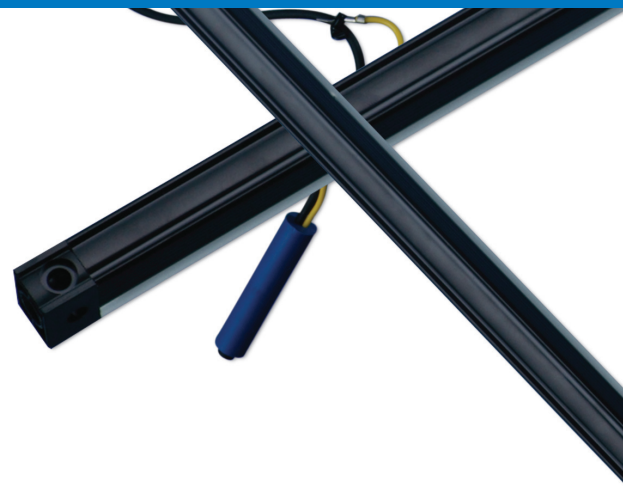


# MiniMax-79/159

... criss-cross beams up to the moment the elevator doors close completely



## Features

- Perfect for new installations, ideal for dynamic applications yet also universally applicable
- Integrated controller
- Criss-cross light beams remain fully active until the doors are completely closed
- Short-circuit proof, variable semiconductor output (PNP / NPN)
- Intelligent self-calibration provides extended life-time for infrared LED
- High EMC tolerance
- High quality thanks to gold-plated contacts
- Developed for lifetime of over 20 years
- Very quick to install
- Compatible with cegard/Max and cegard/Mini
- Robust and compact design
- Opto edge length can be customized

## Technical data

### Optical

Operating range	0 ... 3 m
Protection height	1,800 mm
No. of elements	17, 33
No. of beams	max. 159
Max. ambient light	75,000 Lux

### Electrical

Supply voltage $U_{SP}$	10 ... 30 VDC
Current consumption	< 100 mA at 24 V
Output	Semiconductor, PNP or NPN
Output logic	Selectable NO / NC
Output load	Max. 120 mA
Response time	60 ms (17 elements)

### Mechanical

Dimensions (variable length)	12 x 16 x 2,100 mm
Cable length	5 m
Connection plug	Tx: White, Rx: Blue, M8 plug
Enclosure rating	IP65
Temperature range	-20 ... +65°C

### Cables

Emitter Tx:	Receiver Rx:
Ø 3.5 mm	Ø 3.5 mm
Black	Black
5 m	5 m
M8 plug, color-coded	M8 plug, color-coded
PVC	PVC

### Electrical connections

Tx cable:	Rx cable:
- brown $U_{SP}$ (10 ... 30 VDC)	- brown $U_{SP}$ (10 ... 30 VDC)
- blue GND (0 V)	- blue GND (0 V)
	- black Output
	- white Output logic

### General

EMC emission	EN 61000-6-3, EN 12015
EMC immunity	EN 61000-6-2, EN 12016
Standards	EN 81-70
Certificats	CE, CSA
RoHS	Fulfilled 2002/95/EC

## Dimensions

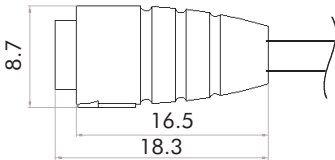
### Opto edges

Pictured beam array:

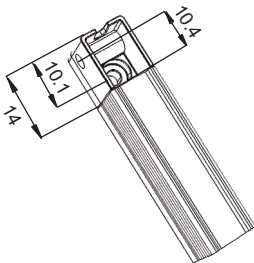
79 beams, 17 elements

Optional: 159 beams, 33 elements

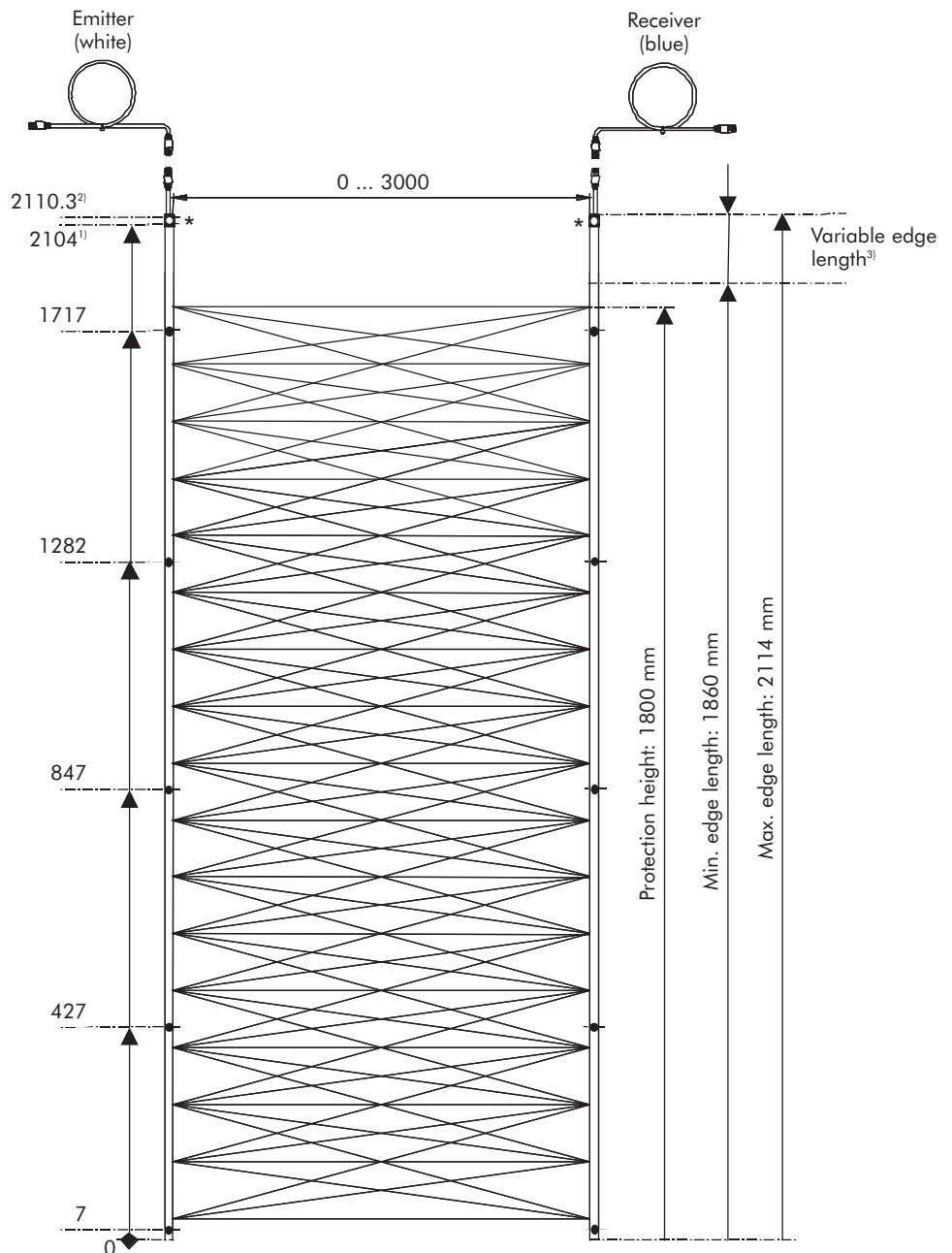
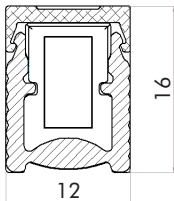
### Connector M8



### Top fixing part



### Cross-section



- 1) Location for side mounting
  - 2) Location for front mounting
  - 3) Edge length can be adjusted individually between min. and max. edge length
- \* Top fixing part
  - Mounting holes are equal for MiniMax-79/159

(All dimensions in mm)

## Ordering information

Part no.	Type	Description
103 872	<b>MiniMax-79B</b>	Emitter and receiver edge, 17 elements, 79 beams, cable 5 m, output NPN / PNP, NO / NC, <b>with blanking</b>
104 384	<b>MiniMax-79NB</b>	Emitter and receiver edge, 17 elements, 79 beams, cable 5 m, output NPN / PNP, NO / NC, <b>without blanking</b>
104 385	<b>MiniMax-159B</b>	Emitter and receiver edge, 33 elements, 159 beams, cable 5 m, output NPN / PNP, NO / NC, <b>with blanking</b>
103 874	<b>MiniMax-159NB</b>	Emitter and receiver edge, 33 elements, 159 beams, cable 5 m, output NPN / PNP, NO / NC, <b>without blanking</b>

Other configurations on request

**CEDES AG** / Switzerland • Tel. +41 81 307 2323 • Fax +41 81 307 2325 • [info@cedes.com](mailto:info@cedes.com) • [www.cedes.com](http://www.cedes.com)

CEDES AG is certified according to ISO 9001: 2008. CEDES AG reserves the right to modify or change technical data without prior notice.