

Technical data sheet Light curtain receiver Part no.: 50123192 CML730i-R20-1430.R/PB-M12



 Leuze electronic GmbH + Co. KG
 info@leuze.com • www.leuze.com
 changes

 The Sensor People
 In der Braike 1, D-73277 Owen/Germany
 Phone: +49 7021 573-0 • Fax: +49 7021 573-199
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Technical data

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Basic da

Basic data			
Series	730		
Operating principle	Throughbeam principle		
Device type	Receiver		
Contains	Accessories for the use of the BT-2R1		
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	1,430 mm		
Number of beams	72 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			
	18 30 V, DC		
Supply voltage U _B Residual ripple			
	0 15 %, From U _B 0 270 mA, The specified values refer		
Open-circuit current	to the entire package consisting of trans- mitter and receiver.		
Inputs/outputs selectable	100		
Output current, max.	100 mA		
Input resistance	6,000 Ω		
Number of inputs/outputs selectable			
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: $\leq 4 \text{ V}$		
Input/output 1			
Activation/disable delay	1 ms		
Time behavior			
Cycle time	1 ms		
Response time per beam	10 µs		
Interface			
Туре	PROFIBUS DP		

	Function	Process	
e	ervice interface		
/	ре	IO-Link	
	IO-Link Function	Configuration via software	
	Function	Service	
		Service	
:0	onnection		
lu	mber of connections	2 Piece(s)	
h	ug outlet	Rear side	
	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	
	Connection 2		
	Function	BUS IN	
	i unction	BUS IN BUS OUT	
	Tune of connection		
	Type of connection	Connector	
	Thread size	M12	
	Туре	Female	
	Material	Metal	
	No. of pins	5 -pin	
	Encoding	B-coded	
1	echanical data		
e	sign	Cubic	
	mension (W x H x L)	29 mm x 35.4 mm x 1,463 mm	
Diı	ousing material	Metal	
lo	-	Aluminum	
lo	etal housing	Aluminum	
lo Ie	etal housing ns cover material	Plastic	
lo le le	etal housing ns cover material it weight	Plastic 1,650 g	
lo le le	etal housing ns cover material it weight busing color	Plastic 1,650 g Silver	
lo le le	etal housing ns cover material it weight	Plastic 1,650 g Silver Groove mounting	
lo le le	etal housing ns cover material it weight busing color	Plastic 1,650 g Silver	
lo le lo y	etal housing ns cover material it weight busing color	Plastic 1,650 g Silver Groove mounting	
lo le lo	etal housing ns cover material it weight busing color pe of fastening coeration and display	Plastic 1,650 g Silver Groove mounting Via optional mounting device	
lo le lo	etal housing ns cover material it weight busing color pe of fastening	Plastic 1,650 g Silver Groove mounting Via optional mounting device	
lo le lo y	etal housing ns cover material it weight busing color pe of fastening coeration and display pe of display	Plastic 1,650 g Silver Groove mounting Via optional mounting device LED OLED display	
lo le lo y	etal housing ns cover material it weight pusing color pe of fastening coeration and display pe of display umber of LEDs	Plastic 1,650 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s)	
lo le lo y	etal housing ns cover material it weight busing color pe of fastening coeration and display pe of display	Plastic 1,650 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s) Software	
lo Ae lo Ty Ty	etal housing ns cover material it weight busing color pe of fastening corration and display pe of display umber of LEDs pe of configuration	Plastic 1,650 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s) Software Teach-in	
lo Ae lo Ty Ty	etal housing ns cover material it weight pusing color pe of fastening coeration and display pe of display umber of LEDs	Plastic 1,650 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s) Software	
Ha Vie Le Ne Ha Ty Ty Ty Nu Ty	etal housing ns cover material it weight busing color pe of fastening corration and display pe of display umber of LEDs pe of configuration	Plastic 1,650 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s) Software Teach-in	
Ho Me Le Ne Ho Ty Ty Nu Ty Dp Er	etal housing ns cover material it weight busing color pe of fastening coeration and display pe of display pe of configuration perational controls	Plastic 1,650 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s) Software Teach-in	

Technical data

Certifications

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

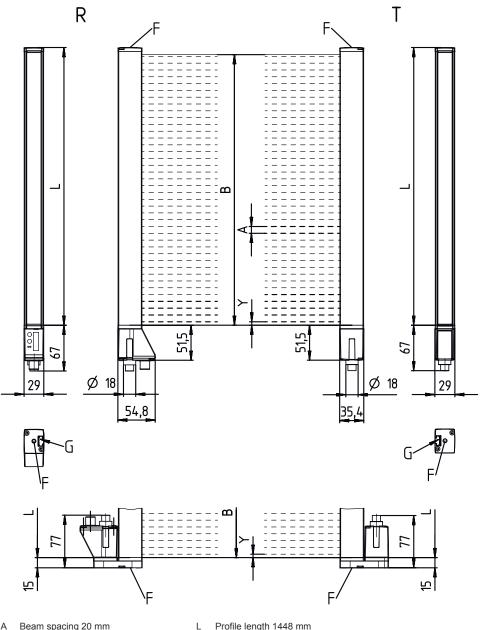
Classification

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 1430 mm
- F M6 thread G
 - Fastening groove
- Profile length 1448 mm
- Transmitter
- R Receiver

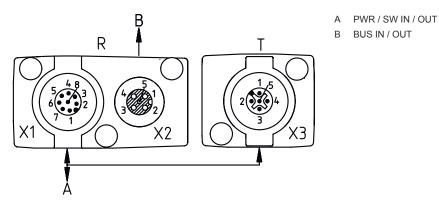
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5 mm Υ

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Dimensioned drawings





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

PinPin assignment1V+2Tx-3PB GND4Tx+5FE/SHIELD

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
50118974	CML730i-T20- 1430.R-M12	Light curtain transmitter	Operating range: 0.3 9.5 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!
 This product is not a safety sensor and is not intended as personnel protection. The product may only be put into operation by competent persons. Only use the product in accordance with its intended use.



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
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

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
J.	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
6	☆ A list with all available accessories can be found on the Leuze website in the Download tab of the article detailed page.