Leuze

Technical data sheet Light curtain transmitter Part no.: 50118587 CML730i-T05-960.A-M12



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We reserve the right to make technical changes eng • 2025-04-03

Technical data

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Basic data

Connection 1 Function

Thread size

Туре

Material

No. of pins

Encoding

Type of connection

Basic data			
Series	730		
Operating principle	Throughbeam principle		
Device type	Transmitter		
Contains	2x BT-NC sliding block		
Application	Detection of transparent objects		
	Object measurement		
Special version			
Special version	Crossed-beam scanning		
	Diagonal-beam scanning		
	Parallel-beam scanning		
Optical data			
Operating range	0.1 4 m		
Operating range	Guaranteed operating range		
Operating range, transparent media	0.1 1.75 m		
Operating range limit	0.1 6 m		
Operating range limit	Typical operating range		
Measurement field length	960 mm		
Number of beams	192 Piece(s)		
Beam spacing	5 mm		
Light source	LED, Infrared		
Wavelength	940 nm		
Measurement data			
Measurement data Minimum object diameter	10 mm		
	10 mm		
Minimum object diameter	10 mm Polarity reversal protection		
Minimum object diameter Electrical data			
Minimum object diameter Electrical data	Polarity reversal protection		
Minimum object diameter Electrical data Protective circuit	Polarity reversal protection Short circuit protected		
Minimum object diameter Electrical data Protective circuit Performance data	Polarity reversal protection Short circuit protected Transient protection		
Minimum object diameter Electrical data Protective circuit Performance data Supply voltage U _B	Polarity reversal protection Short circuit protected Transient protection 18 30 V, DC		
Minimum object diameter Electrical data Protective circuit Performance data	Polarity reversal protection Short circuit protected Transient protection 18 30 V, DC 0 15 %, From U _B 0 270 mA, The specified values refer		
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Minimum object diameter Electrical data Protective circuit Performance data Supply voltage U _B Residual ripple Open-circuit current Time behavior	 Polarity reversal protection Short circuit protected Transient protection 18 30 V, DC 0 15 %, From U_B 0 270 mA, The specified values refer to the entire package consisting of transmitter and receiver. 		
Minimum object diameter Electrical data Protective circuit Performance data Supply voltage U _B Residual ripple Open-circuit current Time behavior Readiness delay	Polarity reversal protection Short circuit protected Transient protection 18 30 V, DC 0 15 %, From U _B 0 270 mA, The specified values refer to the entire package consisting of trans mitter and receiver.		
Minimum object diameter Electrical data Protective circuit Performance data Supply voltage U _B Residual ripple Open-circuit current Time behavior Readiness delay Cycle time	Polarity reversal protection Short circuit protected Transient protection 18 30 V, DC 0 15 %, From U _B 0 270 mA, The specified values refer to the entire package consisting of trans mitter and receiver.		

Connection to receiver

Connector

M12

Male

Metal

5 -pin

A-coded

Dimension (W x H x L) 29 mm x 35.4 mm x 1,035 mm Housing material Metal Metal housing Aluminum Lens cover material Plastic Net weight 1,100 g Housing color Silver Type of fastening Groove mounting Via optional mounting device **Operation and display** Type of display LED Number of LEDs 1 Piece(s) **Environmental data** Ambient temperature, operation -30 ... 60 °C Ambient temperature, storage -40 ... 70 °C Certifications IP 65 Degree of protection Ш **Protection class** Approvals c UL US Standards applied IEC 60947-5-2

Cubic

Classification

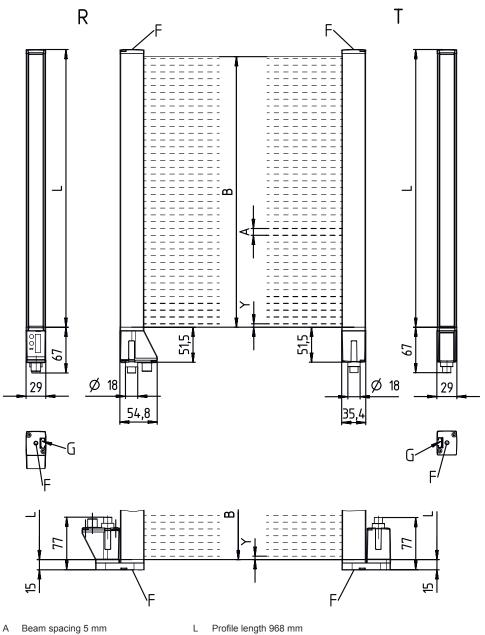
Mechanical data

Design

Customs tariff number	90314990
ECLASS 5.1.4	27270910
ECLASS 8.0	27270910
ECLASS 9.0	27270910
ECLASS 10.0	27270910
ECLASS 11.0	27270910
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

Dimensioned drawings

All dimensions in millimeters



A Beam spacing 5 mmB Measurement field length 960 mm

- T Transmitter
 - Transmitter
- M6 thread Fastening groove

F

G

- R Receiver
- Y 2.5 mm



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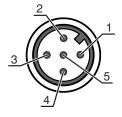
Electrical connection

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Connection 1

Function	Connection to receiver
Type of connection	Connector
Thread size	M12
Туре	Male
Material	Metal
No. of pins	5 -pin
Encoding	A-coded

Pin Pin assignment 1 FE/SHIELD 2 V+ 3 GND 4 RS 485 Tx+ 5 RS 485 Tx



Operation and display

LED	Display	Meaning
1	Green, continuous light	Continuous mode
	Off	No communication with the receiver / waiting for trigger
	green, flashing in sync with the measurement	Measurement frequency display

Suitable receivers

Suitable I	Part no.	Designation	Article	Description
Į	50118666	CML730i-R05-960.A/ CN-M12	Light curtain receiver	Operating range: 0.1 4.5 m Interface: CANopen Connection: Connector, M12, Axial, 8 -pin
Į	50118829	CML730i-R05-960.A/ CV-M12	Light curtain receiver	Operating range: 0.1 4.5 m Analog outputs: 2 Piece(s), Voltage, Current Connection: Connector, M12, Axial, 8 -pin
Į	50123281	CML730i-R05-960.A/ D3-M12	Light curtain receiver	Operating range: 0.1 4.5 m Interface: RS 485 Modbus Connection: Connector, M12, Axial, 8 -pin
Į	50118748	CML730i-R05-960.A/ L-M12	Light curtain receiver	Operating range: 0.1 4.5 m Interface: IO-Link Connection: Connector, M12, Axial, 8 -pin

Suitable receivers

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	Part no.	Designation	Article	Description
	50123147	CML730i-R05-960.A/ PB-M12	Light curtain receiver	Operating range: 0.1 4.5 m Interface: PROFIBUS DP Connection: Connector, M12, Axial, 8 -pin
Į	50131750	CML730i-R05-960.A/ PN-M12	Light curtain receiver	Operating range: 0.1 4.5 m Interface: PROFINET Connection: Connector, M12, Axial, 8 -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
DDD	Special equipment -PS: Power Setting
EEE	Electrical connection M12: M12 connector
FFF	-EX: Explosion protection
Note	
A list w	ith 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.

 $\ensuremath{^{\ensuremath{\Downarrow}}}$ The product may only be put into operation by competent persons.

 $\ensuremath{^{\ensuremath{\Downarrow}}}$ Only use the product in accordance with its intended use.

	For UL applications:
	b For UL applications, use is only permitted in Class 2 circuits in accordance with the NEC (National Electric Code).
Ĭ,	Sheep roximity 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 - Interconnection cables

	Part no.	Designation	Article	Description
	50129781	KDS DN-M12-5A- M12-5A-P3-050	Interconnection cable	Suitable for interface: DeviceNet, CANopen Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin Connection 2: Connector, M12, Axial, Male, A-coded, 5 -pin Shielded: Yes Cable length: 5,000 mm Sheathing material: PUR

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
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

Configuration devices

	Part no.	Designation	Article	Description
165	50121098	SET MD12-US2-IL1.1 + Zub.	Diagnostics set	Interface: USB Connections: 2 Piece(s) Degree of protection: IP 20

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Accessories

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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.