



the sensor people





Figure can vary

Part no.: 68023915 MLC520R90-1500MG Safety light curtain receiver















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### **Technical data**

Pagia data	
Basic data Series	MLC 500
Device type	Receiver
Cascading	Middle Guest
Contains	2x BT-NC sliding block
Application	Access guarding Danger zone guarding
Characteristic parameters	
Туре	4 , IEC/EN 61496
SIL	3 , IEC 61508
SILCL	3 , IEC/EN 62061
Performance Level (PL)	e , EN ISO 13849-1
Mission time T <sub>M</sub>	20 years , EN ISO 13849-1
Category	4 , EN ISO 13849
· ,	
Protective field data	
Resolution	90 mm
Protective field height	1,500 mm
•	
Optical data	
Number of beams	20 Piece(s)
	(*)
Timing	
Response time	5 ms
Connection	
Number of connections	2 Piece(s)
Connection 1	
Type of connection	
31	Cable with connector
Function	Cable with connector  Cascade, Host In
	Cascade, Host In
Cable length	
	Cascade, Host In 330 mm
Cable length Sheathing material	Cascade, Host In 330 mm PUR
Cable length Sheathing material Thread size	Cascade, Host In 330 mm PUR M12 Plastic
Cable length Sheathing material Thread size Material No. of pins	Cascade, Host In 330 mm PUR M12
Cable length Sheathing material Thread size Material	Cascade, Host In 330 mm PUR M12 Plastic
Cable length Sheathing material Thread size Material No. of pins Connection 2	Cascade, Host In 330 mm PUR M12 Plastic 8 -pin
Cable length Sheathing material Thread size Material No. of pins Connection 2 Type of connection	Cascade, Host In  330 mm  PUR  M12  Plastic  8 -pin  Cable with connector
Cable length Sheathing material Thread size Material No. of pins Connection 2 Type of connection Function	Cascade, Host In  330 mm  PUR  M12  Plastic  8 -pin  Cable with connector  Cascade, Guest Out
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Cable length Sheathing material Thread size Material No. of pins  Connection 2 Type of connection Function Cable length Sheathing material Thread size Material	Cascade, Host In 330 mm  PUR  M12  Plastic 8 -pin  Cable with connector  Cascade, Guest Out 330 mm  PUR  M12  Plastic
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Cable length Sheathing material Thread size Material No. of pins  Connection 2 Type of connection Function Cable length Sheathing material Thread size Material No. of pins	Cascade, Host In 330 mm  PUR M12 Plastic 8 -pin  Cable with connector Cascade, Guest Out 330 mm  PUR M12 Plastic 8 -pin



Lens cover material	Plastic / PMMA	
Material of end caps	Diecast zinc	
Net weight	1,698 g	
Housing color	Yellow, RAL 1021	
Type of fastening	Groove mounting Mounting bracket 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 c TÜV NRTL US TÜV Süd	
Vibration resistance	50 m/s²	
Shock resistance	100 m/s²	
US patents	US 6,418,546 B	

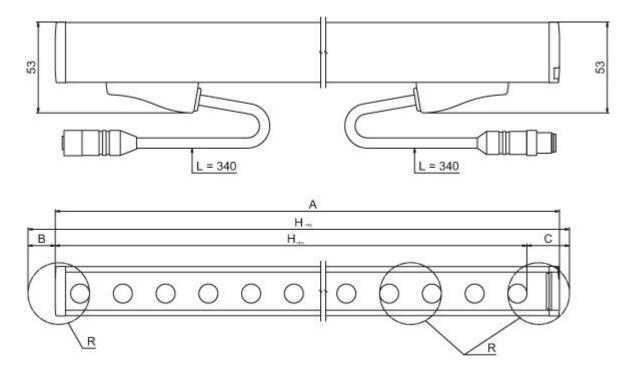
Classification	
Customs tariff number	85365019
eCl@ss 8.0	27272704
eCl@ss 9.0	27272704
ETIM 5.0	EC002549
ETIM 6.0	EC002549

### **Dimensioned drawings**

All dimensions in millimeters



### Calculation of the effective protective field height Hpfe = Hpfn + B + C



HPFE Effective protective field height = 1590 mm

HPFN Nominal protective field height = 1500 mm

- A Total height = 1514 mm
- B 50 mm
- C 40 mm
- R Effective protective field height H<sub>PFE</sub> 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	
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	

Connection 2	
Type of connection	Cable with connector
Function	Cascade, Guest Out
Cable length	330 mm
Sheathing material	PUR
Cable color	Black



Connection 2	
Wire cross section	0.14 mm²
Type of stranding	Pair stranding (twisted pair)
Thread size	M12
Туре	Female
Material	Plastic
No. of pins	8 -pin
Encoding	A-coded

#### Suitable transmitters

Part no.	Designation	Article	Description
68022915		Safety light curtain transmitter	Resolution: 90 mm Protective field height: 1,500 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
х	Series: 3: MLC 300 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
000	Option: //: high Vibration-proof EX2: explosion protection (zones 2 + 22) SPG: Smart Process Gating

B I	_	4 -
N	O	TC
		LC

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- 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
429395	BT-2HF-G	Mounting bracket set	Contains: 2x BT-HF swivel mount, 2 cylinders for mounting on the light curtain 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
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	S981050	CS40-I-140	Safety inspection "Safety light 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.

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Part r	no. Designation	Article	Description
\$9810 <sup>2</sup>	46 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.