Technical data sheet Light curtain transmitter Part no.: 50118917 CML730i-T05-480.R-M12





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We reserve the right to make technical changes eng • 2020-12-18

Technical data

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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
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Special version	
Special version	Crossed-beam scanning
	Diagonal-beam scanning
	Parallel-beam scanning
Ontical data	Parallel-beam scanning
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Operating range	Guaranteed operating range
Operating range Operating range	Guaranteed operating range 0.1 4 m
Operating range Operating range Operating range, transparent media	Guaranteed operating range 0.1 4 m 0.1 1.75 m
Operating range Operating range Operating range, transparent media Operating range limit	Guaranteed operating range 0.1 4 m 0.1 1.75 m Typical operating range
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Operating range Operating range Operating range, transparent media Operating range limit Operating range limit Measurement field length	Guaranteed operating range 0.1 4 m 0.1 1.75 m Typical operating range 0.1 6 m
Operating range Operating range Operating range, transparent media Operating range limit Operating range limit Measurement field length Number of beams	Guaranteed operating range 0.1 4 m 0.1 1.75 m Typical operating range 0.1 6 m 480 mm
Optical data Operating range Operating range Operating range, transparent media Operating range limit Operating range limit Measurement field length Number of beams Beam spacing Light source	Guaranteed operating range 0.1 4 m 0.1 1.75 m Typical operating range 0.1 6 m 480 mm 96 Piece(s)

Measurement data

Minimum object diameter

Electrical data

Protective circuit Polarity reversal protection Short circuit protected Transient protection Performance data Supply voltage U_B 18 ... 30 V, DC **Residual ripple** 0 ... 15 %, From U_B 0 ... 165 mA, The specified values refer **Open-circuit current** to the entire package consisting of transmitter and receiver. Timing Readiness delay 450 ms Cycle time 1.16 ms

10 mm

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 503 mm
Housing material	Metal
Metal housing	Aluminum
Lens cover material	Plastic
Net weight	700 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

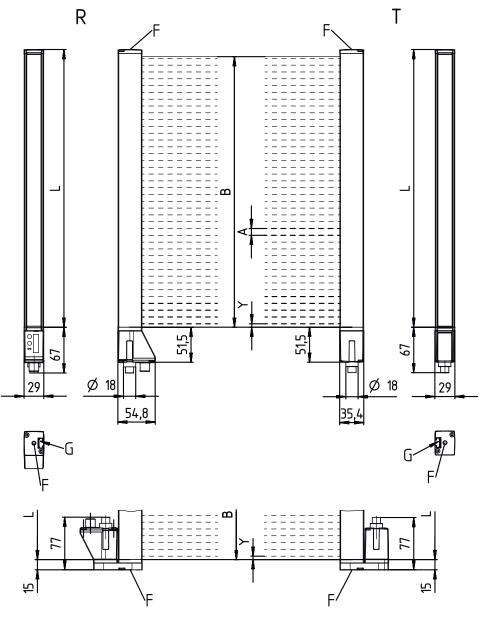
Degree of protection	IP 65
Protection class	III
Certifications	c CSA US
Standards applied	IEC 60947-5-2

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 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



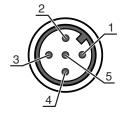
Electrical connection

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Connection 1

Connection to receiver
Connector
M12
Male
Metal
5 -pin
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

Ountable	Part no.	Designation	Article	Description
	50118997	CML730i-R05-480.R/ CN-M12	Light curtain receiver	Operating range: 0.1 4.5 m Interface: CANopen Connection: Connector, M12, Rear side, 8 -pin
	50119215	CML730i-R05-480.R/ CV-M12	Light curtain receiver	Operating range: 0.1 4.5 m Analog outputs: 2 Piece(s), Voltage, Current Connection: Connector, M12, Rear side, 8 -pin
	50123358	CML730i-R05-480.R/ D3-M12	Light curtain receiver	Operating range: 0.1 4.5 m Interface: RS 485 Modbus Connection: Connector, M12, Rear side, 8 -pin
	50119135	CML730i-R05-480.R/ L-M12	Light curtain receiver	Operating range: 0.1 4.5 m Interface: IO-Link Connection: Connector, M12, Rear side, 8 -pin

Suitable receivers

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 Part no.	Designation	Article	Description
50123133	CML730i-R05-480.R/ PB-M12	Light curtain receiver	Operating range: 0.1 4.5 m Interface: PROFIBUS DP Connection: Connector, M12, Rear side, 8 -pin
50131739	CML730i-R05-480.R/ PN-M12	Light curtain receiver	Operating range: 0.1 4.5 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	
R S A lis	t 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	 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 - 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
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.