



the sensor people





Figure can vary

Part no.: 68023913 MLC520R90-1350MG Safety light curtain receiver











Contents

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- Dimensioned drawings
- Electrical connection
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Technical data

Basic data	
Series	MI C FOO
	MLC 500
Device type	Receiver
Cascading	Middle Guest
Contains	2x BT-NC sliding block
Application	Access guarding Danger zone guarding
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
· ,	
Protective field data	
Resolution	90 mm
Protective field height	1,350 mm
3	
Optical data	
Number of beams	18 Piece(s)
Timing	
Response time	4 ms
Connection	
Number of connections	
	2 Piece(s)
	2 Piece(s)
Connection 1 Type of connection	2 Piece(s) Cable with connector
Connection 1	Cable with connector
Connection 1 Type of connection	
Connection 1 Type of connection Function	Cable with connector Cascade, Host In
Connection 1 Type of connection Function Cable length	Cable with connector Cascade, Host In 330 mm
Connection 1 Type of connection Function Cable length Sheathing material	Cable with connector Cascade, Host In 330 mm PUR
Connection 1 Type of connection Function Cable length Sheathing material Thread size	Cable with connector Cascade, Host In 330 mm PUR M12
Connection 1 Type of connection Function Cable length Sheathing material Thread size Material	Cable with connector Cascade, Host In 330 mm PUR M12 Plastic
Connection 1 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
Connection 1 Type of connection Function Cable length Sheathing material Thread size Material No. of pins Connection 2	Cable with connector Cascade, Host In 330 mm PUR M12 Plastic 8 -pin
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 1 Type of connection Function Cable length Sheathing material Thread size Material No. of pins Connection 2 Type of connection Function	Cable with connector Cascade, Host In 330 mm PUR M12 Plastic 8 -pin Cable with connector Cascade, Guest Out
Connection 1 Type of connection Function Cable length Sheathing material Thread size Material No. of pins Connection 2 Type of connection Function Cable length	Cable with connector Cascade, Host In 330 mm PUR M12 Plastic 8 -pin Cable with connector Cascade, Guest Out 330 mm
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	Cable with connector Cascade, Host In 330 mm PUR M12 Plastic 8 -pin Cable with connector Cascade, Guest Out 330 mm PUR
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Lens cover material	Plastic / PMMA	
Material of end caps	Diecast zinc	
Net weight	1,548 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	

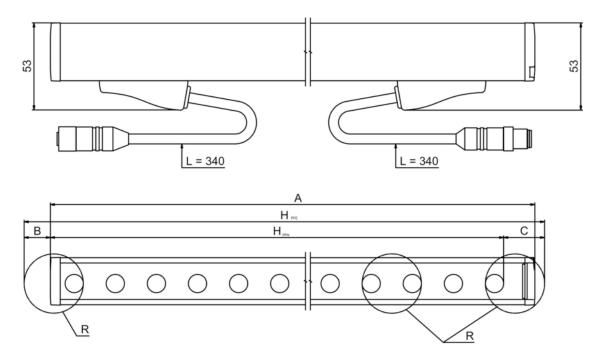
Classification	
Customs tariff number	85365019
eCl@ss 8.0	27272704
eCl@ss 9.0	27272704
ETIM 5.0	EC002549
ETIM 6.0	EC002549

Dimensioned drawings

All dimensions in millimeters



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



 H_PFE Effective protective field height = 1440 mm

H_{PFN} Nominal protective field height = 1350 mm

A Total height = 1364 mm

B 50 mm

C 40 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
	68022913		Safety light curtain transmitter	Resolution: 90 mm Protective field height: 1,350 mm Operating range: 0 20 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

N	O	t	e

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.