## SMART SENSOR BUSINESS

# Leuze electronic

the sensor people



Part no.: 68006913 MLC500T90-1350/A Safety light curtain transmitter



Figure can vary

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## Part no.: 68006913 – MLC500T90-1350/A – Safety light curtain transmitter

#### **Technical data**

Basic data			
Series	MLC 500		
Device type	Transmitter		
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		
Mission time T <sub>M</sub>	20 years , EN ISO 13849-1		
Protective field data			
Resolution	90 mm		
Protective field height	1,350 mm		
Operating range	0 20 m		
Optical data			
Synchronization	Optical between transmitter and receiver		
Light source	LED , Infrared		
LED light wavelength	940 nm		
Transmitted-signal shape	Pulsed		
LED group	Exempt group in acc. with EN 62471:2008		
Electrical data			
Protective circuit	Overvoltage protection Short circuit protected		
Performance data			
Supply voltage UB	26.5 31.6 V		
Current consumption from AS-i circuit	50 mA		
Inputs			
Number of digital switching inputs	1 Piece(s)		
Switching inputs			
Туре	Digital switching input		
Switching voltage high, min.	18 V		
Switching voltage low, max.	2.5 V		
Switching voltage, typ.	22.5 V		
Voltage type	DC		
Interface			
Interface Type	AS-Interface Safety at Work		
	AS-Interface Safety at Work		
Туре	AS-Interface Safety at Work Process		
Туре <b>АS-i</b>			
Type <i>AS-i</i> Function	Process		

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onnection			
umber of connections	1 Piece(s)		
Connection 1			
Type of connection	Connector		
Function	Machine interface	Machine interface	
Thread size	M12	M12	
Material	Metal		
No. of pins	5 -pin		
Cable properties			
Permissible conductor cross section, typ.	0.25 mm²		
Length of connection cable, max.	100 m		
Permissible cable resistance to load, max.	200 Ω		

Mechanical data	
Dimension (W x H x L)	29 mm x 1,416 mm x 35.4 mm
Housing material Metal , Aluminum	
Lens cover material	Plastic / PMMA
Material of end caps	Diecast zinc
Net weight	1,500 g
Housing color	Yellow, RAL 1021
Type of fastening	Groove mounting Mounting bracket Mounting on Device Column Swivel mount

Operation and display		
Type of display	LED	
Number of LEDs	2 Piece(s)	

Environmental data	
Ambient temperature, operation	0 55 °C
Ambient temperature, storage	-30 70 °C
Relative humidity (non-condensing)	0 95 %

IP 65	
III	
c CSA US c TÜV NRTL US TÜV Süd	
50 m/s <sup>2</sup>	
100 m/s <sup>2</sup>	
US 6,418,546 B	

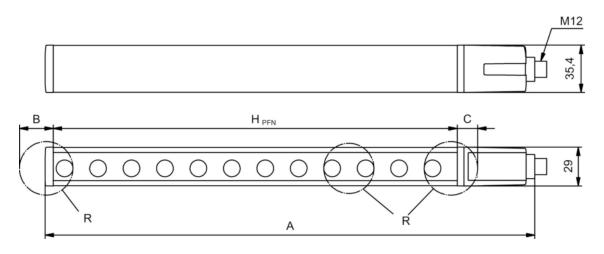
Classification		
Customs tariff number	85365019	
eCl@ss 8.0	27272704	
eCl@ss 9.0	27272704	
ETIM 5.0	EC002549	
ETIM 6.0	EC002549	

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#### **Dimensioned drawings**

All dimensions in millimeters

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



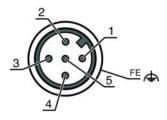
HPFE Effective protective field height = 1440 mm

- HPFN Nominal protective field height = 1350 mm
- A Total height = 1416 mm
- B 50 mm
- C 40 mm
- 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	Connector	
Function	Machine interface	
Thread size	M12	
Туре	Male	
Material	Metal	
No. of pins	5 -pin	
Encoding	A-coded	

Pin	Pin assignment
1	AS-i+
2	n.c.
3	AS-i-
4	n.c.
5	n.c.



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#### **Operation and display**

#### LEDs

LED	Display	Meaning
1	Off	Device switched off
	Red, continuous light	Device error
	Green, continuous light	Normal operation

#### Suitable receivers

Pa	Part no.	Designation	Article	Description
6800	007913 M A	ILC510R90-1350/	curtain receiver	Resolution: 90 mm Protective field height: 1,350 mm Response time: 5 ms Interface: AS-Interface Safety at Work Connection: Connector, M12, Metal, 5 -pin

#### 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
e	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

## Mounting technology - Swivel mounts

	Part no.	Designation	Article	Description
<b>PPPR</b>	429393	BT-2HF	Mounting bracket set	Contains: 2x BT-HF swivel mount, 1 cylinder 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

### 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.

Note

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