## SMART SENSOR BUSINESS

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Part no.: 68022315 MLC500T30-1500MG Safety light curtain transmitter





Figure can vary

# Contents

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## Part no.: 68022315 – MLC500T30-1500MG – Safety light curtain transmitter

#### **Technical data**

Basic data	
Series	MLC 500
Device type	Transmitter
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
Mission time T <sub>M</sub>	20 years , EN ISO 13849-1
Protective field data	
Resolution	30 mm
Protective field height	1,500 mm
Operating range	0 10 m
Optical data	
Number of beams	60 Piece(s)
	LED , Infrared
Light source	
Light source	940 nm
LED light wavelength	940 nm Pulsed
LED light wavelength Transmitted-signal shape	Pulsed
LED light wavelength Transmitted-signal shape	Pulsed
LED light wavelength Transmitted-signal shape LED group	Pulsed
LED light wavelength Transmitted-signal shape LED group Connection	Pulsed Exempt group in acc. with EN 62471:2008
LED light wavelength Transmitted-signal shape LED group Connection Number of connections	Pulsed Exempt group in acc. with EN 62471:2008
LED light wavelength Transmitted-signal shape LED group Connection Number of connections Connection 1	Pulsed Exempt group in acc. with EN 62471:2008 2 Piece(s)
LED light wavelength Transmitted-signal shape LED group Connection Number of connections Connection 1 Type of connection	Pulsed Exempt group in acc. with EN 62471:2008 2 Piece(s) Cable with connector
LED light wavelength Transmitted-signal shape LED group Connection Number of connections Connection 1 Type of connection Function	Pulsed Exempt group in acc. with EN 62471:2008 2 Piece(s) Cable with connector Cascade, Host In
LED light wavelength Transmitted-signal shape LED group Connection Number of connections Connection 1 Type of connection Function Cable length	Pulsed Exempt group in acc. with EN 62471:2008 2 Piece(s) Cable with connector Cascade, Host In 330 mm
LED light wavelength Transmitted-signal shape LED group Connection Number of connections Connection 1 Type of connection Function Cable length Sheathing material	Pulsed         Exempt group in acc. with EN 62471:2008         2 Piece(s)         Cable with connector         Cascade, Host In         330 mm         PUR
LED light wavelength Transmitted-signal shape LED group  Connection Number of connections  Connection 1 Type of connection Function Cable length Sheathing material Thread size	Pulsed         Exempt group in acc. with EN 62471:2008         2 Piece(s)         Cable with connector         Cascade, Host In         330 mm         PUR         M12
LED light wavelength Transmitted-signal shape LED group  Connection Number of connections  Connection 1 Type of connection Function Cable length Sheathing material Thread size Material	Pulsed         Exempt group in acc. with EN 62471:2008         2 Piece(s)         Cable with connector         Cascade, Host In         330 mm         PUR         M12         Plastic
LED light wavelength Transmitted-signal shape LED group Connection Number of connections Connection 1 Type of connection Function Cable length Sheathing material Thread size Material No. of pins	Pulsed         Exempt group in acc. with EN 62471:2008         2 Piece(s)         Cable with connector         Cascade, Host In         330 mm         PUR         M12         Plastic
LED light wavelength Transmitted-signal shape LED group Connection Number of connections Connection 1 Type of connection Function Cable length Sheathing material Thread size Material No. of pins Connection 2	Pulsed         Exempt group in acc. with EN 62471:2008         2 Piece(s)         Cable with connector         Cascade, Host In         330 mm         PUR         M12         Plastic         8 -pin
LED light wavelength Transmitted-signal shape LED group 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	Pulsed         Exempt group in acc. with EN 62471:2008         2 Piece(s)         Cable with connector         Cascade, Host In         330 mm         PUR         M12         Plastic         8 -pin         Cable with connector
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LED light wavelength Transmitted-signal shape LED group 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	Pulsed         Exempt group in acc. with EN 62471:2008         2 Piece(s)         Cable with connector         Cascade, Host In         330 mm         PUR         M12         Plastic         8 -pin         Cable with connector         Cascade, Guest Out         330 mm
LED light wavelength Transmitted-signal shape LED group 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	Pulsed         Exempt group in acc. with EN 62471:2008         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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Leuze electronic GmbH + Co. KG, In der Braike 1, 73277 Owen Phone: +49 7021 573-0, Fax: +49 7021 573-199 info@leuze.com • www.leuze.com We reserve the right to make technical changes • eng 2019-05-10 2 / 7

## Part no.: 68022315 – MLC500T30-1500MG – Safety light curtain transmitter

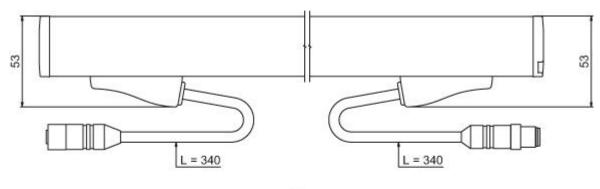
Material of end caps	Diecast zinc		
Net weight	1,698 g		
Housing color	Yellow, RAL 1021		
Type of fastening	Groove mounting Mounting bracket Swivel mount		
Environmental data			
Ambient temperature, operation	0 55 °C		
Ambient temperature, storage	-30 70 °C		
Relative humidity (non-condensing)	0 95 %		
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/s <sup>2</sup>		
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		

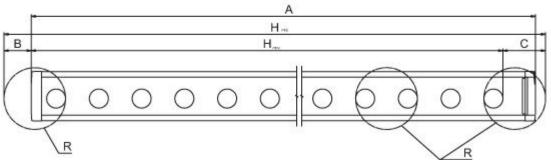
#### **Dimensioned drawings**

All dimensions in millimeters

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





HPFE Effective protective field height = 1528 mm

HPFN Nominal protective field height = 1500 mm

- A Total height = 1514 mm
- B 19 mm
- C 9 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

## Part no.: 68022315 – MLC500T30-1500MG – Safety light curtain transmitter

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 receivers

	Part no.	Designation	Article	Description
K	68023315	MLC520R30-1500MG	curtain receiver	Resolution: 30 mm Protective field height: 1,500 mm Response time: 13 ms 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
429278	CB- M12-2000E-8TP	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
P.G.	429395	BT-2HF-G	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

### Alignment aids

Part no.	Designation	Article	Description
520101	AC-ALM-M	Alignment aid	Housing material: Plastic

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#### 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.
(@	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.