

EN 81-20 compliant

cegard/Mini-CC

Technical data

Optical

Operating range		0 ... 4 m
Protection height	20 elements	1,620 mm
	33 elements	1,607 mm
	36 Elements	1,600 mm
No. of optical elements		20 / 33 / 36
No. of beams with	20 elements	94 criss-cross
	33 elements	159 beams remain active to complete door closure
	36 elements	174 beams remain active to complete door closure
Wavelength IR		925 nm
Max. ambient light		100,000 Lux

Mechanical

Dimensions (w × h × l)		12 × 16 × max. 2,000 mm
Housing material		Black anodized aluminum
Enclosure rating		IP65
Temperature range		-40 °C ... +60 °C

Electrical

Supply voltage U _{Sp}		10 ... 30 VDC
Typ. current consumption with 24 VDC (without load)		40 mA
Max. inrush current per edge		< 2 A
Output		PNP/NPN (push-pull)
Output logic		NO/NC selectable
Max. output load		120 mA, 100 nF
Typ. response time with	20 elements	80 ms
	33 elements	110 ms
	36 elements	120 ms

General

EMC emission		EN 12015:2004
EMC immunity		EN 12016:2013
Vibration		IEC 60068-2-6:2007
Shock		IEC 60068-2-27:2008
Cable durability		IEC 60227-2:2003
RoHS		2011/65/EU
Certificates		CE, CSA

Connection cable and electrical connection

Emitter	
Cable length	5 m
Diameter	Ø 3.5 mm
Material	PVC, black
Connection	M8, 4-pin
Plug color	White
Wires	AWG26
• brown	U _{Sp}
• blue	GND (0 V)
• black	Not used
• white	Not used
Receiver	
Cable length	5 m
Diameter	Ø 3.5 mm
Material	PVC, black
Connection	M8, 4-pin
Plug color	Blue
Wires	AWG26
• brown	U _{Sp}
• blue	GND (0 V)
• black	Output
• white	Output logic selector



CEDES AG is certified according to ISO 9001: 2008

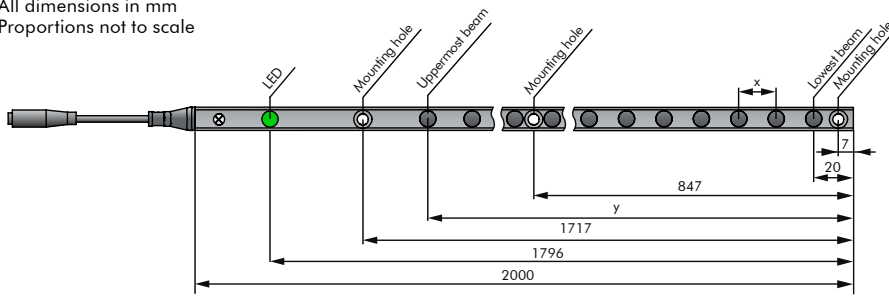
Features

- Fulfills all EN 81-20 requirements
- Criss-cross light beams remain fully active until the doors are completely closed
- Additional output to allow blanking of elements under EN 81-20 (optional)
- Low power consumption
- Ideal for both static and dynamic applications
- Short-circuit proof semiconductor output PNP/NPN (push-pull)
- No earth necessary
- Flexible cable – designed for 20 million door movements
- Waterproof IP67 version available on request
- Front and side mounting possible, mounting holes compatible with CEDES MiniMax and cegard/Max



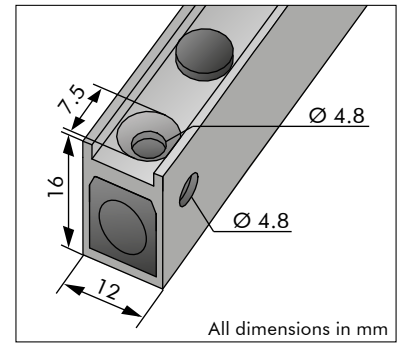
Dimensions

All dimensions in mm
Proportions not to scale



	20 elements	33 elements	36 elements
x	84.2	49.6	45.1
y	1620	1607	1600

Detailed view



Selectable output logic

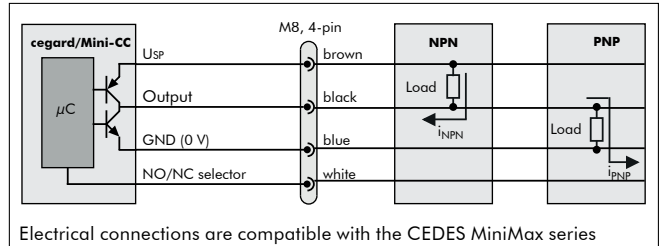
NO/NC selector connected to GND (0 V)



NO/NC selector connected to Usp or not connected



PNP / NPN output



EN 81-20 light curtain selector

EN 81-20 requires a detection capability of 50 mm over the whole door entrance area. CEDES offers three light curtains which fulfill this requirement in different installation situations. The 36 element light curtain achieves a 50 mm resolution over its entire detection range. The 20 and 33 element light curtains have to be mounted recessed considering the below shown minimum distance 'x' to the door opening respectively the leading edge.

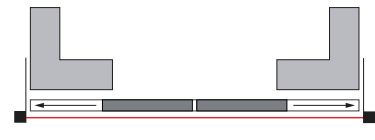
20 element system



33 element system

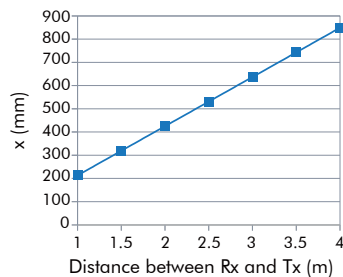


36 element system

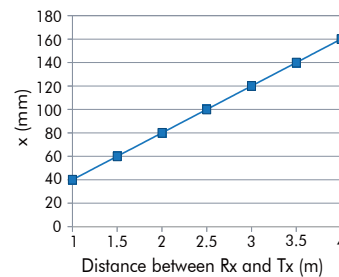


- Rx and Tx
- ▤ Cabin walls
- ▬ Cabin door
- x Area with a resolution > 50 mm

Mounting position



Mounting position



Mounting position

No restrictions regarding the mounting positions of the light curtain are in place.