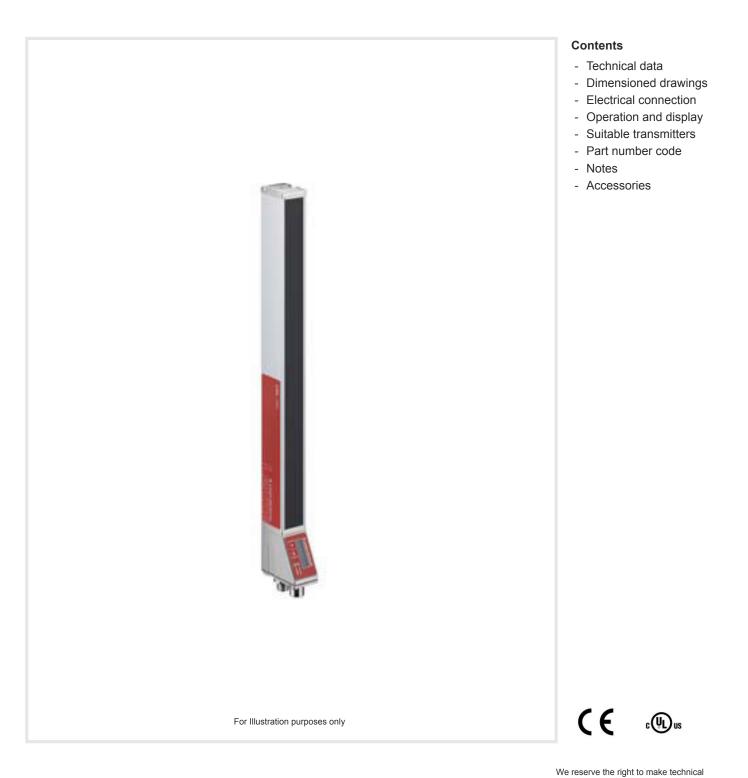


Technical data sheet Light curtain receiver Part no.: 50123326 CML730i-R20-150.A/D3-M12



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 changes

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 eng • 2025-04-04

Technical data

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Basic data

Series730Operating principleThroughbeam principleDevice typeReceiverContains2x BT-NC sliding IApplicationDetection of trans	
Device type Receiver Contains 2x BT-NC sliding I	
Contains 2x BT-NC sliding I	nciple
Application Detection of trans	
Object measurem	ent
Special version	
Special version Crossed-beam sc	anning
Diagonal-beam so	canning
Parallel-beam sca	inning
Optical data	
Operating range 0.3 9.5 m	
Dperating range Guaranteed opera	ating 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 150 mm	
Number of beams 8 Piece(s)	
Beam spacing 20 mm	
Measurement data	
Minimum object diameter 30 mm	
Electrical data	
Protective circuit Polarity reversal p	protection
Short circuit prote	cted
Transient protection	on
Performance data	
Supply voltage U _B 18 30 V, DC	
Residual ripple 0 15 %, From L	-
Open-circuit current 0 135 mA, The	specified values refer age consisting of trans-
to the entire packa mitter and receive	۲.
mitter and receive	r.
mitter and receive	r.
mitter and receive Inputs/outputs selectable Number of inputs/outputs selectable 2 Piece(s)	
Inputs/outputs selectable Number of inputs/outputs selectable 2 Piece(s) Type Inputs/outputs selectable	
Inputs/outputs selectable Inputs/outputs selectable Number of inputs/outputs selectable 2 Piece(s) Type Inputs/outputs selectable Voltage type, outputs DC	
Inputs/outputs selectable Inputs/outputs selectable Number of inputs/outputs selectable 2 Piece(s) Type Inputs/outputs selectable Voltage type, outputs DC Switching voltage, outputs Typ. U _B / 0 V	
Inputs/outputs selectable Inputs/outputs selectable Number of inputs/outputs selectable 2 Piece(s) Type Inputs/outputs selectable Voltage type, outputs DC Switching voltage, outputs Typ. U _B / 0 V Switching voltage, inputs high: ≥6V	
Inputs/outputs selectable inputs/outputs selectable Number of inputs/outputs selectable 2 Piece(s) Type Inputs/outputs selectable Voltage type, outputs DC Switching voltage, outputs Typ. U _B / 0 V	
Inputs/outputs selectable mitter and receive Number of inputs/outputs selectable 2 Piece(s) Type Inputs/outputs selectable Voltage type, outputs DC Switching voltage, outputs Typ. U _B / 0 V Switching voltage, inputs high: 26V	
Inputs/outputs selectable number of inputs/outputs selectable 2 Piece(s) Type Inputs/outputs selectable 2 DC Voltage type, outputs DC Switching voltage, outputs Switching voltage, inputs Typ. U _B / 0 V Input/output 1 Input/output 1	
Inputs/outputs selectable mitter and receive Number of inputs/outputs selectable 2 Piece(s) Type Inputs/outputs selectable Voltage type, outputs DC Switching voltage, outputs Typ. U _B / 0 V Switching voltage, inputs high: ≥6V Input/output 1 Time behavior Cycle time 1 ms	
Inputs/outputs selectable Inputs/outputs selectable Number of inputs/outputs selectable 2 Piece(s) Type Inputs/outputs selectable Voltage type, outputs DC Switching voltage, outputs Typ. U _B / 0 V Switching voltage, inputs high: ≥6V Input/output 1 Input/output 1	
Inputs/outputs selectable Number of inputs/outputs selectable 2 Piece(s) Number of inputs/outputs selectable 2 Piece(s) Type Inputs/outputs selectable Voltage type, outputs DC Switching voltage, outputs Typ. U _B / 0 V high: ≥6V Iow: ≤ 4 V Input/output 1 Time behavior Cycle time 1 ms Response time per beam 10 µs	
Inputs/outputs selectable number of inputs/outputs selectable 2 Piece(s) Type Inputs/outputs selectable 2 Piece(s) Voltage type, outputs DC Switching voltage, outputs Typ. U _B / 0 V Switching voltage, inputs high: ≥6V Input/output 1 Imput/output 1 Cycle time 1 ms Response time per beam 10 µs	
Inputs/outputs selectable number of inputs/outputs selectable 2 Piece(s) Number of inputs/outputs selectable 2 Piece(s) Type Inputs/outputs selectable Voltage type, outputs DC Switching voltage, outputs Typ. U _B / 0 V Switching voltage, inputs high: ≥6V Input/output 1 Input/output 1 Cycle time 1 ms Response time per beam 10 µs	
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Inputs/outputs selectable number of inputs/outputs selectable 2 Piece(s) Type Inputs/outputs selectable 2 Piece(s) Yoltage type, outputs DC Switching voltage, outputs Typ. U _B / 0 V Switching voltage, inputs high: ≥6V Input/output 1 Inv: ≤ 4 V Time behavior 1 ms Cycle time 1 ms Response time per beam 10 µs Interface X485 Modbus Type RS 485 Modbus	
Inputs/outputs selectable ninputs/outputs selectable Number of inputs/outputs selectable 2 Piece(s) Type Inputs/outputs selectable Voltage type, outputs DC Switching voltage, outputs Typ. U _B / 0 V Switching voltage, inputs high: ≥6V Input/output 1 Inw: ≤ 4 V Cycle time 1 ms Response time per beam 10 μs Interface RS 485 Modbus Rs 485 Katabaa	

IO-Link					
Function	Configuration via software Service				
	Service				
Connection					
Number of connections Plug outlet	2 Piece(s) Axial				
	, unui				
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 Female				
Type Material	Metal				
No. of pins	5 -pin				
Encoding	B-coded				
Encouning	B-coded				
Mechanical data					
Design	Cubic				
Dimension (W x H x L)	29 mm x 35.4 mm x 235 mm				
Housing material	Metal				
Metal housing	Aluminum				
Lens cover material	Plastic				
Net weight	350 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					
Ambient temperature, operation	-30 60 °C				
Ambient temperature, storage	-40 70 °C				
Certifications					
Degree of protection	IP 65				
Protection class	III				
Approvals	c UL US				
Standards applied	IEC 60947-5-2				

Technical data

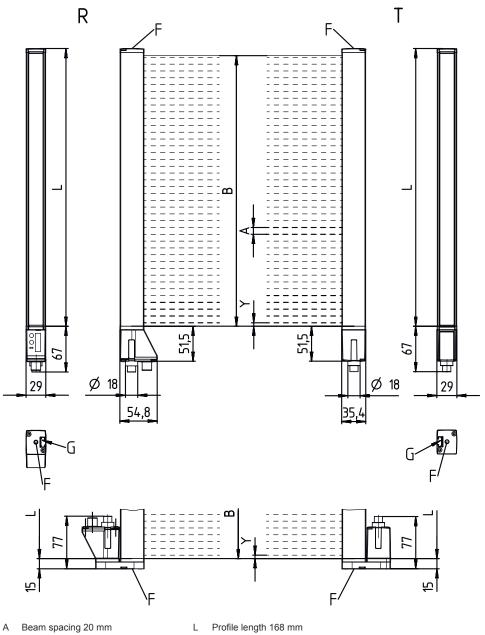
Customs tariff number	90314990
ECLASS 5.1.4	27270910
ECLASS 8.0	27270910
ECLASS 9.0	27270910
ECLASS 10.0	27270910
ECLASS 11.0	27270910
ECLASS 12.0	27270910
ECLASS 13.0	27270910
ECLASS 14.0	27270910
ECLASS 15.0	27270910
ETIM 5.0	EC002549
ETIM 6.0	EC002549
ETIM 7.0	EC002549
ETIM 8.0	EC002549
ETIM 9.0	EC002549
ETIM 10.0	EC002549

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Dimensioned drawings

All dimensions in millimeters



В Measurement field length 150 mm

M6 thread

Fastening groove

F

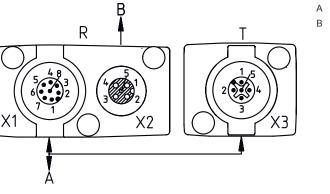
G

- Transmitter Т
 - Receiver
 - R
 - Υ 5 mm

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Dimensioned drawings





A PWR / SW IN / OUT B BUS IN / OUT

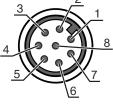
Electrical connection

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

Pin Pin assignment 1 V+ 2 Tx 3 PB GND 4 Tx+ 5 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
50118629	CML730i-T20-150.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. 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

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.