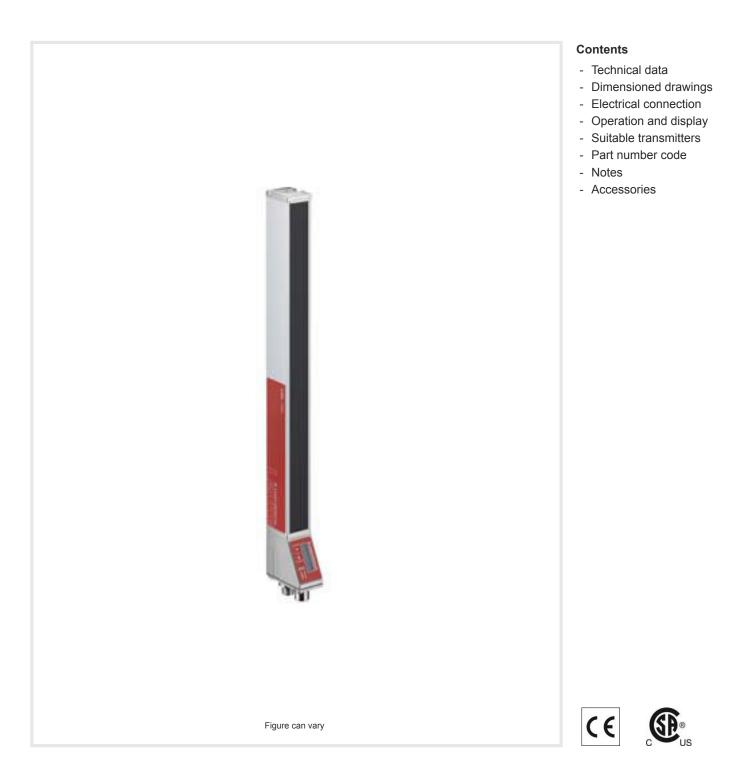


## **Technical data sheet Light curtain receiver** Part no.: 50122960 CML720i-R10-1120.A/PB-M12



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#### **Technical data**

# Leuze

720
Throughbeam principle
Receiver
2x BT-NC sliding block
Object measurement
object measurement
Crossed-beam scanning
Diagonal-beam scanning
Parallel-beam scanning
Guaranteed operating range
0.3 7 m
Typical operating range
0.2 9 m
1,120 mm
112 Piece(s)
10 mm
20 mm
Polarity reversal protection
Short circuit protected
Transient protection
18 30 V, DC
0 15 %, From U <sub>B</sub>
0 270 mA, The specified values refer to the entire package consisting of trans mitter and receiver.
100 mA
6,000 Ω
2 Piece(s)
lanute/enderite enler()-bl)
Inputs/outputs selectable
DC
DC Typ. U <sub>B</sub> / 0 V
DC Typ. U <sub>B</sub> / 0 V DC
DC Typ. U <sub>B</sub> / 0 V DC high: ≥6V
DC Typ. U <sub>B</sub> / 0 V DC
DC Typ. U <sub>B</sub> / 0 V DC high: ≥6V
DC Typ. U <sub>B</sub> / 0 V DC high: ≥6V Iow: ≤4V
DC Typ. U <sub>B</sub> / 0 V DC high: ≥6V
DC Typ. U <sub>B</sub> / 0 V DC high: ≥6V Iow: ≤4V
DC Typ. U <sub>B</sub> / 0 V DC high: ≥6V Iow: ≤4V
DC Typ. $U_B / 0 V$ DC high: $\geq 6V$ low: $\leq 4V$ 1 ms
DC Typ. $U_{B} / 0 \vee$ DC high: $\geq 6 \vee$ low: $\leq 4 \vee$ 1 ms 3.76 ms
DC Typ. $U_B / 0 \vee$ DC high: $\geq 6 \vee$ low: $\leq 4 \vee$ 1 ms 3.76 ms 30 µs
DC Typ. $U_{B} / 0 \vee$ DC high: $\geq 6 \vee$ low: $\leq 4 \vee$ 1 ms 3.76 ms
DC Typ. $U_B / 0 V$ DC high: $\geq 6V$ low: $\leq 4V$ 1 ms 3.76 ms 30 $\mu$ s

Service interface				
Туре		IO-Link		
	IO-Link			
	Function	Configuration via software		
		Service		
С	onnection			
N	umber of connections	2 Piece(s)		
P	ug outlet	Axial		
	Connection 1			
	Function	Configuration interface		
		Connection to transmitter		
		Signal IN		
	Type of connection	Voltage supply Connector		
	Thread size	M12		
		Male		
	Type Material	Metal		
	No. of pins	8 -pin		
	Encoding	A-coded		
	Elicounig	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	B-coded		
Mechanical data				
D	esign	Cubic		
D	imension (W x H x L)	29 mm x 35.4 mm x 1,195 mm		
	ousing material	Metal		
	etal housing	Aluminum		
	ens cover material	Plastic		
	et weight	1,300 g		
	ousing color	Silver		
Ŋ	/pe of fastening	Groove mounting Via optional mounting device		
		via optional mounting device		
0	peration and display			
Ту	vpe of display	LED		
		OLED display		
	umber of LEDs	2 Piece(s)		
Ту	pe of configuration	Software		
6		Teach-in		
0	perational controls	Membrane keyboard		
E	nvironmental data			
A	mbient temperature, operation	-30 60 °C		
A	mbient temperature, storage	-40 70 °C		

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### **Technical data**

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#### Certifications

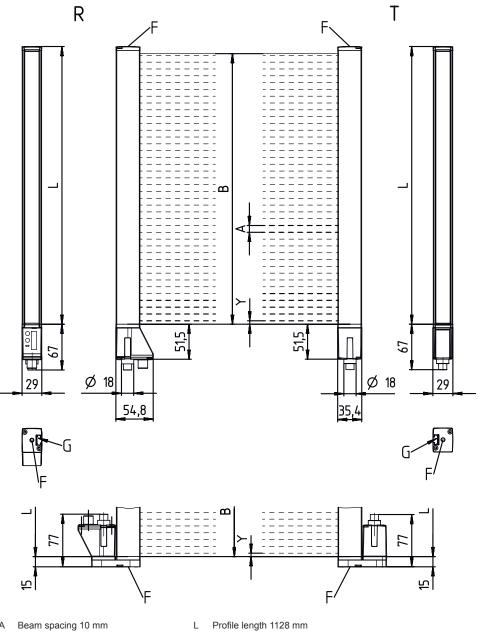
Degree of protection	IP 65
Protection class	III
Certifications	c CSA US
Standards applied	IEC 60947-5-2

#### Classification

90314990
27270910
27270910
27270910
27270910
27270910
EC002549
EC002549
EC002549

#### **Dimensioned drawings**

All dimensions in millimeters



- Beam spacing 10 mm А
- В Measurement field length 1120 mm
- F M6 thread G
  - Fastening groove
- Т
  - Transmitter
- R Receiver
- Υ 5 mm

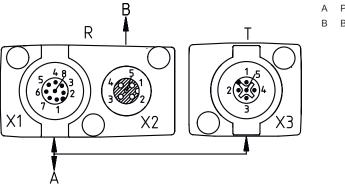


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#### **Dimensioned drawings**





A PWR / SW IN / OUTB BUS IN / OUT

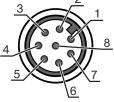
## **Electrical connection**

#### **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	B-coded

### **Electrical connection**

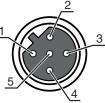
#### Leuze Pin assignment V+ Tx-PB GND Tx+

4 5 FE/SHIELD

Pin

1 2

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
50119411	CML720i-T10- 1120.A-M12	Light curtain transmitter	Operating range: 0.3 6 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
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

#### Part number code



DDD	Special equipment -PS: Power Setting
EEE	Electrical connection M12: M12 connector
FFF	-EX: Explosion protection
	Note

#### 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 Connection 2: Open end Shielded: No Cable length: 5,000 mm Sheathing material: PVC

#### 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

#### Accessories

## Leuze

	Part no.	Designation	Article	Description
	50123265	K-YPB M12A-5m- M12A-S-PUR	Interconnection cable	Suitable for interface: PROFIBUS DP Connection 1: Connector, M12, Axial, Male, B-coded, 5 -pin Connection 2: Cable with connector, M12, Axial, Female, B-coded, 5 -pin Connection 3: Cable with connector, M12, Axial, Male, B-coded, 5 -pin Shielded: Yes Sheathing material: PUR

#### Mounting technology - Mounting brackets

	Part no.	Designation	Article	Description
1.1. 1.1	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

#### Mounting technology - Swivel mounts

	Part no.	Designation	Article	Description
ęę.	429046	BT-2R1	Mounting bracket set	Fastening, at system: Through-hole mounting Mounting bracket, at device: Clampable Type of mounting device: Turning, 360° Material: Metal, Plastic

### Configuration devices

	Part no.	Designation	Article	Description
165	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. 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.