## SMART SENSOR BUSINESS

## Leuze electronic

the sensor people



Part no.: 68023202 MLC520R20-225MG Safety light curtain receiver



Figure can vary

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### Part no.: 68023202 – MLC520R20-225MG – Safety light curtain receiver

#### **Technical data**

Basic data			
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	225 mm		
Optical data			
Number of beams	18 Piece(s)		
The second se			
Timing			
Response time	4 ms		
Connection			
Number of connections	2 Piece(s)		
Connection 1			
Type of connection	Cable with connector		
Function	Cascade, Host In		
Cable length	330 mm		
Sheathing material	PUR		
Thread size	M12		
Material	Plastic		
No. of pins	8 -pin		
Connection 2			
Type of connection	Cable with connector		
Function	Cascade, Guest Out		
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 239 mm x 53 mm		
Housing material			
BOUSING MAIANAI	Metal, Aluminum		

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Lens cover material	Plastic / PMMA			
Material of end caps	Diecast zinc			
Net weight	423 g			
Housing color	Yellow, RAL 1021			
Type of fastening	Groove mounting Mounting bracket Swivel mount	Mounting bracket		
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	c TÜV NRTL US		
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			

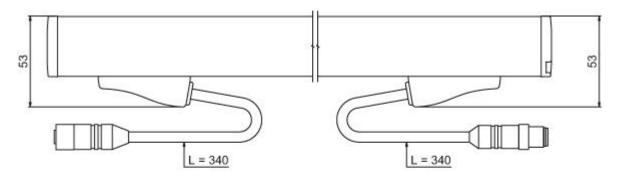
#### **Dimensioned drawings**

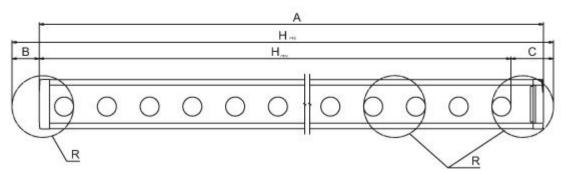
All dimensions in millimeters

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#### Calculation of the effective protective field height HPFE = HPFN + B + C





HPFE Effective protective field height = 242 mm

HPFN Nominal protective field height = 225 mm

- A Total height = 239 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 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

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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	Designation Article	Description
680222	202 MLC500T20-225MG	ALC500T20-225MG Safety light curtain transmitter	Resolution: 20 mm Protective field height: 225 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
x	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
a	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

#### Note

A list with all available device types can be found on the Leuze electronic website at www.leuze.com.

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#### 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
	CB- M12-2000E-8TP		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
P.G.	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.

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	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.