

Technical data sheet Light curtain receiver Part no.: 50123335 CML730i-R20-1590.A/D3-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	1,590 mm	
Number of beams	80 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 _B	
Open-circuit current	0 350 mA, The specified values refer to the entire package consisting of transmitter and receiver.	
Inputs/outputs selectable		
Number of inputs/outputs selectable		
Туре	Inputs/outputs selectable	
Voltage type, outputs	DC	
Switching voltage, outputs	Typ. U _B / 0 V	
Switching voltage, inputs	high: ≥6V	
	low: ≤ 4 V	
Input/output 1		
Time behavior		
Cycle time	1 ms	
Response time per beam	10 µs	
Interface		
Туре	RS 485 Modbus	
RS 485		
Function	Process	
Service interface		
Туре	IO-Link	

	Function	Configuration via software
		Service
(onnection	
	umber of connections	2 Piece(s)
	ug outlet	Axial
	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
		BUS OUT
	Type of connection	Connector
	Thread size	M12
	Туре	Female
	Material	Metal
	No. of pins	5 -pin
	Encoding	B-coded
	echanical data	
•	esign	Cubic
	imension (W x H x L)	29 mm x 35.4 mm x 1,675 mm
	ousing material	Metal
	etal housing	Aluminum
	ens cover material	Plastic
	et weight	1,750 g
	ousing color	Silver
	vpe of fastening	Groove mounting
·	-	Via optional mounting device
)	peration and display	
	/pe of display	LED
í	, pe si alopiay	OLED display
/		SELD display
	umber of LEDs	
ι	umber of LEDs	2 Piece(s) Software
ι	umber of LEDs /pe of configuration	2 Piece(s)
		2 Piece(s) Software
	vpe of configuration	2 Piece(s) Software Teach-in
y	vpe of configuration perational controls nvironmental data	2 Piece(s) Software Teach-in Membrane keyboard
	vpe of configuration perational controls nvironmental data mbient temperature, operation	2 Piece(s) Software Teach-in Membrane keyboard -30 60 °C
)))	vpe of configuration perational controls nvironmental data	2 Piece(s) Software Teach-in Membrane keyboard
	vpe of configuration perational controls nvironmental data mbient temperature, operation	2 Piece(s) Software Teach-in Membrane keyboard -30 60 °C
	vpe of configuration perational controls nvironmental data mbient temperature, operation mbient temperature, storage	2 Piece(s) Software Teach-in Membrane keyboard -30 60 °C
	vpe of configuration perational controls nvironmental data mbient temperature, operation mbient temperature, storage ertifications	2 Piece(s) Software Teach-in Membrane keyboard -30 60 °C -40 70 °C
	vpe of configuration perational controls nvironmental data mbient temperature, operation mbient temperature, storage ertifications egree of protection	2 Piece(s) Software Teach-in Membrane keyboard -30 60 °C -40 70 °C

Technical data

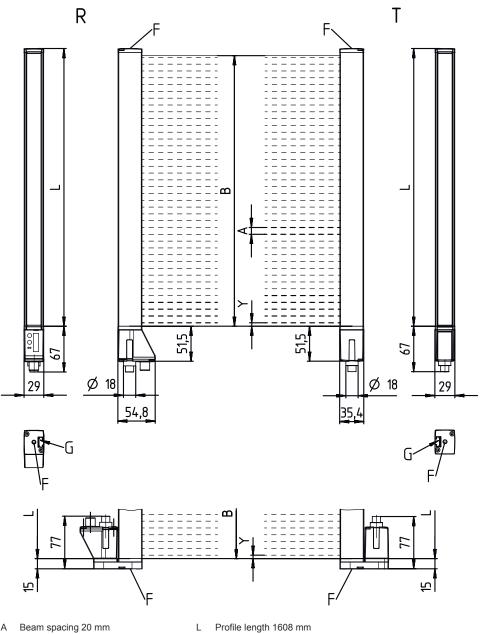
Customs tariff number	90314990
ECLASS 5.1.4	27270910
ECLASS 8.0	27270910
ECLASS 9.0	27270910
ECLASS 10.0	27270910
ECLASS 11.0	27270910
ECLASS 12.0	27270910
ECLASS 13.0	27270910
ECLASS 14.0	27270910
ETIM 5.0	EC002549
ETIM 6.0	EC002549
ETIM 7.0	EC002549
ETIM 8.0	EC002549
ETIM 9.0	EC002549

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Dimensioned drawings

All dimensions in millimeters



- Beam spacing 20 mm А
- В Measurement field length 1590 mm
- F M6 thread G Fastening groove
- R Receiver 5 mm Υ

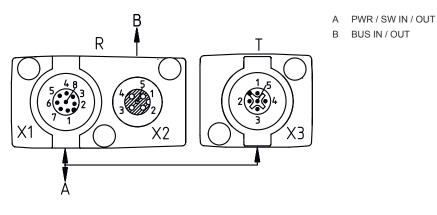
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Transmitter

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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		



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

Pin Pin assignment 1 V+ 2 Tx 3 PB GND 4 Tx+ 5 FE/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
50118638	CML730i-T20- 1590.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



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. 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

Accessories

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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

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