



the sensor people



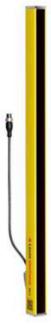


Figure can vary

Part no.: 68020310 MLC500T30-1050G Safety light curtain transmitter











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### **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     | 1,050 mm                                     |  |
| Operating range             | 0 10 m                                       |  |
|                             |  |  |
| Optical data                |  |  |
| Number of beams             | 42 Piece(s)                                  |  |
| Light source                | LED , Infrared                               |  |
| LED light wavelength        | 940 nm                                       |  |
| Transmitted-signal shape    | Pulsed                                       |  |
| LED group                   | Exempt group in acc. with EN 62471:2008      |  |
| Connection                  |  |  |
| Number of connections       | 1 Piece(s)                                   |  |
| Connection 1                |  |  |
| Type of connection          | Cable with connector                         |  |
| Function                    | Cascade, Host In<br>Cascade, Middle Guest In |  |
| Cable length                | 330 mm                                       |  |
| Sheathing material          | PUR  |  |
| Thread size                 | M12  |  |
| Material                    | Plastic                                      |  |
| No. of pins                 | 8 -pin                                       |  |
| Mechanical data             |  |  |
| Dimension (W x H x L)       | 29 mm × 1.064 mm × 53 mm                     |  |

| Mechanical data       |   |
|-----------------------|---|
| Dimension (W x H x L) | 29 mm x 1,064 mm x 53 mm                            |
| Housing material      | Metal , Aluminum                                    |
| Lens cover material   | Plastic / PMMA                                      |
| Material of end caps  | Diecast zinc  |
| Net weight            | 1,173 g   |
| Housing color         | Yellow, RAL 1021                                    |
| Type of fastening     | Groove mounting<br>Mounting bracket<br>Swivel mount |

#### Environmental data



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

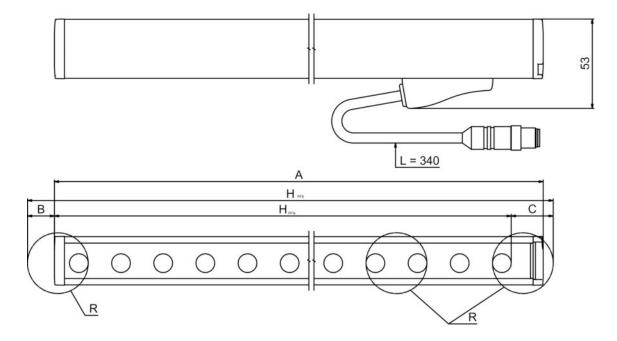
| Certifications       |                                      |  |  |  |
|----------------------|--------------------------------------|--|--|--|
| Degree of protection | IP 65                                |  |  |  |
| Protection class     | III                                  |  |  |  |
| Certifications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

| Classification        |          |  |
|-----------------------|----------|--|
| Customs tariff number | 85365019 |  |
| eCl@ss 8.0            | 27272704 |  |
| eCl@ss 9.0            | 27272704 |  |
| ETIM 5.0              | EC002549 |  |
| ETIM 6.0              | EC002549 |  |

### **Dimensioned drawings**

All dimensions in millimeters

Calculation of the effective protective field height H<sub>PFE</sub> = H<sub>PFN</sub> + B + C



HPFE Effective protective field height = 1078 mm

HPFN Nominal protective field height = 1050 mm

- A Total height = 1064 mm
- B 19 mm
- C 9 mm
- R Effective protective field height HPFE goes beyond the dimensions of the optics area to the outer borders of the circles labeled with R.



#### **Electrical connection**

| Connection 1       |  |  |  |
|--------------------|--|--|--|
| Type of connection | Cable with connector                         |  |  |
| Function           | Cascade, Host In<br>Cascade, Middle Guest In |  |  |
| Cable length       | 330 mm                                       |  |  |
| Sheathing material | PUR  |  |  |
| Cable color        | Black  |  |  |
| Type of stranding  | Pair stranding (twisted pair)                |  |  |
| Wire cross section | 0.14 mm²                                     |  |  |
| Thread size        | M12  |  |  |
| Туре               | Male   |  |  |
| Material           | Plastic                                      |  |  |
| No. of pins        | 8 -pin                                       |  |  |
| Encoding           | A-coded                                      |  |  |

#### Suitable receivers

| Part no. | Designation     | Article                          | Description   |
|----------|-----------------|----------------------------------|---|
| 68021310 | MLC520R30-1050G | Safety light<br>curtain receiver | Resolution: 30 mm Protective field height: 1,050 mm Response time: 9 ms Connection: Cable with connector, M12, Plastic, 8 -pin, 330 mm, PUR |

#### Part number code

Part designation: MLCxyy-za-hhhhei-ooo

| MLC  | Safety light curtain   |
|------|--|
| х    | Series:<br>3: MLC 300<br>5: MLC 500  |
| уу   | Function classes: 00: transmitter 01: transmitter (AIDA) 02: transmitter with test input 10: basic receiver - automatic restart 11: basic receiver - automatic restart (AIDA) 20: standard receiver - EDM/RES selectable 30: extended receiver - blanking/muting |
| Z    | Device type: T: transmitter R: receiver  |
| а    | Resolution: 14: 14 mm 20: 20 mm 30: 30 mm 40: 40 mm 90: 90 mm  |
| hhhh | Protective field height: 150 3000: from 150 mm to 3000 mm  |
| е    | Host/Guest (optional): H: Host MG: Middle Guest G: Guest   |
| i    | Interface (optional): /A: AS-i   |



| MLC | Safety light curtain  |
|-----|---|
|     | Option: /V: high Vibration-proof EX2: explosion protection (zones 2 + 22) SPG: Smart Process Gating |

#### Note

A list with all available device types can be found on the Leuze electronic website at www.leuze.com.

#### **Notes**

#### Observe intended use!

- The product may only be put into operation by competent persons.
- · Only use the product in accordance with its intended use.

#### **Accessories**

### Connection technology - Interconnection cables

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

## Mounting technology - Swivel mounts

|        | Part no. | Designation | Article              | Description  |
|--------|----------|-------------|----------------------|--|
| Page a | 429395   | BT-2HF-G    | Mounting bracket set | Contains: 2x BT-HF swivel mount, 2 cylinders for mounting on<br>the light curtain<br>Fastening, at system: Through-hole mounting<br>Mounting bracket, at device: Clampable<br>Type of mounting device: Turning, 360°<br>Material: Metal, Plastic |

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### Alignment aids

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

### Services

| Part no. | Designation | Article   | Description  |
|----------|-------------|---|--|
| S981050  | CS40-I-140  | Safety inspection<br>"Safety light<br>barriers" | Details: Checking of a safety light barrier application in accordance with current standards and guidelines. Inclusion of the device and machine data in a database, production of a test log per application.  Conditions: It must be possible to stop the machine, support provided by customer's employees and access to the machine for Leuze employees must be ensured.  Restrictions: Travel costs and accommodation expenses charged separately and according to expenditure. |
| S981046  | CS40-S-140  | Start-up support                                | Details: For safety devices including stopping time measurement and initial inspection.  Conditions: Devices and connection cables are already mounted, price not including travel costs and, if applicable, accommodation expenses.  Restrictions: Max. 2 h., no mechanical (mounting) and electrical (wiring) work performed, no changes (attachments, wiring, programming) to third-party components in the nearby environment.   |

#### Note

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