



the sensor people





Figure can vary

Part no.: 68023112 MLC520R14-1200MG Safety light curtain receiver











# Contents

- · Technical data
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#### **Technical data**

Desir dete	
Basic data	MI O 500
Series	MLC 500
Device type	Receiver
Cascading	Middle Guest
Contains	2x BT-NC sliding block
Application	Finger 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 $T_{\text{M}}$	20 years , EN ISO 13849-1
Category	4 , EN ISO 13849
Protective field data	
Resolution	14 mm
Protective field height	1,200 mm
	, · · ·
Ontical data	
Optical data  Number of beams	120 Dioce/o\
Number of beams	120 Piece(s)
Timing	
Response time	25 ms
	20 1110
	20 1110
Connection	
	2 Piece(s)
Connection	
Connection  Number of connections	
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  Plastic
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	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  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
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
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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  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	Cable with connector Cascade, Host In 330 mm PUR M12 Plastic 8 -pin  Cable with connector Cascade, Guest Out 330 mm PUR



Lens cover material	Plastic / PMMA		
Material of end caps	Diecast zinc		
Net weight	1,398 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			

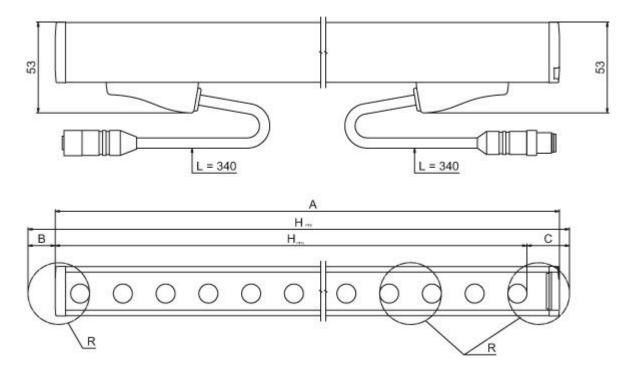
Classification	
Customs tariff number	85365019
eCl@ss 8.0	27272704
eCl@ss 9.0	27272704
ETIM 5.0	EC002549
ETIM 6.0	EC002549

### **Dimensioned drawings**

All dimensions in millimeters



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



HPFE Effective protective field height = 1212 mm

HPFN Nominal protective field height = 1200 mm

- A Total height = 1214 mm
- B 6 mm
- C 6 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 mm²	
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
Ž,	68022112	MLC500T14-1200MG	Safety light curtain transmitter	Resolution: 14 mm Protective field height: 1,200 mm Operating range: 0 6 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

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.



Part	rt no. Do	Designation	Article	Description
S9810	1046 CS4	S40-S-140		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.