



the sensor people





Figure can vary

Part no.: 50123324 CML730i-R10-2720.A/D3-M12 Light curtain receiver





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#### **Technical 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 design			
Special design	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		
William Object diameter	20 11111		
Electrical data			
Protective circuit	Polarity reversal protection		
Flotective circuit	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	0 435 mA , The specified values refer to the entire package consisting of transmitter and receiver.		
Inputs/outputs selectable			
Number of inputs/outputs selectable	2 Piece(s)		
Туре	Inputs/outputs selectable		
Voltage type, outputs	DC		
Switching voltage, outputs	Typ. U <sub>B</sub> / 0 V		
Switching voltage, inputs	high: ≥6V low: ≤4V		
Input/output 1	IOW. 2TV		
Timing			
Timing Cycle time	2.97 mg		
Cycle time	2.87 ms		
Response time per beam	10 μs		
Interface			



DC 405			
RS 485 Function	Drogon		
Function	Process		
Service interface			
Type	IO-Link		
IO-Link			
Function	Configuration via software Service		
	0.000		
Commention			
Connection Number of connections	2 Diago(a)		
Number of connections	2 Piece(s)		
Plug outlet	Axial		
Connection 1			
Function	Configuration interface Connection to transmitter		
	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			
Connection 2			
Function	BUS IN		
	BUS OUT		
Type of connection	Connector		
Thread size	M12		
Туре	Female		
Material	Metal		
No. of pins	5 -pin		
Encoding	B-coded		
Mechanical data			
Design	Cubic		
Dimension (W x H x L)	29 mm x 35.4 mm x 2,795 mm		
Housing material	Metal , Aluminum		
Lens cover material	Plastic		
Net weight	2,750 g		
Housing color	Silver		
Type of fastening	Groove mounting		
,, <u> </u>	Via optional mounting device		
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		
	<u> </u>		



Ambient temperature, operation	-30 60 °C
Ambient temperature, storage	-40 70 °C

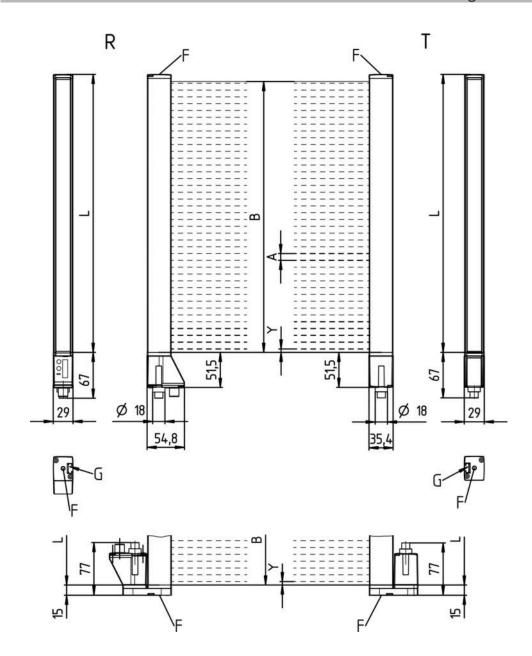
Certifications	
Degree of protection	IP 65
Protection class	III
Certifications	c CSA US
Standards applied	IEC 60947-5-2

Classification	
Customs tariff number	90314990
eCl@ss 8.0	27270910
eCl@ss 9.0	27270910
ETIM 5.0	EC002549
ETIM 6.0	EC002549

#### **Dimensioned drawings**

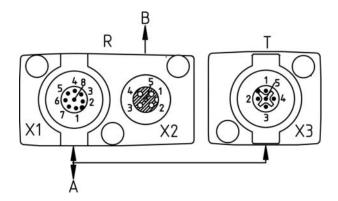
All dimensions in millimeters





- A Beam spacing 10 mm B Measurement field length 2720 mm
- F M6 thread
- G Fastening groove
- L Profile length 2728 mm
- T Transmitter
- R Receiver
- Y 5 mm



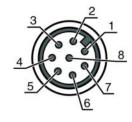


A PWR / SW IN/OUT B BUS IN / OUT

#### **Electrical connection**

Connection 1		
Function	Configuration interface Connection to transmitter 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	

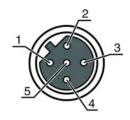
Pin	Pin assignment		
1	V+		
2	I/O 1		
3	GND		
4	IO-Link		
5	I/O 2		
6	RS 485 Tx+		
7	RS 485 Tx+		
8	FE/SHIELD		



Connection 2	
Function	BUS IN BUS OUT
Type of connection	Connector
Thread size	M12
Туре	Female
Material	Metal
No. of pins	5 -pin
Encoding	B-coded



Pin	Pin assignment	
1	V+	
2	Tx-	
3	PB GND	
4	Tx+	
5	FE/SHIELD	



### **Operation and display**

#### **LEDs**

LED	Display	Meaning
1	Green, continuous light	Operational readiness
	Green, flashing	Teach / error
		Measurement frequency display
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
	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

CML	Operating principle: Measuring light curtain		
7XXi	Series: 720i: 720i series 730i: 730i series		
Υ	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: connector outlet, axial 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 with all available device types can be found on the Leuze electronic website at www.leuze.com.

#### **Notes**

#### Observe intended use!

- · This product is not a safety sensor and is not intended as personnel protection.
- The product may only be put into operation by competent persons.
- · Only use the product in accordance with its intended use.

#### For UL applications:

- 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
50132079	KD U-M12-5A- V1-050	Connection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin Connection 2: Open end Shielded: No Cable length: 5,000 mm Sheathing material: PVC

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## Connection technology - Y distribution cables

	Part no.	Designation	Article	Description
	50118183	K-Y1 M12A-5m- M12A-S-PUR	Interconnection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin Connection 2: Connector, M12, Axial, Male, A-coded, 5 -pin Connection 3: Connector, M12, Axial, Female, A-coded, 8 -pin Shielded: Yes Cable length fork 1: 5,000 mm Cable length fork 2: 150 mm Sheathing material: PUR
	50123265	K-YPB M12A-5m- M12A-S-PUR	Interconnection cable	Suitable for interface: PROFIBUS DP Connection 1: Connector, M12, Axial, Male, B-coded, 5 -pin Connection 2: Connector, M12, Axial, Female, B-coded, 5 -pin Connection 3: Connector, M12, Axial, Male, B-coded, 5 -pin Shielded: Yes Cable length fork 1: 5,000 mm Cable length fork 2: 250 mm Sheathing material: PUR

### Mounting technology - Mounting brackets

Part no.	Designation	Article	Description
 50142900	BT 700M.5-2SET	Mounting device set	Contains: 2x mounting brackets, 1 teach template, 4 M6 x 10 screws 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
EE.	429046	BT-2R1	Mounting bracket set	Contains: 2x BT-R swivel mount, 1 cylinder for mounting on the light curtain Fastening, at system: Through-hole mounting Mounting bracket, at device: Clampable Type of mounting device: Turning, 360° Material: Metal, Plastic

#### 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.  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 electronic website in the Download tab of the article detailed page.