



Figure can vary

**Part no.: 68020201**  
**MLC500T20-150G**  
**Safety light curtain transmitter**



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## Technical data

| <b>Basic data</b>                |   |
|----------------------------------|---|
| Series                           | MLC 500   |
| Device type                      | Transmitter   |
| Cascading                        | Guest   |
| Contains                         | 2x BT-NC sliding block                              |
| Application                      | Hand protection                                     |
| <b>Characteristic parameters</b> |   |
| Type                             | 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                           |
| <b>Protective field data</b>     |   |
| Resolution                       | 20 mm   |
| Protective field height          | 150 mm  |
| Operating range                  | 0 ... 15 m  |
| <b>Optical data</b>              |   |
| Number of beams                  | 12 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             |
| <b>Connection</b>                |   |
| Number of connections            | 1 Piece(s)  |
| <b>Connection 1</b>              |   |
| 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  |
| <b>Mechanical data</b>           |   |
| Dimension (W x H x L)            | 29 mm x 164 mm x 53 mm                              |
| Housing material                 | Metal , Aluminum                                    |
| Lens cover material              | Plastic / PMMA                                      |
| Material of end caps             | Diecast zinc  |
| Net weight                       | 273 g   |
| Housing color                    | Yellow, RAL 1021                                    |
| Type of fastening                | Groove mounting<br>Mounting bracket<br>Swivel mount |
| <b>Environmental data</b>        |   |

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

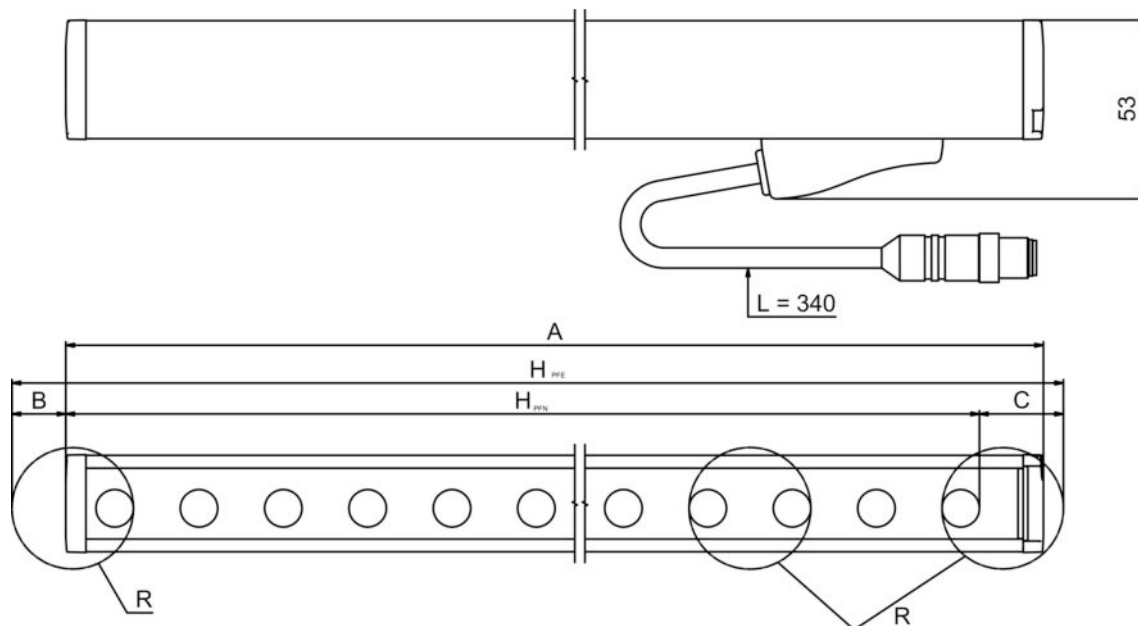
| Certifications       |                                      |
|----------------------|--------------------------------------|
| Degree of protection | IP 65                                |
| Protection class     | III                                  |
| Certifications       | c CSA US<br>c TÜV NRTL US<br>TÜV Süd |
| Vibration resistance | 50 m/s <sup>2</sup>                  |
| Shock resistance     | 100 m/s <sup>2</sup>                 |
| 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  $H_{PFE} = H_{PFN} + B + C$



$H_{PFE}$  Effective protective field height = 167 mm

$H_{PFN}$  Nominal protective field height = 150 mm

A Total height = 164 mm

B 7 mm


C 10 mm

R Effective protective field height  $H_{PFE}$  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 mm <sup>2</sup>                         |
| Thread size        | M12  |
| Type               | Male   |
| Material           | Plastic                                      |
| No. of pins        | 8 -pin                                       |
| Encoding           | A-coded                                      |

## Suitable receivers

|  | Part no. | Designation    | Article                       | Description  |
|--|----------|----------------|-------------------------------|--|
|  | 68021201 | MLC520R20-150G | Safety light curtain receiver | Resolution: 20 mm<br>Protective field height: 150 mm<br>Response time: 3 ms<br>Connection: Cable with connector, M12, Plastic, 8 -pin, 330 mm, PUR |

## Part number code

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

| MLC | Safety light curtain   |
|-----|--|
| x   | <b>Series:</b><br>3: MLC 300<br>5: MLC 500   |
| yy  | <b>Function classes:</b><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   | <b>Device type:</b><br>T: transmitter<br>R: receiver   |
| a   | <b>Resolution:</b><br>14: 14 mm<br>20: 20 mm<br>30: 30 mm<br>40: 40 mm<br>90: 90 mm  |
| hhh | <b>Protective field height:</b><br>150 ... 3000: from 150 mm to 3000 mm  |
| e   | <b>Host/Guest (optional):</b><br>H: Host<br>MG: Middle Guest<br>G: Guest   |
| i   | <b>Interface (optional):</b><br>/A: AS-i   |

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|     |   |
|-----|---|
| MLC | Safety light curtain  |
| 000 | <b>Option:</b><br>/V: high Vibration-proof<br>EX2: explosion protection (zones 2 + 22)<br>SPG: Smart Process Gating |

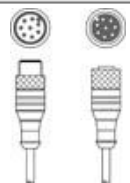
|   |
|---|
| <b>Note</b>   |
| A list with all available device types can be found on the Leuze electronic website at <a href="http://www.leuze.com">www.leuze.com</a> . |

## Notes


|   |
|---|
| <b>Observe intended use!</b>  |
| <ul style="list-style-type: none"> <li>The product may only be put into operation by competent persons.</li> <li>Only use the product in accordance with its intended use.</li> </ul> |

## Accessories


### 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  |
|---|----------|-------------|---------------------|--|
|  | 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   |
|---|----------|-------------|----------------------|---|
|  | 429395   | BT-2HF-G    | Mounting bracket set | Contains: 2x BT-HF swivel mount, 2 cylinders for mounting on 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 "Safety light barriers" | <p>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.</p> <p>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.</p> <p>Restrictions: Travel costs and accommodation expenses charged separately and according to expenditure.</p> |
|  | S981046  | CS40-S-140  | Start-up support                          | <p>Details: For safety devices including stopping time measurement and initial inspection.</p> <p>Conditions: Devices and connection cables are already mounted, price not including travel costs and, if applicable, accommodation expenses.</p> <p>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.</p>   |

### Note

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