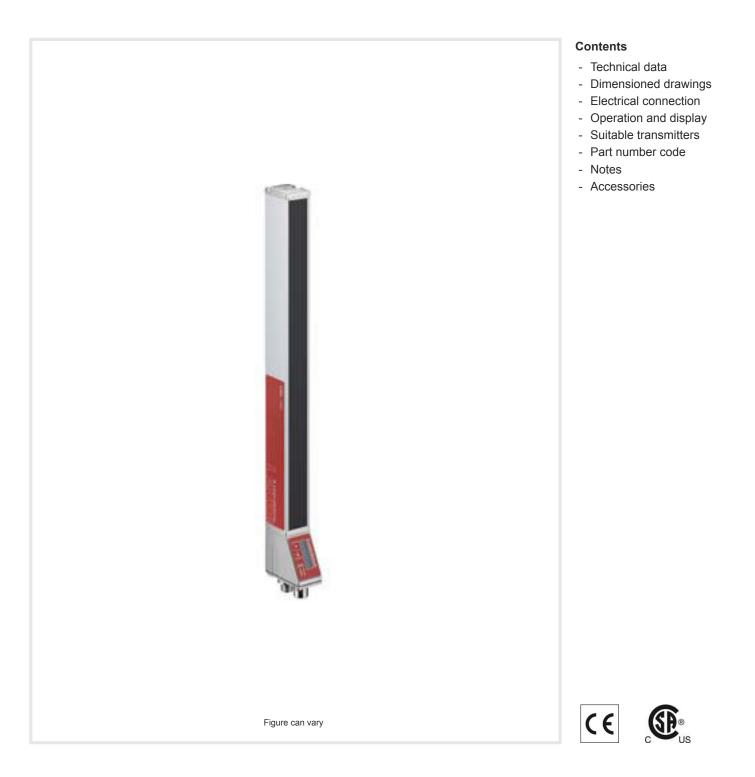


Technical data sheet Light curtain receiver Part no.: 50119637 CML720i-R05-2560.A/CN-M12



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We reserve the right to make technical changes eng • 2023-02-05

Technical data

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Series	720
Series Operating principle	Throughbeam principle
Device type	Receiver
Contains	2x BT-NC sliding block
Application	Object measurement
Special version	
Special version	Crossed-beam scanning
	Diagonal-beam scanning
	Parallel-beam scanning
Dptical data	
Dperating range	Guaranteed operating range
Operating range	0.1 3.5 m
Operating range limit	Typical operating range
Operating range limit	0.1 4.5 m
Measurement field length	2,560 mm
Number of beams	512 Piece(s)
Beam spacing	5 mm
Measurement data	
/inimum object diameter	10 mm
-	
Electrical data	
Protective circuit	Polarity reversal protection
	Short circuit protected
	Transient protection
Deufeumenes data	
Performance data	18 30 V, DC
Supply voltage U _B Residual ripple	0 15 %, From U _B
Open-circuit current	0 13 %, FIOIT O _B 0 435 mA, The specified values refer
open-enour current	to the entire package consisting of trans- mitter and receiver.
Inputs/outputs selectable	
Output current, max.	100 mA
Input resistance	6,000 Ω
Number of inputs/outputs selectabl	
Туре	Inputs/outputs selectable
Voltage type, outputs	DC
Switching voltage, outputs	Тур. U _в / 0 V
Voltage type, inputs	DC
Switching voltage, inputs	high: ≥6V
	$low: \leq 4 V$
In model and the set of the	
Input/output 1	1 ms
Input/output 1 Activation/disable delay	1 ms
Activation/disable delay	1 ms
Activation/disable delay	1 ms 450 ms
Activation/disable delay Time behavior Readiness delay Cycle time	
Activation/disable delay Time behavior Readiness delay Cycle time	450 ms
	450 ms 15.76 ms
Activation/disable delay Time behavior Readiness delay Cycle time Response time per beam	450 ms 15.76 ms
Activation/disable delay Time behavior Readiness delay Cycle time Response time per beam Interface Type	450 ms 15.76 ms 30 μs
Activation/disable delay Time behavior Readiness delay Cycle time Response time per beam Interface	450 ms 15.76 ms 30 μs

уре	IO-Link		
360			
IO-Link			
Function	Configuration via software		
	Service		
Connection			
lumber of connections	2 Piece(s)		
Plug outlet	Axial		
Connection 1 Function	Configuration interface		
Function	Configuration interface Connection to transmitter		
	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	BUS IN		
	BUS OUT		
Type of connection	Connector		
Thread size	M12		
Туре	Female		
Material	Metal		
No. of pins	5 -pin		
Encoding	A-coded		
Nechanical data			
Design	Cubic		
Dimension (W x H x L)	29 mm x 35.4 mm x 2,635 mm		
lousing material	Metal		
Aetal housing	Aluminum		
ens cover material	Plastic		
let weight	2,600 g		
lousing color	Silver		
ype of fastening	Groove mounting		
	Via optional mounting device		
Operation and display			
	LED		
ype of display	OLED display		
lumber of LEDs	2 Piece(s)		
	2 Piece(s) Software		
ype of configuration	Teach-in		
Operational controls	Membrane keyboard		
	Monorane Reyboard		
Environmental data			
Ambient temperature, operation	-30 60 °C		
Ambient temperature, storage	-40 70 °C		

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Technical data

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Certifications

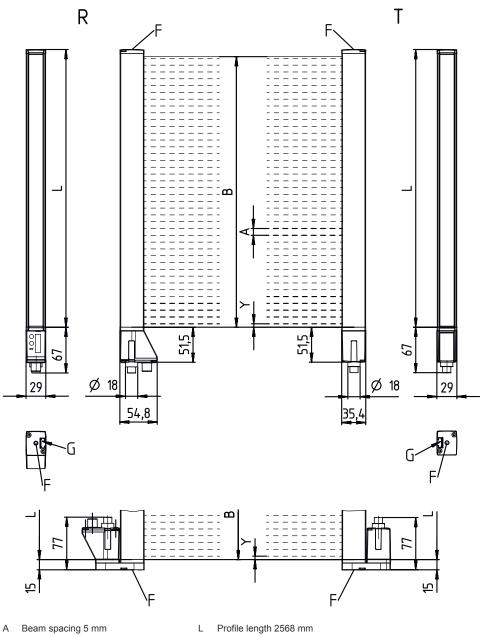
Degree of protection	IP 65
Protection class	III
Certifications	c CSA US
Standards applied	IEC 60947-5-2

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
ETIM 5.0	EC002549
ETIM 6.0	EC002549
ETIM 7.0	EC002549
ETIM 8.0	EC002549

Dimensioned drawings

All dimensions in millimeters



Beam spacing 5 mm А

Fastening groove

- В Measurement field length 2560 mm
- F M6 thread

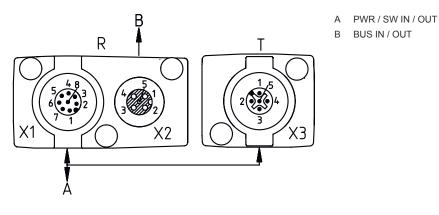
G

- Transmitter Т
- R Receiver
- 2.5 mm Υ



Dimensioned drawings





Electrical connection

Connection 1

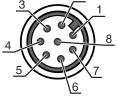
Function	Configuration interface
	Connection to transmitter
	Signal IN
	Signal OUT
	Voltage supply
Type of connection	Connector
Thread size	M12
Туре	Male
Material	Metal
No. of pins	8 -pin
Encoding	A-coded

Pin Pin assignment

1	V+		
2	I/O 1		
3	GND		
4	IO-Link		
5	I/O 2		
6	RS 485 Tx-		
7	RS 485 Tx+		
8	FE/SHIELD		



Function	BUS IN
	BUS OUT
Type of connection	Connector
Thread size	M12
Туре	Female
Material	Metal
No. of pins	5 -pin
Encoding	A-coded



Electrical connection

Pin	Pin assignment	
1	FE/SHIELD	
2	n.c.	
3	CAN GND	
4	CAN H	
5	CAN L	

Operation and display

LED	Display	Meaning
1	Green, continuous light	Operational readiness
	Green, flashing	Teach / error
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
50119399	CML720i-T05- 2560.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
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

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Part number code



DDD	Special equipment -PS: Power Setting
EEE	Electrical connection M12: M12 connector
FFF	-EX: Explosion protection
	Note
A	∜ A list with 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. 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
50132079	KD U-M12-5A-V1- 050	Connection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin Connector, LED: No Connection 2: Open end Shielded: No Cable length: 5.000 mm Sheathing material: PVC

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

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Connection technology - Y distribution cables

	Part no.	Designation	Article	Description
	50118183	K-Y1 M12A-5m- M12A-S-PUR	Interconnection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin Connection 2: Connector, M12, Axial, Male, A-coded, 5 -pin Connection 3: Connector, M12, Axial, Female, A-coded, 8 -pin Shielded: Yes Cable length fork 1: 5,000 mm Cable length fork 2: 150 mm Sheathing material: PUR
	50118185	K-YCN M12A-M12A- S-PUR	Interconnection cable	Suitable for interface: CANopen Connection 1: Connector, M12, Axial, Male, A-coded, 5 -pin Connection 2: Connector, M12, Axial, Female, A-coded, 5 -pin Connection 3: Connector, M12, Axial, Male, A-coded, 5 -pin Shielded: Yes Cable length fork 1: 250 mm Cable length fork 2: 350 mm Sheathing material: PUR

Connection technology - Terminating resistors

 Part no.	Designation	Article	Description
50040099	TS 01-5-SA	Terminator plug	Suitable for: DeviceNet, CANopen Function: Bus termination Connection 1: Connector, M12, Axial, Male, A-coded, 5 -pin

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

Services

	Part no.	Designation	Article	Description
y; U	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.

Accessories





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