

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

## Part no.: 68016906 MLC500T90-600H/A



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## **Technical data**

#### Basic data

Series	MLC 500
Device type	Transmitter
Cascading	Host
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	600 mm
Operating range	0 20 m

#### **Optical data**

Number of beams	8 Piece(s)
Synchronization	Optical between transmitter and receiver
Light source	LED, Infrared
LED light wavelength	940 nm
Transmitted-signal shape	Pulsed

#### **Electrical data**

Р

Protective circuit		Overvoltage protection
		Short circuit protected
	Performance 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	
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

AS-i Function

AS-i profile

Slave address

Туре
------

AS-Interface Safety at Work

```
Process
                                    S-0.B.F
                                    1..31 programmable, default=0
Cycle time acc. to AS-i specifica-
                                    Max. 5 ms ms
```

### Connection

tions

Number of connections

2 Piece(s)

<b>.</b> e	U	Z	e

	Connection 1		
	Function	Machine interface	
	Type of connection Thread size	Connector M12	
	Material	Metal	
	No. of pins		
	No. of phils	5 -pin	
	Connection 2		
	Function	Cascade, Guest Out	
		Cascade, Middle Guest Out	
	Type of connection	Cable with connector	
	Cable length	330 mm	
	Sheathing material	PUR	
	Thread size	M12	
	Material	Plastic	
	No. of pins	8 -pin	
	Cable properties Permissible conductor cross	0.25 mm <sup>2</sup>	
	section, typ.	0.25 11111-	
	Length of connection cable, max.	100 m	
	Permissible cable resistance to	200 Ω	
	load, max.		
	a shawla shafe		
IVI	echanical data		
Di	mension (W x H x L)	29 mm x 666 mm x 35.4 mm	
	ousing material	Metal	
	etal housing	Aluminum	
	ens cover material	Plastic / PMMA	
	aterial of end caps	Diecast zinc	
	et weight	825 g	
	ousing color	Yellow, RAL 1021	
1 y	pe of fastening	Groove mounting	
		Mounting bracket Swivel mount	
		Swivermount	
0	peration and display		
T١	pe of display	LED	
-	umber of LEDs	2 Piece(s)	
		2 :	
E	nvironmental data		
A	nbient temperature, operation	0 55 °C	
	nbient temperature, storage	-30 70 °C	
	elative humidity (non-condensing)	0 95 %	
	<u>.</u>		
С	ertifications		
De	egree of protection	IP 65	
	rotection class	III	
С	ertifications	c CSA US	
		c TÜV NRTL US	
		TÜV Süd	
U	S patents	US 6,418,546 B	

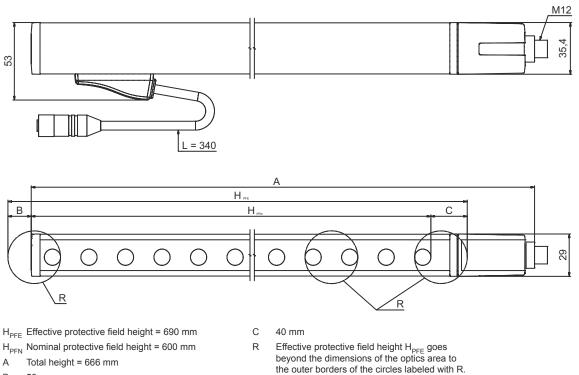
## **Technical data**

Customs tariff number	85365019
eCl@ss 5.1.4	27272704
eCl@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

## **Dimensioned drawings**

All dimensions in millimeters

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



#### B 50 mm

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

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## **Electrical connection**

## Pin Pin assignment

1	AS-i+	
2	n.c.	(
3	AS-i-	3
4	n.c.	```
5	n.c.	

### **Connection 2**

1

Function	Cascade, Guest Out
	Cascade, Middle Guest Out
Type of connection	Cable with connector
Cable length	330 mm
Sheathing material	PUR
Cable color	Black
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

## **Operation and display**

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

## Suitable receivers

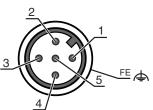
	Part no.	Designation	Article	Description
l	68017906	MLC510R90-600H/A	Safety light curtain receiver	Resolution: 90 mm Protective field height: 600 mm Response time: 3 ms Interface: AS-Interface Safety at Work Connection: Connector, M12, Metal, 5 -pin

## Part number code

Part designation: MLCxyy-za-hhhhei-ooo

MLC	Safety light curtain
x	<b>Series</b> 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





## Part number code

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MLC	Safety light curtain
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
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
1	Note
	♦ A list with all available device types can be found on the Leuze website at www.leuze.com.

## Notes

Observe intended use!
<ul> <li>The product may only be put into operation by competent persons.</li> <li>Only use the product in accordance with its intended use.</li> </ul>

## 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 - Swivel mounts

	Part no.	Designation	Article	Description
P. P. G.	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

## Accessories

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## 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.

# A

Note

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