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Figure can vary

Part no.: 68023209 MLC520R20-900MG Safety light curtain receiver











# **Contents**

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- Dimensioned drawings
- Electrical connection
- Suitable transmitters
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#### **Technical data**

Basic data	NII O 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	20 mm	
Protective field height	900 mm	
0 ( 11 )		
Optical data	70 Dia 22/2)	
Number of beams	72 Piece(s)	
Timing		
Dannana dina		
Response time	15 ms	
kesponse time	15 ms	
Connection	15 ms	
	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	2 Piece(s)  Cable with connector Cascade, Host In 330 mm PUR M12 Plastic 8 -pin  Cable with connector Cascade, Guest Out	
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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	1,098 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				

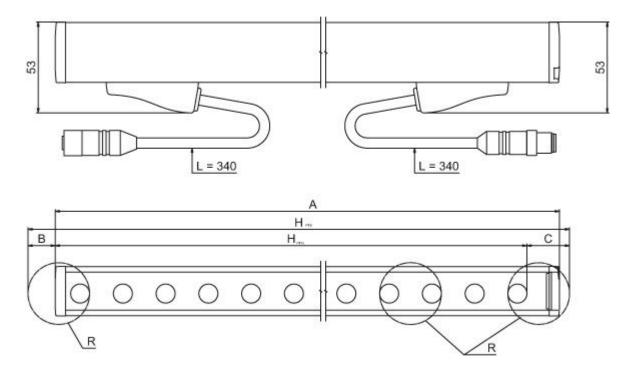
Classification				
Customs tariff number	85365019			
eCl@ss 8.0	27272704			
eCl@ss 9.0	27272704			
ETIM 5.0	EC002549			
ETIM 6.0	EC002549			

### **Dimensioned drawings**

All dimensions in millimeters



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



HPFE Effective protective field height = 917 mm

HPFN Nominal protective field height = 900 mm

- A Total height = 914 mm
- B 7 mm
- C 10 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 mm <sup>2</sup>	
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
<u> </u>	68022209	MLC500T20-900MG		Resolution: 20 mm Protective field height: 900 mm Operating range: 0 15 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

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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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Pa	Part no.	Designation	Article	Description
598	981046	CS40-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.