



the sensor people





Figure can vary

Part no.: 50119482 CML720i-T05-2720.R-M12 Light curtain transmitter





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Technical data

Basic data		
Series	720	
Operating principle	Throughbeam principle	
Device type	Transmitter	
Contains	Accessories for the use of the BT-2R1	
Application	Object measurement	
Optical data		
Operating range	Guaranteed operating range	
Operating range	0.1 3.5 m	
Operating range limit	Typical operating range	
Operating range limit	0.1 4.5 m	
Measurement field length	2,720 mm	
Number of beams	544 Piece(s)	
Beam spacing	5 mm	
Light source	LED , Infrared	
LED light wavelength	940 nm	
Measurement data		
Minimum object diameter	10 mm	
·		
Electrical data		
Protective circuit	Polarity reversal protection	
	Short circuit protected	
	Transient protection	
Performance data	40 20 // DC	
Supply voltage U _B	18 30 V , DC	
Residual ripple	0 15 % , From U _B	
Open-circuit current	 435 mA, The specified values refer to the entire package consisting of transmitter and receiver. 	
	Sisting of transmitter and receiver.	
Timing		
Readiness delay	450 ms	
Cycle time	16.72 ms	
Cycle unic	10.72 1113	
Connection		
Number of connections	1 Piaca(s)	
Plug outlet	1 Piece(s) Rear side	
Connection 1	Incai side	
Function	Connection to receiver	
i unction	Sync-input	
-	Voltage supply	
Type of connection	Connector	
Thread size	M12	
Туре	Male	
Material	Metal	
No. of pins	5 -pin	
Encoding	A-coded	



Mechanical data	
Design	Cubic
Dimension (W x H x L)	29 mm x 35.4 mm x 2,743 mm
Housing material	Metal , Aluminum
Lens cover material	Plastic
Net weight	2,750 g
Housing color	Silver
Type of fastening	Groove mounting Via optional mounting device
Operation and display	
Type of display	LED
Number of LEDs	1 Piece(s)
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

Classification	
Customs tariff number	90314990
eCl@ss 8.0	27270910
eCl@ss 9.0	27270910
ETIM 5.0	EC002549
ETIM 6.0	EC002549

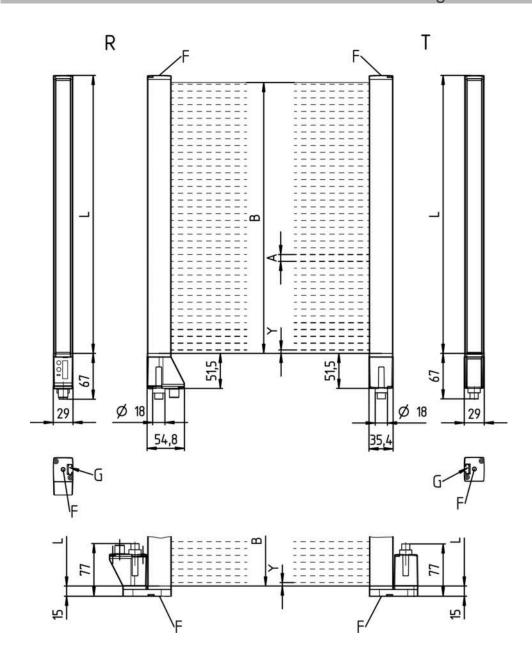
IEC 60947-5-2

Dimensioned drawings

All dimensions in millimeters

Standards applied





- A Beam spacing 5 mm B Measurement field length 2720 mm
- F M6 thread
- G Fastening groove
- L Profile length 2728 mm
- T Transmitter
- R Receiver
- Y 2.5 mm

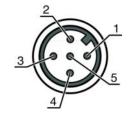




Electrical connection

Connection 1		
Function	Connection to receiver Sync-input Voltage supply	
Type of connection	Connector	
Thread size	M12	
Туре	Male	
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	Continuous mode	
1		Off	No communication with the receiver / waiting for trigger	
		green, flashing in sync with the measurement	Measurement frequency display	

Suitable receivers

	Part no.	Designation	Article	Description
4	50119937	CML720i- R05-2720.R/CN- M12	Light curtain receiver	Operating range: 0.1 3.5 m Interface: CANopen Connection: Connector, M12, Rear side, 8 -pin
4	50120155	CML720i- R05-2720.R/CV- M12	Light curtain receiver	Operating range: 0.1 3.5 m Analog outputs: 2 Piece(s), Voltage, Current Connection: Connector, M12, Rear side, 8 -pin
*	50123608	CML720i- R05-2720.R/ D3-M12	Light curtain receiver	Operating range: 0.1 3.5 m Interface: RS 485 Connection: Connector, M12, Rear side, 8 -pin



	Part no.	Designation	Article	Description
	50120072	CML720i- R05-2720.R/L- M12	Light curtain receiver	Operating range: 0.1 3.5 m Interface: IO-Link Connection: Connector, M12, Rear side, 8 -pin
	50122930	CML720i- R05-2720.R/PB- M12	Light curtain receiver	Operating range: 0.1 3.5 m Interface: PROFIBUS DP Connection: Connector, M12, Rear side, 8 -pin
·	50131889	CML720i- R05-2720.R/PN- M12	Light curtain receiver	Operating range: 0.1 3.5 m Interface: PROFINET Connection: Connector, M12, Rear side, 8 -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:

Note
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 - Interconnection cables

Part no.	Designation	Article	Description
50129781	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

Mounting technology - Swivel mounts

	Part no.	Designation	Article	Description
EE,	429046	BT-2R1	Mounting bracket 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

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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
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.