## LCA-2TR-2B-510-AP-156671 (Order no. 156671)

## Light grid LCA-2TR-2B-510

- 2 beams
- Protective field height 510 mm
- Range 12 m
- With plug connector M12
- 2 safety outputs (OSSD)
- Installation material is included with the product


Protective function

access control
LED function display


[^0]Receiver
LED OK Normal operation
LED ERROR Fault state
LED STOP Stop state
LED TEST Test function
LED START Start/restart
Connector assignment, transmitter

| Plug connector (view of <br> connection side) | Pin | Designation | Function | Connecting cable <br> conductor coloring |
| :--- | :--- | :--- | :--- | :--- |
| 2 | 1 | 24 V DC | Operating voltage, 24 V DC | BN |
|  | 2 | RANGE 0 | Device configuration, <br> corresponds to the standard EN <br> $61131-2$ | WH |
|  | 4 | RANGE 1 | Device configuration, <br> corresponds to the standard EN <br> $61131-2$ | BK |
|  | 5 | FE | Functional earth (must be <br> connected to meet the EMC <br> requirements) | GY |

## Connector assignment, receiver

| Plug connector (view of connection side) | Pin | Designation | Function | Connecting cable conductor coloring |
| :---: | :---: | :---: | :---: | :---: |
|  | 1 | F01A | Safety output, channel 1 | WH |
|  | 2 | 24 V DC | Operating voltage, 24 V DC | BN |
|  | 3 | F01B | 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 | Functional earth (must be connected to meet the EMC requirements) | RD |

Dimensional drawings

$A=$ Height of the sensor (see technical data)

## Dimensional drawings

A:


B:


A Fastening bracket
B Mounting plate

## Connection examples



Connection examples


## Technical data

## Approvals

## Operating and display elements

LED display
yes
(Self-diagnostics and status)

## Electrical connection values

| Receiver power consumption | 2 W |
| :---: | :---: |
| Transmitter power consumption | 1 W |
| Operating voltage DC | 24 V DC -20\% ... $+20 \%$ |
| Cascadable | no |
| Muting possible | in combination with external sensors and an evaluation unit |
| Current consumption | 400 mA |
| Mechanical values and environment |  |
| Dimensions | $28 \times 30 \mathrm{~mm}$ <br> (in cross-section) |
| Connection type | Plug connector M12 (5-pin transmitter/8-pin receiver) |
| Number of safety outputs | 2 static, self-monitoring PNP safety outputs <br> (with short-circuit and overload protection) |
| Number of beams | 2 |
| Installation orientation | any <br> (Optional: adjustable holders) |
| Height of the protective field | 510 mm |
| Height of the sensor | 653 mm |
| maximum length of connecting cables | 100 m |
| Response time | 3 ms |
| Range of the protective field | 12000 mm |
| Degree of protection | IP65/IP67 |
| Ambient temperature | $-30 \ldots+55^{\circ} \mathrm{C}$ |

Characteristic values according to EN ISO 13849-1 and EN IEC 62061

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Safety Integrity Level
SIL 1 / SILCL 1
```

Characteristic values according to EN ISO 13849-1 and EN IEC 62061

|  | PL | Maximum SIL | PFH $_{D}$ | Category | Mission time |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Monitoring of the protective field | PL c | 1 | $1.72 \times 10^{-8}$ | 2 | $20 y$ |

Miscellaneous
ESPE type 2

## Downloads

All documentation for this material can be found on our website:
https://www.euchner-usa.com/en-us/a/156671/?\#downloads-tab

## Ordering data

| Ordernumber | 156671 |
| :--- | :--- |
| Item designation | LCA-2TR-2B-510-AP-156671 |
| Gross weight | $1,987 \mathrm{~kg}$ |
| Customs tariff number | 85365019000 |
| ECLASS | $27-27-09-10$ Light curtain |

## Accessories

## Connection accessories

Connecting cable with 2 plug connectors M12, 5-pin, 10 m
$\left.\begin{array}{ll}119947 & \begin{array}{l}\text { M12 female plug to M12 plug connector, 5-pin } \\ \text { C-M12F05-05X034PU10,0-M12M05-119947 }\end{array} \\ \begin{array}{ll}\text { - Straight female plug and plug connector } \\ \text { - PUR cable }\end{array} \\ \text { - Cable length } 10 \mathrm{~m}\end{array}\right)$

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


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

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

| 119932 | M12 female plug to M12 plug connector, 5-pin <br> C-M12F05-05X034PU05,0-M12M05-119932 |
| :--- | :--- |
|  | - Straight female plug and plug connector <br> - PUR cable |
|  | Cable length 5 m |

Connecting cable with 2 plug connectors M12, 8-pin, 1 m

| 123430 | $8-$-pin M12 male plug, straight |
| :--- | :--- |
| $\mathrm{C}-\mathrm{M} 12 \mathrm{M} 08-08 X 025 \mathrm{PV} 01,0-\mathrm{M12F08-123430}$ | $8-$ pin M12 female plug, straight |
|  | PVC cable |
|  | Cable length 1 m |

Connecting cable with 2 plug connectors M12, 8-pin, 10 m
123433
$\mathrm{C}-\mathrm{M} 12 \mathrm{M} 08-08 \mathrm{X} 025 \mathrm{PV} 10,0-\mathrm{M} 12 \mathrm{~F} 08-123433$

Connecting cable with 2 plug connectors M12, 8-pin, 2 m

| 123431 | $8-$-pin M12 male plug, straight |
| :--- | :--- |
| $\mathrm{C}-\mathrm{M} 12 \mathrm{M} 08-08 X 025 \mathrm{PV} 02,0-\mathrm{M} 12 \mathrm{~F} 08-123431$ | $8-$-in M12 female plug, straight |
|  |  |
|  | PVC cable |
|  | Cable length 2 m |

Connecting cable with 2 plug connectors M12, 8-pin, 5 m

| 123432 | 8-pin M12 male plug, straight |
| :--- | :--- |
| C-M12M08-08X025PV05,0-M12F08-123432 | -pin M12 female plug, straight |
|  | PVC cable |
|  | Cable length 5 m |

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

| 100178 | M12 female plug, 8-pin <br> C-M12F08-08X025PV10,0-MA-100178 |
| :--- | :--- |
|  | Straight plug connector |
| - | PVC cable length 10 m |
| With flying lead |  |

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

| 100179 | M12 female plug, 8-pin <br> C-M12F08-08X025PV20,0-MA-100179 |
| :--- | :--- |
|  | Straight plug connector |
| - |  |

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

| 115116 | - M12 female plug, 8-pin |
| :---: | :---: |
| C-M12F08-08X025PV30,0-MA-115116 | - Straight plug connector <br> - PVC cable |
|  | - Cable length 30 m <br> - With flying lead |
| 115257 | - M12 female plug, 8-pin |
| C-M12F08-08X025PU30,0-MA-115257 | - Straight plug connector <br> - PUR cable |
|  | - Cable length 30 m <br> -With flying lead |

## Connecting cable with plug connector M12, 8-pin, 5 m

| 115112 | M12 female plug, 8-pin |
| :--- | :--- |
| C-M12F08-08X025PU05,0-MA-115112 | Straight plug connector |
|  | Par cable |
|  | With flying lead 5 |
|  | M12 female plug, 8-pin |
| 100177 | Straight plug connector |
| C-M12F08-08X025PV05,0-MA-100177 | PVC cable |
|  | Wible length 5 m |
|  | With flying lead |

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

|  | $\begin{aligned} & 100184 \\ & \text { C-M12F05-05X034PV10,0-MA-100184 } \end{aligned}$ | - M12 female plug, 5-pin <br> - Straight plug connector <br> - PVC cable <br> - Cable length 10 m <br> - With flying lead |
| :---: | :---: | :---: |
|  | $\begin{aligned} & 113640 \\ & \text { C-M12F05-05X034PU10,0-MA-113640 } \end{aligned}$ | - M12 female plug, 5-pin <br> - Straight plug connector <br> - PUR cable <br> - Cable length 10 m <br> - With flying lead |

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

- M12 female plug, $5-$ pin
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Connecting cable with straight plug connector M12, 5-pin, 30 m

| 122784 | M12 female plug, $5-\mathrm{pin}$ |
| :--- | :--- |
| $\mathrm{C}-\mathrm{M12F05-05X034PU30,0-MA-122784}$ | Straight plug connector |
|  | PUR cable |
|  | Wite length 30 m |
|  | With flying lead |

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

| 113620 | M12 female plug, $5-\mathrm{pin}$ |
| :--- | :--- |
| C-M12F05-05X034PU05,0-MA-113620 | Straight plug connector |
|  | PUR cable |
|  | Cable length 5 m |
|  | With flying lead |

$100183 \quad \bullet$ M12 female plug, 5 -pin
C-M12F05-05X034PV05,0-MA-100183

- Straight plug connector
- PVC cable
- Cable length 5 m
- With flying lead


## Function expansion

## Deflection mirror for protective field height 610 mm or 2 beam light grids

156906
AE-OS-S-610-156906

- Deflection mirror with adjustable holder for light grids and light curtains LCA
- For protective field height 610 mm or 2 beams

Mounting pillar with 2 deflection mirrors for light grids with 2 beams


156899
AE-OS-SC-2B-156899

- Mounting pillar with 2 deflection mirrors for light grids
- For protective field heights with 2 beams
- Protects against damage
- Straightforward adjustment using spherical circular level in the cover

Mounting pillar with deflection mirror for protective field heights from $160-610 \mathrm{~mm}$ or for 2 beam light grids

156894
AE-OS-SC-1000-156894

- Mounting pillar with deflection mirror for light grids and light curtains LCA
- For protective field heights of $160-610 \mathrm{~mm}$ or for 2 beams
- Protects against damage
- Straightforward adjustment using spherical circular level in the cover


## Mounting accessories

$4 \times$ adjustable holder

## 156919

AM-OS-B-A1-V04-156919

- Set of 4 holders for light grids and light curtains LCA
- For protective field heights up to 1210 mm
- Adjustable horizontally / vertically
- Quick mounting using two screws
- Can be mounted directly on LCA
$4 \times$ adjustable holder $180^{\circ}$

```
156921
AM-OS-B-A2-V04-156921
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- Set of 4 holders for light grids and light curtains LCA
- Can be rotated by $180^{\circ}$
- Adjustable horizontally / vertically
- Quick mounting using two screws
- Can be mounted directly on LCA

8 x vibration damper for protective field heights from $310-1,060 \mathrm{~mm}$

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156917
AM-OS-D-V08-156917
```

- Vibration damper for light grids and light curtains LCA
- For protective field heights $310-1060 \mathrm{~mm}$
- Packaging unit 8 pcs.
- For reducing vibration
- Protects against damage
- Installation either on the product or on mounting pillar

Mounting pillar for protective field heights from 160-610 mm or 2 beam light grids

## 156886

AM-OS-C-A1-1000-156886

- Mounting pillar for light grids and light curtains LCA
- For protective field heights of $160-610 \mathrm{~mm}$ or for 2 beams
- Protects against damage
- Straightforward adjustment using spherical circular level in the cover

Mounting pillar with cable gland for protective field heights from 160-610 mm or for 2-beam light grids

| 156890 | Mounting pillar for light grids and light curtains |
| :--- | :--- |
| AM-OS-C-A1-M-1000-156890 | LCA |
|  | For protective field heights of $160-610 \mathrm{~mm}$ or for |
| 2 beams |  |
|  | With integrated cable gland PG11 |
|  | Protects against damage |
| - Straightforward adjustment using spherical |  |
| circular level in the cover |  |

## Socket for mounting pillars $202 \times 224 \times 34 \mathrm{~mm}$



| 156885 | - Socket for mounting pillars |
| :--- | :--- |
| AM-OS-P-AB-156885 | Adjustable via adjusting screws |
|  | Height 34 mm |

Socket for mounting pillars $202 \times 224 \times 55 \mathrm{~mm}$

| 156884 | Socket for mounting pillars |
| :--- | :--- |
| AM-OS-P-AA-156884 | Spring-mounted floor plate made of steel |
|  | Improved compensation of unevenness |
|  | Adjustable via adjusting screws |
|  | Height 55 mm |

## miscellaneous accessories

Laser alignment aid

| 156915 | Laser alignment aid for light grids and light |
| :--- | :--- |
| curtains LCA |  |
| AY-OS-LSR-156915 | Light source: laser diode - wavelength 650 nm |
| - Laser class 2 |  |
| Usable range 100 m |  |
|  | Straightforward clamping on the transmitter |


[^0]:    Transmitter

