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Technical data sheet Light curtain receiver Part no.: 50118786 CML730i-R10-2080.A/L-M12



 Leuze electronic GmbH + Co. KG
 info@leuze.com • www.leuze.com
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 The Sensor People
 In der Braike 1, D-73277 Owen/Germany
 Phone: +49 7021 573-0 • Fax: +49 7021 573-199
 eng • 2025-04-03

Technical data

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Operating principle	730
	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
	Guaranteed operating range
	0.3 3.5 m
	0.2 12 m
	Typical operating range
	2,080 mm
Ū	208 Piece(s)
	10 mm
Measurement data	
	20 mm
Minimum object diameter	20 mm
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
	0 435 mA, The specified values refer to the entire package consisting of trans mitter and receiver.
Inputs/outputs selectable	
Output current, max.	100 mA
Input resistance	6,000 Ω
	4 Piece(s)
Number of inputs/outputs selectable	
Number of inputs/outputs selectable	Inputs/outputs selectable
Number of inputs/outputs selectable Type	Inputs/outputs selectable DC
Number of inputs/outputs selectable Type Voltage type, outputs	
Number of inputs/outputs selectable Type Voltage type, outputs Switching voltage, outputs	DC
Number of inputs/outputs selectable Type Voltage type, outputs Switching voltage, outputs Voltage type, inputs	DC Typ. U _B / 0 V
Number of inputs/outputs selectable Type Voltage type, outputs Switching voltage, outputs Voltage type, inputs Switching voltage, inputs	DC Typ. U _B / 0 V DC
Number of inputs/outputs selectable Type Voltage type, outputs Switching voltage, outputs Voltage type, inputs Switching voltage, inputs	DC Typ. U _B / 0 V DC high: ≥6V
Number of inputs/outputs selectable Type Voltage type, outputs Switching voltage, outputs Voltage type, inputs Switching voltage, inputs Input/output 1	DC Typ. U _B / 0 V DC high: ≥6V
Number of inputs/outputs selectable Type Voltage type, outputs Switching voltage, outputs Voltage type, inputs Switching voltage, inputs	DC Typ. U _B / 0 V DC high: ≥6V Iow: ≤ 4 V
Number of inputs/outputs selectable Type Voltage type, outputs Switching voltage, outputs Voltage type, inputs Switching voltage, inputs Input/output 1 Activation/disable delay Time behavior	DC Typ. U _B / 0 V DC high: ≥6V Iow: ≤ 4 V 0 1 ms
Number of inputs/outputs selectable Type Voltage type, outputs Switching voltage, outputs Voltage type, inputs Switching voltage, inputs Input/output 1 Activation/disable delay Time behavior Readiness delay	DC Typ. U _B / 0 V DC high: ≥6V Iow: ≤ 4 V
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Number of inputs/outputs selectable Type Voltage type, outputs Switching voltage, outputs Voltage type, inputs Switching voltage, inputs Input/output 1 Activation/disable delay Time behavior Readiness delay Cycle time	DC Typ. U _B / 0 V DC high: ≥6V Iow: ≤ 4 V 0 1 ms 450 ms 2.23 ms

IO-Link	
COM mode	COM2
Min. cycle time	COM2 = 2.3 ms
Specification	V1.0.1
	V1.1
Service interface	
Гуре	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
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
Vechanical data	
Design	Cubic
Design Dimension (W x H x L)	29 mm x 35.4 mm x 2,155 mm
Design Dimension (W x H x L) Housing material	29 mm x 35.4 mm x 2,155 mm Metal
Design Dimension (W x H x L) Housing material Metal housing	29 mm x 35.4 mm x 2,155 mm Metal Aluminum
Design Dimension (W x H x L) Housing material Metal housing Lens cover material	29 mm x 35.4 mm x 2,155 mm Metal Aluminum Plastic
Design Dimension (W x H x L) Housing material Metal housing Lens cover material Net weight	29 mm x 35.4 mm x 2,155 mm Metal Aluminum Plastic 2,200 g
Design Dimension (W x H x L) Housing material Metal housing Lens cover material Net weight Housing color	29 mm x 35.4 mm x 2,155 mm Metal Aluminum Plastic 2,200 g Silver
Design Dimension (W x H x L) Housing material Metal housing Lens cover material Net weight	29 mm x 35.4 mm x 2,155 mm Metal Aluminum Plastic 2,200 g Silver Groove mounting
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Design Dimension (W x H x L) Housing material Metal housing Lens cover material Net weight Housing color Type of fastening	29 mm x 35.4 mm x 2,155 mm Metal Aluminum Plastic 2,200 g Silver Groove mounting Via optional mounting device
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Design Dimension (W x H x L) Housing material Metal housing Lens cover material Net weight Housing color Type of fastening Decration and display	29 mm x 35.4 mm x 2,155 mm Metal Aluminum Plastic 2,200 g Silver Groove mounting Via optional mounting device
Design Dimension (W x H x L) Housing material Metal housing Lens cover material Net weight Housing color Type of fastening Deration and display Type of display	29 mm x 35.4 mm x 2,155 mm Metal Aluminum Plastic 2,200 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s)
Design Dimension (W x H x L) Housing material Metal housing Lens cover material Net weight Housing color Type of fastening Deration and display Type of display	29 mm x 35.4 mm x 2,155 mm Metal Aluminum Plastic 2,200 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s) Software
Design Dimension (W x H x L) Housing material Metal housing Lens cover material Net weight Housing color Type of fastening Deration and display Type of display Number of LEDs Type of configuration	29 mm x 35.4 mm x 2,155 mm Metal Aluminum Plastic 2,200 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s) Software Teach-in
Design Dimension (W x H x L) Housing material Metal housing Lens cover material Net weight Housing color Type of fastening Deration and display Type of display Number of LEDs Type of configuration	29 mm x 35.4 mm x 2,155 mm Metal Aluminum Plastic 2,200 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s) Software Teach-in

Technical data

Certifications

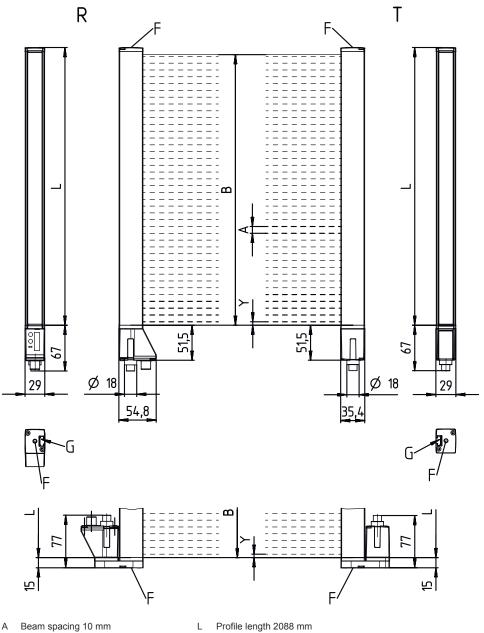
Classification

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

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Dimensioned drawings

All dimensions in millimeters



Beam spacing 10 mm А

Fastening groove

- В Measurement field length 2080 mm
- F M6 thread

G

- Т R Receiver
 - 5 mm Υ

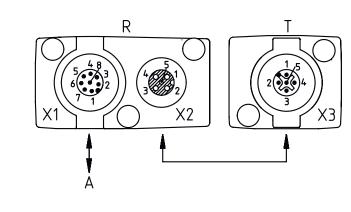
Transmitter

We reserve the right to make technical Leuze electronic GmbH + Co. KG info@leuze.com • www.leuze.com changes
 The Sensor People
 In der Braike 1, D-73277 Owen/Germany
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Dimensioned drawings





A PWR / SW IN / OUT

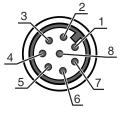
Electrical connection

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+
I V+
2 IO1
3 GND
4 IO-Link
5 IO2
6 IO3
7 104
8 GND

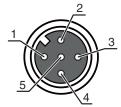


Connection 2

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

Meaning

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
50118623	CML730i-T10- 2080.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
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
-EX: Explosion protection
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.

b 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
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UL	_ appl	ications:	
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b 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 unit

	Part no.	Designation	Article	Description
C. L. LILLE	50144900	MD 798i-11-82/L5- 2222	IO-Link master	Type: IO-Link master Current consumption, max.: 11,000 mA Switching outputs for each sensor connection: 1 Piece(s) Switching output: Transistor, PNP Interface: IO-Link, Automatic protocol detection, EtherNet IP, Modbus TCP, PROFINET Connections: 12 Piece(s) Sensor connections: 8 Piece(s) Connections for voltage supply: 2 Piece(s) Interface connections: 2 Piece(s) Degree of protection: IP 67, IP 65, IP 69K

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 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

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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
R. Ca	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

Configuration devices

Accessories

 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.

