

Technical data sheet Safety light curtain receiver

Part no.: 68007301 MLC510R30-150/A



Contents

- Technical data
- Dimensioned drawings
- Electrical connection
- Operation and display
- Suitable transmitters
- Part number code
- Notes
- Accessories















Technical data



Basic data

Series	MLC 500
Device type	Receiver
Application	Hand protection

Characteristic parameters

Туре	4, IEC/EN 61496
SIL	3, IEC 61508
SILCL	3, IEC/EN 62061
Performance Level (PL)	e, EN ISO 13849-1
PFH _D	7.73E-09 per hour
Mission time T _M	20 years, EN ISO 13849-1
Category	4, EN ISO 13849

Protective field data

Protective field height 150 mm	

Optical data

Synchronization	Optical between transmitter and receiver
Synchronization	Optical between transmitter and receiver

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	50 mA
circuit	

Timing

Postert delay time	Response time	3 ms
Restart delay time 100 ms	Restart delay time	100 ms

Interface

Туре	AS-Interface Safety at Work

A3-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

Connection

Number of connections	1 Piece(s)
-----------------------	------------

Connection '	1
--------------	---

Connection 1		
Function	Machine interface	
Type of connection	Connector	
Thread size	M12	
Material	Metal	
No. of pins	5 -pin	

Cable	propertie	s

Permissible conductor cross section, typ.	0.25 mm ²
Length of connection cable, max.	100 m
Permissible cable resistance to load, max.	200 Ω

Mechanical data

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
US patents	US 6,418,546 B

Classification

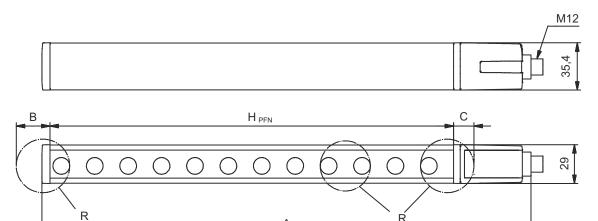
Customs tariff number	85365019
eCl@ss 5.1.4	27272704
eCI@ss 8.0	27272704
eCl@ss 9.0	27272704
eCl@ss 10.0	27272704
eCl@ss 11.0	27272704
ETIM 5.0	EC002549
ETIM 6.0	EC002549
ETIM 7.0	EC002549

Dimensioned drawings



All dimensions in millimeters

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



 H_{PFE} Effective protective field height = 178 mm

 H_{PFN} Nominal protective field height = 150 mm

A Total height = 216 mm

B 19 mm

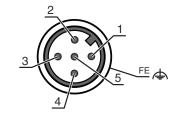
- C 9 mm
- R Effective protective field height H_{PFE} goes beyond the dimensions of the optics area to the outer borders of the circles labeled with R.

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	Protective field interrupted
	Red, flashing, 1 Hz	External error
	Red, flashing, 10 Hz	Internal error
	Green, flashing, 1 Hz	Protective field free, weak signal
	Green, continuous light	Protective field free
2	Off	No voltage
	On	OSSD off, transmission channel C2
	Green, continuous light	AS-i slave communicating with AS-i master
	Red, continuous light	AS-i slave not communicating with AS-i master

Phone: +49 7021 573-0 • Fax: +49 7021 573-199

Operation and display



LED	Display	Meaning
2	Yellow, flashing	AS-i slave has invalid address 0
	Red, flashing	AS-i slave device error or AS-i connection defective
	Red/green, flashing alternately	Periphery error

Suitable transmitters

P	Part no.	Designation	Article	Description
6	88006301	MLC500T30-150/A	Safety light curtain transmitter	Resolution: 30 mm Protective field height: 150 mm Operating range: 0 10 m 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 //: high Vibration-proof EX2: explosion protection (zones 2 + 22) SPG: Smart Process Gating

Note



Notes





Observe intended use!



Accessories

Mounting technology - Swivel mounts

	Part no.	Designation	Article	Description
Paga	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

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.