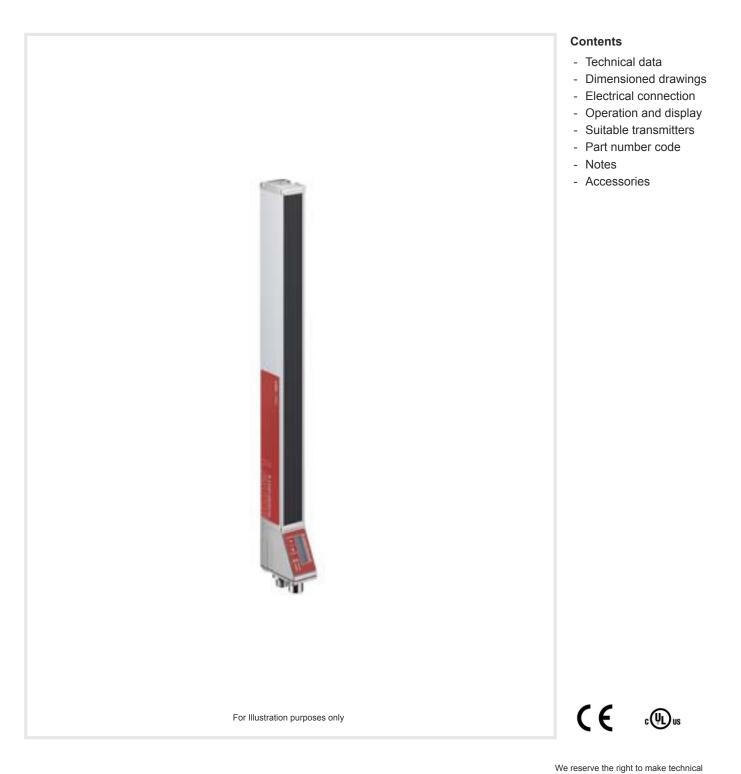


## **Technical data sheet Light curtain receiver** Part no.: 50119633 CML720i-R05-2240.A/CN-M12



 Leuze electronic GmbH + Co. KG
 info@leuze.com • www.leuze.com
 changes

 The Sensor People
 In der Braike 1, D-73277 Owen/Germany
 Phone: +49 7021 573-0 • Fax: +49 7021 573-199
 eng • 2025-04-04

#### **Technical data**

# Leuze

IO-Link

Service

2 Piece(s)

Signal IN Signal OUT Voltage supply

Connector

M12 Male

Metal

8 -pin

A-coded

BUS IN BUS OUT

Connector

M12 Female

Metal

5 -pin

Cubic

Metal

Plastic 2,300 g

Silver

LED OLED display

2 Piece(s)

Software Teach-in

-30 ... 60 °C

-40 ... 70 °C

Membrane keyboard

Aluminum

Groove mounting

29 mm x 35.4 mm x 2,315 mm

Via optional mounting device

A-coded

Axial

Configuration via software

Configuration interface Connection to transmitter

Basic data		Service interface
Series	720	Туре
Operating principle	Throughbeam principle	
Device type	Receiver	IO-Link
Contains	2x BT-NC sliding block	Function
Application	Object measurement	
Special version		Connection
Special version	Crossed-beam scanning	Number of connections
	Diagonal-beam scanning	Plug outlet
	Parallel-beam scanning	Connection 1
Optical data		Function
•	0.1 3.5 m	
Operating range	Guaranteed operating range	
Operating range Operating range limit	0.1 4.5 m	
Operating range limit	Typical operating range	
	2.240 mm	Type of connection
Measurement field length	_,	Thread size
Number of beams	448 Piece(s)	Туре
Beam spacing	5 mm	Material
Measurement data		No. of pins
		Encoding
Minimum object diameter	10 mm	Connection 2
Electrical data		Function
Protective circuit	Polarity reversal protection	
	Short circuit protected	Type of connection
	Transient protection	Thread size
		Туре
Performance data		Material
Supply voltage U <sub>B</sub>	18 30 V, DC	No. of pins
Residual ripple	0 15 %, From U <sub>B</sub>	Encoding
Open-circuit current	0 435 mA, The specified values refer to the entire package consisting of trans- mitter and receiver.	Mechanical data
		Design
Inputs/outputs selectable		Dimension (W x H x L)
Output current, max.	100 mA	Housing material
Input resistance	6,000 Ω	Metal housing
Number of inputs/outputs selectable	e 2 Piece(s)	Lens cover material
Туре	Inputs/outputs selectable	Net weight
Voltage type, outputs	DC	Housing color
Switching voltage, outputs	Typ. U <sub>B</sub> / 0 V	Type of fastening
Voltage type, inputs	DC	
Switching voltage, inputs	high: ≥6V Iow: ≤ 4 V	Operation and display
Input/output 1		Type of display
Activation/disable delay	1 ms	Number of LEDs
Time behavior		Type of configuration
Readiness delay	450 ms	Operational controls
Cycle time	13.84 ms	operational controlo
Response time per beam	30 µs	Environmental data
Interface		Ambient temperature, operation Ambient temperature, storage
Туре	CANopen	,
CANopen Function	Process	

### **Technical data**

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#### Certifications

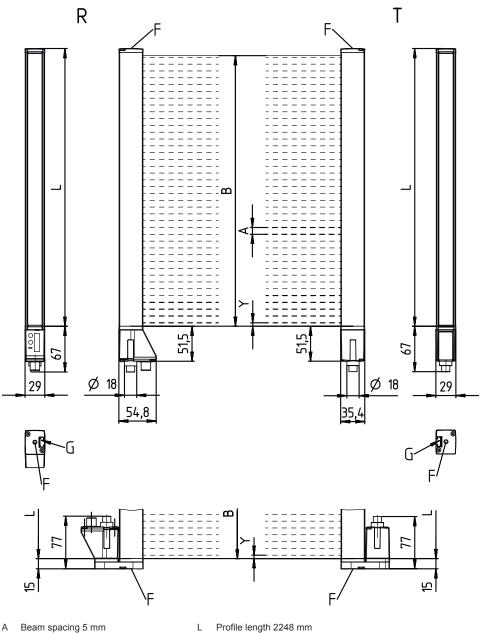
Degree of protection	IP 65
Protection class	III
Approvals	c UL US
Standards applied	IEC 60947-5-2

#### 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
ECLASS 14.0	27270910
ECLASS 15.0	27270910
ETIM 5.0	EC002549
ETIM 6.0	EC002549
ETIM 7.0	EC002549
ETIM 8.0	EC002549
ETIM 9.0	EC002549
ETIM 10.0	EC002549

#### **Dimensioned drawings**

All dimensions in millimeters



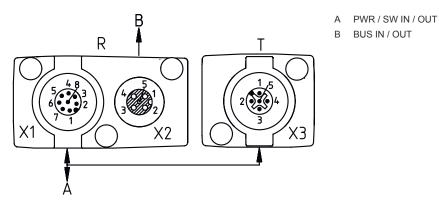
- Beam spacing 5 mm А
- В Measurement field length 2240 mm
- F M6 thread G Fastening groove
- Transmitter Т R Receiver

  - 2.5 mm Υ

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#### **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
50119395	CML720i-T05- 2240.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



#### 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!
<ul> <li>This product is not a safety sensor and is not intended as personnel protection.</li> <li>The product may only be put into operation by competent persons.</li> <li>Only use the product in accordance with its intended use.</li> </ul>



#### 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
у, <sup>С</sup>	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.

#### Accessories





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