

Technical data sheet Light curtain receiver Part no.: 50119253 CML730i-R10-1120.R/CV-M12



Leuze electronic GmbH + Co. KG

info@leuze.com • www.leuze.com changes
 The Sensor People
 In der Braike 1, D-73277 Owen/Germany
 Phone: +49 7021 573-0 • Fax: +49 7021 573-199
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Technical data

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Basic data

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

Diagonal-beam scanning Parallel-beam scanning

Crossed-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	1,120 mm	
Number of beams	112 Piece(s)	
Beam spacing	10 mm	
Measurement data		

20 mm

Polarity reversal protection Short circuit protected

Minimum object diameter

Electrical data

Protective circuit

		Transient protection	
Ρ	erformance data		
Supply voltage U _B		18 30 V, DC	
Residual ripple		0 15 %, From U _B	
Open-circuit current		0 270 mA, The specified values refer to the entire package consisting of trans- mitter and receiver.	
0	utputs		
Number of analog outputs		2 Piece(s)	
	Analog outputs		
	Туре	Analog output	
	Current	0 24 mA	

0 ... 11 V

Voltage

Current

Analog output 1 Туре

Voltage

Analog output 2 Туре

	Inputs/outputs selectable	
	Output current, max.	100 mA
	Input resistance	6,000 Ω
	Number of inputs/outputs selectable	•
	Туре	Inputs/outputs selectable
	Voltage type, outputs	DC
	Switching voltage, outputs	Typ. U _B / 0 V
	Voltage type, inputs	DC
	Switching voltage, inputs	high: ≥6V
		low: ≤ 4 V
	Input/output 1	
	Activation/disable delay	1 ms
т:	me behavior	
R	eadiness delay	450 ms
	ycle time	1.27 ms
R	esponse time per beam	10 µs
S	ervice interface	
_		
IJ	/pe	IO-Link
	IO-Link	
	Function	Configuration via software
		Service
С	onnection	
N	umber of connections	2 Piece(s)
PI	ug outlet	Rear side
	Connection 1	
	Function	Configuration interface
		Signal IN
		Signal OUT
	Turns of composition	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	Connector
	Thread size	M12
	Туре	Female
	Material	Metal
	No. of pins	5 -pin
	Encoding	A-coded
М	echanical data	
D	esign	Cubic
Di	imension (W x H x L)	29 mm x 35.4 mm x 1,143 mm
H	ousing material	Metal
Μ	etal housing	Aluminum
Le	ens cover material	Plastic
	et weight	1,350 g
He	ousing color	Silver

Type of fastening Groove mounting Via optional mounting device

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Technical data

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Operation and display

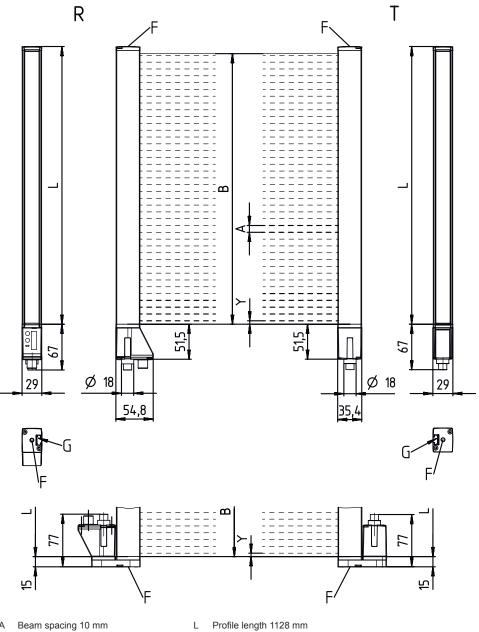
Type of display	LED
	OLED display
Number of LEDs	2 Piece(s)
Type of configuration	Software
	Teach-in
Operational controls	Membrane keyboard
Environmental data	
Ambient temperature, operation	-30 60 °C
Ambient temperature, storage	-40 70 °C
Certifications	
Degree of protection	IP 65
Protection class	III
Certifications	c UL US
ocranous	00200
Standards applied	IEC 60947-5-2

Classification
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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
ETIM 5.0	EC002549
ETIM 6.0	EC002549
ETIM 7.0	EC002549
ETIM 8.0	EC002549
ETIM 9.0	EC002549

Dimensioned drawings

All dimensions in millimeters

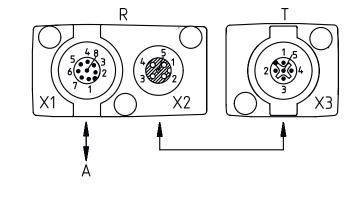


- Beam spacing 10 mm А
- В Measurement field length 1120 mm
- F M6 thread G
 - Fastening groove
- Т
 - Transmitter
- R Receiver
- Υ 5 mm

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Dimensioned drawings





A PWR / SW IN / OUT

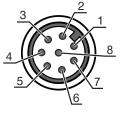
Electrical connection

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	I/O 1	
3	GND	
4	IO-Link	
5	I/O 2	
6	OUT V	
7	OUT mA	
8	AGND	

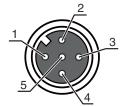


Connection 2

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 1

2

urtain receiver • Part no.: 50119253 • CML730i-R10-1120.R/CV-M12		
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	Display	Meaning
	Green, continuous light	Operational readiness
	Green, flashing	Teach / error
	Yellow, continuous light	Light path free, with function reserve
	Yellow, flashing	No function reserve
	Off	Object detected

Suitable transmitters

 Part no.	Designation	Article	Description
50118955	CML730i-T10- 1120.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
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: 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	ith 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 - 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

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

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Accessories

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