



the sensor people





Part no.: 68006410 MLC500T40-1050/A Safety light curtain transmitter



















Figure can vary

Contents

- Technical data
- Dimensioned drawings
- Electrical connection
- · Operation and display
- Suitable receivers
- · Part number code
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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 Hand protection			
Characteristic parameters	4 150/51 04400			
Type	4 , IEC/EN 61496			
SIL	3 , IEC 61508			
SILCL	3 , IEC/EN 62061			
Mission time T _M	20 years , EN ISO 13849-1			
Protective field data				
Resolution	40 mm			
Protective field height	1,050 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 U _B	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			
voitage type	υC			
Interface				
Туре	AS-Interface Safety at Work			
AS-i				
Function	Process			
AS-i profile	S-0.B.F			
01 11	4.04			

Cycle time acc. to AS-i specifications

Slave address

1..31 programmable, default=0

Max. 5 ms



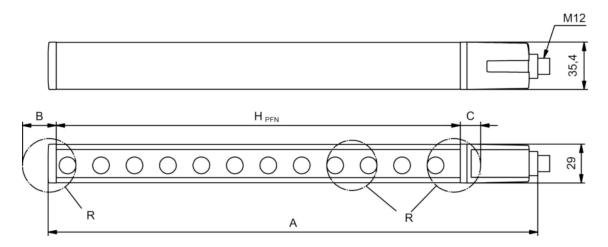
Connection				
Number of connections	4 Disco(a)			
	1 Piece(s)			
Connection 1 Type of connection	Connector			
Function	Machine interface			
Thread size	M12			
Material				
No. of pins	Metal 5 -pin			
	3 -piii			
Cable properties	0.25 mm²			
Permissible conductor cross section, typ.				
Length of connection cable, max.	100 m			
Permissible cable resistance to load, max.	200 Ω			
Mechanical data				
Dimension (W x H x L)	29 mm x 1,116 mm x 35.4 mm			
Housing material	Metal , Aluminum			
Lens cover material	Plastic / PMMA			
Material of end caps	Diecast zinc			
Net weight	1,200 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			
	LED 2 Piece(s)			
Type of display Number of LEDs				
Type of display Number of LEDs Environmental data	2 Piece(s)			
Type of display Number of LEDs Environmental data Ambient temperature, operation	2 Piece(s) 0 55 °C			
Type of display Number of LEDs Environmental data Ambient temperature, operation Ambient temperature, storage	2 Piece(s) 0 55 °C -30 70 °C			
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Type of display Number of LEDs Environmental data Ambient temperature, operation Ambient temperature, storage Relative humidity (non-condensing)	2 Piece(s) 0 55 °C -30 70 °C			
Type of display Number of LEDs Environmental data Ambient temperature, operation Ambient temperature, storage Relative humidity (non-condensing) Certifications	2 Piece(s) 0 55 °C -30 70 °C 0 95 %			
Type of display Number of LEDs Environmental data Ambient temperature, operation Ambient temperature, storage Relative humidity (non-condensing) Certifications Degree of protection	2 Piece(s) 0 55 °C -30 70 °C 0 95 %			
Type of display Number of LEDs Environmental data Ambient temperature, operation Ambient temperature, storage Relative humidity (non-condensing) Certifications Degree of protection Protection class	2 Piece(s) 0 55 °C -30 70 °C 0 95 % IP 65 III c CSA US c TÜV NRTL US			
Type of display Number of LEDs Environmental data Ambient temperature, operation Ambient temperature, storage Relative humidity (non-condensing) Certifications Degree of protection Protection class Certifications	2 Piece(s) 0 55 °C -30 70 °C 0 95 % IP 65 III c CSA US c TÜV NRTL US TÜV Süd			
Type of display Number of LEDs Environmental data Ambient temperature, operation Ambient temperature, storage Relative humidity (non-condensing) Certifications Degree of protection Protection class Certifications Vibration resistance	2 Piece(s) 0 55 °C -30 70 °C 0 95 % IP 65 III c CSA US c TÜV NRTL US TÜV Süd 50 m/s²			
Type of display Number of LEDs Environmental data Ambient temperature, operation Ambient temperature, storage Relative humidity (non-condensing) Certifications Degree of protection Protection class Certifications Vibration resistance Shock resistance US patents	2 Piece(s) 0 55 °C -30 70 °C 0 95 % IP 65 III c CSA US c TÜV NRTL US TÜV Süd 50 m/s² 100 m/s²			
Type of display Number of LEDs Environmental data Ambient temperature, operation Ambient temperature, storage Relative humidity (non-condensing) Certifications Degree of protection Protection class Certifications Vibration resistance Shock resistance US patents Classification	2 Piece(s) 0 55 °C -30 70 °C 0 95 % IP 65 III c CSA US c TÜV NRTL US TÜV Süd 50 m/s² 100 m/s² US 6,418,546 B			
Type of display Number of LEDs Environmental data Ambient temperature, operation Ambient temperature, storage Relative humidity (non-condensing) Certifications Degree of protection Protection class Certifications Vibration resistance Shock resistance US patents Classification Customs tariff number	2 Piece(s) 0 55 °C -30 70 °C 0 95 % IP 65 III c CSA US c TÜV NRTL US TÜV Süd 50 m/s² 100 m/s² US 6,418,546 B			
Type of display Number of LEDs Environmental data Ambient temperature, operation Ambient temperature, storage Relative humidity (non-condensing) Certifications Degree of protection Protection class Certifications Vibration resistance Shock resistance US patents Classification Customs tariff number eCl@ss 8.0	2 Piece(s) 0 55 °C -30 70 °C 0 95 % IP 65 III c CSA US c TÜV NRTL US TÜV Süd 50 m/s² 100 m/s² US 6,418,546 B 85365019 27272704			
Type of display Number of LEDs Environmental data Ambient temperature, operation Ambient temperature, storage Relative humidity (non-condensing) Certifications Degree of protection Protection class Certifications Vibration resistance Shock resistance US patents Classification Customs tariff number eCl@ss 8.0 eCl@ss 9.0	2 Piece(s) 0 55 °C -30 70 °C 0 95 % IP 65 III c CSA US c TÜV NRTL US TÜV Süd 50 m/s² 100 m/s² US 6,418,546 B 85365019 27272704			
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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 = 1090 mm

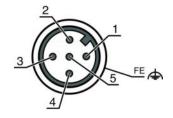
H_{PFN} Nominal protective field height = 1050 mm

- A Total height = 1116 mm
- B 25 mm
- C 15 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

Part no.	Designation	Article	Description
68007410	MLC510R40-1050/ A	Safety light curtain receiver	Resolution: 40 mm Protective field height: 1,050 mm Response time: 10 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
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: //: high Vibration-proof EX2: explosion protection (zones 2 + 22) SPG: Smart Process Gating

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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

Mounting technology - Swivel mounts

Part no.	Designation	Article	Description
429393	BT-2HF	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
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 electronic website in the Download tab of the article detailed page.