## **Technical data sheet** Light curtain transmitter

Part no.: 50119414 CML720i-T10-1600.A-M12



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### **Technical data**

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#### **Basic data**

Basic data	
Series	720
Operating principle	Throughbeam principle
Device type	Transmitter
Contains	2x BT-NC sliding block
Application	Object measurement
Special version	
Special version	Crossed-beam scanning
	Diagonal-beam scanning
	Parallel-beam scanning
Optical data	
Operating range	0.3 7 m
Operating range	Guaranteed operating range
Operating range limit	0.2 9 m
Operating range limit	Typical operating range
Measurement field length	1,600 mm
Number of beams	160 Piece(s)
Beam spacing	10 mm
Light source	LED, Infrared
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 U <sub>B</sub>	18 30 V, DC
Residual ripple	0 15 %, From U <sub>B</sub>
Open-circuit current	0 350 mA, The specified values refer to the entire package consisting of trans mitter and receiver.
Time behavior	
Readiness delay	450 ms
Cycle time	5.2 ms
Connection	
Number of connections	1 Piece(s)
Plug outlet	Axial
Connection 1	
Function	Connection to receiver
	Sync-input

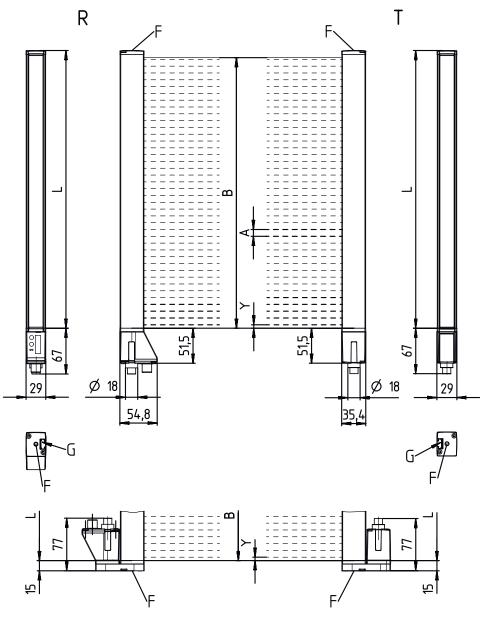
Sync-input		
Voltage supply		
Connector		
M12		
Male		
Metal		
5 -pin		
A-coded		

#### Mechanical data

Design	Cubic
Dimension (W x H x L)	29 mm x 35.4 mm x 1,675 mm
Housing material	Metal
Metal housing	Aluminum
Lens cover material	Plastic
Net weight	1,700 g
Housing color	Silver
Type of fastening	Groove mounting
	Via optional mounting device
Operation and display	
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
Approvals	c UL US
Standards applied	IEC 60947-5-2
Classification	
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

### **Dimensioned drawings**

All dimensions in millimeters



- Beam spacing 10 mm А
- В Measurement field length 1600 mm
- F M6 thread
- G Fastening groove
- Profile length 1608 mm L Т
- Transmitter
- R Receiver
- 5 mm Υ



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### **Electrical connection**

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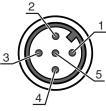
#### **Connection 1**

Pin

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 assignment

1	FE/SHIELD		
2	V+		
3	GND	$\frac{3}{1}$	$\int$
4	RS 485 Tx+		$\mathbf{S}$
5	RS 485 Tx-		



## **Operation and display**

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**

Suitable le	Part no.	Designation	Article	Description
	50119652	CML720i-R10- 1600.A/CN-M12	Light curtain receiver	Operating range: 0.3 7 m Interface: CANopen Connection: Connector, M12, Axial, 8 -pin
	50119842	CML720i-R10- 1600.A/CV-M12	Light curtain receiver	Operating range: 0.3 7 m Analog outputs: 2 Piece(s), Voltage, Current Connection: Connector, M12, Axial, 8 -pin
	50123487	CML720i-R10- 1600.A/D3-M12	Light curtain receiver	Operating range: 0.3 7 m Interface: RS 485 Modbus Connection: Connector, M12, Axial, 8 -pin
	50119761	CML720i-R10- 1600.A/L-M12	Light curtain receiver	Operating range: 0.3 7 m Interface: IO-Link Connection: Connector, M12, Axial, 8 -pin

#### Suitable receivers

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	Part no.	Designation	Article	Description
Į	50122964	CML720i-R10- 1600.A/PB-M12	Light curtain receiver	Operating range: 0.3 7 m Interface: PROFIBUS DP Connection: Connector, M12, Axial, 8 -pin
ļ	50131922	CML720i-R10- 1600.A/PN-M12	Light curtain receiver	Operating range: 0.3 7 m Interface: PROFINET Connection: Connector, M12, Axial, 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
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
DDD	Special equipment -PS: Power Setting
EEE	Electrical connection M12: M12 connector
FFF	-EX: Explosion protection
Note	
A list v	vith 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.

 ${\ensuremath{\,\textcircled{\tiny \ensuremath{\,\Downarrow}}}}$  The product may only be put into operation by competent persons.

 $\ensuremath{^{\ensuremath{\Downarrow}}}$  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).	
Ĩ,	Shee proximity switches shall be used with UL Listed Cable assemblies rated 30V, 0.5A min, in the field installation, or equivalent (categories: C CYJV7 or PVVA/PVVA7)	YJV/

#### Accessories

### Connection technology - Interconnection cables

	Part no.	Designation	Article	Description
	50129781	KDS DN-M12-5A- M12-5A-P3-050	Interconnection cable	Suitable for interface: 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
1 + + + + + + + + + + + + + + + + + + +	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

### Configuration devices

 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

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#### Accessories

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### 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	<sup>t</sup> A list with all available accessories can be found on the Leuze website in the Download tab of the article detailed page.