



the sensor people





Figure can vary

Part no.: 50119824 CML720i-R05-2320.A/CV-M12 Light curtain receiver





Contents

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- Electrical connection
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Technical data

700
720
Throughbeam principle
Receiver
2x BT-NC sliding block
Object measurement
Crossed-beam scanning Diagonal-beam scanning Parallel-beam scanning
Guaranteed operating range
0.1 3.5 m
Typical operating range
0.1 4.5 m
2,320 mm
464 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 transmitter and receiver.
2 Piece(s)
0 24 mA
0 11 V
Voltage



Output current, max.	100 mA			
Input resistance	6,000 Ω			
Number of inputs/outputs selectable	2 Piece(s)			
Туре	Inputs/outputs selectable			
Voltage type, outputs	DC			
Switching voltage, outputs	Typ. U _B / 0 V	Typ. U _B / 0 V		
Voltage type, inputs	DC			
Switching voltage, inputs	high: ≥6V low: ≤4V			
Input/output 1				
Activation/disable delay	1 ms			
ming				
eadiness delay	450 ms			
rcle time	14.32 ms			
esponse time per beam	30 µs			
ervice interface				
ре	IO-Link			
IO-Link				
Function	Configuration via software Service	Configuration via software Service		
onnection				
umber of connections	2 Piece(s)			
ug outlet	Axial			
Onwardian d				
Connection 1	Function Configuration interface Signal IN Signal OUT Voltage supply			
	Signal IN Signal OUT			
	Signal IN Signal OUT			
Function	Signal IN Signal OUT Voltage supply			
Function Type of connection	Signal IN Signal OUT Voltage supply Connector			
Type of connection Thread size	Signal IN Signal OUT Voltage supply Connector M12			
Type of connection Thread size Type	Signal IN Signal OUT Voltage supply Connector M12 Male			
Type of connection Thread size Type Material	Signal IN Signal OUT Voltage supply Connector M12 Male Metal			
Type of connection Thread size Type Material No. of pins	Signal IN Signal OUT Voltage supply Connector M12 Male Metal 8 -pin			
Type of connection Thread size Type Material No. of pins Encoding	Signal IN Signal OUT Voltage supply Connector M12 Male Metal 8 -pin			
Type of connection Thread size Type Material No. of pins Encoding Connection 2	Signal IN Signal OUT Voltage supply Connector M12 Male Metal 8 -pin A-coded			
Type of connection Thread size Type Material No. of pins Encoding Connection 2 Function	Signal IN Signal OUT Voltage supply Connector M12 Male Metal 8 -pin A-coded Connection to transmitter			
Type of connection Thread size Type Material No. of pins Encoding Connection 2 Function Type of connection	Signal IN Signal OUT Voltage supply Connector M12 Male Metal 8 -pin A-coded Connection to transmitter Connector			
Type of connection Thread size Type Material No. of pins Encoding Connection 2 Function Type of connection Thread size	Signal IN Signal OUT Voltage supply Connector M12 Male Metal 8 -pin A-coded Connection to transmitter Connector M12			
Type of connection Thread size Type Material No. of pins Encoding Connection 2 Function Type of connection Thread size Type	Signal IN Signal OUT Voltage supply Connector M12 Male Metal 8 -pin A-coded Connection to transmitter Connector M12 Female			
Type of connection Thread size Type Material No. of pins Encoding Connection 2 Function Type of connection Thread size Type Material	Signal IN Signal OUT Voltage supply Connector M12 Male Metal 8 -pin A-coded Connection to transmitter Connector M12 Female Metal Metal			



Lens cover material	Plastic	Plastic		
Net weight	2,400 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			

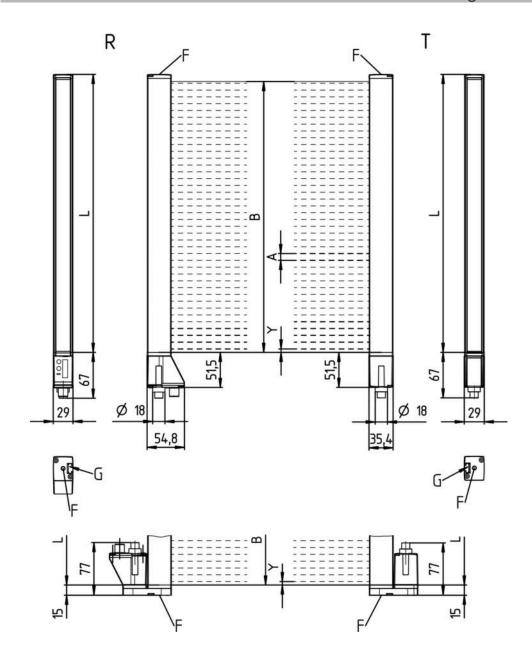
Certifications	
Degree of protection	IP 65
Protection class	III
Certifications	c CSA US
Standards applied	IEC 60947-5-2

90314990
27270910
27270910
EC002549
EC002549

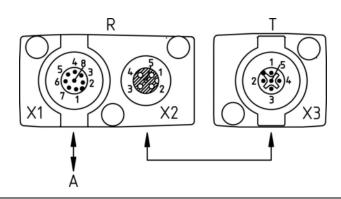
Dimensioned drawings

All dimensions in millimeters





- A Beam spacing 5 mm B Measurement field length 2320 mm
- F M6 thread
- G Fastening groove
- L Profile length 2328 mm
- T Transmitter
- R Receiver
- Y 2.5 mm



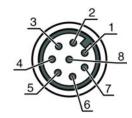


APWR / SW IN/OUT

Electrical connection

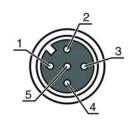
Connection 1		
Function	Configuration interface Signal IN Signal OUT Voltage supply	
Type of connection	Connector	
Thread size	M12	
Туре	Male	
Material	Metal	
No. of pins	8 -pin	
Encoding	A-coded	

Pin	Pin assignment
1	V+
2	I/O 1
3	GND
4	IO-Link
5	I/O 2
6	OUT V
7	OUT mA
8	AGND



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

LEDs

LED	Display	Meaning
1	Green, continuous light	Operational readiness
	Green, flashing	Teach / error
		Measurement frequency display
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
50119396	CML720i- T05-2320.A-M12	Light curtain transmitter	Operating range: 0.1 3.5 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		
Υ	Device type: T: transmitter R: receiver		
ZZ	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: connector outlet, axial 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		
DDD	Special equipment: -PS: Power Setting		
EEE	Electrical connection: M12: M12 connector		
FFF	-EX: Explosion protection:		

A list with all available device types can be found on the Leuze electronic 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
50135128	KD S-M12-8A- P1-050	Connection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 8 -pin Connection 2: Open end Shielded: Yes Cable length: 5,000 mm Sheathing material: PUR

Connection technology - Interconnection cables

Part no.	Designation	Article	Description
	KDS DN-M12-5A- M12-5A-P3-050	Interconnection cable	Suitable for interface: IO-Link, 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

Mounting technology - Mounting brackets

Part no.	Designation	Article	Description
50142900	BT 700M.5-2SET	Mounting device set	Contains: 2x mounting brackets, 1 teach template, 4 M6 x 10 screws 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

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Mounting technology - Swivel mounts

	Part no.	Designation	Article	Description
EE.	429046	BT-2R1	set	Contains: 2x BT-R swivel mount, 1 cylinder for mounting on the light curtain Fastening, at system: Through-hole mounting Mounting bracket, at device: Clampable Type of mounting device: Turning, 360° Material: Metal, Plastic

	Part no.	Designation	Article	Description
166	50121098	SET MD12-US2-IL1.1 + Zub.		Interface: USB Connections: 2 Piece(s) Degree of protection: IP 20

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. Restrictions: No mechanical (mounting) and electrical (wiring) work performed, no changes (attachments, wiring, programming) to third-party components in the nearby environment.
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. Restrictions: Travel costs and accommodation expenses charged separately and according to expenditure.

Note

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