

Technical data sheet Light curtain receiver Part no.: 50118887 CML730i-R20-310.A/CV-M12



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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	310 mm	
Number of beams	16 Piece(s)	
Beam spacing	20 mm	
Measurement data		
Minimum object diameter	30 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	 135 mA, The specified values refer to the entire package consisting of trans- mitter and receiver. 	
• • •		
Outputs		
Number of analog outputs	2 Piece(s)	
Analog outputs		
Туре	Analog output	
Current	0 24 mA	
Voltage	0 11 V	
Analog output 1		
Туре	Voltage	
	5	
Analog output 2		
Туре	Current	

	Inputs/outputs selectable	
	Output current, max.	100 mA
	Input resistance	6,000 Ω
	Number of inputs/outputs selectable	2 Piece(s)
	Туре	Inputs/outputs selectable
	Voltage type, outputs	DC
	Switching voltage, outputs	Typ. U _B / 0 V
	Voltage type, inputs	DC
	Switching voltage, inputs	high: ≥6V
		low: ≤ 4 V
	Input/output 1	
	Activation/disable delay	1 ms
т	me behavior	
_		
	eadiness delay	450 ms
	ycle time	1 ms
R	esponse time per beam	10 µs
9	ervice interface	
-		
Ту	vpe	IO-Link
	IO-Link Function	Configuration via coffware
	Function	Configuration via software Service
		Service
С	onnection	
N	umber of connections	2 Piece(s)
	ug outlet	Axial
	Connection 1	
	Function	Configuration interface
		Signal IN
		Signal OUT
		Voltage supply
	Type of connection	Voltage supply Connector
	Type of connection Thread size	
	51	Connector
	Thread size	Connector M12
	Thread size Type	Connector M12 Male
	Thread size Type Material	Connector M12 Male Metal
	Thread size Type Material No. of pins Encoding	Connector M12 Male Metal 8 -pin
	Thread size Type Material No. of pins Encoding Connection 2	Connector M12 Male Metal 8 -pin A-coded
	Thread size Type Material No. of pins Encoding Connection 2 Function	Connector M12 Male Metal 8 -pin A-coded Connection to transmitter
	Thread size Type Material No. of pins Encoding Connection 2 Function Type of connection	Connector M12 Male Metal 8 -pin A-coded Connection to transmitter Connector
	Thread size Type Material No. of pins Encoding Connection 2 Function Type of connection Thread size	Connector M12 Male Metal 8 -pin A-coded Connection to transmitter Connector M12
	Thread size Type Material No. of pins Encoding Connection 2 Function Type of connection Thread size Type	Connector M12 Male Metal 8 -pin A-coded Connection to transmitter Connector M12 Female
	Thread size Type Material No. of pins Encoding Connection 2 Function Type of connection Thread size Type Material	Connector M12 Male Metal 8 -pin A-coded Connector to transmitter Connector M12 Female Metal
	Thread size Type Material No. of pins Encoding Connection 2 Function Type of connection Thread size Type Material No. of pins	Connector M12 Male Metal 8 -pin A-coded Connecton to transmitter Connector M12 Female Metal 5 -pin
	Thread size Type Material No. of pins Encoding Connection 2 Function Type of connection Thread size Type Material	Connector M12 Male Metal 8 -pin A-coded Connector to transmitter Connector M12 Female Metal
	Thread size Type Material No. of pins Encoding Connection 2 Function Type of connection Thread size Type Material No. of pins	Connector M12 Male Metal 8 -pin A-coded Connecton to transmitter Connector M12 Female Metal 5 -pin
_	Thread size Type Material No. of pins Encoding Connection 2 Function Type of connection Thread size Type Material No. of pins Encoding echanical data	Connector M12 Male Metal 8 -pin A-coded Connection to transmitter Connector M12 Female Metal 5 -pin A-coded
De	Thread size Type Material No. of pins Encoding Connection 2 Function Type of connection Thread size Type Material No. of pins Encoding echanical data esign	Connector M12 Male Metal 8 -pin A-coded Connection to transmitter Connector M12 Female Metal 5 -pin A-coded Cubic
De Di	Thread size Type Material No. of pins Encoding Connection 2 Function Type of connection Thread size Type Material No. of pins Encoding echanical data esign mension (W x H x L)	Connector M12 Male Metal 8 -pin A-coded Connection to transmitter Connector M12 Female Metal 5 -pin A-coded Cubic 29 mm x 35.4 mm x 395 mm
De Di He	Thread size Type Material No. of pins Encoding Connection 2 Function Type of connection Thread size Type Material No. of pins Encoding echanical data esign mension (W x H x L) pousing material	Connector M12 Male Metal 8 -pin A-coded Connection to transmitter Connector M12 Female Metal 5 -pin A-coded Cubic 29 mm x 35.4 mm x 395 mm Metal
De Di He M	Thread size Type Material No. of pins Encoding Connection 2 Function Type of connection Thread size Type Material No. of pins Encoding echanical data esign mension (W x H x L) pousing material etal housing	Connector M12 Male Metal 8 -pin A-coded Connection to transmitter Connector M12 Female Metal 5 -pin A-coded Cubic 29 mm x 35.4 mm x 395 mm Metal Aluminum
De Di He Le	Thread size Type Material No. of pins Encoding Connection 2 Function Type of connection Thread size Type Material No. of pins Encoding echanical data esign mension (W x H x L) ousing material etal housing ens cover material	Connector M12 Male Metal 8 -pin A-coded Connection to transmitter Connector M12 Female Metal 5 -pin A-coded Cubic 29 mm x 35.4 mm x 395 mm Metal Aluminum Plastic
De Di He M	Thread size Type Material No. of pins Encoding Connection 2 Function Type of connection Thread size Type Material No. of pins Encoding echanical data esign mension (W x H x L) pusing material etal housing ens cover material et weight	Connector M12 Male Metal 8 -pin A-coded Connection to transmitter Connector M12 Female Metal 5 -pin A-coded Cubic 29 mm x 35.4 mm x 395 mm Metal Aluminum
De Di He M Le	Thread size Type Material No. of pins Encoding Connection 2 Function Type of connection Thread size Type Material No. of pins Encoding echanical data esign mension (W x H x L) pusing material etal housing ens cover material etal weight pusing color	Connector M12 Male Metal 8 -pin A-coded Connection to transmitter Connector M12 Female Metal 5 -pin A-coded Cubic 29 mm x 35.4 mm x 395 mm Metal Aluminum Plastic 550 g Silver
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Technical data

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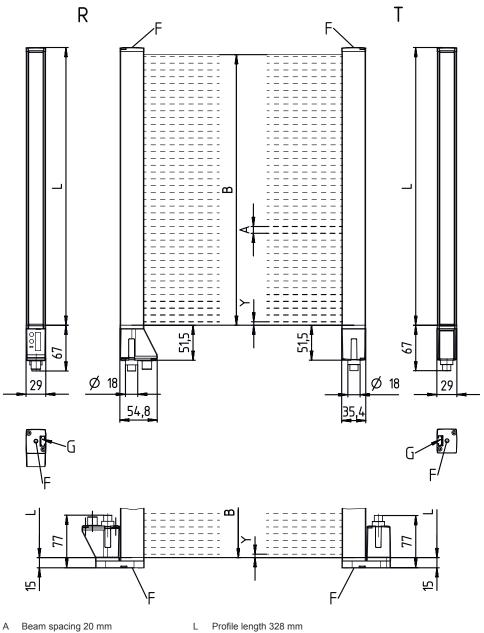
Operation and display

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
Ambient temperature, storage	-40 70 °C
Certifications	
Degree of protection	IP 65
209.00 0. p. 0.000.00	
Protection class	
• .	
Protection class	

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



В Measurement field length 310 mm

- Т
- Transmitter R Receiver
- M6 thread Fastening groove

F

G

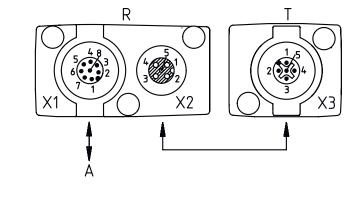
Υ 5 mm

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Dimensioned drawings





A PWR / SW IN / OUT

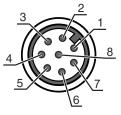
Electrical connection

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

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
50118630	CML730i-T20-310.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

	Operating principle Measuring light curtain
	Series 720i: 720i series 730i: 730i series
	Device type T: transmitter R: receiver
	Beam spacing 05: 5 mm 10: 10 mm 20: 20 mm 40: 40 mm
AAAA	Measurement field length [mm], dependent on beam spacing
	Equipment A: Axial connector outlet R: Rear connector outlet
	Interface L: IO-Link /CN: CANopen /PB: PROFIBUS /PN: PROFINET /CV: Analog current and voltage output /D3: RS 485 Modbus
	Special equipment -PS: Power Setting
	Electrical connection M12: M12 connector
FFF	-EX: Explosion protection
Note	n 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.

 ${\ensuremath{\,\textcircled{\tiny \ensuremath{\,\Downarrow}}}}$ 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	 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 + + + + + + + + + + + + + + + + +	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
, C	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	S A list with all available accessories can be found on the Leuze website in the Download tab of the article detailed page.