25 mm
Response time		8/16/24 chs: 26 ms 32 chs: 32 ms 40 chs: 38 ms
Power on indicator		Green LED
Output indicator		Yellow LED
System status indicator		Red LED
Blanking function		Configurable
Housing dimensions (w x d)		23,4 x 30,9 mm
Housing material	Profile	Aluminium (black anodised)
	Lens Cover	Polycarbonate
Connection Cable, PVC Ø 5,9 mm		0,5 m cable with 5 pin, M12 plug

Environmental Data

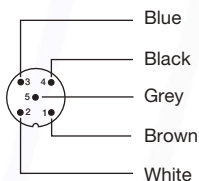|	
Vibration	10-55 Hz, 0,5 mm
Shock	30 g
Light immunity @ 5° incidence	100 000 lux
Temperature, operation	−30 to +60 °C
Temperature, storage	−40 to +80 °C
Sealing class	IP 67
Approvals	CE UK CA

Available Types

	Housing Length	Active Length	Number of Channels	Channel Spacing	Connection		0.5 m cable with 5 pin, M12 plug	Range
					Output		Order Reference	
Diffuse Proximity	510 mm	330 mm	8	46 mm		NO (LO)	SGP 30-051-008-A1-M-08-0.5-J5	0 - 1,3 m
						NC (DO)	SGP 30-051-008-A1-M-09-0.5-J5	
	880 mm	695 mm	16			NO (LO)	SGP 30-088-016-A1-M-08-0.5-J5	
						NC (DO)	SGP 30-088-016-A1-M-09-0.5-J5	
	1250 mm	1065 mm	24		Solid State Relay	NO (LO)	SGP 30-125-024-A1-M-08-0.5-J5	
						NC (DO)	SGP 30-125-024-A1-M-09-0.5-J5	
	1610 mm	1430 mm	32			NO (LO)	SGP 30-161-032-A1-M-08-0.5-J5	
						NC (DO)	SGP 30-161-032-A1-M-09-0.5-J5	
	1980 mm	1800 mm	40			NO (LO)	SGP 30-198-040-A1-M-08-0.5-J5	
						NC (DO)	SGP 30-198-040-A1-M-09-0.5-J5	

Connections

	M12 Plug / Cable
Supply +	Pin 1 / Brown
Supply –	Pin 3 / Blue
Blanking function control input Ctrl	Pin 2 / White
Output	Pin 4 / Black
Output	Pin 5 / Grey

5 pin, M12

Sensor Plug (Male)   Cable Plug (Female)

Blue
Black
Grey
Brown
White

Wiring Diagrams

Black   4   Optoisolated
Grey   5   Relay Output
Blue   3   –
White   2   Ctrl
Brown   1   +

SGP 30

SENSOR PARTNERS
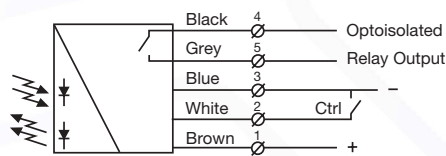
Dimensions and Descriptions

Ø 14,8

M12 x 1

42

Ø 5,9

17

Housing Length (refer to Available Types)

Active Length (refer to Available Types)

System status indicator

Output indicator

Power on indicator

6   6

25

11,5

30,9

23,4

14

10,6

Sensitivity adjustment

11,25

7   6

13

M5

13

4,8
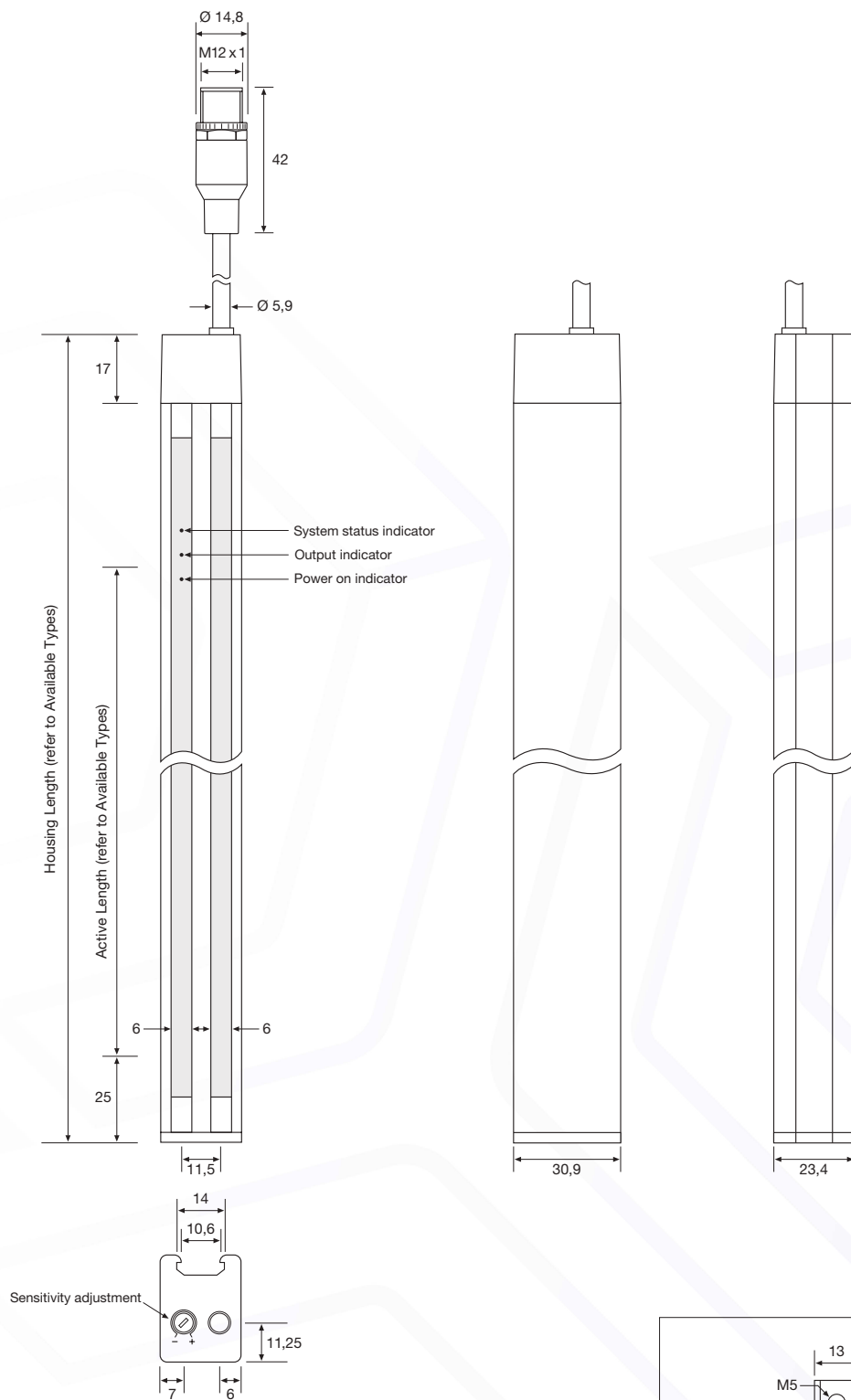
T-Slot Mounting Fixture
Stainless Steel AISI 304
(2 units included)
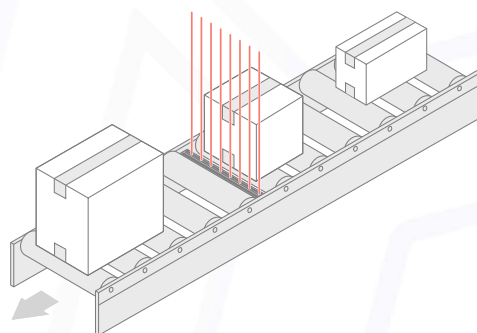
(Units in mm)

Sensing Characteristics

Parallel Displacement
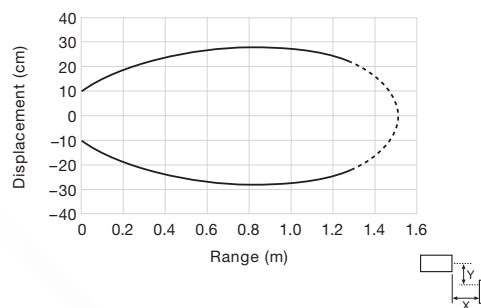
Applications
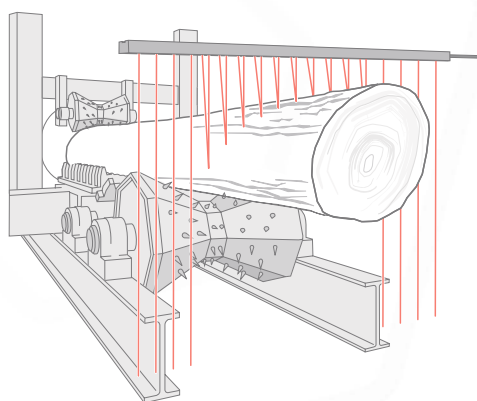
FORESTRY
Log detection

MATERIAL HANDLING
Box detection

Telco reserves the right to change specifications without notice.