ITEM 156654 LCA-2TR-40-1210-AP-156654

Description	Technical data	Accessories	Downloads

Features

- Resolution 40 mm
- Protective field height 1,210 mm
- Range 12 m
- With plug connector M12
- Two safety outputs (OSSD)
- Installation material is included with the product

Protective function

> Figure
hand protection
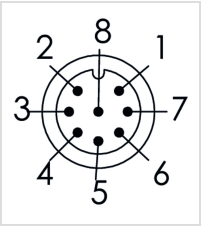
LED function display

> Figure
Transmitter

> Figure
Receiver

LED OK	Normal operation
LED ERROR	Fault state
LED STOP	Stop state
LED TEST	Test function
LED START	Start/ restart

Pin assignment transmitter

Plug connector (view of connection side)	Pin	Designation	Function	Conductor coloring of connection cable
	1	24 V DC	Operating voltage, 24 V DC	BN
	2	RANGE 0	Device configuration, corresponds to the standard EN 61131-2	WH
	3	0 V DC	Operating voltage, 0 V DC	BU
	4	RANGE 1	Device configuration, corresponds to the standard EN 61131-2	BK
	5	FE	Function earth (must be connected to meet the EMC requirements)	GY

Connector assignment receiver

Plug connector (view of connection side)	Pin	Designation	Function	Conductor coloring of connection cable
	1	FO1A	Safety output, channel 1	WH
	2	24 V DC	Operating voltage, 24 V DC	BN
	3	FO1B	Safety output, channel 2	GN
	4	K1_K2/RESTART	Feedback external contactors	YE
	5	SEL_A	Device configuration	GY
	6	SEL_B	Device configuration	PK
	7	0 V DC	Operating voltage, 0 V DC	BU
	8	FE	Function earth (must be connected to meet the EMC requirements)	RD

Approvals

Mechanical values and environment

Number of safety outputs	2 Static, self-monitoring PNP safety outputs [1]
Resolution	40 mm
Height of the protective field	1210 mm
Height of the sensor	1263 mm
Maximum length of connection cables	100 m
Range of the protective field	12000 mm
Dimensions	28x30 mm [2]
Ambient temperature	-30 ... 55 °C
Degree of protection	IP 65 / IP 67
Installation position	Any [3]
Reaction time	11,5 ms
Connection	Plug connector M12 (5-pin transmitter / 8-pin receiver)

Electrical connection ratings

Cascadable	No

Muting possible	In combination with external sensors and an evaluation unit
Operating voltage DC	24 V DC -20% ... +20%
Current consumption	400 mA
Power consumption	
Transmitter	1 W
Receiver	2 W
LED indicator	Yes [4]

Reliability values acc. to EN ISO 13849-1

ESPE type	2 [5]
Performance Level	PL c [6]
PFH_D	$5{,}05 \times 10^{-8}$
Safety Integrity Level	SIL 1 / SILCL 1 [7]
Mission time	20 y

[1] With short circuit and overload protection

[2] In cross-section

[3] Optional: adjustable holders

[4] Self-diagnostics and status

[5] Acc. to EN 61496-1

[6] acc. to EN ISO 13849-1
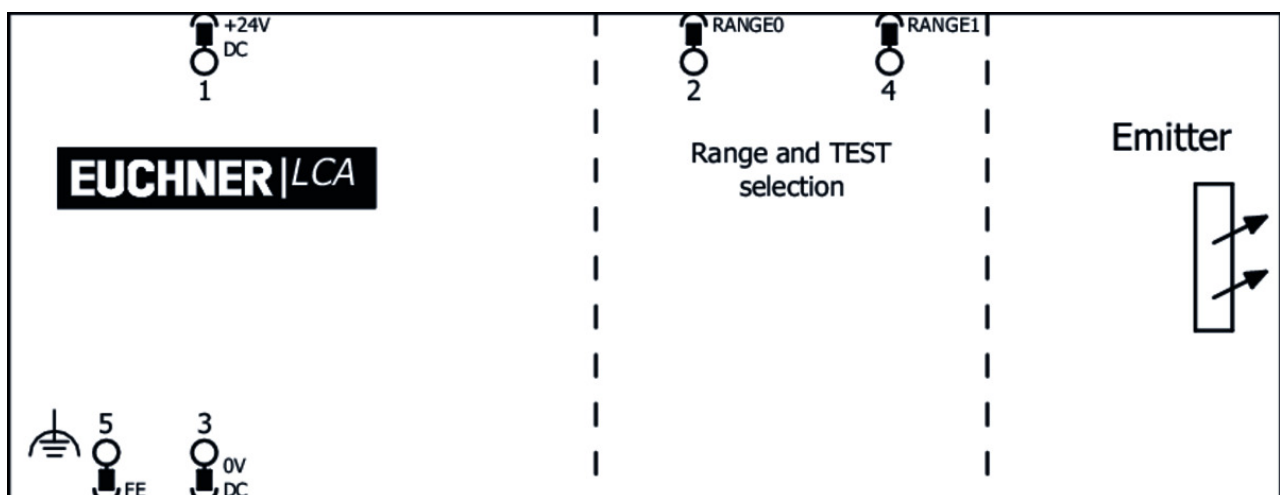
[7] According to IEC 61508-1...4 / IEC 62061

Dimension drawing
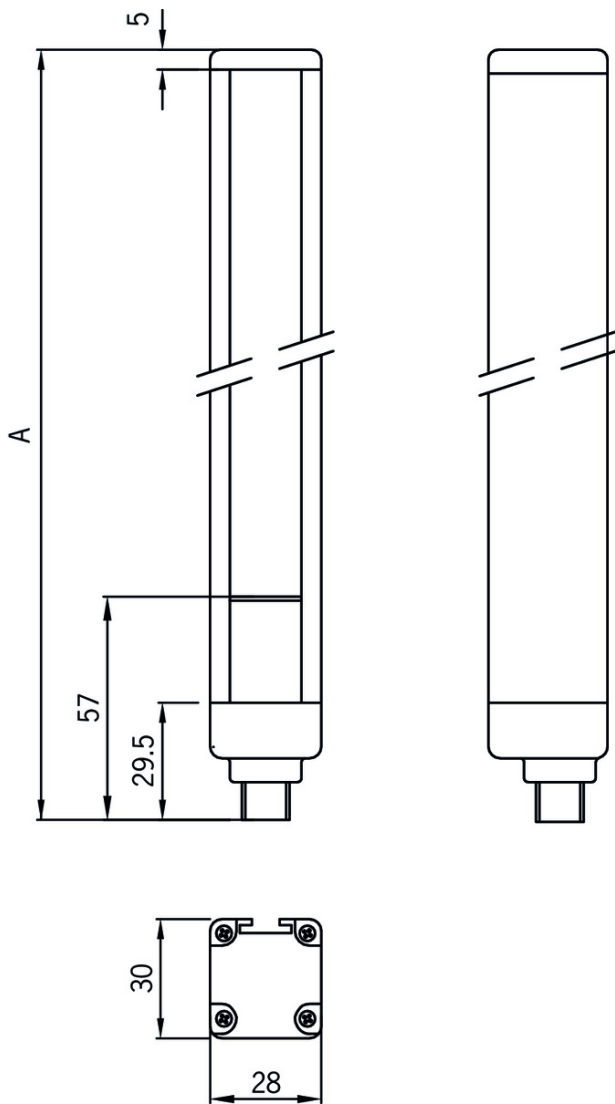
Legende

A = Height of the sensor (see technical data)

Wiring diagram transmitter

Wiring diagram receiver

Mounting accessories

Socket for mounting pillars 202 x 224 x 55 mm

156884 AM-OS-P-AA-156884

Features

› Socket for mounting pillars
› Spring-mounted floor plate made of steel
› Improved compensation of unevenness
› Adjustable via adjusting screws
› Height 55 mm

Socket for mounting pillars 202 x 224 x 34 mm

156885 AM-OS-P-AB-156885

Features

› Socket for mounting pillars
› Adjustable via adjusting screws
› Height 34 mm

Mounting pillar for protective field heights from 1210 to 1360 mm

156888 AM-OS-C-A1-1670-156888

Features

› Mounting pillar for light grids and light curtains LCA
› For protective field heights from 1210 to 1360 mm
› Protects against damage
› Straightforward adjustment using spherical circular level in the cover

Mounting pillar with cable gland for protective field heights from 1210 to 1360 mm

156892 AM-OS-C-A1-M-1670-156892

Features

› Mounting pillar for light grids and light curtains LCA
› For protective field heights from 1210 to 1360 mm
› With integrated cable gland PG11
› Protects against damage
› Straightforward adjustment using spherical circular level in the cover

12 x vibration damper for protective field heights of 1,210 to 1,810 mm or 2- to 4-beam light grids

156918 AM-OS-D-V12-156918

Features

- Vibration damper for light grids and light curtains LCA
- For protective field heights 1210 - 1810 mm or 2- 4 beams
- Packaging unit 12 pcs.
- For reducing vibration
- Protects against damage
- Installation either on the product or on mounting pillar

4 x adjustable holder

156919 AM-OS-B-A1-V04-156919

Features

- Set of 4 holders for light grids and light curtains LCA
- For protective field heights up to 1210 mm
- Adjustable horizontally / vertically
- Quick mount using two screws
- Can be mounted directly on LCA

4 x adjustable holder 180°

156921 AM-OS-B-A2-V04-156921

Features

- Set of 4 holders for light grids and light curtains LCA
- Can be rotated by 180°
- Adjustable horizontally / vertically
- Quick mount using two screws
- Can be mounted directly on LCA

6 x adjustable holder

156920 AM-OS-B-A1-V06-156920

Features

- Set of 6 holders for light grids and light curtains LCA
- For protective field heights from 1210 mm
- Adjustable horizontally / vertically
- Quick mount using two screws
- Can be mounted directly on LCA

Function expansion

Mounting pillar with deflection mirror for protective field heights from 1060 to 1360 mm

156897 AE-OS-SC-1670-156897

Features

- Mounting pillar with deflection mirror for light grids and light curtains LCA
- For protective field heights from 1060 to 1360 mm

- › Protects against damage
- › Straightforward adjustment using spherical circular level in the cover

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Deflection mirror for protective field height 1210 mm

156910 AE-OS-S-1210-156910

Features
- › Deflection mirror with adjustable holder for light curtains LCA
- › For protective field height 1210 mm

Miscellaneous accessories

Laser alignment aid

156915 AY-OS-LSR-156915

Features
- › Laser alignment aid for light grids and light curtains LCA
- › Light source: Laser diode – wavelength 650 nm
- › Laser class 2
- › Usable range 100 m
- › Straightforward clamping on the transmitter

Test rod Ø 40 mm

156924 AY-OS-FTR-40-156924

Features
- › Test rod for light curtains LCA
- › Used for function test
- › Ø 40 mm
- › Cylinder with matt surface

Connection material

Connection cable with straight plug connector M12, 5-pin, 5m

100183 C-M12F05-05X034PV05,0-MA-100183

Features
- › M12 female plug, 5-pin
- › Straight plug connector
- › PVC cable
- › Cable length 5 m
- › With flying lead

113620 C-M12F05-05X034PU05,0-MA-113620

Features
- › M12 female plug, 5-pin
- › Straight plug connector
- › PUR cable
- › Cable length 5 m
- › With flying lead

Connection cable with plug connector M12, 5-pin, 10m

100184 C-M12F05-05X034PV10,0-MA-100184

Features

- M12 female plug, 5-pin
- Straight plug connector
- PVC cable
- Cable length 10 m
- With flying lead

Connection cable with plug connector M12, 5-pin, 20m

100185 C-M12F05-05X034PV20,0-MA-100185

Features

- M12 female plug, 5-pin
- Straight plug connector
- PVC cable
- Cable length 20 m
- With flying lead

Connection cable with straight plug connector M12, 5-pin, 10m

113640 C-M12F05-05X034PU10,0-MA-113640

Features

- M12 female plug, 5-pin
- Straight plug connector
- PUR cable
- Cable length 10 m
- With flying lead

Connection cable with straight plug connector M12, 5-pin, 20 m

113682 C-M12F05-05X034PU20,0-MA-113682

Features

- M12 female plug, 5-pin
- Straight plug connector
- PUR cable
- Cable length 20 m
- With flying lead

Connection cable with straight plug connector M12, 5-pin, 30 m

122784 C-M12F05-05X034PU30,0-MA-122784

Features

- M12 female plug, 5-pin
- Straight plug connector
- PUR cable
- Cable length 30 m
- With flying lead

Connection cable with 2 plug connectors M12, 5-pin, 5m

100180 C-M12F05-05X034PV05,0-M12M05-100180
Features
- M12 female plug to M12 plug connector, 5-pin
- Straight female plug and plug connector
- PVC cable
- Cable length 5 m

119932 C-M12F05-05X034PU05,0-M12M05-119932
Features
- M12 female plug to M12 plug connector, 5-pin
- Straight female plug and plug connector
- PUR cable
- Cable length 5 m

Connection cable with 2 plug connectors M12, 5-pin, 10m

100181 C-M12F05-05X034PV10,0-M12M05-100181
Features
- M12 female plug to M12 plug connector, 5-pin
- Straight female plug and plug connector
- PVC cable
- Cable length 10 m

119947 C-M12F05-05X034PU10,0-M12M05-119947
Features
- M12 female plug to M12 plug connector, 5-pin
- Straight female plug and plug connector
- PUR cable
- Cable length 10 m

Connection cable with 2 plug connectors M12, 5-pin, 20m

100182 C-M12F05-05X034PV20,0-M12M05-100182
Features
- M12 female plug to M12 plug connector, 5-pin
- Straight female plug and plug connector
- PVC cable
- Cable length 20 m

119971 C-M12F05-05X034PU20,0-M12M05-119971
Features
- M12 female plug to M12 plug connector, 5-pin
- Straight female plug and plug connector
- PUR cable
- Cable length 20 m

Connection cable with plug connector M12, 8-pin, 5m

100177 C-M12F08-08X025PV05,0-MA-100177

Features

- M12 female plug, 8-pin
- Straight plug connector
- PVC cable
- Cable length 5 m
- With flying lead

115112 C-M12F08-08X025PU05,0-MA-115112

Features

- M12 female plug, 8-pin
- Straight plug connector
- PUR cable
- Cable length 5 m
- With flying lead

Connection cable with plug connector M12, 8-pin, 10m

100178 C-M12F08-08X025PV10,0-MA-100178

Features

- M12 female plug, 8-pin
- Straight plug connector
- PVC cable
- Cable length 10 m
- With flying lead

115113 C-M12F08-08X025PU10,0-MA-115113

Features

- M12 female plug, 8-pin
- Straight plug connector
- PUR cable
- Cable length 10 m
- With flying lead

Connection cable with plug connector M12, 8-pin, 20m

100179 C-M12F08-08X025PV20,0-MA-100179

Features

- M12 female plug, 8-pin
- Straight plug connector
- PVC cable
- Cable length 20 m
- With flying lead

115114 C-M12F08-08X025PU20,0-MA-115114

Features

- M12 female plug, 8-pin
- Straight plug connector
- PUR cable
- Cable length 20 m
- With flying lead

Connection cable with plug connector M12, 8-pin, 30m

115116 C-M12F08-08X025PV30,0-MA-115116

Features
- M12 female plug, 8-pin
- Straight plug connector
- PVC cable
- Cable length 30 m
- With flying lead

115257 C-M12F08-08X025PU30,0-MA-115257

Features
- M12 female plug, 8-pin
- Straight plug connector
- PUR cable
- Cable length 30 m
- With flying lead

Connection cable with 2 plug connectors M12, 1m

123430 C-M12M08-08X025PV01,0-M12F08-123430

Features
- 8-pin M12 male plug, straight
- 8-pin M12 female connector, straight
- PVC cable
- Cable length 1m

Connection cable with 2 plug connectors M12, 2m

123431 C-M12M08-08X025PV02,0-M12F08-123431

Features
- 8-pin M12 male plug, straight
- 8-pin M12 female connector, straight
- PVC cable
- Cable length 2m

Connection cable with 2 plug connectors M12, 5m

123432 C-M12M08-08X025PV05,0-M12F08-123432

Features
- 8-pin M12 male plug, straight
- 8-pin M12 female connector, straight
- PVC cable
- Cable length 5m

Connection cable with 2 plug connectors M12, 10m

123433 C-M12M08-08X025PV10,0-M12F08-123433

Features
- 8-pin M12 male plug, straight
- 8-pin M12 female connector, straight
- PVC cable

> Cable length 10m

Instructions

⌄ Manual de instrucciones Barreras/cortinas fotoeléctricas LCA 2

	Doc. no.	Version	Language	Download
Betriebsanleitung Lichtgitter/ Lichtvorhänge LCA 2 Operating Instructions Light Grids/ Light Curtains LCA 2	2504708	02-02/18	🇩🇪 🇺🇸	📄 4.4 MB
Mode d'emploi Barrières photoélectriques / rideaux lumineux LCA 2	2504708	02-02/18	🇫🇷	📄 2.5 MB
Manual de instrucciones Barreras/cortinas fotoeléctricas LCA 2	2504708	02-02/18	🇪🇸	📄 2.5 MB

Catalogs

⌄ Light grids and light curtains LCA Barreras fotoeléctricas y cortinas fotoeléctricas LCA Barrières photoélectriques et rideaux lumineux LCA Lichtgitter und Lichtvorhänge LCA

	Doc. no.	Version	Language	Download
Lichtgitter und Lichtvorhänge LCA	157084	03-03/18	🇩🇪	📄 2.5 MB
Barrières photoélectriques et rideaux lumineux LCA	157086	03-03/18	🇫🇷	📄 2.5 MB
Barreras fotoeléctricas y cortinas fotoeléctricas LCA	157087	03-03/18	🇪🇸	📄 2.5 MB
Light grids and light curtains LCA	157085	03-03/18	🇺🇸	📄 2.5 MB

Declaration of conformity

⌄ EU-Konformitätserklärung

	Doc. no.	Version	Language	Download
EU-Konformitätserklärung Declaración UE de conformidad Déclaration UE de conformité Dichiarazione di conformità EU declaration of conformity	2503625	02-08/17	🇩🇪 🇪🇸 🇫🇷 🇮🇹 🇺🇸	📄 0.2 MB