

## **Technical data sheet Light curtain receiver** Part no.: 50119272 CML730i-R20-1270.R/CV-M12



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We reserve the right to make technical changes

## **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

Polarity reversal protection Short circuit protected

#### **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	1,270 mm
Number of beams	64 Piece(s)
Beam spacing	20 mm
Measurement data	
Minimum object diameter	30 mm

#### Minimum object diameter

#### **Electrical data**

Protective circuit

	Transient protection		
Performance data			
Supply voltage U <sub>B</sub>	18 30 V, DC		
Residual ripple	0 15 %, From U <sub>B</sub>		
Open-circuit current	0 270 mA, The specified values refer to the entire package consisting of trans- mitter and receiver.		
Outputs			
Number of analog outputs	2 Piece(s)		
Analog outputs			
Туре	Analog output		
Current	0 24 mA		
Voltage	0 11 V		

Voltage

Current

### Analog output 1 Туре

Analog output 2 Туре

Innuto/outp	uts selectable	
Output currer		100 mA
Input resistan		6,000 Ω
•	outs/outputs selectable	,
Туре		Inputs/outputs selectable
Voltage type,	outputs	DC
		Typ. U <sub>B</sub> / 0 V
		DC
		high: ≥6V
officining for	lago, inputo	$ ow  \le 4 V$
Input/outp	out 1	
	disable delay	1 ms
Time behavior	•	
Readiness delay	1	450 ms
Cycle time		1 ms
Response time	per beam	10 µs
Service interfa	ice	
Туре		IO-Link
IO-Link		
Function		Configuration via software
		Service
0		
Connection		
Number of conn	ections	2 Piece(s)
Plug outlet		Rear side
•		
Connection Function	1	Confirmation interface
Function		Configuration interface
		Signal IN Signal OUT
		Voltage supply
Type of conne	action	Connector
Thread size	501011	M12
Type		Male
Material		Metal
No. of pins		8 -pin
Encoding		A-coded
Connection	2	
Function		Connection to transmitter
Type of conne	ection	Connector
Thread size		M12
Туре		Female
Material		Metal
No. of pins		5 -pin
Encoding		A-coded
Mechanical da		
wechanical da	lla	
Design		Cubic
Dimension (W x		29 mm x 35.4 mm x 1,303 mm
Housing materia	al	Metal
Metal housing		Aluminum
Lens cover mate	erial	Plastic
Net weight		1,500 g Silver
Housing color		SIMAR

Via optional mounting device We reserve the right to make technical

Silver

Groove mounting

Housing color

Type of fastening

## **Technical data**

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#### **Operation and display**

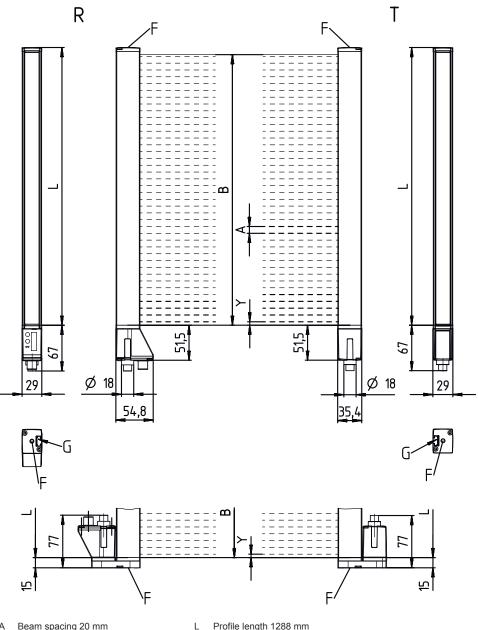
Type of display	LED	
	OLED display	
Number of LEDs	2 Piece(s)	
Type of configuration	Software	
	Teach-in	
Operational controls	Membrane keyboard	
Environmental data		
Ambient temperature, operation	-30 60 °C	
Ambient temperature, operation Ambient temperature, storage	-30 60 °C -40 70 °C	
Ambient temperature,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

#### 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 20 mm А
- В Measurement field length 1270 mm
- F M6 thread G
  - Fastening groove
- Profile length 1288 mm
- Transmitter
- R Receiver

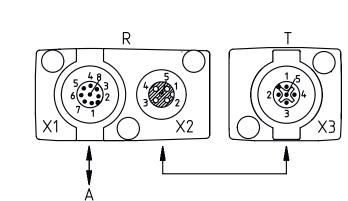
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5 mm Υ

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## **Dimensioned drawings**





A PWR / SW IN / OUT

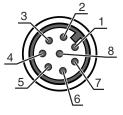
## **Electrical connection**

**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	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
50118973	CML730i-T20- 1270.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.

 $\ensuremath{^{\ensuremath{\Downarrow}}}$  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	<ul> <li>For UL applications, use is only permitted in Class 2 circuits in accordance with the NEC (National Electric Code).</li> <li>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 - 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. 1. 1. 1. 1. 1. 1. 1. 1. 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

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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
16	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.

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