## SMART SENSOR BUSINESS

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Part no.: 50119503 CML720i-T10-2720.R-M12 Light curtain transmitter





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### Part no.: 50119503 – CML720i-T10-2720.R-M12 – Light curtain transmitter

#### **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	0.3 7 m
Operating range limit	Typical operating range
Operating range limit	0.2 9 m
Measurement field length	2,720 mm
Number of beams	272 Piece(s)
Beam spacing	10 mm
Light source	LED, Infrared
LED light wavelength	940 nm
Measurement data	
Minimum object diameter	20 mm
Electrical data	
Protective circuit	Polarity reversal protection
	Short circuit protected Transient protection
Performance data	
Supply voltage UB	18 30 V , DC
Residual ripple	0 15 % , From U <sub>B</sub>
Open-circuit current	0 435 mA , The specified values refer to the entire package con- sisting of transmitter and receiver.
Timing	
Inning	
Readiness delav	450 ms
	450 ms
	450 ms 8.56 ms
Cycle time	
Cycle time Connection	
Cycle time Connection Number of connections	8.56 ms
Cycle time Connection Number of connections	8.56 ms 1 Piece(s)
Cycle time Connection Number of connections Plug outlet	8.56 ms 1 Piece(s) Rear side Connection to receiver Sync-input
Cycle time Connection Number of connections Plug outlet Connection 1 Function	8.56 ms 1 Piece(s) Rear side Connection to receiver Sync-input Voltage supply
Cycle time Connection Number of connections Plug outlet Connection 1	8.56 ms 1 Piece(s) Rear side Connection to receiver Sync-input
Cycle time Connection Number of connections Plug outlet Connection 1 Function Type of connection Thread size	8.56 ms 1 Piece(s) Rear side Connection to receiver Sync-input Voltage supply Connector M12
Cycle time Connection Number of connections Plug outlet Connection 1 Function Type of connection	8.56 ms 1 Piece(s) Rear side Connection to receiver Sync-input Voltage supply Connector
Function Type of connection Thread size Type	8.56 ms 1 Piece(s) Rear side Connection to receiver Sync-input Voltage supply Connector M12 Male

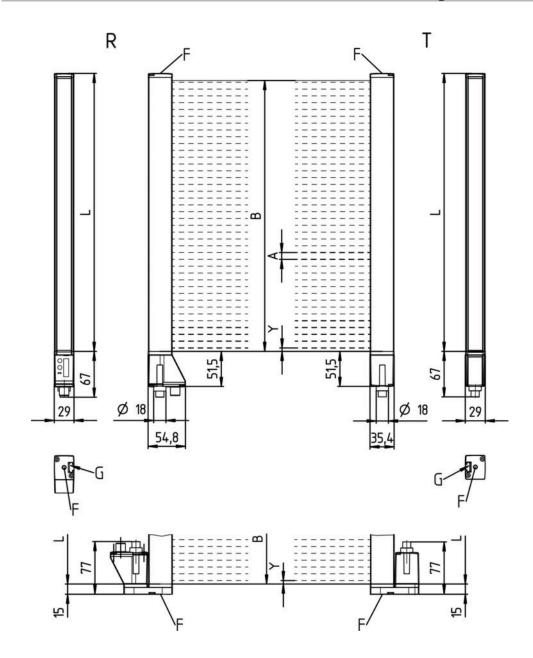
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Mechanical data	
Design	Cubic
Dimension (W x H x L)	29 mm x 35.4 mm x 2,743 mm
Housing material	Metal , Aluminum
Lens cover material	Plastic
Net weight	2,750 g
Housing color	Silver
Type of fastening	Groove mounting Via optional mounting device
Operation 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
Standards applied	IEC 60947-5-2
Classification	
Customs tariff number	90314990
eCl@ss 8.0	27270910
eCl@ss 9.0	27270910
ETIM 5.0	EC002549
ETIM 6.0	EC002549

#### **Dimensioned drawings**

All dimensions in millimeters

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A Beam spacing 10 mm B Measurement field length 2720 mm

F M6 thread

- G Fastening groove
- L Profile length 2728 mm
- T Transmitter
- R Receiver

Y 5 mm

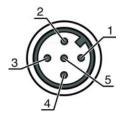


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#### **Electrical connection**

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
	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
50119957	CML720i- R10-2720.R/CN- M12	Light curtain receiver	Operating range: 0.3 7 m Interface: CANopen Connection: Connector, M12, Rear side, 8 -pin
50120176	CML720i- R10-2720.R/CV- M12	Light curtain receiver	Operating range: 0.3 7 m Analog outputs: 2 Piece(s), Voltage, Current Connection: Connector, M12, Rear side, 8 -pin
50123628	CML720i- R10-2720.R/ D3-M12	Light curtain receiver	Operating range: 0.3 7 m Interface: RS 485 Connection: Connector, M12, Rear side, 8 -pin

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Part no.	Designation	Article	Description
50120092	CML720i- R10-2720.R/L- M12	Light curtain receiver	Operating range: 0.3 7 m Interface: IO-Link Connection: Connector, M12, Rear side, 8 -pin
50122977	CML720i- R10-2720.R/PB- M12	Light curtain receiver	Operating range: 0.3 7 m Interface: PROFIBUS DP Connection: Connector, M12, Rear side, 8 -pin
50131937	CML720i- R10-2720.R/PN- M12	Light curtain receiver	Operating range: 0.3 7 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
Y	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:

Ν	ote

A list with all available device types can be found on the Leuze electronic website at www.leuze.com.

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#### 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
4 2 4 4 A	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
ę.	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.