



the sensor people





Part no.: 68000337 MLC500T30-750/V Safety light curtain transmitter















Figure can vary

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Technical data

Basic data			
Series Series	MLC 500		
Device type	Transmitter		
Contains	2x BT-NC sliding block		
Application	Hand protection		
Application	Tranti protection		
Functions			
Functions	Range reduction Transmission channel changeover		
Characteristic parameters			
Туре	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	20		
Resolution	30 mm		
Protective field height	750 mm		
Operating range	0 10 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	24 V , DC , -20 20 %		
Current consumption, max.	50 mA		
Fuse	2 A semi time-lag		
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, tvb.	22.5 V		
Switching voltage, typ. Voltage type	22.5 V DC		
Voltage type	22.5 V DC		
-			



Composition 4	
Connection 1	
Type of connection	Connector
Function	Machine interface
Thread size	M12
Material	Metal
No. of pins	5 -pin
Cable properties	
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	
Dimension (W x H x L)	29 mm x 816 mm x 35.4 mm
lousing material	Metal , Aluminum
ens cover material	Plastic / PMMA
Naterial of end caps	Diecast zinc
let weight	900 g
lousing color	Yellow, RAL 1021
ype of fastening	Groove mounting Mounting bracket Mounting on Device Column Swivel mount
Operation and display	
Type of display	LED

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	IP 65	
Protection class	III	III	
Certifications	c CSA US c TÜV NRTL US S Mark TÜV Süd	c TÜV NRTL US S Mark	
Vibration resistance	200 m/s²		
Shock resistance	400 m/s²		
US patents	US 6,418,546 B		

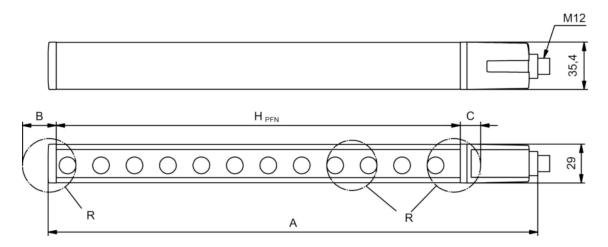
Classification	
Customs tariff number	85365019
eCl@ss 8.0	27272704
eCl@ss 9.0	27272704
ETIM 5.0	EC002549
ETIM 6.0	EC002549



Dimensioned drawings

All dimensions in millimeters

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



HPFE Effective protective field height = 778 mm

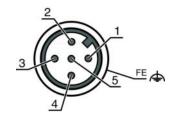
H_{PFN} Nominal protective field height = 750 mm

- A Total height = 816 mm
- B 19 mm
- C 9 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
Connector housing	FE/SHIELD

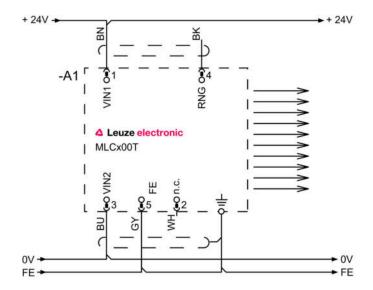
Pin	Pin assignment	Conductor color
1	VIN1	Brown
2	n.c.	White
3	VIN2	Blue
4	RNG	Black
5	FE/SHIELD	Gray





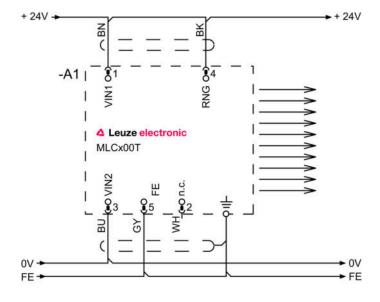
Circuit diagrams

Transmission channel C1, reduced range



- 1 VIN1 = +24 V
- 3 VIN2 = 0 V
- 4 RNG = 0 V or open

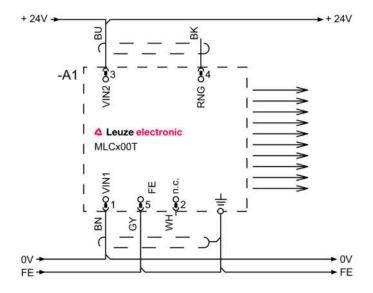
Transmission channel C1, standard range



- 1 VIN1 = +24 V
- 3 VIN2 = 0 V
- 4 RNG = +24 V

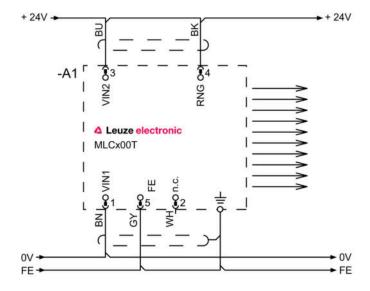


Transmission channel C2, reduced range



- 1 VIN1 = 0 V
- 3 VIN2 = +24 V 4 RNG = 0 V or open

Transmission channel C2, standard range



- 1 VIN1 = 0 V
- 3 VIN2 = +24 V
- 4 RNG = +24 V

Operation and display

LEDs

LED Display		Meaning	
1	Off	Device switched off	



LED	Display	Meaning
	Red, continuous light	Device error
	Green, continuous light	Normal operation
2	Green, flashing, 10 s long after switching on	Reduced range selected by the wiring of pin 4
	Off	Transmission channel C1
	Green, continuous light	Transmission channel C2

Suitable receivers

Part no.	Designation	Article	Description
68002337	MLC520R30-750/ V	Safety light curtain receiver	Resolution: 30 mm Protective field height: 750 mm Response time: 8 ms Connection: Connector, M12, Metal, 8 -pin Function package: Standard
68001337	MLC510R30-750/ V	Safety light curtain receiver	Resolution: 30 mm Protective field height: 750 mm Response time: 8 ms Connection: Connector, M12, Metal, 5 -pin Function package: Basic
68003337	MLC530R30-750/ V	Safety light curtain receiver	Resolution: 30 mm Protective field height: 750 mm Response time: 8 ms Connection: Connector, M12, Metal, 8 -pin Function package: Extended

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		



MLC	Safety light curtain
i	Interface (optional): /A: AS-i
000	Option: //: 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.

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

Connection technology - Connection cables

Part no.	Designation	Article	Description
50133860	KD S-M12-5A- P1-050	Connection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin Connection 2: Open end Shielded: Yes Cable length: 5,000 mm Sheathing material: PUR

Mounting technology - Swivel mounts

Part no.	Designation	Article	Description
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
1	520101	AC-ALM-M	Alignment aid	Housing material: Plastic

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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.