

GridScan Long Range

... long range safety light curtain



EN 13849-1



Features

- Category 2 sensor
- Operating range up to 80 m
- Optical elements run entire length of edge
- Variable resolution
- Semiconductor output (PNP)
- Data interface for single beam information on request (RS485)
- Customer-specific OEM varieties
- Multi-scan feature for outdoor applications

Technical data

Optical

Operating range	Outdoor: 5 ... 50 m Indoor: 5 ... 80 m
Protection height	Up to 2.5 m
Number of elements	4 ... 50
Object detection size	Min. 86 mm
Max. angle of paraxial detection	Rx and Tx: $\pm 5^\circ$ at 38 ... 80 m
Max. ambient light	100,000 Lux

Electrical

Supply voltage U_{SP}	10 ... 30 VDC
Ripple at U_{SP}	Max. 10%
Current consumption at 24 VDC	< 100 mA (without load)
Output type	Semiconductor (PNP)
Output load	Max. 80 mA, 500 nF
Response time OSSD	Max. 50 ms at 20 elements (indoor mode)

Mechanical

Dimensions (w x h x l)	50 x 56.5 x max. 2,536 mm
Housing material	Aluminum, natural anodized
	Polycarbonate (PC)
Enclosure rating	System: IP65 Housing: IP67
Temperature range	
- Operation	-40° ... +60°C
- Storage	-40° ... +85°C

Connection cable

Material	PVC, black
Diameter	Ø 5.7 mm
Length	5 m
Connector	8-pol Mini-DIN8
Wires	AWG26
Pin assignment	
- blue	GND (0 V)
- gray	In 3: Outdoor application
- green	not used
- white	In 1: Test input
- black	Out 1: OSSD
- pink	not used
- brown	U_{SP} (10 ... 30 VDC)
- yellow	not used

Synchronization cable (standard)

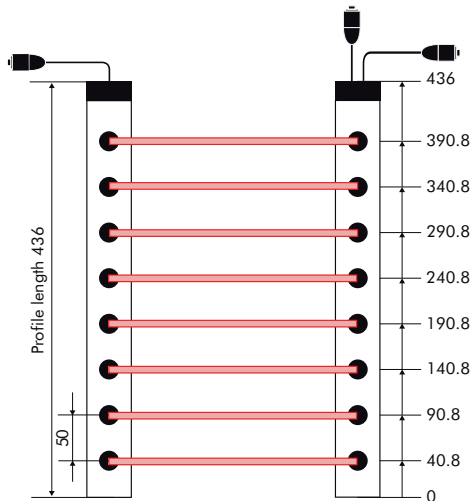
Material	PVC, black
Diameter	Ø 3.5 mm
Length	30 m
Connector	4-pol, M8 male / female
Wires	AWG26
Pin assignment	
- brown	U_{SP} (10 ... 30 VDC)
- black	Data
- blue	GND (0 V)
- white	Clock

General

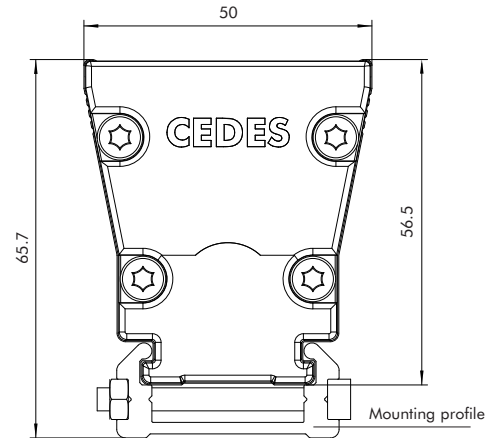
Safety category	EN 13849-1 Cat. 2 PL C EN 61508 SIL CL 2	Eye safety	EN 62471
EMC emission	EN 61000-6-3	Vibration	EN 60068-2-6
EMC immunity	EN 61000-6-2	Shock	EN 60068-2-27
		RoHS	Fulfilled 2002/95/EC
		Certificates	TÜV, CE

Dimensions

GRS LR-436-8 schematic

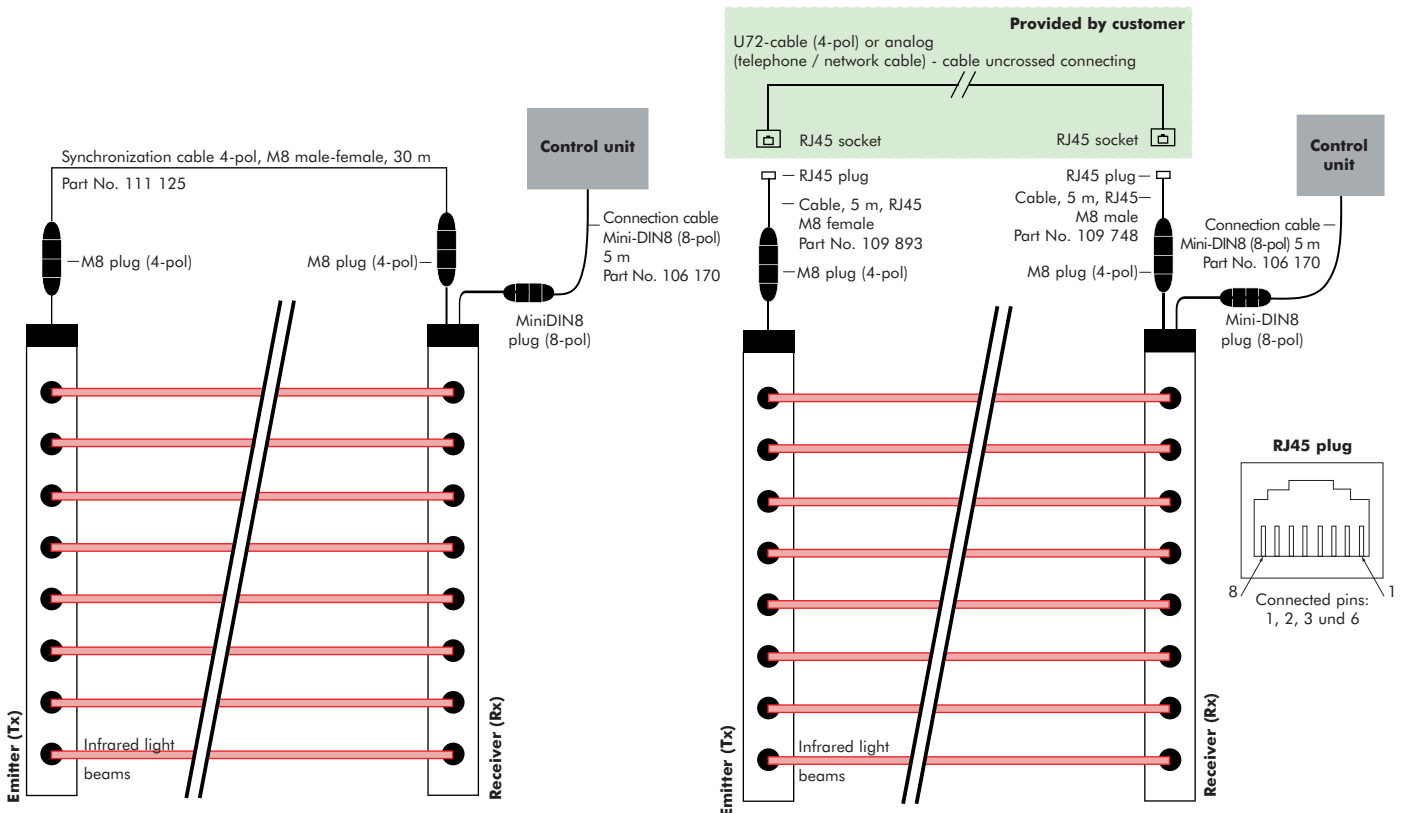


Cross section with mounting profile



(All dimensions in mm)

Connection



Ordering information

Part No.	Type	Description
109 742	GRS LR-SY-436-8	GridScan Long Range light curtain system, protection height 400 mm, 8 elements, 86 mm object detection size, synchronization cable 30m

Accessories

106 169	Extension cable, 10 m	Extension cable, 10 m, M8 4-pol, male / female
111 125	Extension cable, 30m	Extension cable, 30 m, M8 4-pol, male / female
106 666	Power line converter	85 ... 265 VAC, for 24 V sensors with up to 250 mA current consumption

Other configurations on request

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