



the sensor people





Figure can vary

Part no.: 68023216 MLC520R20-1650MG Safety light curtain receiver











Contents

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- Dimensioned drawings
- Electrical connection
- Suitable transmitters
- · Part number code
- Notes
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Technical data

Basic data			
Series	MLC 500		
Device type	Receiver		
Cascading	Middle Guest		
Contains	2x BT-NC sliding block		
Application	Hand protection		
Application	Hand protection		
Characteristic parameters	4 150/51 04400		
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		
Protective field data			
Resolution	20 mm		
Protective field height	1,650 mm		
Optical data			
Number of beams	132 Piece(s)		
Timing			
•			
Response time	28 ms		
Response time	28 ms		
	28 ms		
Connection Number of connections			
Connection Number of connections	28 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	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		
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		
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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	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	1,848 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				
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			

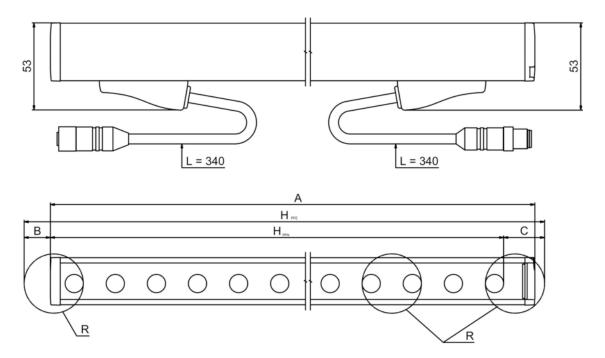
Classification	
Customs tariff number	85365019
eCl@ss 8.0	27272704
eCl@ss 9.0	27272704
ETIM 5.0	EC002549
ETIM 6.0	EC002549

Dimensioned drawings

All dimensions in millimeters



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



HPFE Effective protective field height = 1667 mm HPFN Nominal protective field height = 1650 mm

A Total height = 1664 mm

B 7 mm

C 10 mm

R Effective protective field height H_{PFE} 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
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
	68022216		Safety light curtain transmitter	Resolution: 20 mm Protective field height: 1,650 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: N: 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

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
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.

Note

A list with all available accessories can be found on the Leuze electronic website in the Download tab of the article detailed page