

Technical data sheet Light curtain receiver Part no.: 50123378 CML730i-R05-2080.R/D3-M12



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We reserve the right to make technical

Technical data

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Basic data

730 Throughbeam principle Receiver Accessories for the use of the BT-2R1 Detection of transparent objects Object measurement Crossed-beam scanning Diagonal-beam scanning Parallel-beam scanning
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Detection of transparent objects Object measurement Crossed-beam scanning Diagonal-beam scanning
Object measurement Crossed-beam scanning Diagonal-beam scanning
Crossed-beam scanning Diagonal-beam scanning
Diagonal-beam scanning
Diagonal-beam scanning
•
Parallel heam scanning
r arallei-bearn searning
0.1 4.5 m
Guaranteed operating range
0.1 1.75 m
0.1 6 m
Typical operating range
2,080 mm
416 Piece(s)
5 mm
10 mm
Polarity reversal protection
Short circuit protected
Transient protection
18 30 V, DC
0 15 %, From U _B
0 435 mA, The specified values refer
to the entire package consisting of trans mitter and receiver.
2 Piece(s)
Inputs/outputs selectable
DC
Typ. U _B / 0 V high: ≥6V
low: ≤ 4 V
4.31 ms
10 µs
RS 485 Modbus
Process

	IO-Link	
	Function	Configuration via software
		Service
С	onnection	
N	umber of connections	2 Piece(s)
PI	ug outlet	Rear side
	Connection 1 Function	Configuration interface
	T unction	Connection to transmitter
		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	BUS IN
	Function	BUS OUT
	Type of connection	Connector
	Thread size	M12
	Туре	Female
	Material	Metal
	No. of pins	5 -pin
	Encoding	B-coded
Mechanical data		
IVI	echanical data	
D	esign	Cubic
De Di	esign mension (W x H x L)	29 mm x 35.4 mm x 2,103 mm
De Di He	esign mension (W x H x L) ousing material	29 mm x 35.4 mm x 2,103 mm Metal
Di Di Ho M	esign mension (W x H x L) ousing material etal housing	29 mm x 35.4 mm x 2,103 mm Metal Aluminum
De Di He M	esign mension (W x H x L) ousing material etal housing ens cover material	29 mm x 35.4 mm x 2,103 mm Metal Aluminum Plastic
Di Di Ho Le	esign mension (W x H x L) ousing material etal housing ens cover material et weight	29 mm x 35.4 mm x 2,103 mm Metal Aluminum
De Di He M Le	esign mension (W x H x L) ousing material etal housing ens cover material et weight ousing color	29 mm x 35.4 mm x 2,103 mm Metal Aluminum Plastic 2,250 g Silver
De Di He M Le	esign mension (W x H x L) ousing material etal housing ens cover material et weight	29 mm x 35.4 mm x 2,103 mm Metal Aluminum Plastic 2,250 g
De Di He Le Ne Ty	esign imension (W x H x L) ousing material etal housing ens cover material et weight ousing color rpe of fastening	29 mm x 35.4 mm x 2,103 mm Metal Aluminum Plastic 2,250 g Silver Groove mounting
De Di He M Le Ne He Ty	esign imension (W x H x L) ousing material etal housing ens cover material et weight ousing color rpe of fastening peration and display	29 mm x 35.4 mm x 2,103 mm Metal Aluminum Plastic 2,250 g Silver Groove mounting Via optional mounting device
De Di He M Le Ne He Ty	esign imension (W x H x L) ousing material etal housing ens cover material et weight ousing color rpe of fastening	29 mm x 35.4 mm x 2,103 mm Metal Aluminum Plastic 2,250 g Silver Groove mounting Via optional mounting device
Da Di Ha Na Ha Ty O	esign imension (W x H x L) ousing material etal housing ens cover material et weight ousing color rpe of fastening peration and display	29 mm x 35.4 mm x 2,103 mm Metal Aluminum Plastic 2,250 g Silver Groove mounting Via optional mounting device
	esign imension (W x H x L) ousing material etal housing ens cover material et weight ousing color rype of fastening peration and display rype of display umber of LEDs	29 mm x 35.4 mm x 2,103 mm Metal Aluminum Plastic 2,250 g Silver Groove mounting Via optional mounting device
	esign imension (W x H x L) ousing material etal housing ens cover material et weight ousing color rpe of fastening peration and display	29 mm x 35.4 mm x 2,103 mm Metal Aluminum Plastic 2,250 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s) Software
	esign imension (W x H x L) ousing material etal housing ens cover material et weight ousing color rpe of fastening peration and display rpe of display umber of LEDs rpe of configuration	29 mm x 35.4 mm x 2,103 mm Metal Aluminum Plastic 2,250 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s) Software Teach-in
	esign imension (W x H x L) ousing material etal housing ens cover material et weight ousing color rype of fastening peration and display rype of display umber of LEDs	29 mm x 35.4 mm x 2,103 mm Metal Aluminum Plastic 2,250 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s) Software
	esign imension (W x H x L) ousing material etal housing ens cover material et weight ousing color rpe of fastening peration and display rpe of display umber of LEDs rpe of configuration	29 mm x 35.4 mm x 2,103 mm Metal Aluminum Plastic 2,250 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s) Software Teach-in
	esign imension (W x H x L) ousing material etal housing ens cover material et weight ousing color rpe of fastening peration and display rpe of display umber of LEDs rpe of configuration perational controls	29 mm x 35.4 mm x 2,103 mm Metal Aluminum Plastic 2,250 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s) Software Teach-in
	esign imension (W x H x L) ousing material etal housing ens cover material etal weight ousing color rpe of fastening peration and display rpe of display umber of LEDs rpe of configuration perational controls nvironmental data	29 mm x 35.4 mm x 2,103 mm Metal Aluminum Plastic 2,250 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s) Software Teach-in Membrane keyboard
	esign mension (W x H x L) busing material etal housing ens cover material etal weight busing color rpe of fastening peration and display rpe of display umber of LEDs rpe of configuration perational controls nvironmental data mbient temperature, operation	29 mm x 35.4 mm x 2,103 mm Metal Aluminum Plastic 2,250 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s) Software Teach-in Membrane keyboard
	esign imension (W x H x L) ousing material etal housing ens cover material et weight ousing color rpe of fastening peration and display rpe of display umber of LEDs rpe of configuration perational controls nvironmental data mbient temperature, operation mbient temperature, storage ertifications	29 mm x 35.4 mm x 2,103 mm Metal Aluminum Plastic 2,250 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s) Software Teach-in Membrane keyboard
	esign imension (W x H x L) ousing material etal housing ens cover material etal housing ens cover material et weight ousing color rpe of fastening peration and display rpe of display umber of LEDs rpe of configuration perational controls nvironmental data mbient temperature, operation mbient temperature, storage	29 mm x 35.4 mm x 2,103 mm Metal Aluminum Plastic 2,250 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s) Software Teach-in Membrane keyboard
	esign imension (W x H x L) ousing material etal housing ens cover material et weight ousing color rpe of fastening peration and display umber of LEDs rpe of display umber of LEDs rpe of configuration perational controls nvironmental data mbient temperature, operation mbient temperature, storage ertifications egree of protection	29 mm x 35.4 mm x 2,103 mm Metal Aluminum Plastic 2,250 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s) Software Teach-in Membrane keyboard -30 60 °C -40 70 °C
Di Di Hi Mi Li Ni Ty O Ty Ni Ty O C	esign imension (W x H x L) ousing material etal housing ens cover material et weight ousing color repe of fastening peration and display repe of display umber of LEDs repe of configuration perational controls nvironmental data mbient temperature, operation mbient temperature, storage ertifications egree of protection rotection class	29 mm x 35.4 mm x 2,103 mm Metal Aluminum Plastic 2,250 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s) Software Teach-in Membrane keyboard -30 60 °C -40 70 °C
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Technical data

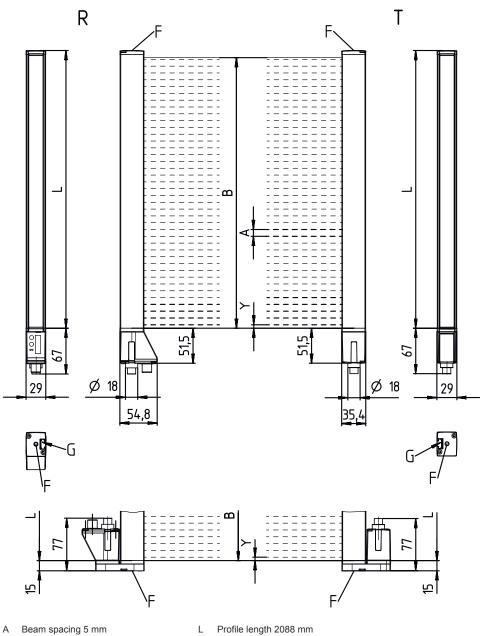
Customs tariff number	90314990
ECLASS 5.1.4	27270910
ECLASS 8.0	27270910
ECLASS 9.0	27270910
ECLASS 10.0	27270910
ECLASS 11.0	27270910
ECLASS 12.0	27270910
ECLASS 13.0	27270910
ECLASS 14.0	27270910
ETIM 5.0	EC002549
ETIM 6.0	EC002549
ETIM 7.0	EC002549
ETIM 8.0	EC002549
ETIM 9.0	EC002549

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Dimensioned drawings

All dimensions in millimeters



- Beam spacing 5 mm А
- В Measurement field length 2080 mm
- F M6 thread G Fastening groove
- R Receiver

Т

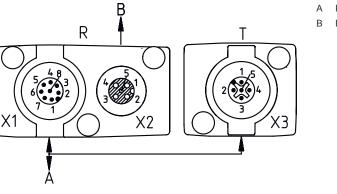
2.5 mm Υ

Transmitter

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Dimensioned drawings





A PWR / SW IN / OUTB BUS IN / OUT

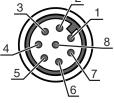
Electrical connection

Connection 1

Function	Configuration interface
	Connection to transmitter
	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	RS 485 Tx+		
7	RS 485 Tx+		
8	FE/SHIELD		



Connection 2

Function	BUS IN
	BUS OUT
Type of connection	Connector
Thread size	M12
Туре	Female
Material	Metal
No. of pins	5 -pin
Encoding	B-coded

Electrical connection

1 2

3

4

5

Pin Pin assignment V+ Tx-PB GND Tx+ FE/SHIELD



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

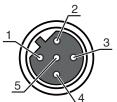
 Part no.	Designation	Article	Description
50118937	CML730i-T05- 2080.R-M12	Light curtain transmitter	Operating range: 0.1 4 m Connection: Connector, M12, Rear side, 5 -pin

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





Part number code



DDD	Special equipment -PS: Power Setting
EEE	Electrical connection M12: M12 connector
FFF	-EX: Explosion protection
	Note
A	∜ A list with all available device types can be found on the Leuze website at www.leuze.com.

Notes

Observe intended use!
Image: Second



For UL applications:

 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
50132079	KD U-M12-5A-V1- 050	Connection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin Connector, LED: No Connection 2: Open end Shielded: No Cable length: 5.000 mm Sheathing material: PVC

Connection technology - Y distribution cables

	Part no.	Designation	Article	Description
	50118183	K-Y1 M12A-5m- M12A-S-PUR	Interconnection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin Connection 2: Connector, M12, Axial, Male, A-coded, 5 -pin Connection 3: Connector, M12, Axial, Female, A-coded, 8 -pin Shielded: Yes Cable length fork 1: 5,000 mm Cable length fork 2: 150 mm Sheathing material: PUR

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Accessories

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

Mounting technology - Swivel mounts

	Part no.	Designation	Article	Description
RR.	429029	BT-2RG	Mounting bracket set	Fastening, at system: Through-hole mounting Mounting bracket, at device: Clampable Type of mounting device: Turning, 360° Material: Metal, Plastic

Services

 Part no.	Designation	Article	Description
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
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A list with all available accessories can be found on the Leuze website in the Download tab of the article detailed page.