



the sensor people





Figure can vary

Part no.: 50119747 CML720i-R05-2640.A/L-M12 Light curtain receiver





② IO-Link

Contents

- Technical data
- Dimensioned drawings
- Electrical connection
- · Operation and display
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- · Part number code
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Technical data

Series 720 Operating principle Throughbeam principle Device type Receiver Contains 2x BT-NC sliding block Application Object measurement Special design Crossed-beam scanning Diagonal-beam scanning Parallel-beam scanning Parallel-beam scanning Diagonal-beam scanning Parallel-beam scanning Optical data Operating range Guaranteed operating range Operating range 0.1 3.5 m Operating range limit Typical operating range Operating range imit 0.1 4.5 m Measurement field length 2,640 mm Number of beams 528 Piece(s) Beam spacing 5 mm Measurement data Winimum object diameter 10 mm Electrical data Protective circuit Polarity reversal protection Short circuit protected Transient protection	Pania data	
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Output current, max. 100 mA Input resistance 6,000 Ω Number of inputs/outputs selectable 4 Piece(s) Type Inputs/outputs selectable Voltage type, outputs DC Switching voltage, outputs Typ. U _B / 0 V Voltage type, inputs DC Switching voltage, inputs high: ≥6V low: ≤4V Input/output 1 Activation/disable delay O 1 ms Timing Readiness delay 400 ms Cycle time 16.24 ms	Open-circuit current	0 435 mA , The specified values refer to the entire package consisting of transmitter and receiver.
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Voltage type, inputs DC Switching voltage, inputs high: ≥6V low: ≤4V Input/output 1 0 1 ms Activation/disable delay 0 1 ms Timing Readiness delay 400 ms Cycle time 16.24 ms		
Switching voltage, inputs high: ≥6V low: ≤4V Input/output 1 Activation/disable delay 0 1 ms Timing Readiness delay 400 ms Cycle time 16.24 ms	Switching voltage, outputs	Typ. U _B / 0 V
low: ≤4V	Voltage type, inputs	DC
Activation/disable delay 0 1 ms Timing Readiness delay 400 ms Cycle time 16.24 ms	Switching voltage, inputs	
Timing Readiness delay 400 ms Cycle time 16.24 ms	Input/output 1	
Readiness delay 400 ms Cycle time 16.24 ms	Activation/disable delay	0 1 ms
Readiness delay 400 ms Cycle time 16.24 ms	Timina	
Cycle time 16.24 ms	-	400 ms
•		
	•	



Interface	10.11.1
Type	IO-Link
IO-Link	
COM mode	COM2
Specification	V1.0.1 V1.1
Min. cycle time	COM2 = 2.3 ms
Service interface	
Туре	IO-Link
IO-Link	
Function	Configuration via software Service
Connection	
Number of connections	2 Piece(s)
Plug outlet	Axial
Connection 1	
Function	Configuration interface Signal IN Signal OUT Voltage supply
Type of connection	Connector
Thread size	M12
Туре	Male
Material	Metal
No. of pins	8 -pin
Encoding	A-coded
Connection 2	
Function	Connection to transmitter
Type of connection	Connector
Thread size	M12
Туре	Female
Material	Metal
No. of pins	5 -pin
Encoding	A-coded
Mechanical data	
Design	Cubic
Dimension (W x H x L)	29 mm x 35.4 mm x 2,715 mm
Housing material	Metal , Aluminum
Lens cover material	Plastic
Net weight	2,700 g
Housing color	Silver
Type of fastening	Groove mounting Via optional mounting device
Operation and display	
Type of display	LED OLED display
Number of LEDs	2 Piece(s)

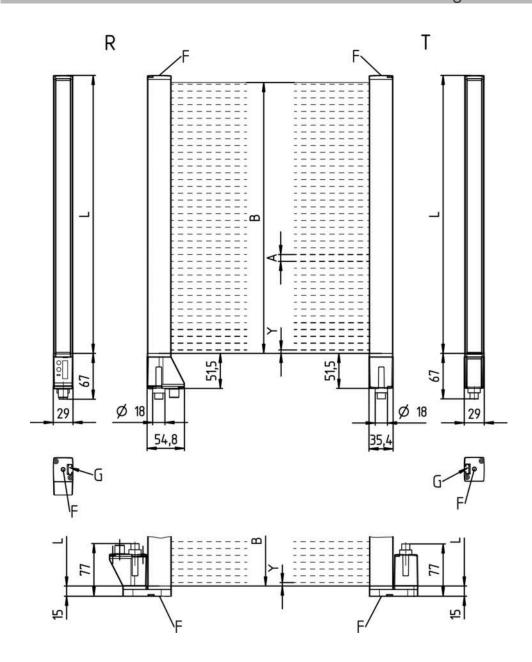


Software Teach-in		
Membrane keyboard		
-30 60 °C		
-40 70 °C		
IP 65		
III		
c CSA US		
IEC 60947-5-2		
90314990		
27270910		
27270910		
EC002549		
EC002549	EC002549	
	-30 60 °C -40 70 °C IP 65 III c CSA US IEC 60947-5-2 90314990 27270910 27270910 EC002549	

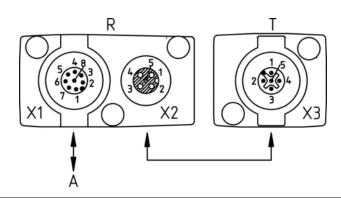
Dimensioned drawings

All dimensions in millimeters





- A Beam spacing 5 mm B Measurement field length 2640 mm
- F M6 thread
- G Fastening groove
- L Profile length 2648 mm
- T Transmitter
- R Receiver
- Y 2.5 mm



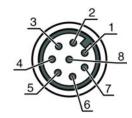


APWR / SW IN/OUT

Electrical connection

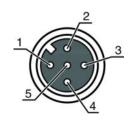
Connection 1		
Function	Configuration interface Signal IN Signal OUT Voltage supply	
Type of connection	Connector	
Thread size	M12	
Туре	Male	
Material	Metal	
No. of pins	8 -pin	
Encoding	A-coded	

Pin	Pin assignment
1	V+
2	101
3	GND
4	IO-Link
5	102
6	103
7	IO4
8	GND



Connection 2		
Function	Connection to transmitter	
Type of connection	Connector	
Thread size	M12	
Туре	Female	
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	Operational readiness
	Green, flashing	Teach / error
		Measurement frequency display
2	Yellow, continuous light	Light path free, with function reserve
	Yellow, flashing	No function reserve
	Off	Object detected

Suitable transmitters

Part no.	Designation	Article	Description
50119400	CML720i- T05-2640.A-M12	Light curtain transmitter	Operating range: 0.1 3.5 m Connection: Connector, M12, Axial, 5 -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:		

N	_	40	
14	v	"	

A list with 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 - Connection cables

Part no.	Designation	Article	Description
50135128	KD S-M12-8A- P1-050	Connection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 8 -pin Connection 2: Open end Shielded: Yes Cable length: 5,000 mm Sheathing material: PUR

Connection technology - Interconnection cables

	Part no.	Designation	Article	Description
(a) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c			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
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

Leuze electronic GmbH + Co. KG, In der Braike 1, 73277 Owen Phone: +49 7021 573-0, Fax: +49 7021 573-199



Mounting technology - Swivel mounts

	Part no.	Designation	Article	Description
EE.	429046	BT-2R1	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

	Part no.	Designation	Article	Description
16	50121098	SET MD12-US2-IL1.1 + Zub.		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.