# **Technical data sheet** Light curtain transmitter Part no.: 50118990 CML730i-T40-2210.R-M12





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# **Technical data**

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#### Basic data

Basio aata		
Series	730	
Operating principle	Throughbeam principle Transmitter Accessories for the use of the BT-2R1	
Device type		
Contains		
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 2,210 mm Number of beams 56 Piece(s) Beam spacing 40 mm Light source LED, Infrared LED light wavelength 940 nm **Measurement data** Minimum object diameter 50 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**

 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 transmitter and receiver.

#### Timing

Readiness delay	450 ms
Cycle time	1 ms

#### Connection

 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 2,263 mm
Housing material	Metal
Metal housing	Aluminum
Lens cover material	Plastic
Net weight	2,300 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

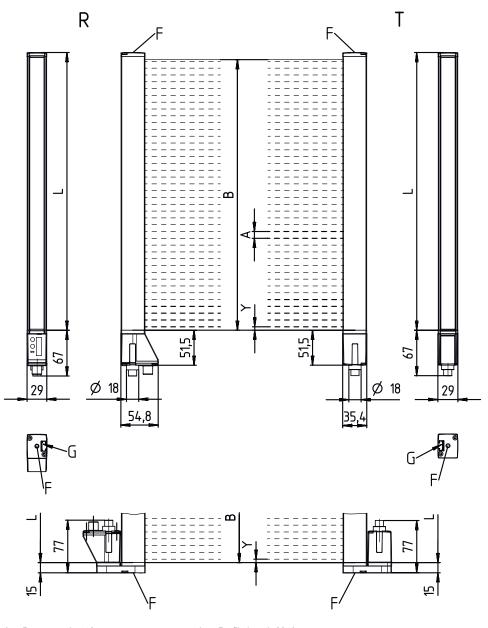
Degree of protection	IP 65
Protection class	III
Certifications	c CSA US
Standards applied	IEC 60947-5-2

#### 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 40 mm А

- В Measurement field length 2210 mm
- F M6 thread G
  - Fastening groove
- Profile length 2248 mm L Т
  - Transmitter
- R Receiver
- 5 mm Υ



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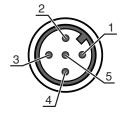
# **Electrical connection**

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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
50119128	CML730i-R40- 2210.R/CN-M12	Light curtain receiver	Operating range: 0.3 9.5 m Interface: CANopen Connection: Connector, M12, Rear side, 8 -pin
50119289	CML730i-R40- 2210.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
50123436	CML730i-R40- 2210.R/D3-M12	Light curtain receiver	Operating range: 0.3 9.5 m Interface: RS 485 Modbus Connection: Connector, M12, Rear side, 8 -pin
50119208	CML730i-R40- 2210.R/L-M12	Light curtain receiver	Operating range: 0.3 9.5 m Interface: IO-Link Connection: Connector, M12, Rear side, 8 -pin

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## Suitable receivers

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 Part no.	Designation	Article	Description
50123226	CML730i-R40- 2210.R/PB-M12	Light curtain receiver	Operating range: 0.3 9.5 m Interface: PROFIBUS DP Connection: Connector, M12, Rear side, 8 -pin
50131831	CML730i-R40- 2210.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	<b>Beam spacing</b> 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	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.

 ${\ensuremath{\,\textcircled{\tiny \ensuremath{\,\Downarrow}}}}$  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. 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
ęę.	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
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
1	Second A list with all available accessories can be found on the Leuze website in the Download tab of the article detailed page.

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