



the sensor people





Figure can vary

Part no.: 68023310 MLC520R30-1050MG Safety light curtain receiver











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### **Technical data**

Basic data	MI 0 500
Series	MLC 500
Device type	Receiver
Cascading	Middle 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
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	30 mm
Protective field height	1,050 mm
Optical data	
Number of beams	42 Piece(s)
Timing	
-	9 ms
Response time	9 ms
Response time	9 ms
Response time  Connection	
Connection Number of connections	9 ms 2 Piece(s)
Connection Number of connections Connection 1	2 Piece(s)
Connection Number of connections  Connection 1 Type of connection	2 Piece(s)  Cable with connector
Connection Number of connections  Connection 1 Type of connection Function	2 Piece(s)  Cable with connector  Cascade, Host In
Connection Number of connections  Connection 1 Type of connection Function Cable length	2 Piece(s)  Cable with connector  Cascade, Host In  330 mm
Connection Number of connections  Connection 1 Type of connection Function Cable length Sheathing material	2 Piece(s)  Cable with connector Cascade, Host In 330 mm PUR
Connection Number of connections  Connection 1 Type of connection Function Cable length Sheathing material Thread size	2 Piece(s)  Cable with connector  Cascade, Host In  330 mm  PUR  M12
Connection Number of connections  Connection 1 Type of connection Function Cable length Sheathing material Thread size Material	2 Piece(s)  Cable with connector  Cascade, Host In  330 mm  PUR  M12  Plastic
Connection Number of connections  Connection 1 Type of connection Function Cable length Sheathing material Thread size Material No. of pins	2 Piece(s)  Cable with connector  Cascade, Host In  330 mm  PUR  M12
Connection Number of connections  Connection 1 Type of connection Function Cable length Sheathing material Thread size Material No. of pins  Connection 2	2 Piece(s)  Cable with connector  Cascade, Host In  330 mm  PUR  M12  Plastic  8 -pin
Connection Number of connections  Connection 1 Type of connection Function Cable length Sheathing material Thread size Material No. of pins  Connection 2 Type of connection	2 Piece(s)  Cable with connector  Cascade, Host In  330 mm  PUR  M12  Plastic  8 -pin  Cable with connector
Connection Number of connections  Connection 1 Type of connection Function Cable length Sheathing material Thread size Material No. of pins  Connection 2 Type of connection	2 Piece(s)  Cable with connector Cascade, Host In 330 mm PUR M12 Plastic 8 -pin  Cable with connector Cascade, Guest Out
Connection Number of connections  Connection 1 Type of connection Function Cable length Sheathing material Thread size Material No. of pins  Connection 2 Type of connection Function Cable length	2 Piece(s)  Cable with connector  Cascade, Host In  330 mm  PUR  M12  Plastic  8 -pin  Cable with connector  Cascade, Guest Out  330 mm
Connection Number of connections  Connection 1 Type of connection Function Cable length Sheathing material Thread size Material No. of pins  Connection 2 Type of connection Function Cable length Sheathing material	2 Piece(s)  Cable with connector Cascade, Host In 330 mm PUR M12 Plastic 8 -pin  Cable with connector Cascade, Guest Out 330 mm PUR
Connection Number of connections  Connection 1 Type of connection Function Cable length Sheathing material Thread size Material No. of pins  Connection 2 Type of connection Function Cable length Sheathing material Thread size	Cable with connector Cascade, Host In 330 mm PUR M12 Plastic 8 -pin  Cable with connector Cascade, Guest Out 330 mm PUR
Connection Number of connections  Connection 1 Type of connection Function 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	2 Piece(s)  Cable with connector  Cascade, Host In  330 mm  PUR  M12  Plastic  8 -pin  Cable with connector  Cascade, Guest Out  330 mm  PUR  M12  Plastic
Connection Number of connections  Connection 1 Type of connection Function Cable length Sheathing material Thread size Material No. of pins  Connection 2 Type of connection Function Cable length Sheathing material Thread size	Cable with connector Cascade, Host In 330 mm PUR M12 Plastic 8 -pin  Cable with connector Cascade, Guest Out 330 mm PUR
Connection Number of connections  Connection 1 Type of connection Function 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	2 Piece(s)  Cable with connector  Cascade, Host In  330 mm  PUR  M12  Plastic  8 -pin  Cable with connector  Cascade, Guest Out  330 mm  PUR  M12  Plastic
Connection Number of connections  Connection 1 Type of connection Function Cable length Sheathing material Thread size Material No. of pins  Connection 2 Type of connection Function Cable length Sheathing material No. of pins  Mechanical data	Cable with connector Cascade, Host In 330 mm PUR M12 Plastic 8 -pin  Cable with connector Cascade, Guest Out 330 mm PUR M12 Plastic 8 -pin
Connection Number of connections  Connection 1 Type of connection Function 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	2 Piece(s)  Cable with connector  Cascade, Host In  330 mm  PUR  M12  Plastic  8 -pin  Cable with connector  Cascade, Guest Out  330 mm  PUR  M12  Plastic



Lens cover material	Plastic / PMMA		
Material of end caps	Diecast zinc		
Net weight	1,248 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			
IP 65			
III			
c CSA US c TÜV NRTL US TÜV Süd			
50 m/s²			
100 m/s²			
US 6,418,546 B			
	III c CSA US c TÜV NRTL US TÜV Süd  50 m/s² 100 m/s²		

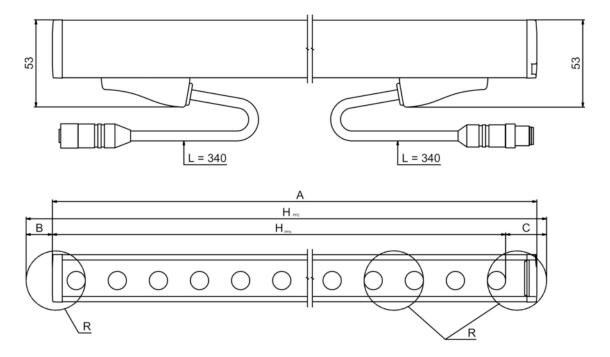
Classification	
Customs tariff number	85365019
eCl@ss 8.0	27272704
eCl@ss 9.0	27272704
ETIM 5.0	EC002549
ETIM 6.0	EC002549

### **Dimensioned drawings**

All dimensions in millimeters



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



 $\mathsf{H}_\mathsf{PFE}$  Effective protective field height = 1078 mm

H<sub>PFN</sub> Nominal protective field height = 1050 mm

A Total height = 1064 mm

B 19 mm

C 9 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
Wire cross section	0.14 mm²



Connection 2	
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
68022310	MLC500T30-1050MG		Resolution: 30 mm Protective field height: 1,050 mm Operating range: 0 10 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: /V: high Vibration-proof EX2: explosion protection (zones 2 + 22) SPG: Smart Process Gating

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
	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
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.



	Part no.	Designation	Article	Description
	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