



the sensor people





Figure can vary

Part no.: 50119435 CML720i-T20-2070.A-M12 Light curtain transmitter





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Technical data

Basic data				
Series Series	720			
Operating principle	Throughbeam principle			
Device type	Transmitter			
Contains	2x BT-NC sliding block			
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	2,070 mm			
Number of beams	104 Piece(s)			
Beam spacing	20 mm			
Light source	LED , Infrared			
LED light wavelength	940 nm			
-				
Measurement data				
Minimum object diameter	30 mm			
Electrical data				
Protective circuit	Polarity reversal protection Short circuit protected Transient protection			
Performance data	·			
Supply voltage U _B	18 30 V , DC			
Residual ripple	0 15 % , From U _B			
Open-circuit current	0 435 mA , The specified values refer to the entire package consisting of transmitter and receiver.			
-	· ·			
Timing	4F0 mg			
Readiness delay	450 ms			
Cycle time	3.52 ms			
Connection				
Number of connections	1 Piece(s)			
Plug outlet	Axial			
Connection 1				
Function	Connection to receiver Sync-input Voltage supply			
Type of connection	Connector			
	M12			
Thread size				
	Male			
Туре				
	Male Metal 5 -pin			



Mechanical data				
Design	Cubic			
Dimension (W x H x L)	29 mm x 35.4 mm x 2,155 mm			
Housing material	Metal , Aluminum			
Lens cover material	Plastic			
Net weight	2,150 g			
Housing color	Silver			
Type of fastening	Groove mounting Via optional mounting device			
Oneration and diaplay				
Operation and display				
Type of display	LED			

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	

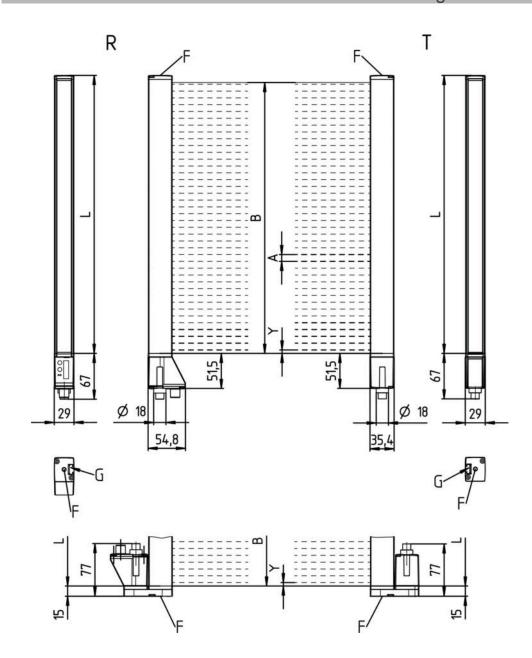
Certifications	
Degree of protection	IP 65
Protection class	III
Certifications	c CSA US
Standards applied	IEC 60947-5-2

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





- A Beam spacing 20 mm B Measurement field length 2070 mm
- F M6 thread
- G Fastening groove
- L Profile length 2088 mm
- T Transmitter
- R Receiver
- Y 5 mm

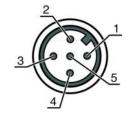




Electrical connection

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
	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
50119673	CML720i- R20-2070.A/CN- M12	Light curtain receiver	Operating range: 0.3 7 m Interface: CANopen Connection: Connector, M12, Axial, 8 -pin
50119863	CML720i- R20-2070.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
50123561	CML720i- R20-2070.A/ D3-M12	Light curtain receiver	Operating range: 0.3 7 m Interface: RS 485 Connection: Connector, M12, Axial, 8 -pin



Part no.	Designation	Article	Description
50119782	CML720i- R20-2070.A/L- M12	Light curtain receiver	Operating range: 0.3 7 m Interface: IO-Link Connection: Connector, M12, Axial, 8 -pin
50123018	CML720i- R20-2070.A/PB- M12	Light curtain receiver	Operating range: 0.3 7 m Interface: PROFIBUS DP Connection: Connector, M12, Axial, 8 -pin
50131964	CML720i- R20-2070.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				
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 a	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		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
165	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.