

Technical data sheet

Safety light curtain receiver

Part no.: 68021416
MLC520R40-1650G



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Technical data

Basic data

| | |
|-------------|--|
| Series | MLC 500 |
| Device type | Receiver |
| Cascading | Guest |
| Contains | 2x BT-NC sliding block |
| Application | Access guarding Danger zone guarding Hand protection |

Characteristic parameters

| | |
|------------------------|--------------------------|
| Type | 4, IEC/EN 61496 |
| SIL | 3, IEC 61508 |
| SILCL | 3, IEC/EN 62061 |
| Performance Level (PL) | e, EN ISO 13849-1 |
| Mission time T_M | 20 years, EN ISO 13849-1 |
| Category | 4, EN ISO 13849 |

Protective field data

| | |
|-------------------------|----------|
| Resolution | 40 mm |
| Protective field height | 1,650 mm |

Optical data

| | |
|-----------------|-------------|
| Number of beams | 66 Piece(s) |
|-----------------|-------------|

Time behavior

| | |
|---------------|---|
| Response time | 14 ms, plus response times of the Host/ Middle Guest devices |
|---------------|---|

Connection

| | |
|-----------------------|------------|
| Number of connections | 1 Piece(s) |
|-----------------------|------------|

Connection 1

| | |
|--------------------|--|
| Function | Cascade, Host In Cascade, Middle Guest In |
| Type of connection | Cable with connector |
| 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 x 1,664 mm x 53 mm |
| Housing material | Metal |
| Metal housing | Aluminum |
| Lens cover material | Plastic / PMMA |
| Material of end caps | Diecast zinc |
| Net weight | 1,773 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/s ² |
| Shock resistance | 100 m/s ² |
| US patents | US 6,418,546 B |

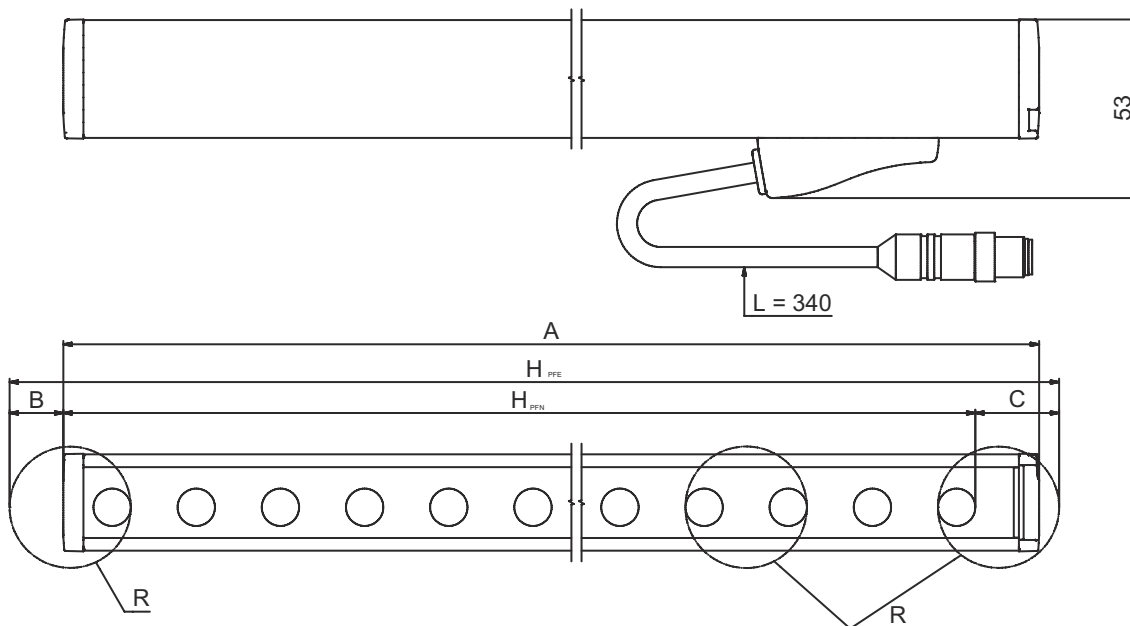
Classification

| | |
|-----------------------|----------|
| 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 |

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 = 1690 mm
 H_{PFN} Nominal protective field height = 1650 mm
 A Total height = 1664 mm
 B 25 mm

C 15 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

| | |
|--------------------|-------------------------------|
| 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 ² |
| Thread size | M12 |
| Type | Male |
| Material | Plastic |
| No. of pins | 8 -pin |
| Encoding | A-coded |

Suitable transmitters

| | Part no. | Designation | Article | Description |
|--|----------|-----------------|----------------------------------|--|
| | 68020416 | MLC500T40-1650G | Safety light curtain transmitter | Resolution: 40 mm Protective field height: 1,650 mm Operating range: 0 ... 20 m 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 | Series 3: MLC 300 5: MLC 500 |
| yy | 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 |
| a | 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 |
| e | Host/Guest (optional) H: Host MG: Middle Guest G: Guest |
| i | Interface (optional) /A: AS-i |
| ooo | 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 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-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 |
|--|----------|-------------|---------------------|--|
| | 429006 | BT-2L-HG | Mounting device set | Mounting bracket, at device: Screw type Material: Metal |

Mounting technology - Swivel mounts

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

Services

| | Part no. | Designation | Article | Description |
|--|----------|-------------|-------------------|--|
| | S981050 | CS40-I-140 | Safety inspection | 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. |
| | 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. |

Note



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