

Technical data sheet Light curtain receiver Part no.: 50123322 CML730i-R10-2400.A/D3-M12



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 changes

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 eng • 2025-04-04

Technical data

Leuze

Basic data

Operating principle Throughbeam principle Device type Receiver Contains 2x BT-NC sliding block Application Detection of transparent objects Object measurement Object measurement Special version Crossed-beam scanning Diagonal-beam scanning Diagonal-beam scanning Operating range 0.3 9.5 m Operating range, transparent media 0.3 3.5 m Operating range, transparent media 0.3 3.5 m Operating range limit 0.2 12 m Operating range limit 2.400 mm Number of beams 240 Piece(s) Beam spacing 10 mm Measurement field length 2.400 mm Number of beams 240 Piece(s) Beam spacing 10 mm Measurement data Short circuit protection Short circuit protected Transient protection Short circuit protected Transient protection Short circuit protected Transient protection Open-circuit current 0	Basic data	
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Application Detection of transparent objects Object measurement Special version Crossed-beam scanning Diagonal-beam scanning Special version Crossed-beam scanning Operating range 0.3 9.5 m Operating range 0.3 9.5 m Operating range 0.3 9.5 m Operating range imit 0.2 12 m Operating range limit 7.00 mm Measurement field length 2.400 mm Number of beams 240 Piece(s) Beam spacing 10 mm Measurement data Minimum object diameter Winimum object diameter 20 mm Electrical data Polarity reversal protection Short circuit protected Transhort protection Supply voltage U _b 18 30 V, DC Residual ripple 0 15 %, From U _b Open-circuit current 0 435 mA, The specified values refer Voltage type, outputs selectable 2 Piece(s) Type Inputs/output selectable 2 Piece(s) Type Inputs/output selectable 2 Piece(s) Typus Up (J 0 V) Inp	Device type	Receiver
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Response time per beam 10 μs Interface Interface Type RS 485 Modbus RS 485 Function Service interface Process	Cycle time	2.55 ms
Type RS 485 Modbus RS 485 Function Process Service interface	Response time per beam	10 µs
RS 485 Function Process Service interface	Interface	
Function Process Service interface Image: Comparison of the service of	Туре	RS 485 Modbus
Service interface	RS 485	
		Process
Type IO-Link	Service interface	
	Туре	IO-Link

	IO-Link	
	Function	Configuration via software Service
С	onnection	
	umber of connections lug outlet	2 Piece(s) Axial
	Connection 1	
	Function	Configuration interface
		Connection to transmitter
		Signal IN
		Signal OUT
		Voltage supply
	Type of connection	Connector
	Thread size	M12 Male
	Type Material	Metal
	No. of pins	8 -pin
	Encoding	A-coded
	Connection 2	
	Function	BUS IN
		BUSOUT
	Type of connection	Connector
	Thread size	M12 Female
	Type Material	Metal
	No. of pins	5 -pin
	Encoding	B-coded
	Ū.	
Μ	echanical data	
D	esign	Cubic
	imension (W x H x L)	29 mm x 35.4 mm x 2,475 mm
	ousing material	Metal
	etal housing ens cover material	Aluminum Plastic
	et weight	2,450 g
	ousing color	Silver
	/pe of fastening	Groove mounting
		Via optional mounting device
0	peration and display	
_		
IJ	/pe of display	
N	umber of LEDs	OLED display 2 Piece(s)
	/pe of configuration	Software
ر.	pe of configuration	Teach-in
0	perational controls	Membrane keyboard
Е	nvironmental data	
A	mbient temperature, operation	-30 60 °C
	mbient temperature, storage	-40 70 °C
С	ertifications	
D	egree of protection	IP 65
	rotection class	III
	pprovals	c UL US
	andards applied	IEC 60947-5-2

Technical data

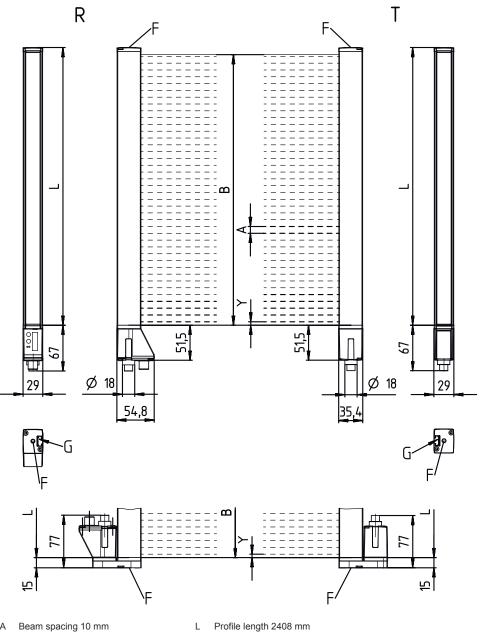
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ECLASS 12.0	27270910
ECLASS 13.0	27270910
ECLASS 14.0	27270910
ECLASS 15.0	27270910
ETIM 5.0	EC002549
ETIM 6.0	EC002549
ETIM 7.0	EC002549
ETIM 8.0	EC002549
ETIM 9.0	EC002549
ETIM 10.0	EC002549

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Dimensioned drawings

All dimensions in millimeters



Beam spacing 10 mm А

Fastening groove

- В Measurement field length 2400 mm
- F M6 thread

G

R Receiver

Т

5 mm Υ

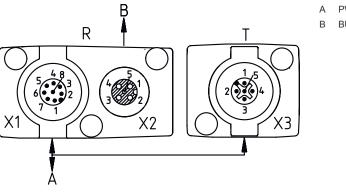
Transmitter

4/8

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Dimensioned drawings





A PWR / SW IN / OUTB BUS IN / OUT

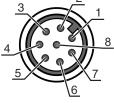
Electrical connection

Connection 1

Evention	Operfirmmetting interferes
Function	Configuration interface
	Connection to transmitter
	Signal IN
	Signal OUT
	Voltage supply
Type of connection	Connector
Thread size	M12
Туре	Male
Material	Metal
No. of pins	8 -pin
Encoding	A-coded

Pin Pin assignment

1	V+		
2	I/O 1		
3	GND		
4	IO-Link		
5	I/O 2		
6	RS 485 Tx+		
7	RS 485 Tx+		
8	FE/SHIELD		



Connection 2

Function	BUS IN
	BUS OUT
Type of connection	Connector
Thread size	M12
Туре	Female
Material	Metal
No. of pins	5 -pin
Encoding	B-coded

Electrical connection

Pin	Pin assignment	
1	V+	1
2	Tx-	
3	PB GND	
4	Tx+	
5	FE/SHIELD	

Operation and display

LED	Display	Meaning
1	Green, continuous light	Operational readiness
	Green, flashing	Teach / error
2	Yellow, continuous light	Light path free, with function reserve
	Yellow, flashing	No function reserve
	Off	Object detected

Suitable transmitters

 Part no.	Designation	Article	Description
50118625	CML730i-T10- 2400.A-M12	Light curtain transmitter	Operating range: 0.3 9.5 m Connection: Connector, M12, Axial, 5 -pin

Part number code

Part designation: CML7XXi-YZZ-AAAA.BCCCDDD-EEEFFF

CML	Operating principle Measuring light curtain
7XXi	Series 720i: 720i series 730i: 730i series
Y	Device type T: transmitter R: receiver
22	Beam spacing 05: 5 mm 10: 10 mm 20: 20 mm 40: 40 mm
AAAA	Measurement field length [mm], dependent on beam spacing
В	Equipment A: Axial connector outlet R: Rear connector outlet
ccc	Interface L: IO-Link /CN: CANopen /PB: PROFIBUS /PN: PROFINET /CV: Analog current and voltage output /D3: RS 485 Modbus

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Part number code



DDD	Special equipment -PS: Power Setting
EEE	Electrical connection M12: M12 connector
FFF	-EX: Explosion protection
	Note
A	S A list with all available device types can be found on the Leuze website at www.leuze.com.

Notes

Observe intended use!
 This product is not a safety sensor and is not intended as personnel protection. The product may only be put into operation by competent persons. Only use the product in accordance with its intended use.



For UL applications:

 For UL applications, use is only permitted in Class 2 circuits in accordance with the NEC (National Electric Code).
 These proximity switches shall be used with UL Listed Cable assemblies rated 30V, 0.5A min, in the field installation, or equivalent (categories: CYJV/ CYJV7 or PVVA/PVVA7)

Accessories

Connection technology - Connection cables

 Part no.	Designation	Article	Description
50132079	KD U-M12-5A-V1- 050	Connection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin Connector, LED: No Connection 2: Open end Shielded: No Cable length: 5.000 mm Sheathing material: PVC

Connection technology - Y distribution cables

	Part no.	Designation	Article	Description
	50118183	K-Y1 M12A-5m- M12A-S-PUR	Interconnection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin Connection 2: Connector, M12, Axial, Male, A-coded, 5 -pin Connection 3: Connector, M12, Axial, Female, A-coded, 8 -pin Shielded: Yes Cable length fork 1: 5,000 mm Cable length fork 2: 150 mm Sheathing material: PUR

Accessories

Leuze

Mounting technology - Mounting brackets

 Part no.	Designation	Article	Description
 50142900	BT 700M.5-2SET	Mounting device set	Design of mounting device: Bracket mounting Fastening, at system: Through-hole mounting, T slotted hole Mounting bracket, at device: Screw type, Sliding block Type of mounting device: Rigid Material: Steel

Services

 Part no.	Designation	Article	Description
S981001	CS10-S-110	Start-up support	Details: Performed at location of customer's choosing, duration: max. 10 hours. Conditions: Devices and connection cables are already mounted, price not including travel costs and, if applicable, accommodation expenses.
S981005	CS10-T-110	Product training	Details: Location and content to be agreed upon, duration: max. 10 hours. Conditions: Price not including travel costs and, if applicable, accommodation expenses.

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