

# SPACEGUARD<sup>™</sup> SGP 30 series

## DATASHEET

### Sensor Partners BV

James Wattlaan 15  
5151 DP Drunen  
The Netherlands

+31 (0)416 - 37 82 39  
info@sensorpartners.com  
sensorpartners.com

### Sensor Partners BVBA

Z.1 Researchpark 310  
B-1731, Zellik  
Belgium

+32 (0)2 - 464 96 90  
info@sensorpartners.com  
sensorpartners.com

## SPACEGUARD™ SERIES

SGP 30

### Description

- Diffuse proximity operation mode
- 0-1,3 metre sensing range
- 8 to 40 proximity channels
- Active length of 330 mm to 1800 mm
- Housing 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 detectors 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


Available Types								
	Housing Length	Active Length	Number of Channels	Channel Spacing	Connection		0.5 m cable with 5 pin, M12 plug	Range
					Output			
Diffuse Proximity	510 mm	330 mm	8	46 mm	Solid State Relay	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			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

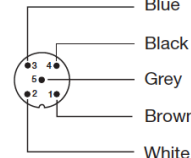
  

**5 pin, M12**

Sensor Plug (Male)

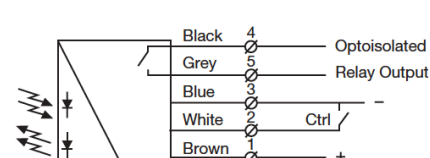


Cable Plug (Female)



Wiring Diagrams	
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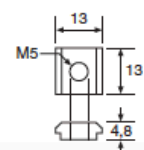
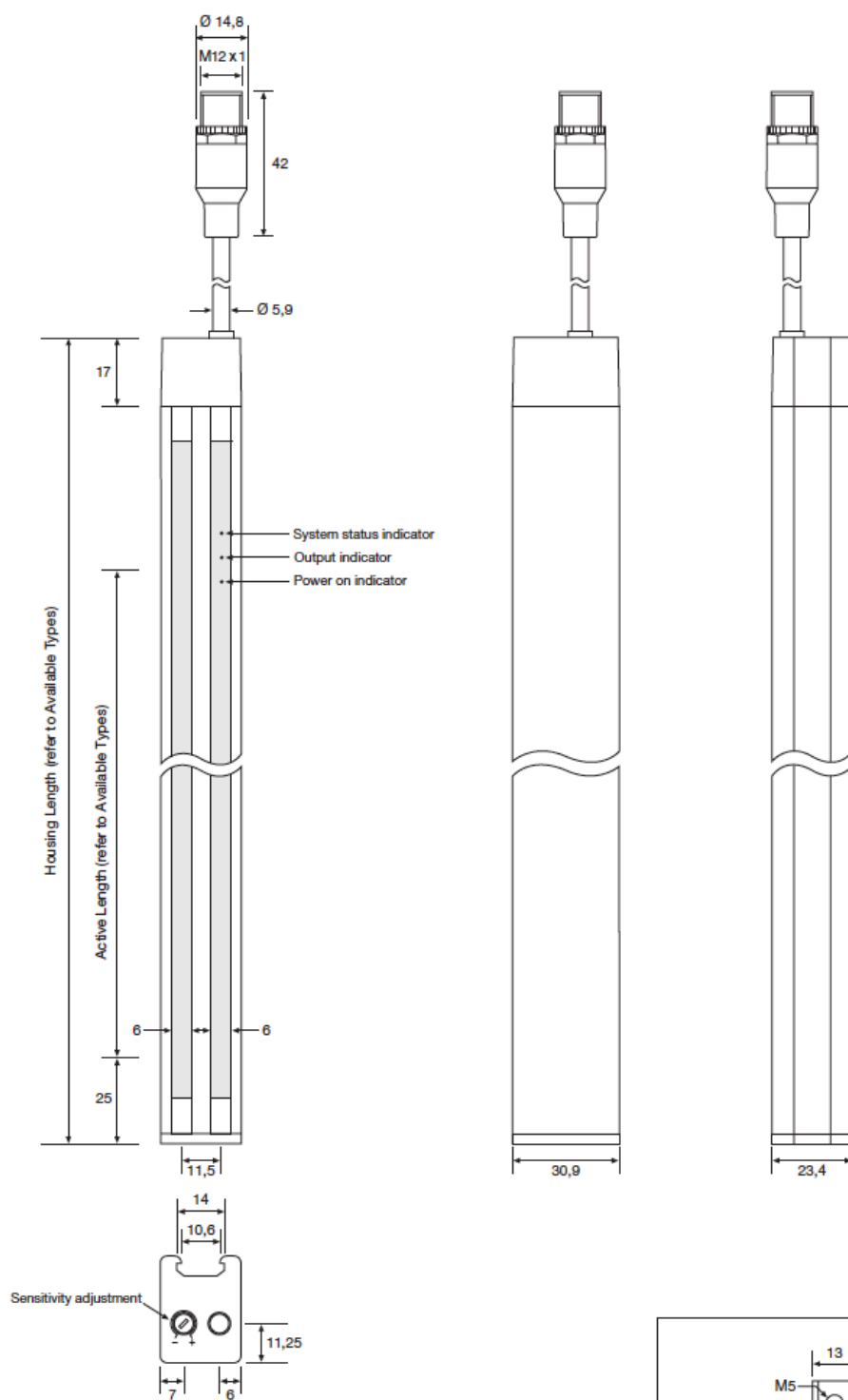
  



**SGP 30**



**Dimensions and Descriptions**

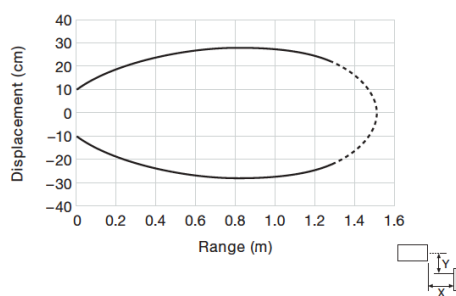


**T-Slot Mounting Fixture**  
Steel  
(2 units included)

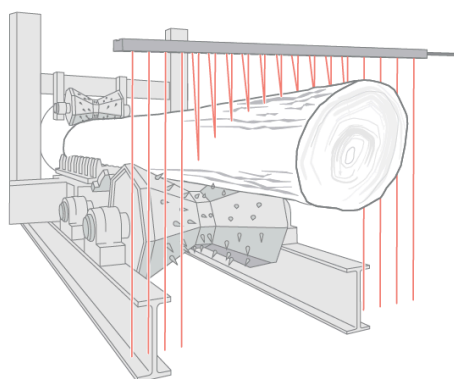
(Units in mm)

## Sensing Characteristics

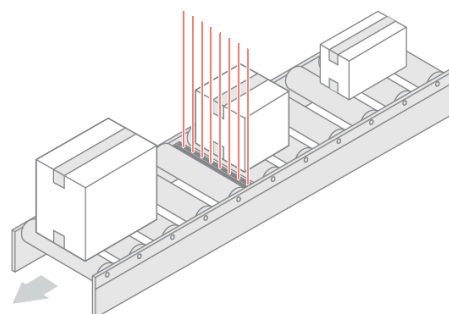
### Parallel Displacement



## Applications



**FORESTRY**  
Log detection



**MATERIAL HANDLING**  
Box detection