

# Technical data sheet

## Safety light curtain receiver

Part no.: 68021404

MLC520R40-450G

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For illustration purposes only



## 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	450 mm

### Optical data

Number of beams	18 Piece(s)
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### Time behavior

Response time	4 ms, plus response times of the Host/ Middle Guest devices
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### Connection

Number of connections	1 Piece(s)
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### 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 464 mm x 53 mm
Housing material	Metal
Metal housing	Aluminum
Lens cover material	Plastic / PMMA
Material of end caps	Diecast zinc
Net weight	573 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
Approvals	c TÜV NRTL US c UL US 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

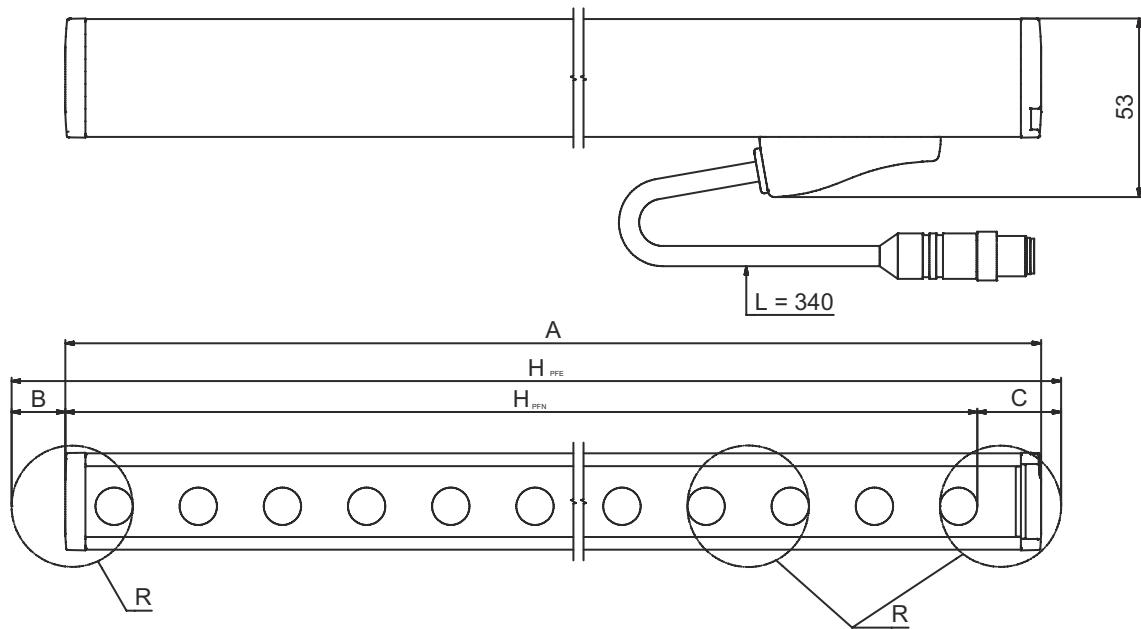
### Classification

Customs tariff number	85365019
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
ECLASS 15.0	27272704
ETIM 5.0	EC002549
ETIM 6.0	EC002549
ETIM 7.0	EC002549
ETIM 8.0	EC002549
ETIM 9.0	EC002549
ETIM 10.0	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 = 490 mm

$H_{PFN}$  Nominal protective field height = 450 mm

A Total height = 464 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
Type of connection	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 transmitters

Part no.	Designation	Article	Description
	68020404	MLC500T40-450G	Safety light curtain transmitter Resolution: 40 mm Protective field height: 450 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	<b>Series</b> 3: MLC 300 5: MLC 500
yy	<b>Function classes</b> 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 or gating 35: Extended receiver – Gating
z	<b>Device type</b> T: transmitter R: receiver
a	<b>Resolution</b> 14: 14 mm 20: 20 mm 30: 30 mm 40: 40 mm 90: 90 mm
hhh	<b>Protective field height</b> 150 ... 3000: from 150 mm to 3000 mm
e	<b>Host/Guest (optional)</b> H: Host MG: Middle Guest G: Guest
i	<b>Interface (optional)</b> /A: AS-i
ooo	<b>Option</b> /V: high Vibration-proof EX2: explosion protection (zones 2 + 22) SPG: Smart Process Gating SPG RR: Smart Process Gating – Reduced resolution

### Note



↳ A list with all available device types can be found on the Leuze website at [www.leuze.com](http://www.leuze.com).

## Notes



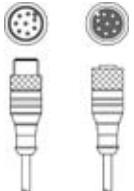
### Observe intended use!



↳ 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 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.