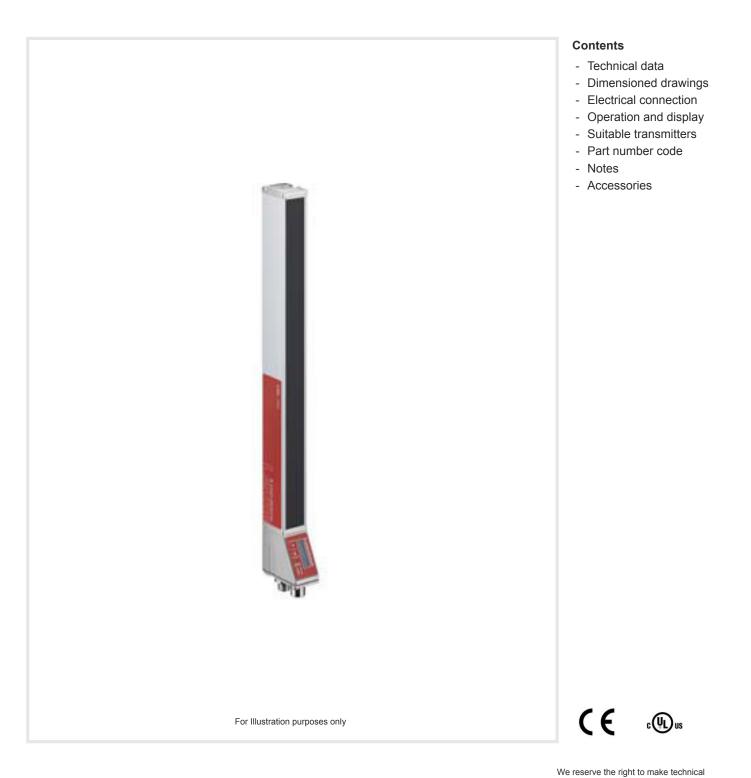


Technical data sheet Light curtain receiver Part no.: 50133765 CML730i-R05-320.A/CV-PS-M12



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Technical data

Basic data

Basic data	
Series	730
Operating principle	Throughbeam principle
Device type	Receiver
Contains	2x BT-NC sliding block
Application	Detection of transparent films
	Detection of transparent objects
	Object detection in film tube
	Object measurement
	Radiation of semi-transparent media
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	320 mm
Number of beams	64 Piece(s)
	5 mm
Beam spacing	5 mill
Measurement data	
Minimum object diameter	10 mm
Electrical data	
Protective circuit	Polarity reversal protection
	Short circuit protected
	Transient protection
Performance data	
Supply voltage U _B	18 30 V, DC
Residual ripple	0 15 %, From U _B
Open-circuit current	0 165 mA, The specified values refer to the entire package consisting of trans mitter and receiver.
Outrasta	
Outputs	
Number of analog outputs	$1 \operatorname{Piece}(s)$
U	1 Piece(s)
	1 Piece(s)
Analog outputs	
Analog outputs Type	1 Piece(s) Analog output 0 24 mA
Analog outputs Type Current	Analog output 0 24 mA
Analog outputs Type	Analog output
Analog outputs Type Current	Analog output 0 24 mA
Analog outputs Type Current Voltage	Analog output 0 24 mA
Analog outputs Type Current Voltage Analog output 1 Type	Analog output 0 24 mA 0 11 V
Analog outputs Type Current Voltage Analog output 1 Type Inputs/outputs selectable	Analog output 0 24 mA 0 11 V Freely configurable
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Analog outputs Type Current Voltage Analog output 1 Type Inputs/outputs selectable Output current, max.	Analog output 0 24 mA 0 11 V Freely configurable 100 mA 6,000 Ω
Analog outputs Type Current Voltage Analog output 1 Type Inputs/outputs selectable Output current, max. Input resistance	Analog output 0 24 mA 0 11 V Freely configurable 100 mA 6,000 Ω
Analog outputs Type Current Voltage Analog output 1 Type Inputs/outputs selectable Output current, max. Input resistance Number of inputs/outputs selectable	Analog output $0 \dots 24 \text{ mA}$ $0 \dots 11 \text{ V}$ Freely configurable 100 mA $6,000 \Omega$ 3 Piece(s)
Analog outputs Type Current Voltage Analog output 1 Type Inputs/outputs selectable Output current, max. Input resistance Number of inputs/outputs selectable Type	Analog output $0 \dots 24 \text{ mA}$ $0 \dots 11 \text{ V}$ Freely configurable 100 mA $6,000 \Omega$ 3 Piece(s) Inputs/outputs selectable
Analog outputs Type Current Voltage Analog output 1 Type Inputs/outputs selectable Output current, max. Input resistance Number of inputs/outputs selectable Type Voltage type, outputs	Analog output $0 \dots 24 \text{ mA}$ $0 \dots 11 \text{ V}$ Freely configurable 100 mA $6,000 \Omega$ 3 Piece(s) Inputs/outputs selectable DC
Analog outputs Type Current Voltage Analog output 1 Type Inputs/outputs selectable Output current, max. Input resistance Number of inputs/outputs selectable Type Voltage type, outputs Switching voltage, outputs	Analog output 0 24 mA 0 11 V Freely configurable 100 mA 6,000 Ω 3 Piece(s) Inputs/outputs selectable DC Typ. U _B / 0 V
Analog outputs Type Current Voltage Analog output 1 Type Inputs/outputs selectable Output current, max. Input resistance Number of inputs/outputs selectable Type Voltage type, outputs Switching voltage, outputs	Analog output $0 \dots 24 \text{ mA}$ $0 \dots 11 \vee$ Freely configurable 100 mA $6,000 \Omega$ 3 Piece(s) Inputs/outputs selectable DC Typ. U _B / 0 \vee high: $\geq 6 \vee$
Analog outputs Type Current Voltage Analog output 1 Type Inputs/outputs selectable Output current, max. Input resistance Number of inputs/outputs selectable Type Voltage type, outputs Switching voltage, outputs	Analog output $0 \dots 24 \text{ mA}$ $0 \dots 11 \vee$ Freely configurable 100 mA $6,000 \Omega$ 3 Piece(s) Inputs/outputs selectable DC Typ. U _B / 0 \vee high: $\geq 6 \vee$

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Time behavior

Readiness delay	450 ms	
Cycle time	1 ms	
Response time per beam	10 µs	
Service interface		
Туре	IO-Link	
IO-Link Function		
Function	Configuration via software	
	Service	
Connection		
Number of connections	2 Piece(s)	
Plug outlet	Axial	
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	
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	
Mechanical data		
Design	Cubic	
Dimension (W x H x L)	29 mm x 35.4 mm x 395 mm	
Housing material	Metal	
Metal housing	Aluminum	
Lens cover material	Plastic	
Net weight	550 g	
Housing color	Silver	
Type of fastening	Groove mounting	
	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	
Environmental data		
	-30 60 °C	
Ambient temperature, operation	-30 60 °C -40 70 °C	
Ambient temperature, storage	-+070 0	

Technical data

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Certifications

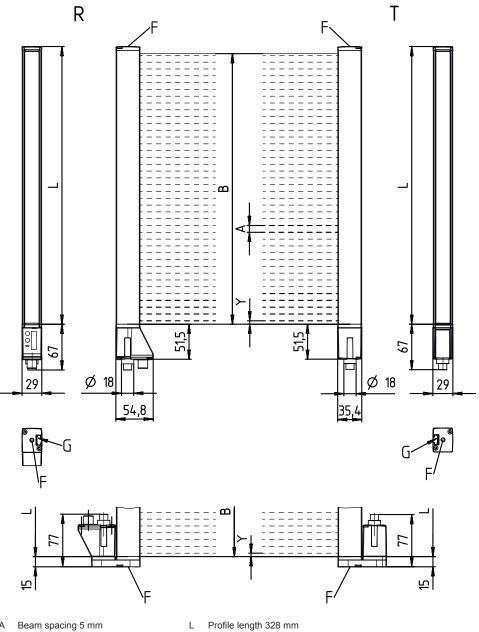
Degree of protection	IP 65
Protection class	III
Certifications	c UL US
Standards applied	IEC 60947-5-2

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
ETIM 5.0	EC002549
ETIM 6.0	EC002549
ETIM 7.0	EC002549
ETIM 8.0	EC002549
ETIM 9.0	EC002549

Dimensioned drawings

All dimensions in millimeters



Beam spacing 5 mm А

- В Measurement field length 320 mm
- F M6 thread

G

- Fastening groove
- 2.5 mm Υ

Т

R

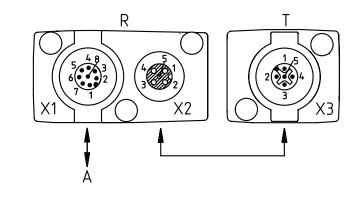
Transmitter

Receiver



Dimensioned drawings





A PWR / SW IN / OUT

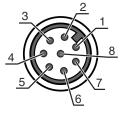
Electrical connection

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	I/O 3		
7	OUT mA / V		
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
50133766	CML730i-T05-320.A- PS-M12	Light curtain transmitter	Operating range: 0.1 4.5 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	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	 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
Ŭ	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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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.