

# Technical data sheet

## Light curtain transmitter

Part no.: 50133794

CML730i-T05-1120.R-PS-M12

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For illustration purposes only



## Technical data

### Basic data

Series	730
Operating principle	Throughbeam principle
Device type	Transmitter
Contains	Accessories for the use of the BT-2R1
Application	Detection of transparent films Detection of transparent objects Object detection in film tube Object measurement Radiation of semi-transparent media

### Mechanical data

Design	Cubic
Dimension (W x H x L)	29 mm x 35.4 mm x 1,143 mm
Housing material	Metal
Metal housing	Aluminum
Lens cover material	Plastic
Net weight	1,300 g
Housing color	Silver
Type of fastening	Groove mounting Via optional mounting device

### Optical data

Operating range	0.1 ... 4.5 m
Operating range	Guaranteed operating range
Operating range, transparent media	0.1 ... 1.75 m
Operating range limit	0.1 ... 6 m
Operating range limit	Typical operating range
Measurement field length	1,120 mm
Number of beams	224 Piece(s)
Beam spacing	5 mm
Light source	LED, Infrared
Wavelength	940 nm

### Operation and display

Type of display	LED
Number of LEDs	1 Piece(s)

### Environmental data

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

### Certifications

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

### 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

### Measurement data

Minimum object diameter	10 mm
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### Electrical data

Protective circuit	Polarity reversal protection Short circuit protected Transient protection
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### Performance 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 transmitter and receiver.

### Time behavior

Readiness delay	450 ms
Cycle time	2.44 ms

### Connection

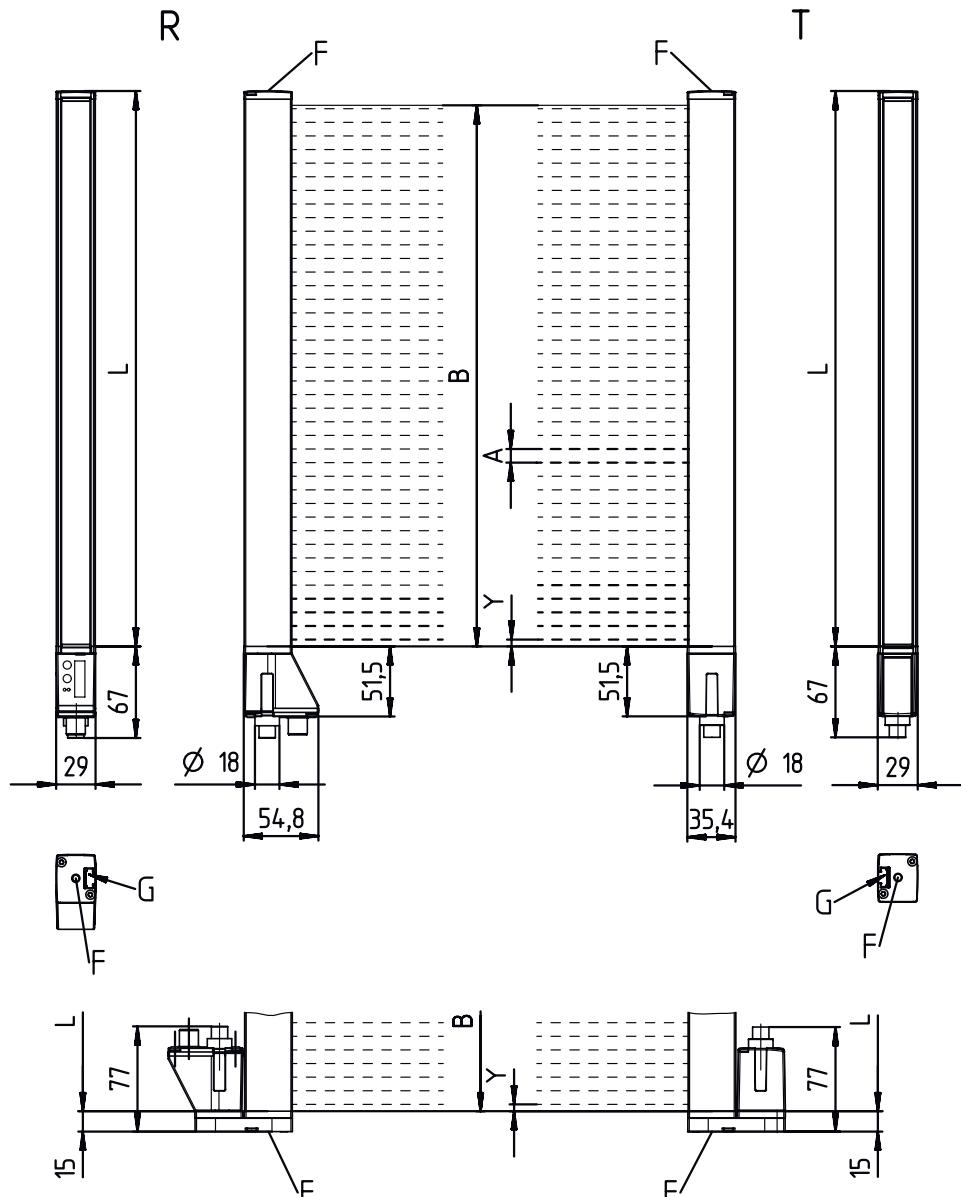
Number of connections	1 Piece(s)
Plug outlet	Rear side

### Connection 1

Function	Connection to receiver
Type of connection	Connector
Thread size	M12
Type	Male
Material	Metal
No. of pins	5 -pin
Encoding	A-coded

**Dimensioned drawings**

All dimensions in millimeters



A Beam spacing 5 mm  
 B Measurement field length 1120 mm  
 F M6 thread  
 G Fastening groove

L Profile length 1128 mm  
 T Transmitter  
 R Receiver  
 Y 2.5 mm



## Electrical connection

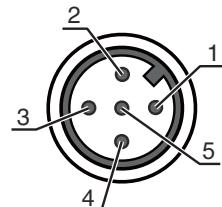
### Connection 1

Function	Connection to receiver
Type of connection	Connector
Thread size	M12
Type	Male
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	Continuous mode
	Off	No communication with the receiver / waiting for trigger
	green, flashing in sync with the measurement	Measurement frequency display

## Suitable receivers

Part no.	Designation	Article	Description
50133793	CML730i-R05-1120.R/CV-PS-M12	Light curtain receiver	Operating range: 0.1 ... 4.5 m Analog outputs: 1 Piece(s), Freely configurable Connection: Connector, M12, Rear side, 8 -pin

## Part number code

Part designation: CML7XXi-YZZ-AAAA.BCCCDDD-EEEFFF

<b>CML</b>	Operating principle Measuring light curtain
<b>7XXi</b>	<b>Series</b> 720i: 720i series 730i: 730i series
<b>Y</b>	<b>Device type</b> T: transmitter R: receiver
<b>ZZ</b>	<b>Beam spacing</b> 05: 5 mm 10: 10 mm 20: 20 mm 40: 40 mm
<b>AAAA</b>	Measurement field length [mm], dependent on beam spacing
<b>B</b>	<b>Equipment</b> A: Axial connector outlet R: Rear connector outlet

## Part number code

CCC	<b>Interface</b> L: IO-Link /CN: CANopen /PB: PROFIBUS /PN: PROFINET /CV: Analog current and voltage output /D3: RS 485 Modbus
DDD	<b>Special equipment</b> -PS: Power Setting
EEE	<b>Electrical connection</b> M12: M12 connector
FFF	<b>-EX: Explosion protection</b>
<b>Note</b>	
	↳ A list with all available device types can be found on the Leuze website at <a href="http://www.leuze.com">www.leuze.com</a> .

## Notes

	<b>Observe intended use!</b>
	<p>↳ This product is not a safety sensor and is not intended as personnel protection.</p> <p>↳ The product may only be put into operation by competent persons.</p> <p>↳ Only use the product in accordance with its intended use.</p>

	<b>For UL applications:</b>
	<p>↳ For UL applications, use is only permitted in Class 2 circuits in accordance with the NEC (National Electric Code).</p> <p>↳ These proximity switches shall be used with UL Listed Cable assemblies rated 30V, 0.5A min, in the field installation, or equivalent (categories: CYJV7 or PVVA/PVVA7)</p>

## Accessories

### 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

## Accessories

### 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

### Mounting technology - Swivel mounts

Part no.	Designation	Article	Description
	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

## 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

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