SMART SENSOR BUSINESS

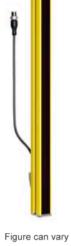
Leuze electronic

the sensor people



Part no.: 68021209 MLC520R20-900G Safety light curtain receiver





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Part no.: 68021209 – MLC520R20-900G – Safety light curtain receiver

Technical data

Basic data			
Series	MLC 500		
Device type	Receiver		
Cascading	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_M	20 years , EN ISO 13849-1		
Category	4 , EN ISO 13849		
	4, EN100 10040		
Protoctive field data			
Protective field data	20 mm		
Resolution	20 mm		
Protective field height	900 mm		
Optical data			
Number of beams	72 Piece(s)		
Timing			
Response time	15 ms		
Connection			
Connection Number of connections	1 Piece(s)		
	1 Piece(s)		
Number of connections	1 Piece(s) Cable with connector		
Number of connections Connection 1			
Number of connections Connection 1 Type of connection	Cable with connector Cascade, Host In		
Number of connections Connection 1 Type of connection Function	Cable with connector Cascade, Host In Cascade, Middle Guest In		
Number of connections Connection 1 Type of connection Function Cable length	Cable with connector Cascade, Host In Cascade, Middle Guest In 330 mm		
Number of connections Connection 1 Type of connection Function Cable length Sheathing material	Cable with connector Cascade, Host In Cascade, Middle Guest In 330 mm PUR		
Number of connections Connection 1 Type of connection Function Cable length Sheathing material Thread size	Cable with connector Cascade, Host In Cascade, Middle Guest In 330 mm PUR M12		
Number of connections Connection 1 Type of connection Function Cable length Sheathing material Thread size Material	Cable with connector Cascade, Host In Cascade, Middle Guest In 330 mm PUR M12 Plastic		
Number of connections Connection 1 Type of connection Function Cable length Sheathing material Thread size Material	Cable with connector Cascade, Host In Cascade, Middle Guest In 330 mm PUR M12 Plastic		
Number of connections Connection 1 Type of connection Function Cable length Sheathing material Thread size Material No. of pins	Cable with connector Cascade, Host In Cascade, Middle Guest In 330 mm PUR M12 Plastic		
Number of connections Connection 1 Type of connection Function Cable length Sheathing material Thread size Material No. of pins	Cable with connector Cascade, Host In Cascade, Middle Guest In 330 mm PUR M12 Plastic 8 -pin		
Number of connections Connection 1 Type of connection Function Cable length Sheathing material Thread size Material No. of pins	Cable with connector Cascade, Host In Cascade, Middle Guest In 330 mm PUR M12 Plastic 8 -pin 29 mm x 914 mm x 53 mm		
Number of connections Connection 1 Type of connection Function Cable length Sheathing material Thread size Material No. of pins Mechanical data Dimension (W x H x L) Housing material	Cable with connector Cascade, Host In Cascade, Middle Guest In 330 mm PUR M12 Plastic 8 -pin 29 mm x 914 mm x 53 mm Metal , Aluminum		
Number of connections Connection 1 Type of connection Function Cable length Sheathing material Thread size Material No. of pins Mechanical data Dimension (W x H x L) Housing material Lens cover material Material of end caps	Cable with connector Cascade, Host In Cascade, Middle Guest In 330 mm PUR M12 Plastic 8 -pin 29 mm x 914 mm x 53 mm Metal , Aluminum Plastic / PMMA Diecast zinc		
Number of connections Connection 1 Type of connection Function Cable length Sheathing material Thread size Material No. of pins Mechanical data Dimension (W x H x L) Housing material Lens cover material Material of end caps Net weight	Cable with connector Cascade, Host In Cascade, Middle Guest In 330 mm PUR M12 Plastic 8 -pin 29 mm x 914 mm x 53 mm Metal , Aluminum Plastic / PMMA Diecast zinc 1,023 g		
Number of connections Connection 1 Type of connection Function Cable length Sheathing material Thread size Material No. of pins Mechanical data Dimension (W x H x L) Housing material Lens cover material Material of end caps	Cable with connector Cascade, Host In Cascade, Middle Guest In 330 mm PUR M12 Plastic 8 -pin 29 mm x 914 mm x 53 mm Metal , Aluminum Plastic / PMMA Diecast zinc		

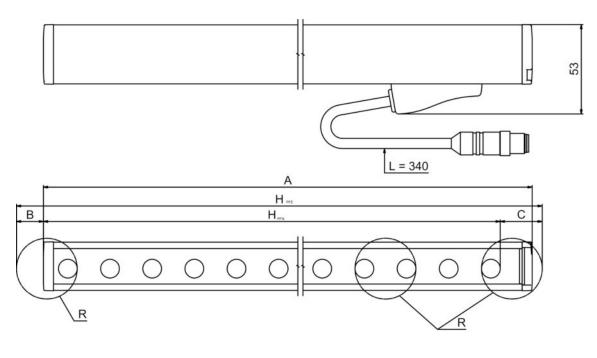
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Environmental data	
Ambient temperature, operation	0 55 °C
Ambient temperature, storage	-30 70 °C
Relative humidity (non-condensing)	0 95 %
Certifications	
Degree of protection	IP 65
Protection class	III
Certifications	c CSA US c TÜV NRTL US TÜV Süd
Vibration resistance	50 m/s²
Shock resistance	100 m/s ²
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 $H_{PFE} = H_{PFN} + B + C$



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

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R Effective protective field height HPFE 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 Cascade, Middle Guest In	
Cable length	330 mm	
Sheathing material	PUR	
Cable color	Black	
Type of stranding	Pair stranding (twisted pair)	
Wire cross section	0.14 mm ²	
Thread size	M12	
Туре	Male	
Material	Plastic	
No. of pins	8 -pin	
Encoding	A-coded	

Suitable transmitters

Part no.	Designation	Article	Description
68020209	MLC500T20-900G	Safety light curtain transmitter	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	
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	
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	

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MLC	Safety light curtain
	Host/Guest (optional): H: Host MG: Middle Guest G: Guest
	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.

Notes

C	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

P	Part no.	Designation	Article	Description
		-		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

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Mounting technology - Swivel mounts

	Part no.	Designation	Article	Description
P.o.s	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
\bigcirc	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.
	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.