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Technical data sheet Light curtain receiver Part no.: 50118803 CML730i-R20-1910.A/L-M12



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Technical data

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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 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 1,910 mm Number of beams 96 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_R 0 ... 350 mA, The specified values refer **Open-circuit current** to the entire package consisting of transmitter and receiver. Inputs/outputs selectable Output current, max. 100 mA Input resistance 6.000 Ω Number of inputs/outputs selectable 4 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: ≤4V Input/output 1 Activation/disable delay 0 ... 1 ms Timing Readiness delay 450 ms Cycle time 1.11 ms Response time per beam 10 µs Interface

IO-Link COM mode COM2 Specification V1.0.1 V1.1 COM2 = 2.3 msMin. cycle time Service interface Туре IO-Link IO-Link 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 Male Type 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** Cubic Design 29 mm x 35.4 mm x 1,995 mm Dimension (W x H x L) Housing material Metal Metal housing Aluminum Lens cover material Plastic Net weight 2,050 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 Ambient temperature, storage -40 ... 70 °C

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IO-Link

Туре

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Technical data

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Certifications

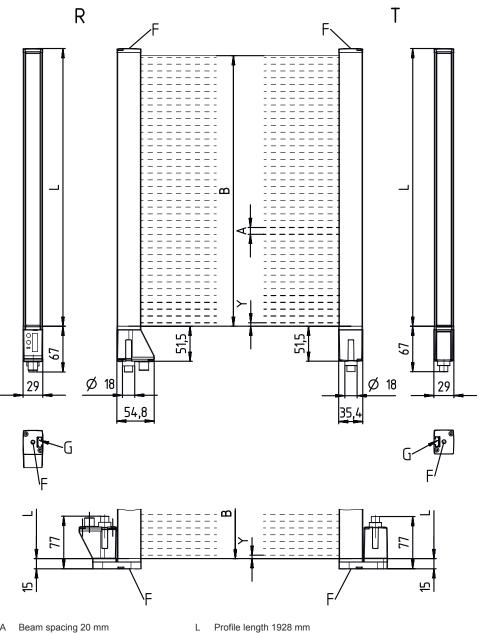
Degree of protection	IP 65
Protection class	III
Certifications	c CSA US
Standards applied	IEC 60947-5-2

Classification

Customs tariff number	90314990
eCl@ss 5.1.4	27270910
eCl@ss 8.0	27270910
eCl@ss 9.0	27270910
eCl@ss 10.0	27270910
eCl@ss 11.0	27270910
ETIM 5.0	EC002549
ETIM 6.0	EC002549
ETIM 7.0	EC002549
i@ss 9.0 i@ss 10.0 i@ss 11.0 iM 5.0 iM 6.0	27270910 27270910 27270910 EC002549 EC002549

Dimensioned drawings

All dimensions in millimeters



- Beam spacing 20 mm А
- В Measurement field length 1910 mm
- F M6 thread G Fastening groove
- R

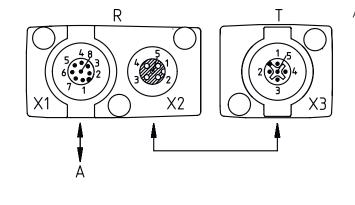
Т

Receiver 5 mm Υ

Transmitter

Dimensioned drawings





A PWR / SW IN / OUT

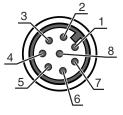
Electrical connection

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	IO1		
3	GND		
4	IO-Link		
5	102		
6	103		
7	IO4		
8	GND		

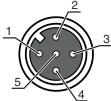


Connection 2

Connection to transmitter
Connector
M12
Female
Metal
5 -pin
A-coded

Pin Pin assignment

1	FE/SHIELD
2	V+
3	GND
4	RS 485 Tx+
5	RS 485 Tx-



Operation and display

•	1 9	
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
50118640	CML730i-T20- 1910.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 7XXi	Operating principle Measuring light curtain 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: 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 wi	A list with 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
	50135128	KD S-M12-8A-P1-050	Connection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 8 -pin 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: IO-Link, 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

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Accessories



Mounting technology - Swivel mounts

	Part no.	Designation	Article	Description
ęę.	429046	BT-2R1	Mounting bracket set	Fastening, at system: Through-hole mounting Mounting bracket, at device: Clampable Type of mounting device: Turning, 360° Material: Metal, Plastic

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
y, U	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 website in the Download tab of the article detailed page.

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 We reserve the right to make technical changes

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