SMART SENSOR BUSINESS

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Part no.: 50119441 CML720i-T40-290.A-M12 Light curtain transmitter



Figure can vary

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Technical data

Basic data			
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	290 mm		
Number of beams	8 Piece(s)		
Beam spacing	40 mm		
Light source	LED , Infrared		
LED light wavelength	940 nm		
Measurement data			
Minimum object diameter	50 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	0 165 mA , The specified values refer to the entire package con-		
	sisting of transmitter and receiver.		
Timing			
Readiness delay	450 ms		
Cycle time			
	1 ms		
	1 ms		
Number of connections	1 Piece(s)		
Number of connections Plug outlet			
Number of connections Plug outlet Connection 1	1 Piece(s) Axial		
Connection Number of connections Plug outlet Connection 1 Function	1 Piece(s)		
Number of connections Plug outlet Connection 1	1 Piece(s) Axial Connection to receiver Sync-input		
Number of connections Plug outlet Connection 1 Function	1 Piece(s) Axial Connection to receiver Sync-input Voltage supply		
Number of connections Plug outlet Connection 1 Function Type of connection	1 Piece(s) Axial Connection to receiver Sync-input Voltage supply Connector		
Number of connections Plug outlet Connection 1 Function Type of connection Thread size	1 Piece(s) Axial Connection to receiver Sync-input Voltage supply Connector M12		
Number of connections Plug outlet Connection 1 Function Type of connection Thread size Type	1 Piece(s) Axial Connection to receiver Sync-input Voltage supply Connector M12 Male		

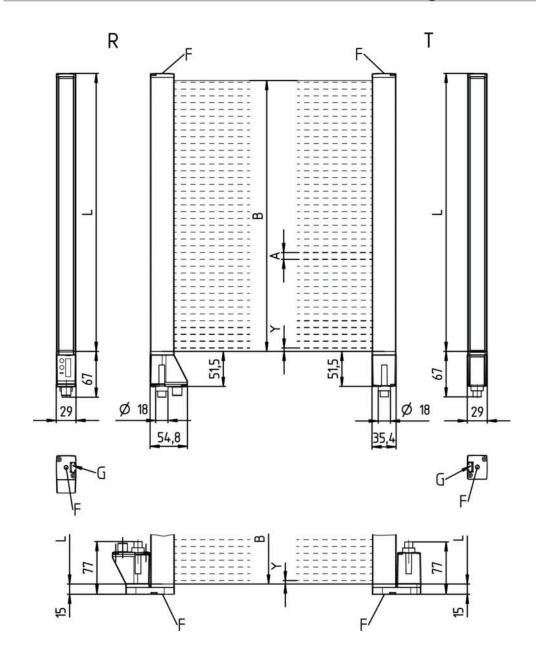
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Mechanical data			
Design	Cubic		
Dimension (W x H x L)	29 mm x 35.4 mm x 395 mm		
Housing material Metal , Aluminum			
Lens cover material	Plastic		
Net weight	500 g		
Housing color	Silver		
Type of fastening	Groove mounting Via optional mounting 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			
Certifications	c CSA US		
Standards applied	IEC 60947-5-2		
Ale and the second s			
Classification	00014000		
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 40 mm B Measurement field length 290 mm

F M6 thread

- G Fastening groove
- L Profile length 328 mm
- T Transmitter
- R Receiver
- Y 5 mm

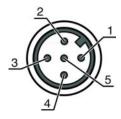


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Electrical connection

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
50119679	CML720i- R40-290.A/CN- M12	Light curtain receiver	Operating range: 0.3 7 m Interface: CANopen Connection: Connector, M12, Axial, 8 -pin
50119869	CML720i- R40-290.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
50123567	CML720i- R40-290.A/ D3-M12	Light curtain receiver	Operating range: 0.3 7 m Interface: RS 485 Connection: Connector, M12, Axial, 8 -pin

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	Part no.	Designation	Article	Description
	50119788	CML720i- R40-290.A/L-M12	Light curtain receiver	Operating range: 0.3 7 m Interface: IO-Link Connection: Connector, M12, Axial, 8 -pin
	50123055	CML720i- R40-290.A/PB- M12	Light curtain receiver	Operating range: 0.3 7 m Interface: PROFIBUS DP Connection: Connector, M12, Axial, 8 -pin
Į	50131998	CML720i- R40-290.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

FFF	-EX: Explosion protection:			
EEE	Electrical connection: M12: M12 connector			
DDD	Special equipment: -PS: Power Setting			
CCC	Interface: L: IO-Link /CN: CANopen /PB: PROFIBUS /PN: PROFINET /CV: Analog current and voltage output /D3: RS 485 Modbus			
В	Equipment: A: connector outlet, axial R: rear connector outlet			
AAAA	Measurement field length [mm], dependent on beam spacing			
ZZ	Beam spacing: 05: 5 mm 10: 10 mm 20: 20 mm 40: 40 mm			
Y	Device type: T: transmitter R: receiver			
7XXi	Series: 720i: 720i series 730i: 730i series			
CML	Operating principle: Measuring light curtain			

Note

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
ęł.	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.