

# **Technical data sheet** Safety light curtain transmitter

Part no.: 68006909

MLC500T90-900/A



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## **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	900 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 risk group	Exempt group (in acc. with EN 62471:2008)

#### **Electrical data**

Protective circuit	Overvoltage protection
	Short circuit protected

#### Performance data

Switching voltage, typ.

Voltage type

Number of connections

r en onnance data	
Supply voltage U <sub>B</sub>	26.5 31.6 V
Current consumption from AS-i circuit	50 mA

#### Inputs

Number of digital switching inputs	1 Piece(s)
Switching inputs	
Switching inputs	
Туре	Digital switching input
Switching voltage high, min.	18 V
Switching voltage low, max.	2.5 V

22.5 V

DC

### Interface

Ty	уре	AS-Interface Safety at Work
	AS-i	
	Function	Process
	AS-i profile	S-0.B.F
	Slave address	131 programmable, default=0
	Cycle time acc. to AS-i specifications	Max. 5 ms ms
С	onnection	

#### **Connection 1**

Function	Machine interface
Type of connection	Connector
Thread size	M12
Material	Metal
No. of pins	5 -pin

#### Cable properties

- maio pi opoi moo	
Permissible conductor cross section, typ.	0.25 mm <sup>2</sup>
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 966 mm x 35.4 mm
Housing material	Metal
Metal housing	Aluminum
Lens cover material	Plastic / PMMA
Material of end caps	Diecast zinc
Net weight	1,050 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 %

#### 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 5.1.4	27272704	
eCI@ss 8.0	27272704	
eCl@ss 9.0	27272704	
eCl@ss 10.0	27272704	
eCl@ss 11.0	27272704	
ETIM 5.0	EC002549	
ETIM 6.0	EC002549	
ETIM 7.0	EC002549	

1 Piece(s)

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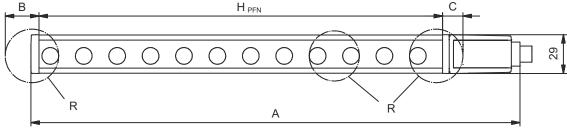
## **Dimensioned drawings**



All dimensions in millimeters

Calculation of the effective protective field height  $H_{PFE} = H_{PFN} + B + C$ 





 ${\rm H_{PFE}}$  Effective protective field height = 990 mm

 ${\rm H_{PFN}}$  Nominal protective field height = 900 mm

- Total height = 966 mm
- 50 mm

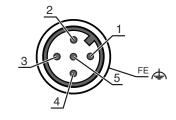
- С 40 mm
- Effective protective field height  $H_{\text{PFE}}$  goes beyond the dimensions of the optics area to the outer borders of the circles labeled with R.

## **Electrical connection**

#### **Connection 1**

Function	Machine interface
Type of connection	Connector
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.



## **Operation and display**

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

### Suitable receivers



Part no.	Designation	Article	Description
68007909	MLC510R90-900/A	Safety light curtain receiver	Resolution: 90 mm Protective field height: 900 mm Response time: 4 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
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
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 website at www.leuze.com.

### **Notes**



### Observe intended use!



♥ The product may only be put into operation by competent persons.

## **Accessories**



## Mounting technology - Swivel mounts

	Part no.	Designation	Article	Description
P. Car	429393	BT-2HF	Mounting bracket set	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
-1	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 website in the Download tab of the article detailed page.