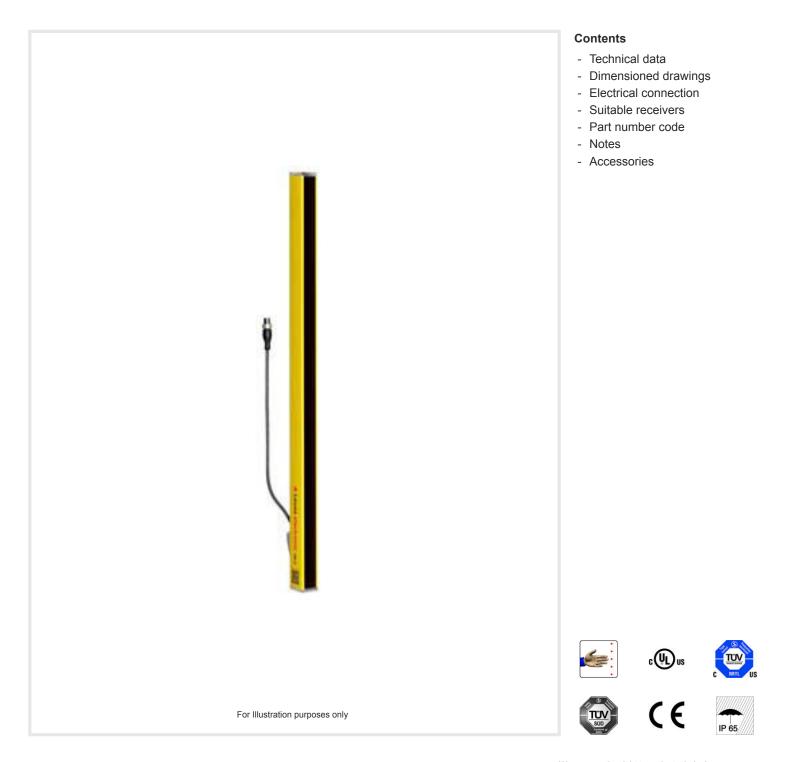


## **Technical data sheet** Safety light curtain transmitter

Part no.: 68020313 MLC500T30-1350G



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We reserve the right to make technical

## **Technical data**

#### Basic data

| Series      | MLC 500                |
|-------------|------------------------|
| Device type | Transmitter            |
| Cascading   | Guest                  |
| Contains    | 2x BT-NC sliding block |
| Application | Hand protection        |

#### **Characteristic parameters**

| Туре                        | 4, IEC/EN 61496          |
|-----------------------------|--------------------------|
| SIL                         | 3, IEC 61508             |
| SILCL                       | 3, IEC/EN 62061          |
| Mission time T <sub>M</sub> | 20 years, EN ISO 13849-1 |

#### **Protective field data**

| Resolution              | 30 mm    |
|-------------------------|----------|
| Protective field height | 1,350 mm |
| Operating range         | 0 10 m   |

#### **Optical data**

| Number of beams          | 54 Piece(s)                               |
|--------------------------|---|
| Light source             | LED, Infrared                             |
| Wavelength               | 940 nm                                    |
| Transmitted-signal shape | Pulsed                                    |
| LED risk group           | Exempt group (in acc. with EN 62471:2008) |

#### Connection

| Num | ber of connections | 1 Piece(s)               |
|-----|--------------------|--------------------------|
| C   | onnection 1        |                          |
| Fu  | unction            | Cascade, Host In         |
|     |                    | Cascade, Middle Guest In |
| Ту  | pe of connection   | Cable with connector     |
| Ca  | able length        | 330 mm                   |
| Sł  | neathing material  | PUR                      |
| Th  | nread size         | M12                      |
| М   | aterial            | Plastic                  |
| N   | o. of pins         | 8 -pin                   |
|     |                    |                          |

#### **Mechanical data**

| Dimension (W x H x L) | 29 mm x 1,364 mm x 53 mm |
|-----------------------|--------------------------|
| Housing material      | Metal                    |
| Metal housing         | Aluminum                 |
| Lens cover material   | Plastic / PMMA           |
| Material of end caps  | Diecast zinc             |
| Net weight            | 1,473 g                  |
| Housing color         | Yellow, RAL 1021         |
| Type of fastening     | Groove mounting          |
|                       | Mounting brackets        |
|                       | Swivel mount             |

#### **Environmental data**

| Ambient temperature, operation     | 0 55 °C   |
|------------------------------------|-----------|
| Ambient temperature, storage       | -30 70 °C |
| Relative humidity (non-condensing) | 0 95 %    |

#### Certifications

| Degree of protection | IP 65          |
|----------------------|----------------|
| Protection class     | III            |
| Certifications       | c TÜV NRTL US  |
|                      | c UL US        |
|                      | TÜV Süd        |
| Vibration resistance | 50 m/s²        |
| Shock resistance     | 100 m/s²       |
| US patents           | US 6,418,546 B |
|                      |                |

#### Classification

| Classification        |          |
|-----------------------|----------|
| Customs tariff number | 85365019 |
| ECLASS 5.1.4          | 27272704 |
| ECLASS 8.0            | 27272704 |
| ECLASS 9.0            | 27272704 |
| ECLASS 10.0           | 27272704 |
| ECLASS 11.0           | 27272704 |
| ECLASS 12.0           | 27272704 |
| ECLASS 13.0           | 27272704 |
| ECLASS 14.0           | 27272704 |
| ETIM 5.0              | EC002549 |
| ETIM 6.0              | EC002549 |
| ETIM 7.0              | EC002549 |
| ETIM 8.0              | EC002549 |
| ETIM 9.0              | EC002549 |
|                       |          |

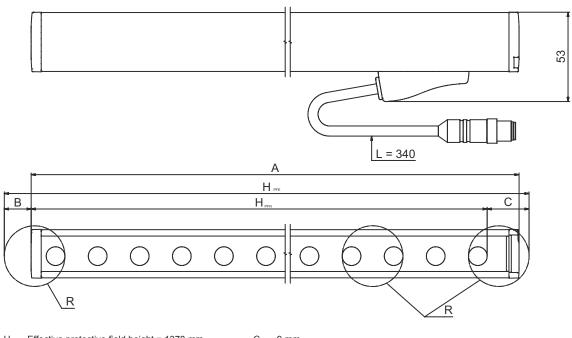
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## **Dimensioned drawings**

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All dimensions in millimeters

## Calculation of the effective protective field height $H_{PFE} = H_{PFN} + B + C$



 $H_{PFE}$  Effective protective field height = 1378 mm

- С 9 mm
- H<sub>PFN</sub> Nominal protective field height = 1350 mm
- Total height = 1364 mm А
- В 19 mm

- R
  - Effective protective field height  ${\rm H}_{\rm PFE}$  goes beyond the dimensions of the optics area to the outer borders of the circles labeled with R.

## **Electrical connection**

#### **Connection 1**

| Function           | Cascade, Host In              |
|--------------------|-------------------------------|
|                    | Cascade, Middle Guest In      |
| Type of connection | Cable with connector          |
| Cable length       | 330 mm                        |
| Sheathing material | PUR                           |
| Cable color        | Black                         |
| Type of stranding  | Pair stranding (twisted pair) |
| Wire cross section | 0.14 mm <sup>2</sup>          |
| Thread size        | M12                           |
| Туре               | Male                          |
| Material           | Plastic                       |
| No. of pins        | 8 -pin                        |
| Encoding           | A-coded                       |
|                    |                               |

### Suitable receivers

| <br>Part no. | Designation     | Article                          | Description   |
|--------------|-----------------|----------------------------------|---|
| 68021313     | MLC520R30-1350G | Safety light curtain<br>receiver | Resolution: 30mm<br>Protective field height: 1,350mm<br>Response time: 12ms<br>Connection: Cable with connector, M12, Plastic, 8 -pin, 330mm, PUR |

## Part number code

#### Part designation: MLCxyy-za-hhhhei-ooo



| MLC  | Safety light curtain   |
|------|--|
| x    | Series<br>3: MLC 300<br>5: MLC 500   |
| уу   | Function classes<br>00: transmitter<br>01: transmitter (AIDA)<br>02: transmitter with test input<br>10: basic receiver - automatic restart<br>11: basic receiver - automatic restart (AIDA)<br>20: standard receiver - EDM/RES selectable<br>30: extended receiver - blanking/muting |
| Z    | Device type<br>T: transmitter<br>R: receiver   |
| а    | Resolution<br>14: 14 mm<br>20: 20 mm<br>30: 30 mm<br>40: 40 mm<br>90: 90 mm  |
| hhhh | Protective field height 150 … 3000: from 150 mm to 3000 mm   |
| e    | Host/Guest (optional)<br>H: Host<br>MG: Middle Guest<br>G: Guest   |
| i    | Interface (optional)<br>/A: AS-i   |
| 000  | Option<br>/V: high Vibration-proof<br>EX2: explosion protection (zones 2 + 22)<br>SPG: Smart Process Gating  |
|      | Note   |
|      | ∜ A list with all available device types can be found on the Leuze website at www.leuze.com.   |

## **Notes**



#### Observe intended use!

 ${\ensuremath{\,\textcircled{\tiny \ensuremath{\,\Downarrow}}}}$  The product may only be put into operation by competent persons.

 $\ensuremath{\mathfrak{b}}$  Only use the product in accordance with its intended use.

## Accessories

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## Connection technology - Interconnection cables

|  | Part no. | Designation      | Article               | Description  |
|--|----------|------------------|-----------------------|--|
|  | 429278   | CB-M12-2000E-8TP | Interconnection cable | Connection 1: Connector, M12, Axial, Female, A-coded, 8 -pin<br>Connection 2: Connector, M12, Axial, Male, A-coded, 8 -pin<br>Shielded: Yes<br>Cable length: 2,000 mm<br>Sheathing material: PUR |

## Mounting technology - Mounting brackets

|      | Part no. | Designation | Article             | Description  |
|------|----------|-------------|---------------------|--|
| 1111 | 429006   | BT-2L-HG    | Mounting device set | Mounting bracket, at device: Screw type<br>Material: Metal |

## Mounting technology - Swivel mounts

|      | Part no. | Designation | Article              | Description   |
|------|----------|-------------|----------------------|---|
| P.Q. | 429395   | BT-2HF-G    | Mounting bracket set | Fastening, at system: Through-hole mounting<br>Mounting bracket, at device: Clampable<br>Type of mounting device: Turning, 360°<br>Material: Metal, Plastic |

## Alignment aids

| <br>Part no. | Designation | Article       | Description               |
|--------------|-------------|---------------|---------------------------|
| 520101       | AC-ALM-M    | Alignment aid | Housing material: Plastic |

## Services

|            | Part no. | Designation | Article           | Description  |
|------------|----------|-------------|-------------------|--|
| $\bigcirc$ | S981050  | CS40-I-140  | Safety inspection | Details: Checking of a safety light barrier application in accordance with<br>current standards and guidelines. Inclusion of the device and machine data in<br>a database, production of a test log per application.<br>Conditions: It must be possible to stop the machine, support provided by<br>customer's employees and access to the machine for Leuze employees must<br>be ensured. |
| y, U       | S981046  | CS40-S-140  | Start-up support  | Details: For safety devices including stopping time measurement and initial inspection.<br>Conditions: Devices and connection cables are already mounted, price not including travel costs and, if applicable, accommodation expenses.   |

## Accessories





♦ A list with all available accessories can be found on the Leuze website in the Download tab of the article detailed page.