# **Technical data sheet** Light curtain transmitter Part no.: 50118982 CML730i-T20-2710.R-M12





eng • 2020-12-18

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## **Technical data**

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Basic data			
Series	730		
Operating principle	Throughbeam principle		
Device type	Transmitter		
Contains	Accessories for the use of the BT-2R1		
Application	Detection of transparent objects		
	Object measurement		
Special version			
Special version	Crossed-beam scanning		
	Diagonal-beam scanning		
	Parallel-beam scanning		
Optical data			
Operating range	Guaranteed operating range		
Operating range	0.3 9.5 m		
Operating range, transparent media	0.3 3.5 m		
Operating range limit	Typical operating range		
Operating range limit	0.2 12 m		
Measurement field length	2,710 mm		
Number of beams	136 Piece(s) 20 mm LED, Infrared		
Beam spacing			
Light source			
LED light wavelength	940 nm		
Measurement data			
Minimum object diameter	30 mm		
Electrical data			
Protective circuit	Polarity reversal protection		
	Short circuit protected		
	Transient protection		
Performance data			
Supply voltage U <sub>B</sub>	18 30 V, DC		
Residual ripple	0 15 %, From U <sub>B</sub>		
Open-circuit current	0 435 mA, The specified values refer to the entire package consisting of trans mitter and receiver.		
Timing			
Readiness delay	450 ms		
Cycle time	1.56 ms		
Connection			
Number of connections	1 Diago(a)		

Number of connections	1 Piece(s)
Plug outlet	Rear side

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

#### Mechanical data

Design	Cubic
Dimension (W x H x L)	29 mm x 35.4 mm x 2,743 mm
Housing material	Metal
Metal housing	Aluminum
Lens cover material	Plastic
Net weight	2,750 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

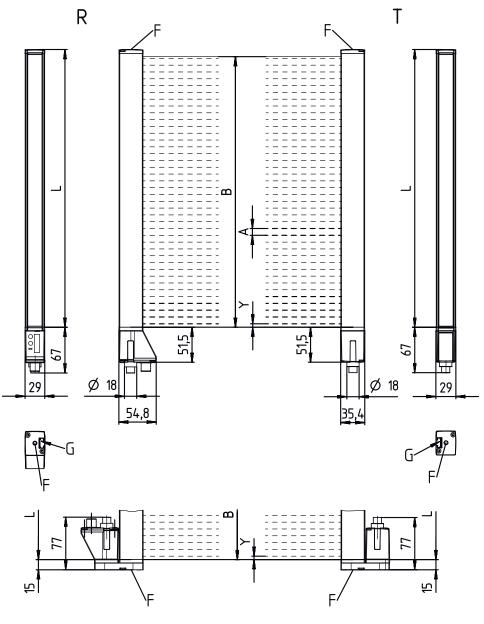
Degree of protection	IP 65
Protection class	III
Certifications	c CSA US
Standards applied	IEC 60947-5-2

#### Classification

Customs tariff number	90314990	
eCl@ss 5.1.4	27270910	
eCl@ss 8.0	27270910	
eCl@ss 9.0	27270910	
eCl@ss 10.0	27270910	
eCl@ss 11.0	27270910	
ETIM 5.0	EC002549	
ETIM 6.0	EC002549	
ETIM 7.0	EC002549	

## **Dimensioned drawings**

All dimensions in millimeters



- Beam spacing 20 mm А
- В Measurement field length 2710 mm
- F M6 thread
- G Fastening groove
- Profile length 2728 mm L Т
- Transmitter
- R Receiver
- 5 mm Υ



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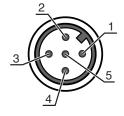
## **Electrical connection**

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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

Part no.	Designation	Article	Description
50119120	CML730i-R20- 2710.R/CN-M12	Light curtain receiver	Operating range: 0.3 9.5 m Interface: CANopen Connection: Connector, M12, Rear side, 8 -pin
50119281	CML730i-R20- 2710.R/CV-M12	Light curtain receiver	Operating range: 0.3 9.5 m Analog outputs: 2 Piece(s), Voltage, Current Connection: Connector, M12, Rear side, 8 -pin
50123424	CML730i-R20- 2710.R/D3-M12	Light curtain receiver	Operating range: 0.3 9.5 m Interface: RS 485 Modbus Connection: Connector, M12, Rear side, 8 -pin
50119200	CML730i-R20- 2710.R/L-M12	Light curtain receiver	Operating range: 0.3 9.5 m Interface: IO-Link Connection: Connector, M12, Rear side, 8 -pin

#### Suitable receivers

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 Part no.	Designation	Article	Description
50123201	CML730i-R20- 2710.R/PB-M12	Light curtain receiver	Operating range: 0.3 9.5 m Interface: PROFIBUS DP Connection: Connector, M12, Rear side, 8 -pin
50131811	CML730i-R20- 2710.R/PN-M12	Light curtain receiver	Operating range: 0.3 9.5 m Interface: PROFINET Connection: Connector, M12, Rear side, 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: connector outlet, axial 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 v	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.

 $\ensuremath{^{\ensuremath{\Downarrow}}}$  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:
A	<ul> <li><sup>t</sup> For UL applications, use is only permitted in Class 2 circuits in accordance with the NEC (National Electric Code).</li> <li><sup>t</sup> 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)</li> </ul>

#### Accessories

## Connection technology - Interconnection cables

	Part no.	Designation	Article	Description
	50129781	KDS DN-M12-5A- M12-5A-P3-050	Interconnection cable	Suitable for interface: IO-Link, 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
1 + 1 + + + + + + + + + + + + + + + + +	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

# Mounting technology - Swivel mounts

	Part no.	Designation	Article	Description
ęł.	429046	BT-2R1	Mounting bracket set	Fastening, at system: Through-hole mounting Mounting bracket, at device: Clampable Type of mounting device: Turning, 360° Material: Metal, Plastic

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#### Accessories

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# Configuration devices

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

#### Services

	Part no.	Designation	Article	Description
U U	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. Restrictions: No mechanical (mounting) and electrical (wiring) work performed, no changes (attachments, wiring, programming) to third-party components in the nearby environment.
	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. Restrictions: Travel costs and accommodation expenses charged separately and according to expenditure.

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