

## Technical data sheet

### Light curtain transmitter

Part no.: 50126403  
CML720i-T20-290.A-M12-EX

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For illustration purposes only



## Technical 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
	Ex-protected
	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	290 mm
Number of beams	15 Piece(s)
Beam spacing	20 mm
Light source	LED, Infrared
Wavelength	940 nm

### Measurement data

Minimum object diameter	30 mm
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### 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 consisting of transmitter and receiver.

### Time behavior

Readiness delay	450 ms
Cycle time	1 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
Thread size	M12
Type	Male
Material	Metal
No. of pins	5 -pin
Encoding	A-coded

### Mechanical data

Design	Cubic
Dimension (W x H x L)	30.7 mm x 40.3 mm x 343 mm
Housing material	Metal
Metal housing	Aluminum
Lens cover material	Plastic
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

### Ex specification

Ex-zone	2
	22
Ex device group	II

### Certifications

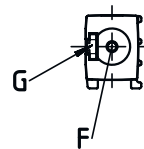
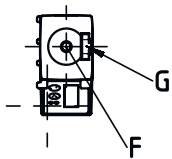
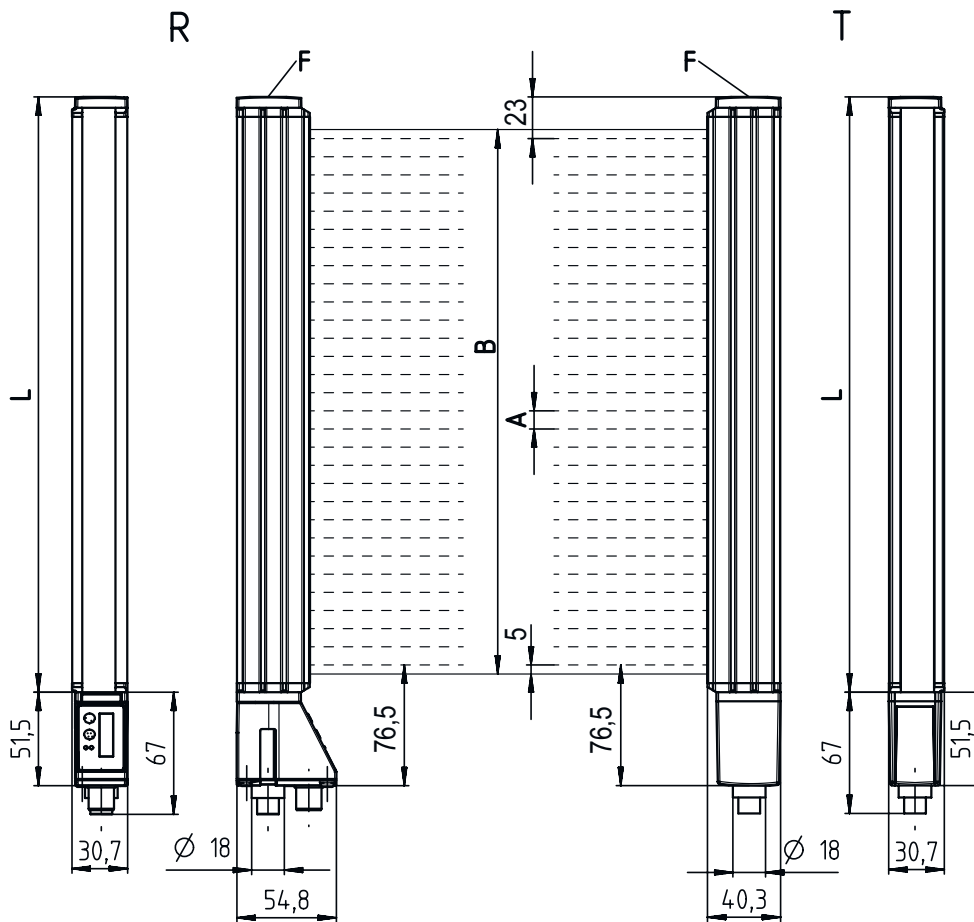
Degree of protection	IP 65
Protection class	III
Certifications	c UL US
Standards applied	IEC 60947-5-2

### Classification

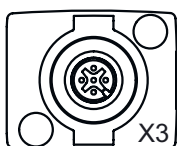
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ECLASS 11.0	27270910
ECLASS 12.0	27270910
ECLASS 13.0	27270910
ECLASS 14.0	27270910
ETIM 5.0	EC002549
ETIM 6.0	EC002549
ETIM 7.0	EC002549
ETIM 8.0	EC002549
ETIM 9.0	EC002549

## Dimensioned drawings

All dimensions in millimeters



- |   |                                 |   |                       |
|---|---------------------------------|---|-----------------------|
| A | Beam spacing 20 mm              | L | Profile length 328 mm |
| B | Measurement field length 290 mm | T | Transmitter           |
| F | M6 thread                       | R | Receiver              |
| G | Fastening groove                |   |                       |



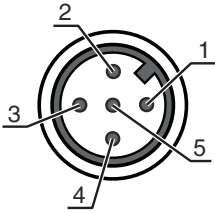
- |   |                   |
|---|-------------------|
| A | PWR / SW IN / OUT |
| B | BUS IN / OUT      |

Electrical connection

Connection 1

Function	Connection to receiver
	Sync-input
	Voltage supply
Type of connection	Connector
Thread size	M12
Type	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

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
	50126372	CML720i-R20-290.A/ CN-M12-EX	Light curtain receiver	Operating range: 0.3 ... 7 m Interface: CANopen, IO-Link Connection: Connector, M12, Axial, 8 -pin

Part number code

Part designation: CML7XXi-YZZ-AAAA.BCCDDDD-EEEEFF

CML	<b>Operating principle</b> Measuring light curtain
7XXi	<b>Series</b> 720i: 720i series 730i: 730i series
Y	<b>Device type</b> T: transmitter R: receiver
ZZ	<b>Beam spacing</b> 05: 5 mm 10: 10 mm 20: 20 mm 40: 40 mm
AAAA	Measurement field length [mm], dependent on beam spacing
B	<b>Equipment</b> A: Axial connector outlet R: Rear connector outlet


CCC	<b>Interface</b> L: IO-Link /CN: CANopen /PB: PROFIBUS /PN: PROFINET /CV: Analog current and voltage output /D3: RS 485 Modbus
DDD	<b>Special equipment</b> -PS: Power Setting
EEE	<b>Electrical connection</b> M12: M12 connector
FFF	<b>-EX: Explosion protection</b>


Note



A list with all available device types can be found on the Leuze website at [www.leuze.com](http://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.

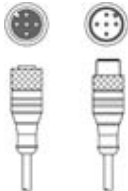
For UL applications:



- 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: 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

Accessories

Mounting technology - Mounting brackets

	Part no.	Designation	Article	Description
	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

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

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