# Leuze

# **Technical data sheet Light curtain receiver** Part no.: 50118790 CML730i-R10-2720.A/L-M12



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# **Technical data**

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#### **Basic data** Series 730 **Operating principle** Throughbeam principle Device type Receiver Contains 2x BT-NC sliding block Application Detection of transparent objects Object measurement **Special version** Special version Crossed-beam scanning Diagonal-beam scanning Parallel-beam scanning **Optical data** Operating range Guaranteed operating range **Operating range** 0.3 ... 9.5 m Operating range, transparent media 0.3 ... 3.5 m **Operating range limit** Typical operating range Operating range limit 0.2 ... 12 m Measurement field length 2,720 mm Number of beams 272 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<sub>B</sub> 18 ... 30 V, DC 0 ... 15 %, From U<sub>B</sub> **Residual ripple** 0 ... 435 mA, The specified values refer **Open-circuit current** to the entire package consisting of transmitter and receiver. Inputs/outputs selectable 100 mA Output current, max. Input resistance 6,000 Ω Number of inputs/outputs selectable 4 Piece(s) Туре Inputs/outputs selectable Voltage type, outputs DC Switching voltage, outputs Typ. U<sub>B</sub> / 0 V Voltage type, inputs DC Switching voltage, inputs high: ≥6V low: ≤4V Input/output 1 Activation/disable delay 0 ... 1 ms Timing Readiness delay 450 ms Cycle time 2.87 ms Response time per beam 10 µs Interface IO-Link Туре

IO-Link	
COM mode	COM2
Specification	V1.0.1
Min. cycle time	V1.1 COM2 = 2.3 ms
-	
ervice interface	
/pe	IO-Link
IO-Link	
Function	Configuration via software Service
	Service
onnection	
umber of connections	2 Piece(s)
ug outlet	Axial
O survey of law 4	
Connection 1	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
Encouning	A-000000
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
echanical data	
esign	Cubic
imension (W x H x L)	29 mm x 35.4 mm x 2,795 mm
ousing material	Metal
atal hausing	
•	Aluminum
-	Plastic
ens cover material et weight	Plastic 2,750 g
ens cover material et weight	Plastic
ens cover material et weight ousing color	Plastic 2,750 g Silver Groove mounting
ens cover material et weight ousing color ype of fastening	Plastic 2,750 g Silver
ens cover material let weight lousing color ype of fastening	Plastic 2,750 g Silver Groove mounting
ens cover material et weight ousing color ype of fastening Operation and display	Plastic 2,750 g Silver Groove mounting Via optional mounting device
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ens cover material let weight lousing color ype of fastening Operation and display ype of display umber of LEDs ype of configuration	Plastic 2,750 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s) Software Teach-in
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letal housing ens cover material let weight lousing color ype of fastening Operation and display ype of display lumber of LEDs ype of configuration Operational controls	Plastic 2,750 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s) Software Teach-in
ens cover material et weight ousing color ype of fastening Operation and display ype of display umber of LEDs ype of configuration perational controls	Plastic 2,750 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s) Software Teach-in

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# **Technical data**

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### Certifications

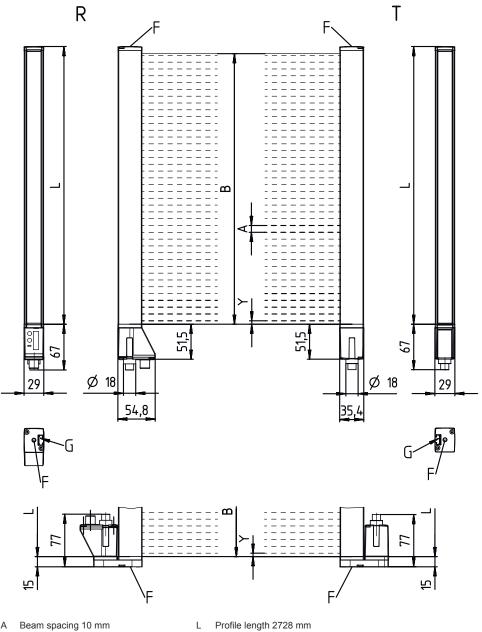
Degree of protection	IP 65
Protection class	III
Certifications	c CSA US
Standards applied	IEC 60947-5-2

### 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 2720 mm
- F M6 thread

G

R Receiver

Т

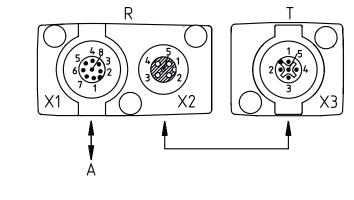
5 mm Υ

Transmitter

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### **Dimensioned drawings**





A PWR / SW IN / OUT

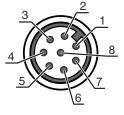
## **Electrical connection**

**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-



#### Operatio ..... .

Off

LED

1

2

on and display	LCUZC
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

Object detected

### Suitable transmitters

 Part no.	Designation	Article	Description
50118627	CML730i-T10- 2720.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

Note           Image: Second se		
FFF	-EX: Explosion protection	
EEE	Electrical connection M12: M12 connector	
DDD	Special equipment -PS: Power Setting	
CCC	Interface L: IO-Link /CN: CANopen /PB: PROFIBUS /PN: PROFINET /CV: Analog current and voltage output /D3: RS 485 Modbus	
В	Equipment A: connector outlet, axial R: rear connector outlet	
AAAA	Measurement field length [mm], dependent on beam spacing	
ZZ	<b>Beam spacing</b> 05: 5 mm 10: 10 mm 20: 20 mm 40: 40 mm	
Y	Device type T: transmitter R: receiver	
7XXi	Series 720i: 720i series 730i: 730i series	
CML	Operating principle Measuring light curtain	

### 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 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

### 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



# 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

### 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
y, 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. 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

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