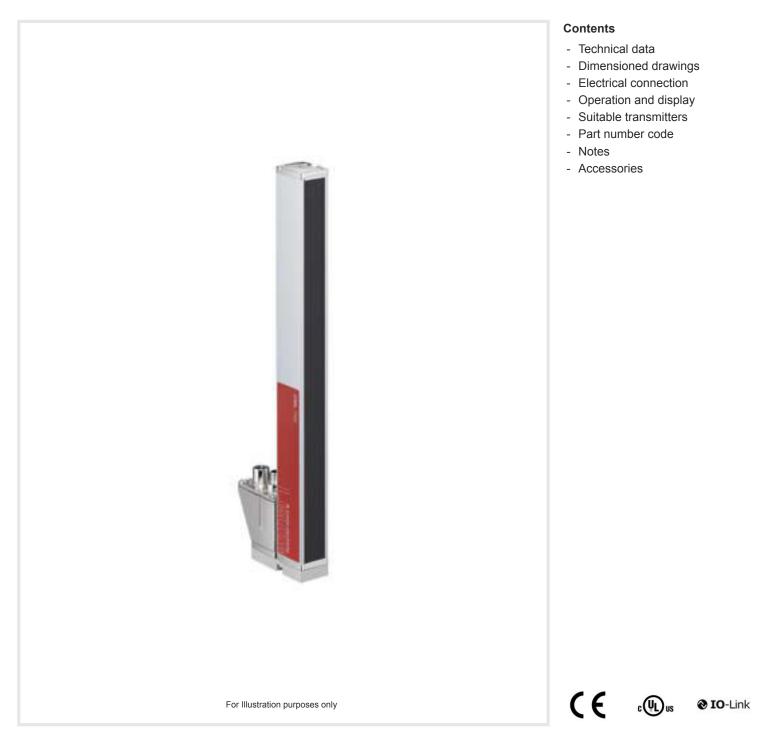
Technical data sheet Light curtain receiver Part no.: 50119169 CML730i-R10-480.R/L-M12





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Technical data

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Series	730
Operating principle	Throughbeam principle
Device type	Receiver
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	0.3 9.5 m
Operating range	Guaranteed operating range
Operating range, transparent media	0.3 3.5 m
Operating range limit	0.2 12 m
Operating range limit	Typical operating range
Measurement field length	480 mm
Number of beams	48 Piece(s)
Beam spacing	10 mm
Measurement data	
Minimum object diameter	20 mm
-	
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
Open-circuit current	0 165 mA, The specified values refer to the entire package consisting of trans- mitter and receiver.
Inputs/outputs selectable	
Output current, max.	100 mA
Input resistance	6,000 Ω
Number of inputs/outputs selectabl	
Type	Inputs/outputs selectable
Voltage type, outputs	
Switching voltage, outputs	Typ. U _B / 0 V
Voltage type, inputs	DC
Switching voltage, inputs	high: ≥6V
	$low: \le 4 V$
Input/output 1	
Activation/disable delay	0 1 ms
Time behavior	
	450 mg
Readiness delay	450 ms
Cycle time Response time per beam	1 ms 10 µs
	Mo
Interface	
	IO-I ink

T	y	р	e

IO-Link

	IO-Link	
	COM mode	COM2 COM2 = 2.3 ms
	Min. cycle time Specification	V1.0.1
	Specification	V1.0.1
		VI.I
Se	ervice interface	
Тν	ре	IQ-Link
.,	F -	
	IO-Link	
	Function	Configuration via software
		Service
С	onnection	
Nı	umber of connections	2 Piece(s)
	ug outlet	Rear side
	Connection 1	
	Function	Configuration interface
		Signal IN
		Signal OUT
	-	Voltage supply
	Type of connection Thread size	Connector M12
	Type	Male
	Material	Metal
	No. of pins	8 -pin
	Encoding	A-coded
	Connection 2	
	Function	Connection to transmitter
	Type of connection Thread size	Connector M12
	Type	Female
	Material	Metal
	No. of pins	5 -pin
	Encoding	A-coded
	-	A-coded
м	Encoding echanical data	A-coded
De	echanical data esign	Cubic
De Di	echanical data esign mension (W x H x L)	Cubic 29 mm x 35.4 mm x 503 mm
De Di Ho	echanical data esign mension (W x H x L) ousing material	Cubic 29 mm x 35.4 mm x 503 mm Metal
De Di Ho Me	echanical data esign mension (W x H x L) busing material etal housing	Cubic 29 mm x 35.4 mm x 503 mm Metal Aluminum
De Di Ho Me	echanical data esign mension (W x H x L) ousing material etal housing ens cover material	Cubic 29 mm x 35.4 mm x 503 mm Metal Aluminum Plastic
De Di Ho Me Le	echanical data esign mension (W x H x L) ousing material etal housing ens cover material et weight	Cubic 29 mm x 35.4 mm x 503 mm Metal Aluminum
De Di Ho Me Le Ho	echanical data esign mension (W x H x L) ousing material etal housing ens cover material	Cubic 29 mm x 35.4 mm x 503 mm Metal Aluminum Plastic 750 g
De Di Ho Me Le Ho	echanical data esign mension (W x H x L) ousing material etal housing ens cover material et weight ousing color	Cubic 29 mm x 35.4 mm x 503 mm Metal Aluminum Plastic 750 g Silver
De Di Hc Le Ne Hc Ty	echanical data esign mension (W x H x L) ousing material etal housing ens cover material et weight ousing color pe of fastening	Cubic 29 mm x 35.4 mm x 503 mm Metal Aluminum Plastic 750 g Silver Groove mounting
De Di Hc Le Ne Hc Ty	echanical data esign mension (W x H x L) ousing material etal housing ens cover material et weight ousing color	Cubic 29 mm x 35.4 mm x 503 mm Metal Aluminum Plastic 750 g Silver Groove mounting
De Di Hc Me Le Hc Ty	echanical data esign mension (W x H x L) ousing material etal housing ens cover material et weight ousing color pe of fastening	Cubic 29 mm x 35.4 mm x 503 mm Metal Aluminum Plastic 750 g Silver Groove mounting Via optional mounting device
De Di Hc Me Le Ne Hc Ty	echanical data esign mension (W x H x L) ousing material etal housing ens cover material et weight ousing color pe of fastening peration and display pe of display	Cubic 29 mm x 35.4 mm x 503 mm Metal Aluminum Plastic 750 g Silver Groove mounting Via optional mounting device
De Di Hc Me Le Ne Hc Ty Op	echanical data esign mension (W x H x L) ousing material etal housing ens cover material et weight ousing color pe of fastening peration and display pe of display umber of LEDs	Cubic 29 mm x 35.4 mm x 503 mm Metal Aluminum Plastic 750 g Silver Groove mounting Via optional mounting device
De Di Hc Le Ne Hc Ty Ol Ty	echanical data esign mension (W x H x L) ousing material etal housing ens cover material et weight ousing color pe of fastening peration and display pe of display	Cubic 29 mm x 35.4 mm x 503 mm Metal Aluminum Plastic 750 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s) Software
De Di Hc Le Ne Hc Ty Ol Ty Nu Ty	echanical data esign mension (W x H x L) ousing material etal housing ens cover material et weight ousing color ope of fastening peration and display pe of display umber of LEDs pe of configuration	Cubic 29 mm x 35.4 mm x 503 mm Metal Aluminum Plastic 750 g Silver Groove mounting Via optional mounting device LED LED OLED display 2 Piece(s) Software Teach-in
De Di Hc Le Ne Hc Ty Ol Ty Nu Ty	echanical data esign mension (W x H x L) ousing material etal housing ens cover material et weight ousing color pe of fastening peration and display pe of display umber of LEDs	Cubic 29 mm x 35.4 mm x 503 mm Metal Aluminum Plastic 750 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s) Software
De Di Hc Le Ne Hc Ty Op Ty Op	echanical data esign mension (W x H x L) ousing material etal housing ens cover material et weight ousing color ope of fastening peration and display pe of display umber of LEDs pe of configuration	Cubic 29 mm x 35.4 mm x 503 mm Metal Aluminum Plastic 750 g Silver Groove mounting Via optional mounting device LED LED OLED display 2 Piece(s) Software Teach-in
De Di Hc Le Hc Ty Op Ty Nu Ty Op	echanical data esign mension (W x H x L) ousing material etal housing ens cover material et weight ousing color pe of fastening peration and display pe of display umber of LEDs pe of configuration perational controls	Cubic 29 mm x 35.4 mm x 503 mm Metal Aluminum Plastic 750 g Silver Groove mounting Via optional mounting device LED LED OLED display 2 Piece(s) Software Teach-in
De Di Hc Me Le Ne Hc Ty Op Ty Op Ty Op Ty Ar	echanical data esign mension (W x H x L) busing material etal housing ens cover material et weight busing color pe of fastening peration and display pe of display umber of LEDs pe of configuration berational controls nvironmental data	Cubic 29 mm x 35.4 mm x 503 mm Metal Aluminum Plastic 750 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s) Software Teach-in Membrane keyboard
De Di Hc Me Le Ne Hc Ty Op Ty Op Ty Op Ty Ar	echanical data esign mension (W x H x L) busing material etal housing ens cover material et weight busing color pe of fastening peration and display unber of LEDs pe of configuration berational controls environmental data mbient temperature, operation	Cubic 29 mm x 35.4 mm x 503 mm Metal Aluminum Plastic 750 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s) Software Teach-in Membrane keyboard

Technical data

Certifications

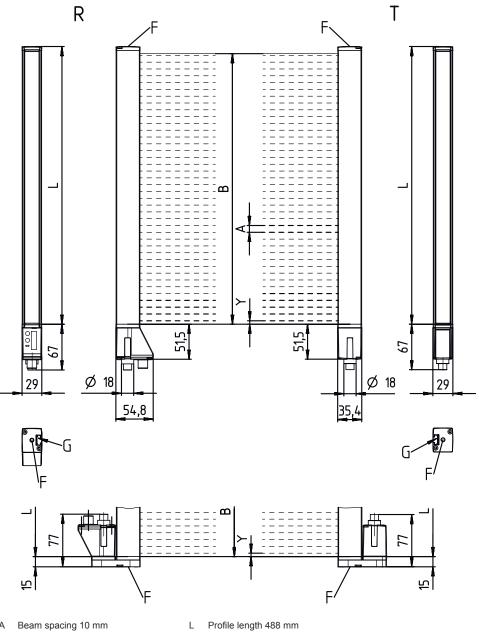
Classification

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



Dimensioned drawings

All dimensions in millimeters

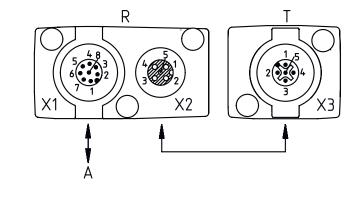


- Beam spacing 10 mm А
- В Measurement field length 480 mm
- F M6 thread G Fastening groove
- Transmitter Т
- R Receiver Υ
- 5 mm

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Dimensioned drawings





A PWR / SW IN / OUT

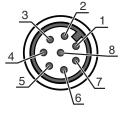
Electrical connection

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		

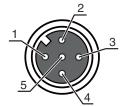


Connection 2

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

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
50118951	CML730i-T10-480.R- M12	Light curtain transmitter	Operating range: 0.3 9.5 m Connection: Connector, M12, Rear side, 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: 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.

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Notes

Observe intended use!

This product is not a safety sensor and is not intended as personnel protection.

b 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,	, use is only permitted in Class 2 circuits in accord	ance 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 unit

	Part no.	Designation	Article	Description
C. LEATING	50144900	MD 798i-11-82/L5- 2222	IO-Link master	Type: IO-Link master Current consumption, max.: 11,000 mA Switching outputs for each sensor connection: 1 Piece(s) Switching output: Transistor, PNP Interface: IO-Link, Automatic protocol detection, EtherNet IP, Modbus TCP, PROFINET Connections: 12 Piece(s) Sensor connections: 8 Piece(s) Connections for voltage supply: 2 Piece(s) Interface connections: 2 Piece(s) Degree of protection: IP 67, IP 65, IP 69K

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 Connector, LED: No 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: 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

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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.	429029	BT-2RG	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
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	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.