

## **Technical data sheet Light curtain receiver** Part no.: 50118872 CML730i-R10-800.A/CV-M12



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 eng • 2025-04-03

### **Technical data**

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### Basic data

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	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	800 mm		
Number of beams	80 Piece(s)		
Beam spacing	10 mm		
Measurement data			
Minimum object diameter	20 mm		
	20 1111		
Electrical data			
Protective circuit	Polarity reversal protection		
	Short circuit protected		
	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	0 215 mA, The specified values refer to the entire package consisting of trans- mitter and receiver.		
Quality of the second s			
Outputs Number of analog outputs	2 Piece(s)		
	211000(3)		
Analog outputs			
Туре	Analog output		
Current	0 24 mA		
Voltage	0 11 V		
_			
Analog output 1			
Туре	Voltage		
Analog output 2			
Туре	Current		

Inputs/outputs selectable	
Output current, max.	100 mA
	6,000 Ω
Number of inputs/outputs selectable	•
	Inputs/outputs selectable
	DC
	Typ. U <sub>B</sub> / 0 V
	DC
	high: ≥6V
	low: ≤ 4 V
Input/output 1	
	1 ms
Time behavior	
Readiness delay	450 ms
Cycle time	1 ms
Response time per beam	10 µs
Service interface	
Туре	IO-Link
IO-Link	
	Configuration via software
	Service
	Service
Connection	
Number of connections	2 Piece(s)
	Axial
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
	A-coded
•	
Connection 2	
	Connection to transmitter
Function	Connection to transmitter Connector
Function Type of connection	
Function Type of connection Thread size	Connector
Function       Type of connection       Thread size       Type	Connector M12
Function       Type of connection       Thread size       Type       Material	Connector M12 Female
FunctionType of connectionThread sizeTypeMaterialNo. of pins	Connector M12 Female Metal
FunctionType of connectionThread sizeTypeMaterialNo. of pinsEncoding	Connector M12 Female Metal 5 -pin
Function       Image: Connection         Type of connection       Image: Connection         Type       Image: Connection         Material       Image: Connection         No. of pins       Image: Connection         Encoding       Image: Connection         Mechanical data       Image: Connection	Connector M12 Female Metal 5 -pin A-coded
Function       Image: Constraint of Constraint	Connector M12 Female Metal 5 -pin A-coded Cubic
Function       Image: Constraint of Constraint	Connector M12 Female Metal 5 -pin A-coded Cubic 29 mm x 35.4 mm x 875 mm
Function       Type of connection         Thread size       Type         Material       No. of pins         No. of pins       Encoding         Mechanical data       Design         Dimension (W x H x L)       Housing material	Connector M12 Female Metal 5 -pin A-coded Cubic 29 mm x 35.4 mm x 875 mm Metal
Function       Image: Constraint of the system	Connector M12 Female Metal 5 -pin A-coded Cubic 29 mm x 35.4 mm x 875 mm Metal Aluminum
Function       Type of connection         Type of connection       Type         Type       Material         No. of pins       Encoding         Mechanical data       Dimension (W x H x L)         Dimension (W x H x L)       Housing material         Metal housing       Lens cover material	Connector M12 Female Metal 5 -pin A-coded Cubic 29 mm x 35.4 mm x 875 mm Metal Aluminum Plastic
Function       Type of connection         Type of connection       Thread size         Type       Material         No. of pins       Encoding         Mechanical data       Design         Dimension (W x H x L)       The stand stan	Connector M12 Female Metal 5 -pin A-coded Cubic 29 mm x 35.4 mm x 875 mm Metal Aluminum Plastic 1,000 g
Function       Image: Second state sta	Connector M12 Female Metal 5 -pin A-coded Cubic 29 mm x 35.4 mm x 875 mm Metal Aluminum Plastic 1,000 g Silver
Function       Image: Second state sta	Connector M12 Female Metal 5 -pin A-coded Cubic 29 mm x 35.4 mm x 875 mm Metal Aluminum Plastic 1,000 g

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### **Technical data**

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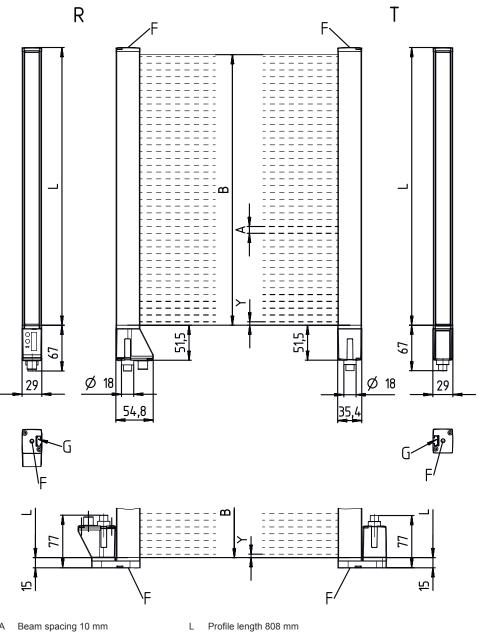
### **Operation and display**

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		
	-40 70 °C		
Ambient temperature, storage	-40 70 °C		
	-40 70 °C		
Ambient temperature, storage Certifications	-40 70 °C		
	-40 70 °C IP 65		
Certifications			
Certifications Degree of protection	IP 65		
Certifications Degree of protection Protection class	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 10 mm А
- В Measurement field length 800 mm
- F M6 thread G Fastening groove
- R Receiver

Т

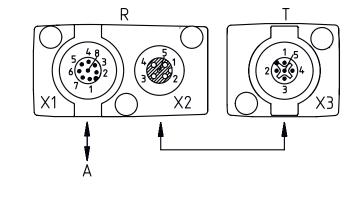
Υ 5 mm

Transmitter

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### **Dimensioned drawings**





A PWR / SW IN / OUT

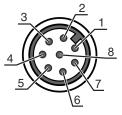
### **Electrical connection**

**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	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**

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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
50118616	CML730i-T10-800.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: 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	
6 A list wi	th 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.

 ${\ensuremath{\,\textcircled{\tiny \ensuremath{\,\Downarrow}}}}$  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
	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
P. A.	429393	BT-2HF	Mounting bracket set	Fastening, at system: Through-hole mounting Mounting bracket, at device: Clampable Type of mounting device: Turning, 360° Material: Metal, Plastic

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### Accessories

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