

Technical data sheet Light curtain receiver Part no.: 50118903 CML730i-R20-2870.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	2,870 mm		
Number of beams	144 Piece(s)		
Beam spacing	20 mm		
Measurement data			
Minimum object diameter	30 mm		
Elected al dete			
Electrical data			
Protective circuit	Polarity reversal protection		
	Short circuit protected		
	Transient protection		
Performance data	10 20.1/ DO		
Supply voltage U _B	18 30 V, DC		
Residual ripple	0 15 %, From U _B		
Open-circuit current	 435 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			
Type	Analog output		
Current	0 24 mA		
Voltage	0 11 V		
Analog output 1			
Туре	Voltage		
Analog output 2			
Туре	Current		

Ini	puts/outputs selectable	
	utput current, max.	100 mA
Inp	put resistance	6,000 Ω
Nu	mber of inputs/outputs selectable	2 Piece(s)
Ту	ре	Inputs/outputs selectable
Vo	ltage type, outputs	DC
Sw	vitching voltage, outputs	Typ. U _B / 0 V
Vo	ltage type, inputs	DC
Sw	vitching voltage, inputs	high: ≥6V
		low: $\leq 4 \text{ V}$
	Input/output 1	
	Activation/disable delay	1 ms
Time	e behavior	
		450
	liness delay	450 ms
-	e time	1.59 ms
Resp	oonse time per beam	10 µs
Serv	vice interface	
Tuno		IO-Link
Туре		IO-LIIIK
10	-Link	
	Inction	Configuration via software
		Service
Coni	nection	
Num	ber of connections	2 Piece(s)
Plug	outlet	Axial
-		
Co	onnection 1	
Fu	inction	Configuration interface
		Signal IN
		Signal OUT
		Voltage supply
Ту	pe of connection	Connector
Th	read size	M12
Ту	pe	Male
	aterial	Metal
	o. of pins	8 -pin
En	looding	A-coded
<u> </u>	onnection 2	
	Inction	Connection to transmitter
	pe of connection	Connector
	read size	M12
Ту	pe	Female
	aterial	Metal
No	o. of pins	5 -pin
En	icoding	A-coded
Mecl	hanical data	
Desig	gn	Cubic
	ension (W x H x L)	29 mm x 35.4 mm x 2,955 mm
	sing material	Metal
Metal	I housing	Aluminum
	cover material	Plastic
	veight	2,900 g
	sing color	Silver
Туре	of fastening	Groove mounting
		Via optional mounting device

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Technical data

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Operation and display

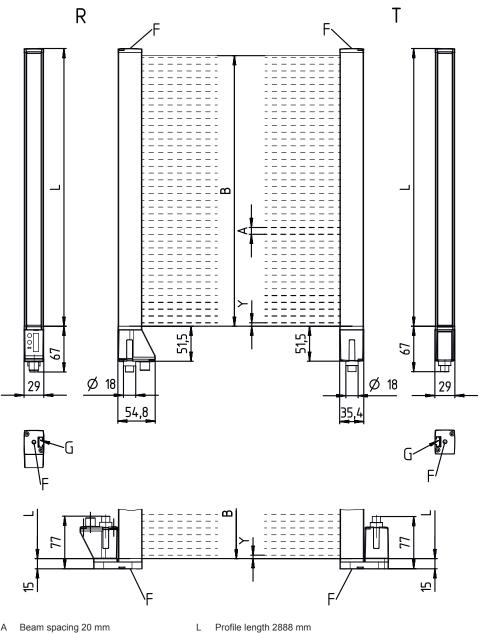
Type of display	LED
	OLED display
Number of LEDs	2 Piece(s)
Type of configuration	Software
	Teach-in
Operational controls	Membrane keyboard
Environmental data	
Ambient temperature, operation	-30 60 °C
Ambient temperature, operation Ambient temperature, storage	-30 60 °C -40 70 °C
Ambient temperature, storage	
1 / 1	
Ambient temperature, storage	
Ambient temperature, storage	-40 70 °C
Ambient temperature, storage Certifications Degree of protection	-40 70 °C
Ambient temperature, storage Certifications Degree of protection Protection class	-40 70 °C 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 20 mm А
- В Measurement field length 2870 mm
- F M6 thread G Fastening groove
- Transmitter
- Receiver
- R Υ

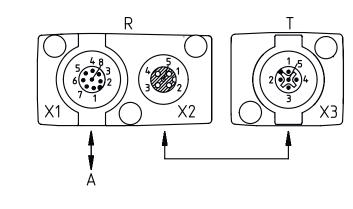
Т

5 mm

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Dimensioned drawings





A PWR / SW IN / OUT

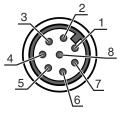
Electrical connection

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

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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
50118646	CML730i-T20- 2870.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
22	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	
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.

 $\ensuremath{^{\ensuremath{\oplus}}}$ 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
	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.