

## **Technical data sheet Light curtain receiver** Part no.: 50119641 CML720i-R05-2880.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
Operating principle	Throughbeam principle
	Receiver
	2x BT-NC sliding block
	Object measurement
pecial version	
•	Crossed-beam scanning
	Diagonal-beam scanning
	Parallel-beam scanning
Optical data	-
	Guaranteed operating range
	0.1 3.5 m
	Typical operating range
	0.1 4.5 m
	2,880 mm
	576 Piece(s)
	5 mm
leasurement data	
linimum object diameter	10 mm
Electrical data	
Protective circuit	Polarity reversal protection
	Short circuit protected
	Transient protection
Performance data	
	18 30 V, DC
	0 15 %, From U <sub>B</sub>
	0 600 mA, The specified values refer to the entire package consisting of trans- mitter and receiver.
Innuta/outnuta coloctable	
Inputs/outputs selectable Output current, max.	100 mA
• • •	6,000 Ω
Number of inputs/outputs selectable	
	Inputs/outputs selectable
Voltage type, outputs	DC
	Typ. U <sub>B</sub> / 0 V
	DC
0 51 7 1	high: ≥6V
	low: ≤ 4 V
low-ship-set 4	
Input/output 1 Activation/disable delay	1 ms
Activation/disable delay	1 1113
lines helessien	
	450
Readiness delay	450 ms
Cycle time	17.68 ms
Readiness delay Cycle time	
Readiness delay Cycle time	17.68 ms
Readiness delay Cycle time Response time per beam <b>nterface</b>	17.68 ms
Readiness delay Cycle time Response time per beam Interface Type CANopen	17.68 ms 30 μs

S	ervice interface		
Туре		IO-Link	
	IO-Link		
	Function	Configuration via software	
		Service	
С	onnection		
N	umber of connections	2 Piece(s)	
PI	ug outlet	Axial	
	O server attack to		
	Connection 1 Function	Configuration interface	
	Function	Connection to transmitter	
		Signal IN	
		Signal OUT	
		Voltage supply	
	Type of connection	Connector	
	Thread size	M12	
	Type	Male	
	Material	Metal	
	No. of pins	8 -pin	
	Encoding	A-coded	
	Encounig	Accored	
	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	
м	echanical data		
De	esign	Cubic	
Di	mension (W x H x L)	29 mm x 35.4 mm x 2,955 mm	
н	ousing material	Metal	
М	etal housing	Aluminum	
Le	ens cover material	Plastic	
Ne	et weight	2,900 g	
H	ousing color	Silver	
Ту	vpe of fastening	Groove mounting	
		Via optional mounting device	
0	peration and display		
Ту	vpe of display	LED	
		OLED display	
N	umber of LEDs	2 Piece(s)	
Ту	pe of configuration	Software	
		Teach-in	
0	perational controls	Membrane keyboard	
E	nvironmental data		
A	mbient temperature, operation	-30 60 °C	
	mbient temperature, storage	-40 70 °C	

#### **Technical data**

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#### Certifications

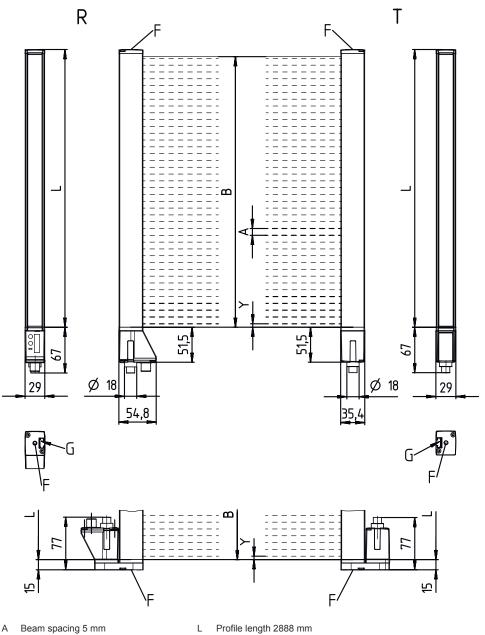
Degree of protection	IP 65
Protection class	III
Certifications	c CSA US
Standards applied	IEC 60947-5-2

#### 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 2880 mm
- F M6 thread

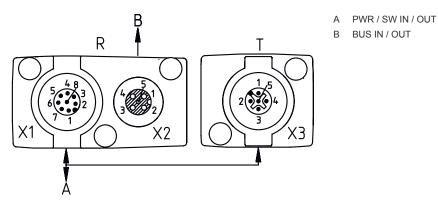
G

- Transmitter Т
- R Receiver
- 2.5 mm Υ



#### **Dimensioned drawings**





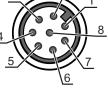
## **Electrical connection**

**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		



#### **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

### **Electrical connection**

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Pin	Pin assignment	$-\sqrt{\frac{2}{2}}$
1	FE/SHIELD	1
2	n.c.	
3	CAN GND	
4	CAN H	
5	CAN L	3

### **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
50119403	CML720i-T05- 2880.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!
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.         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.