Leuze

Technical data sheet Light curtain receiver Part no.: 50119175 CML730i-R10-1440.R/L-M12



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Technical data

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roughbeam principle cceiver ccessories for the use of the BT-2R1 tection of transparent objects oject measurement ossed-beam scanning agonal-beam scanning rallel-beam scanning agonal-beam scanning allel-beam scanning agonal-beam sca
cessories for the use of the BT-2R1 tection of transparent objects oject measurement ossed-beam scanning agonal-beam scanning rallel-beam scanning aranteed operating range 3 9.5 m 3 3.5 m pical operating range 2 12 m 140 mm 4 Piece(s) mm mm larity reversal protection ort circuit protected
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2 12 m 140 mm 4 Piece(s) mm mm larity reversal protection ort circuit protected
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ort circuit protected
ancient protection
30 V, DC
15 %, From U _B
350 mA, The specified values refer the entire package consisting of trans tter and receiver.
0 mA
Ω 000
Piece(s)
outs/outputs selectable
p. U _B / 0 V
)
lh: ≥6V
v: ≤4V
1 ms
0 ma
0 ms
59 ms μs

IO-Link	00140
COM mode	COM2
Specification	V1.0.1
	V1.1
Min. cycle time	COM2 = 2.3 ms
Domina interface	
Service interface	
Туре	IO-Link
IO-Link	
Function	Configuration via software
	Service
Connection	
Number of connections	2 Piece(s)
Plug outlet	Rear side
-	
Connection 1	
Function	Configuration interface
	Signal IN
	Signal OUT
	Voltage supply
Type of connection	Connector
Thread size	M12
Туре	Male
Material	Metal
No. of pins	8 -pin
Encoding	A-coded
Connection 2	
Function	Connection to transmitter
Type of connection	Connector
Thread size	M12
Туре	Female
Material	Metal
No. of pins	5 -pin
Encoding	A-coded
Encounig	A-coded
Mechanical data	
. .	
Design	Cubic
•	Cubic 29 mm x 35.4 mm x 1,463 mm
Dimension (W x H x L)	
Dimension (W x H x L) Housing material	29 mm x 35.4 mm x 1,463 mm
Dimension (W x H x L) Housing material Metal housing	29 mm x 35.4 mm x 1,463 mm Metal
Dimension (W x H x L) Housing material Metal housing Lens cover material	29 mm x 35.4 mm x 1,463 mm Metal Aluminum
Design Dimension (W x H x L) Housing material Metal housing Lens cover material Net weight Housing color	29 mm x 35.4 mm x 1,463 mm Metal Aluminum Plastic
Dimension (W x H x L) Housing material Metal housing Lens cover material Net weight Housing color	29 mm x 35.4 mm x 1,463 mm Metal Aluminum Plastic 1,650 g Silver
Dimension (W x H x L) Housing material Metal housing Lens cover material	29 mm x 35.4 mm x 1,463 mm Metal Aluminum Plastic 1,650 g
Dimension (W x H x L) Housing material Metal housing Lens cover material Net weight Housing color Type of fastening	29 mm x 35.4 mm x 1,463 mm Metal Aluminum Plastic 1,650 g Silver Groove mounting
Dimension (W x H x L) Housing material Metal housing Lens cover material Net weight Housing color Type of fastening	29 mm x 35.4 mm x 1,463 mm Metal Aluminum Plastic 1,650 g Silver Groove mounting
Dimension (W x H x L) Housing material Metal housing Lens cover material Net weight Housing color Type of fastening Deperation and display	29 mm x 35.4 mm x 1,463 mm Metal Aluminum Plastic 1,650 g Silver Groove mounting
Dimension (W x H x L) Housing material Metal housing Lens cover material Net weight Housing color Type of fastening Operation and display	29 mm x 35.4 mm x 1,463 mm Metal Aluminum Plastic 1,650 g Silver Groove mounting Via optional mounting device
Dimension (W x H x L) Housing material Metal housing Lens cover material Net weight Housing color Type of fastening Operation and display Type of display	29 mm x 35.4 mm x 1,463 mm Metal Aluminum Plastic 1,650 g Silver Groove mounting Via optional mounting device
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Dimension (W x H x L) Housing material Metal housing Lens cover material Net weight Housing color Type of fastening Operation and display Type of display Number of LEDs	29 mm x 35.4 mm x 1,463 mm Metal Aluminum Plastic 1,650 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s)
Dimension (W x H x L) Housing material Metal housing Lens cover material Net weight Housing color Type of fastening Operation and display Type of display Number of LEDs Type of configuration	29 mm x 35.4 mm x 1,463 mm Metal Aluminum Plastic 1,650 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s) Software Teach-in
Dimension (W x H x L) Housing material Metal housing Lens cover material Net weight Housing color Type of fastening Operation and display Type of display Number of LEDs	29 mm x 35.4 mm x 1,463 mm Metal Aluminum Plastic 1,650 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s) Software
Dimension (W x H x L) Housing material Metal housing Lens cover material Net weight Housing color Type of fastening Operation and display Type of display Number of LEDs Type of configuration Operational controls	29 mm x 35.4 mm x 1,463 mm Metal Aluminum Plastic 1,650 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s) Software Teach-in
Dimension (W x H x L) Housing material Metal housing Lens cover material Net weight Housing color Type of fastening Operation and display Type of display Number of LEDs Type of configuration	29 mm x 35.4 mm x 1,463 mm Metal Aluminum Plastic 1,650 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s) Software Teach-in

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Certifications

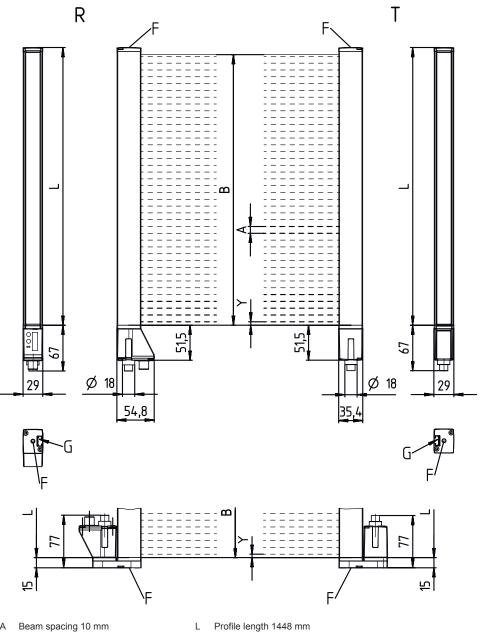
Degree of protection	IP 65
Protection class	III
Certifications	c CSA US
Standards applied	IEC 60947-5-2

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
Cl@ss 10.0 Cl@ss 11.0 FIM 5.0 FIM 6.0	27270910 27270910 EC002549 EC002549

Dimensioned drawings

All dimensions in millimeters



Beam spacing 10 mm А

Fastening groove

- В Measurement field length 1440 mm
- F M6 thread

G

R Receiver

Т

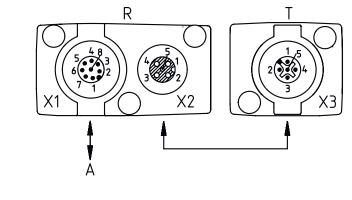
5 mm Υ

Transmitter



Dimensioned drawings





A PWR / SW IN / OUT

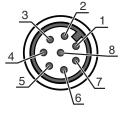
Electrical connection

Connection 1

Function	Configuration interface
	Signal IN
	Signal OUT
	Voltage supply
Type of connection	Connector
Thread size	M12
Туре	Male
Material	Metal
No. of pins	8 -pin
Encoding	A-coded

Pin Pin assignment

1	V+		
2	IO1		
3	GND		
4	IO-Link		
5	102		
6	IO3		
7	IO4		
8	GND		

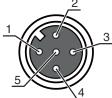


Connection 2

Function	Connection to transmitter
Type of connection	Connector
Thread size	M12
Туре	Female
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

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LED	Display	Meaning
1	Green, continuous light	Operational readiness
	Green, flashing	Teach / error
2	Yellow, continuous light	Light path free, with function reserve
	Yellow, flashing	No function reserve
	Off	Object detected

Suitable transmitters

Part no.	Designation	Article	Description
50118957	CML730i-T10- 1440.R-M12	Light curtain transmitter	Operating range: 0.3 9.5 m Connection: Connector, M12, Rear side, 5 -pin
50118613	CML730i-T10-160.A- M12	Light curtain transmitter	Operating range: 0.3 9.5 m Connection: Connector, M12, Axial, 5 -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
ZZ	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

Part number code



DDD	Special equipment -PS: Power Setting
EEE	Electrical connection M12: M12 connector
FFF	-EX: Explosion protection
	Note
A	✤ 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. The product may only be put into operation by competent persons. 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). 🗞 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 - Connection cables

 Part no.	Designation	Article	Description
50135128	KD S-M12-8A-P1-050	Connection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 8 -pin Connection 2: Open end Shielded: Yes Cable length: 5,000 mm Sheathing material: PUR

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

Accessories

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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

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

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

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

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