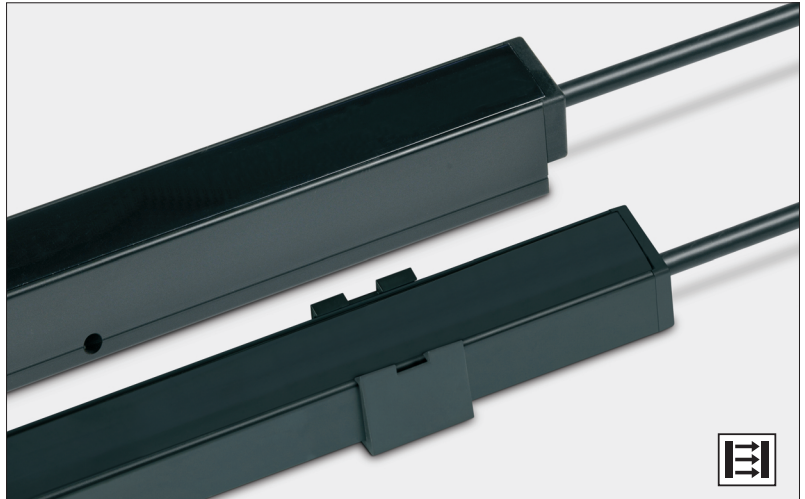


Description

- 1-10 metre sensing range
- 16 to 56 parallel scanning beams
- Active height of 720 mm to 2520 mm
- Length of 868 to 2668 mm
- 3 different channel placement models
- Cable or plug connection
- Automatic sensitivity adjustment
- Compact aluminium IP67 housings
- Power, output and system status indicators
- 12-30 V dc supply voltage
- 5 wire solid state relay output
- Test input
- Dynamic sequential blanking function



The SG 13 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 compact, but sturdy, aluminium profiles, available in two different designs.

The system is supplied with a 12-30 V dc power supply. The SGR includes a 5 wire, solid state relay output. 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 of each individual channel is adjusted automatically, which compensates for misalignment and contamination during operation.


Transmitter and receiver units are optically synchronised.

The SG 13 series features the Dynamic Sequential Blanking Function which allows the detectors to be positioned in the guide tracks of an industrial door, where the door travels directly in front of the protection area, interrupting the beams sequentially from top to bottom. The special feature ensures that the system can distinguish between the closing door and an object by ignoring the beams that are obstructed by the moving door whilst leaving the below remaining beams active to detect an object below the door edge.

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			
		SGT	SGR
Supply voltage		12-30 V dc	
Current consumption		70 mA (RMS)	30 mA
Max output load	Solid state	–	100 mA
Short circuit protected		–	Yes
Inductive load protection		–	Yes
Reverse polarity protected		Yes	
Light source		Infrared (880 nm)	–
Number of channels (diodes per detector)		16, 18, 20, 24, 28, 30, 32, 40, 48 or 56	
Number of parallel beams		16, 18, 20, 24, 28, 30, 32, 40, 48 or 56	
Active height		720, 1080, 1440, 1800, 2160 or 2520 mm	
Bottom spacing to Ch 1		45 mm	
Channel spacing	C1	45 mm : all channels	
	D1	45 mm : up to 1035 mm and two top channels 180 mm : from 1035 mm to top	
	E1	45 mm : up to 315 mm and two top channels 180 mm : from 315 mm to top	
Response time		–	50 ms
Maximum sequential blanking speed		0,9 m/s	
Minimum size of detectable objects		50 mm / 200 mm	
Power on indicator		Green LED	
Output indicator		–	Yellow LED
System status indicator		–	Red LED
Opening angle		–	+/- 10°
Emission angle		+/- 10°	–
Housing dimensions (w x d)	K-profile	19,5 mm x 14,8 mm	
	G-profile	19,5 mm x 21,3 mm	
Housing material	Profile	Aluminium (black anodised)	
	Lens cover	Polycarbonate	
Connection		15 m fixed cable or 5 pin, M12 plug	5 m fixed cable or 5 pin, M12 plug

Environmental Data

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

Available Types

K-profile

	Housing Length	Active Height	Number of Channels	Channel Placement	Connection		SGT: 15 m cable / SGR: 5 m cable	0.5 m cable with 5 pin, M12 plug
					Output	Order Reference		
Transmitter	868 mm	720 mm	16	C1	-	-	SGT 13-085-016-C1-K-01-15	SGT 13-085-016-C1-K-01-0.5-J5
	1228 mm	1080 mm	24	C1			SGT 13-121-024-C1-K-01-15	SGT 13-121-024-C1-K-01-0.5-J5
	1588 mm	1440 mm	32	C1			SGT 13-157-032-C1-K-01-15	SGT 13-157-032-C1-K-01-0.5-J5
			40	C1			SGT 13-193-040-C1-K-01-15	SGT 13-193-040-C1-K-01-0.5-J5
			28	D1			SGT 13-193-028-D1-K-01-15	SGT 13-193-028-D1-K-01-0.5-J5
	1948 mm	1800 mm	16	E1			SGT 13-193-016-E1-K-01-15	SGT 13-193-016-E1-K-01-0.5-J5
			48	C1			SGT 13-229-048-C1-K-01-15	SGT 13-229-048-C1-K-01-0.5-J5
			30	D1			SGT 13-229-030-D1-K-01-15	SGT 13-229-030-D1-K-01-0.5-J5
	2308 mm	2160 mm	18	E1			SGT 13-229-018-E1-K-01-15	SGT 13-229-018-E1-K-01-0.5-J5
			56	C1			SGT 13-265-056-C1-K-01-15	SGT 13-265-056-C1-K-01-0.5-J5
			32	D1			SGT 13-265-032-D1-K-01-15	SGT 13-265-032-D1-K-01-0.5-J5
	2668 mm	2520 mm	20	E1			SGT 13-265-020-E1-K-01-15	SGT 13-265-020-E1-K-01-0.5-J5

Receiver	868 mm	720 mm	16	C1	Solid State Relay	LO (NC)	SGR 13-085-016-C1-K-09-5	SGR 13-085-016-C1-K-09-0.5-J5
	1228 mm	1080 mm	24	C1			SGR 13-121-024-C1-K-09-5	SGR 13-121-024-C1-K-09-0.5-J5
	1588 mm	1440 mm	32	C1			SGR 13-157-032-C1-K-09-5	SGR 13-157-032-C1-K-09-0.5-J5
			40	C1			SGR 13-193-040-C1-K-09-5	SGR 13-193-040-C1-K-09-0.5-J5
			28	D1			SGR 13-193-028-D1-K-09-5	SGR 13-193-028-D1-K-09-0.5-J5
	1948 mm	1800 mm	16	E1			SGR 13-193-016-E1-K-09-5	SGR 13-193-016-E1-K-09-0.5-J5
			48	C1			SGR 13-229-048-C1-K-09-5	SGR 13-229-048-C1-K-09-0.5-J5
			30	D1			SGR 13-229-030-D1-K-09-5	SGR 13-229-030-D1-K-09-0.5-J5
	2308 mm	2160 mm	18	E1			SGR 13-229-018-E1-K-09-5	SGR 13-229-018-E1-K-09-0.5-J5
			56	C1			SGR 13-265-056-C1-K-09-5	SGR 13-265-056-C1-K-09-0.5-J5
			32	D1			SGR 13-265-032-D1-K-09-5	SGR 13-265-032-D1-K-09-0.5-J5
	2668 mm	2520 mm	20	E1			SGR 13-265-020-E1-K-09-5	SGR 13-265-020-E1-K-09-0.5-J5

G-profile

	Housing Length	Active Height	Number of Channels	Channel Placement	Connection		SGT: 15 m cable / SGR: 5 m cable	0.5 m cable with 5 pin, M12 plug
					Output	Order Reference		
Transmitter	868 mm	720 mm	16	C1	-	-	SGT 13-085-016-C1-G-01-15	SGT 13-085-016-C1-G-01-0.5-J5
	1228 mm	1080 mm	24	C1			SGT 13-121-024-C1-G-01-15	SGT 13-121-024-C1-G-01-0.5-J5
	1588 mm	1440 mm	32	C1			SGT 13-157-032-C1-G-01-15	SGT 13-157-032-C1-G-01-0.5-J5
			40	C1			SGT 13-193-040-C1-G-01-15	SGT 13-193-040-C1-G-01-0.5-J5
			28	D1			SGT 13-193-028-D1-G-01-15	SGT 13-193-028-D1-G-01-0.5-J5
	1948 mm	1800 mm	16	E1			SGT 13-193-016-E1-G-01-15	SGT 13-193-016-E1-G-01-0.5-J5
			48	C1			SGT 13-229-048-C1-G-01-15	SGT 13-229-048-C1-G-01-0.5-J5
			30	D1			SGT 13-229-030-D1-G-01-15	SGT 13-229-030-D1-G-01-0.5-J5
	2308 mm	2160 mm	18	E1			SGT 13-229-018-E1-G-01-15	SGT 13-229-018-E1-G-01-0.5-J5
			56	C1			SGT 13-265-056-C1-G-01-15	SGT 13-265-056-C1-G-01-0.5-J5
			32	D1			SGT 13-265-032-D1-G-01-15	SGT 13-265-032-D1-G-01-0.5-J5
	2668 mm	2520 mm	20	E1			SGT 13-265-020-E1-G-01-15	SGT 13-265-020-E1-G-01-0.5-J5

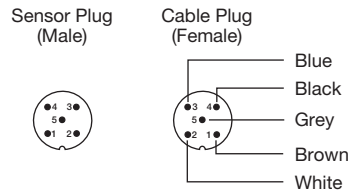
Receiver	868 mm	720 mm	16	C1	Solid State Relay	LO (NC)	SGR 13-085-016-C1-G-09-5	SGR 13-085-016-C1-G-09-0.5-J5
	1228 mm	1080 mm	24	C1			SGR 13-121-024-C1-G-09-5	SGR 13-121-024-C1-G-09-0.5-J5
	1588 mm	1440 mm	32	C1			SGR 13-157-032-C1-G-09-5	SGR 13-157-032-C1-G-09-0.5-J5
			40	C1			SGR 13-193-040-C1-G-09-5	SGR 13-193-040-C1-G-09-0.5-J5
			28	D1			SGR 13-193-028-D1-G-09-5	SGR 13-193-028-D1-G-09-0.5-J5
	1948 mm	1800 mm	16	E1			SGR 13-193-016-E1-G-09-5	SGR 13-193-016-E1-G-09-0.5-J5
			48	C1			SGR 13-229-048-C1-G-09-5	SGR 13-229-048-C1-G-09-0.5-J5
			30	D1			SGR 13-229-030-D1-G-09-5	SGR 13-229-030-D1-G-09-0.5-J5
	2308 mm	2160 mm	18	E1			SGR 13-229-018-E1-G-09-5	SGR 13-229-018-E1-G-09-0.5-J5
			56	C1			SGR 13-265-056-C1-G-09-5	SGR 13-265-056-C1-G-09-0.5-J5
			32	D1			SGR 13-265-032-D1-G-09-5	SGR 13-265-032-D1-G-09-0.5-J5
	2668 mm	2520 mm	20	E1			SGR 13-265-020-E1-G-09-5	SGR 13-265-020-E1-G-09-0.5-J5

Note: Different test input configurations are available upon request.

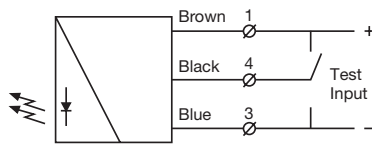
Connections

	Cable	M12 Plug / Cable
Supply +	Brown	Pin 1 / Brown
Supply -	Blue	Pin 3 / Blue
SGT test input	Black	Pin 4 / Black
SGR blanking function control	White	Pin 2 / White
SGR output	Black	Pin 4 / Black
SGR output	Black	Pin 5 / Black

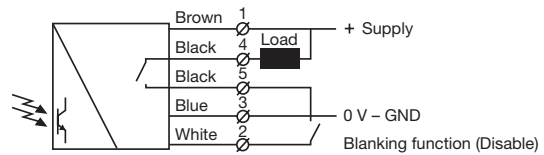
5 pin, M12



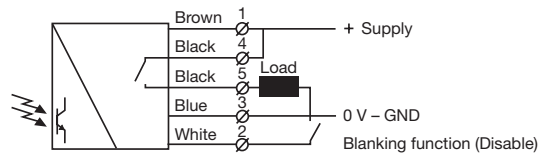
Wiring Diagrams



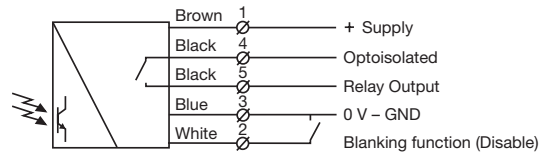
SGT 13
Connect black test input wire to + or - to disable SGT



SGR 13
Load as NPN output



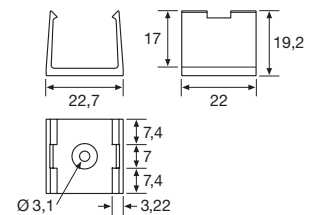
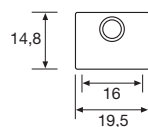
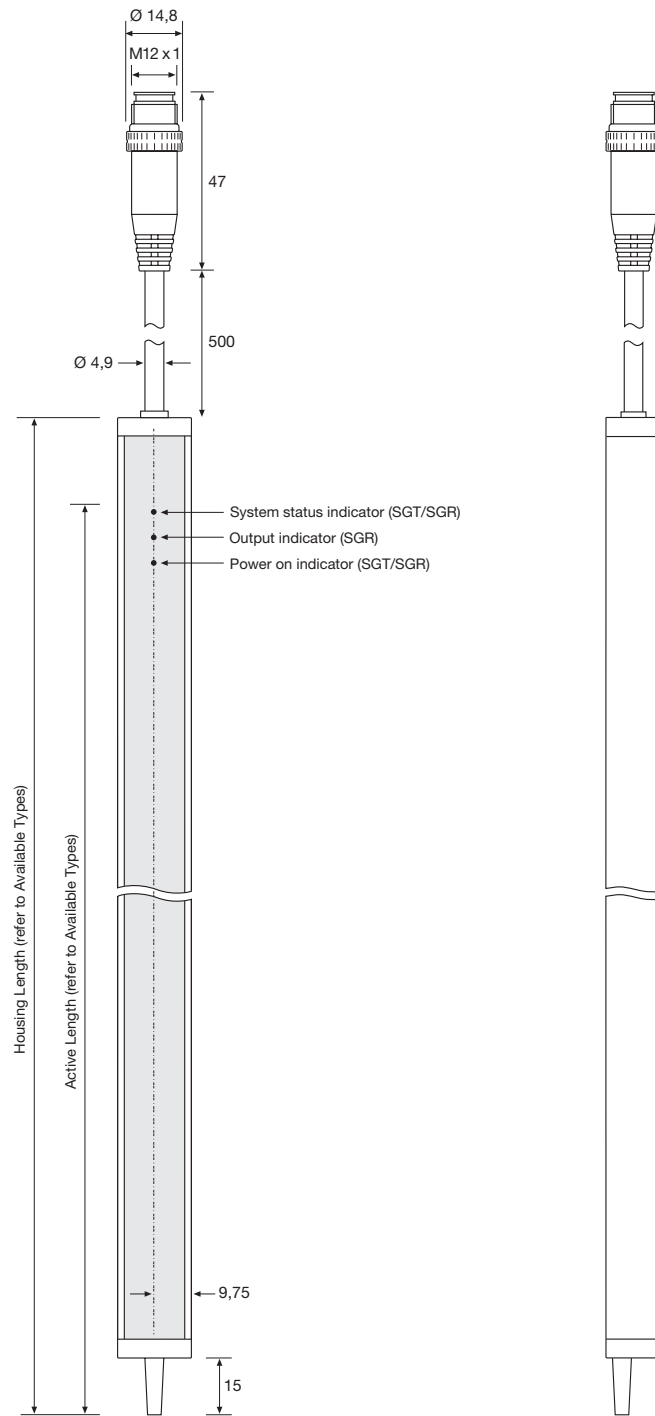
SGR 13
Load as PNP output



SGR 13
Solid state relay output

Dimensions and Descriptions

K-profile



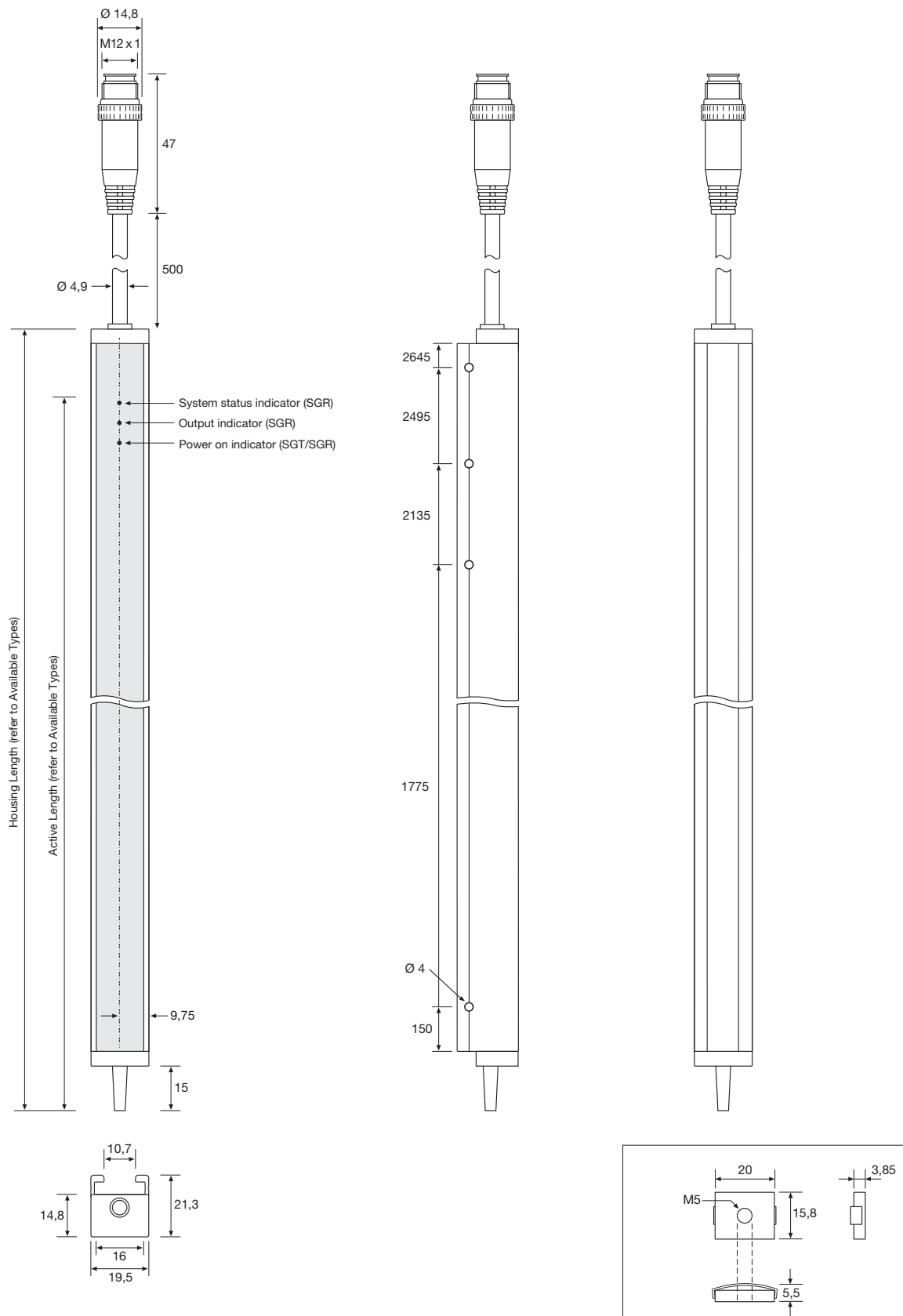
TR PSC23 K
(6 pcs included with each set)

Note: Drawing shows model with M12 plug

(Units in mm)

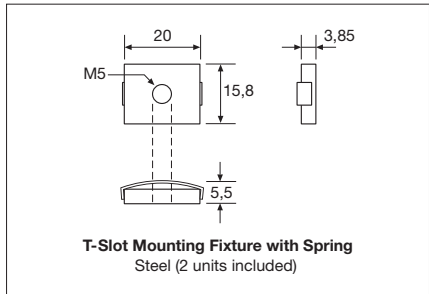
Dimensions and Descriptions

G-profile



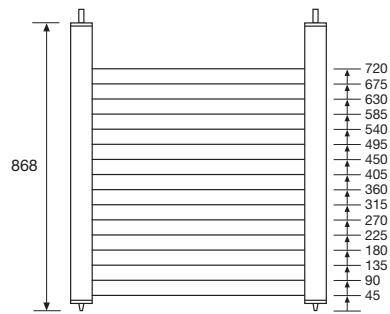
Note: Drawing shows model with M12 plug.

(Units in mm)



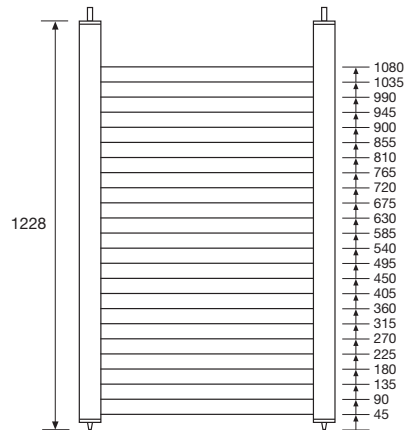
Beam Patterns

868 mm housing length



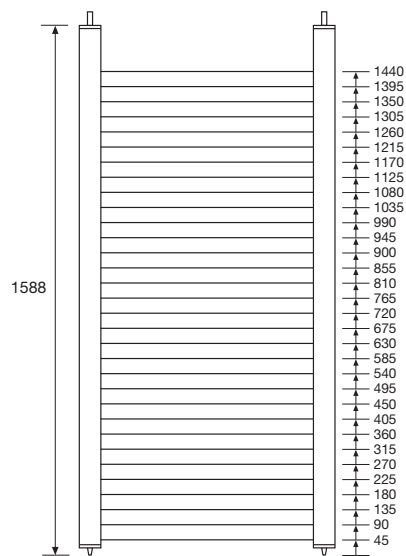
C1

1228 mm housing length



C1

1588 mm housing length

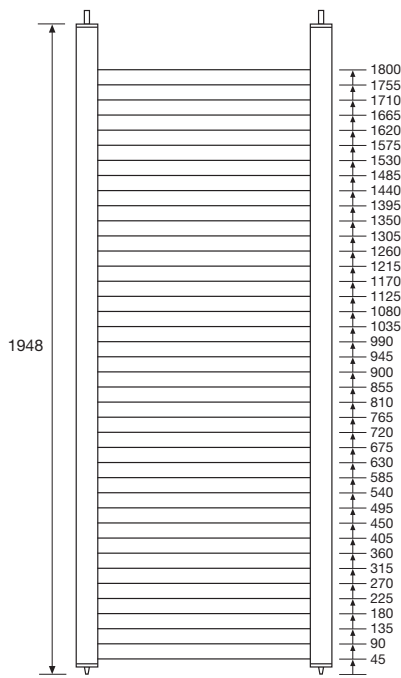


C1

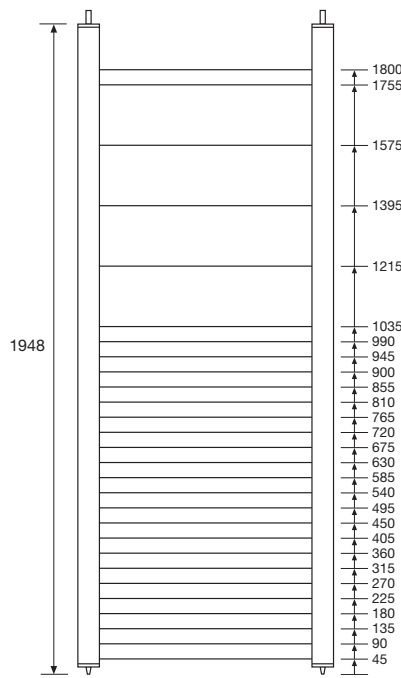
(Units in mm)

Beam Patterns

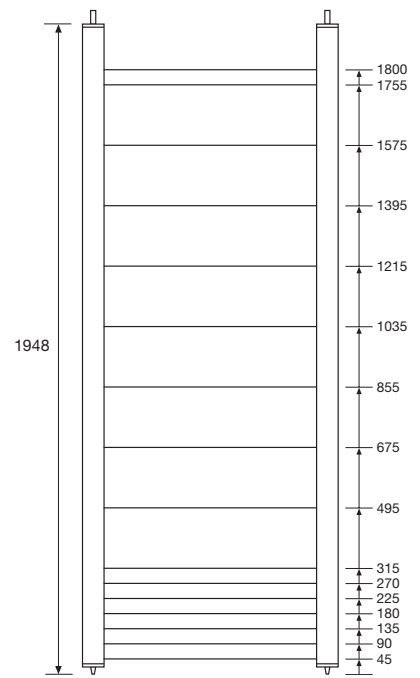
1948 mm housing length



C1

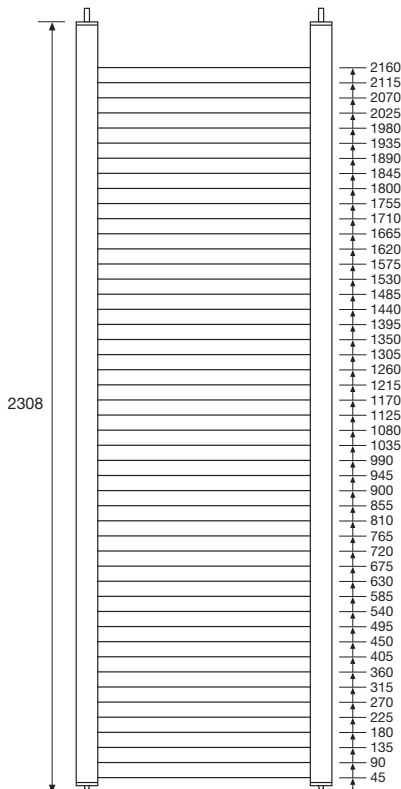


D1

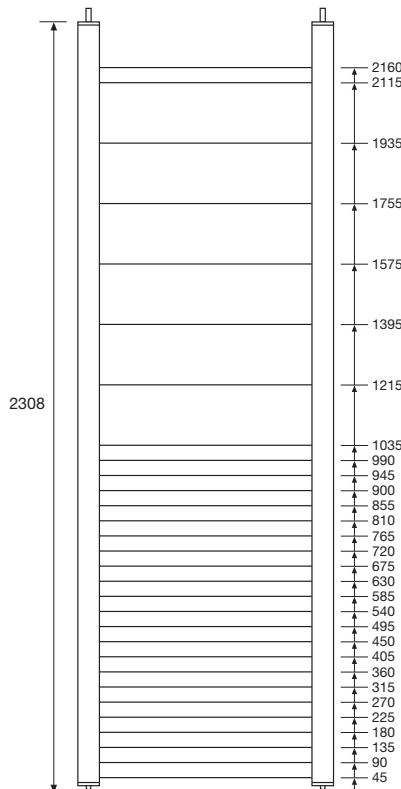


E1

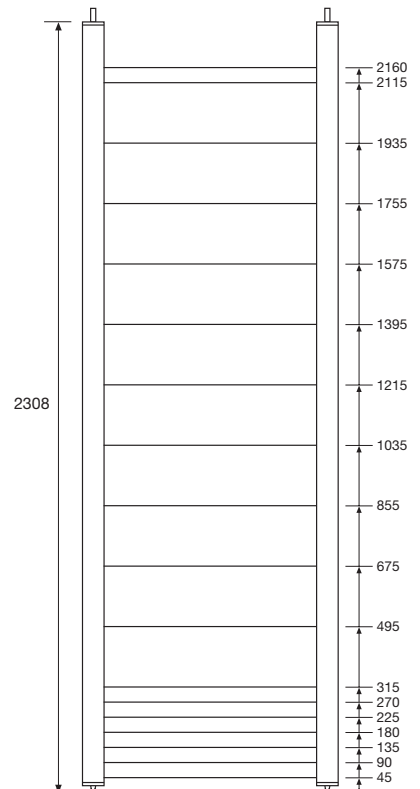
2308 mm housing length



C1



D1

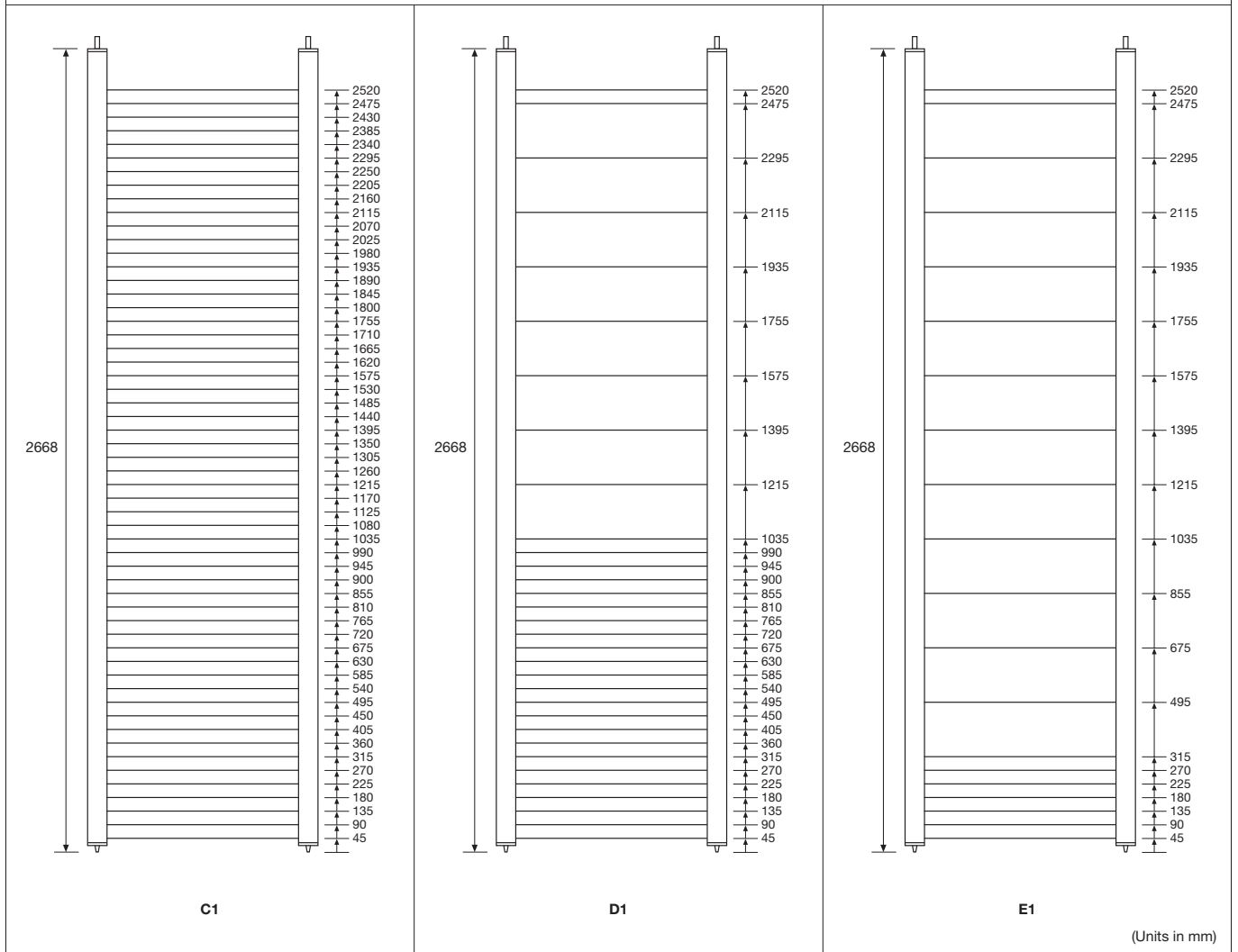


E1

(Units in mm)

Beam Patterns

2668 mm housing length

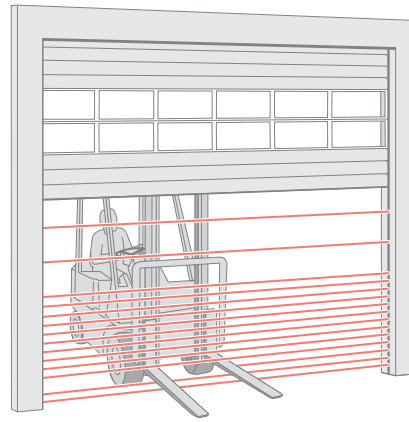


Sensing Characteristics

Parallel Displacement



Applications



OVERHEAD DOOR

Telco reserves the right to change specifications without notice.