### Leuze

### **Technical data sheet** Light curtain transmitter Part no.: 50118581 CML730i-T05-480.A-M12



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### **Technical data**

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#### Basic data

Connection 1 Function

Thread size

No. of pins

Encoding

Type Material

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	480 mm
Number of beams	96 Piece(s)
Beam spacing	5 mm
Light source	LED, Infrared
Wavelength	940 nm
Measurement data	
Minimum object diameter	10 mm
Minimum object diameter Electrical data	10 mm
-	10 mm Polarity reversal protection
Electrical data	
Electrical data	Polarity reversal protection
Electrical data	Polarity reversal protection Short circuit protected
Electrical data	Polarity reversal protection Short circuit protected Transient protection
Electrical data Protective circuit Performance data Supply voltage U <sub>B</sub>	Polarity reversal protection Short circuit protected Transient protection 18 30 V, DC
Electrical data Protective circuit Performance data Supply voltage U <sub>B</sub> Residual ripple	Polarity reversal protection Short circuit protected Transient protection 18 30 V, DC 0 15 %, From U <sub>B</sub>
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Electrical data Protective circuit Performance data Supply voltage U <sub>B</sub> Residual ripple Open-circuit current	Polarity reversal protection Short circuit protected Transient protection 18 30 V, DC 0 15 %, From U <sub>B</sub> 0 165 mA, The specified values refer to the entire package consisting of trans
Electrical data Protective circuit Performance data Supply voltage U <sub>B</sub> Residual ripple Open-circuit current Time behavior	<ul> <li>Polarity reversal protection</li> <li>Short circuit protected</li> <li>Transient protection</li> <li>18 30 V, DC</li> <li>0 15 %, From U<sub>B</sub></li> <li>0 165 mA, The specified values refer to the entire package consisting of transmitter and receiver.</li> </ul>
Electrical data Protective circuit Performance data Supply voltage U <sub>B</sub> 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 <sub>B</sub> 0 165 mA, The specified values refer to the entire package consisting of trans mitter and receiver.
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Connection to receiver

Connector

M12 Male

Metal

5 -pin

A-coded

#### Metal housing Aluminum Lens cover material Plastic Net weight 650 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 Classification 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

Cubic

Metal

29 mm x 35.4 mm x 555 mm

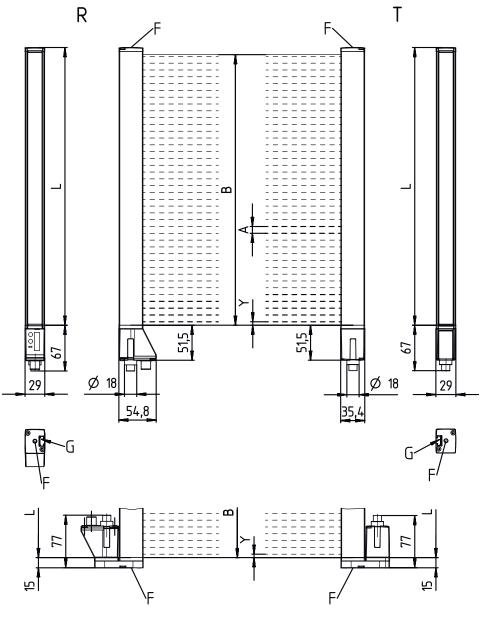
Mechanical data

Dimension (W x H x L) Housing material

Design

### **Dimensioned drawings**

All dimensions in millimeters



Beam spacing 5 mm А

- В Measurement field length 480 mm
- F M6 thread
- G Fastening groove
- Profile length 488 mm L Т
  - Transmitter
- R Receiver
- 2.5 mm Υ



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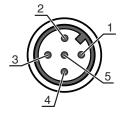
### **Electrical connection**

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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	Part no.	Designation	Article	Description
	50118660	CML730i-R05-480.A/ CN-M12	Light curtain receiver	Operating range: 0.1 4.5 m Interface: CANopen Connection: Connector, M12, Axial, 8 -pin
	50118823	CML730i-R05-480.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
	50123275	CML730i-R05-480.A/ D3-M12	Light curtain receiver	Operating range: 0.1 4.5 m Interface: RS 485 Modbus Connection: Connector, M12, Axial, 8 -pin
ļ	50118742	CML730i-R05-480.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
Į	50123126	CML730i-R05-480.A/ PB-M12	Light curtain receiver	Operating range: 0.1 4.5 m Interface: PROFIBUS DP Connection: Connector, M12, Axial, 8 -pin
Į	50131738	CML730i-R05-480.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 wi	th 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.

 $\ensuremath{\mathfrak{b}}$  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).
Ĭ	* 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 - 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
R. Ca	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.