

## **Technical data sheet Light curtain receiver** Part no.: 50119722 CML720i-R05-640.A/L-M12



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### **Technical data**

<ul> <li>720</li> <li>Throughbeam principle</li> <li>Receiver</li> <li>2x BT-NC sliding block</li> <li>Object measurement</li> <li>Crossed-beam scanning</li> <li>Diagonal-beam scanning</li> <li>Parallel-beam scanning</li> <li>Parallel-beam scanning</li> <li>0.1 3.5 m</li> <li>Guaranteed operating range</li> <li>0.1 4.5 m</li> <li>Typical operating range</li> <li>640 mm</li> <li>128 Piece(s)</li> <li>5 mm</li> <li>10 mm</li> <li>Polarity reversal protection</li> <li>Short circuit protected</li> <li>Transient protection</li> <li>18 30 V, DC</li> <li>0 15 %, From U<sub>B</sub></li> <li>0 215 mA, The specified values refer</li> </ul>
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to the entire package consisting of trans- mitter and receiver.
100 mA
6.000 Ω
4 Piece(s)
Inputs/outputs selectable
DC
Typ. U <sub>B</sub> / 0 V
DC
high: ≥6V
low: ≤ 4 V
0 1 ms
400 ms
4.24 ms
30 µs
IO-Link

IO-Link					
COM mode	COM2				
Min. cycle time	COM2 = 2.3 ms				
Specification	V1.0.1 V1.1				
	V1.1				
Service interface					
уре	IO-Link				
IO-Link					
Function	Configuration via software				
	Service				
Connection					
lumber of connections	2 Piece(s)				
Plug outlet	Axial				
Connection 1 Function	Configuration interface				
- ancion	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				
Type Material	Female				
No. of pins	Metal 5 -pin				
Encoding	A-coded				
	7100000				
Nechanical data					
Design	Cubic				
Dimension (W x H x L)	29 mm x 35.4 mm x 715 mm				
lousing material	Metal				
letal housing	Aluminum				
ens cover material	Plastic				
let weight	850 g				
lousing color ype of fastening	Silver Groove mounting				
Jee of lastening	Via optional mounting device				
Operation and display	-				
ype of display	LED OLED display				
lumber of LEDs	2 Piece(s)				
ype of configuration	Software				
	Teach-in				
Operational controls	Membrane keyboard				
Environmental data					
Ambient temperature, operation	-30 60 °C				

### **Technical data**

#### Certifications

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

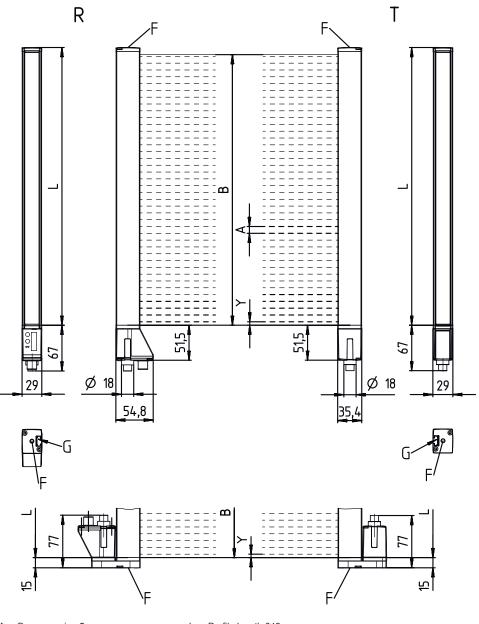
#### Classification

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
ETIM 5.0	EC002549
ETIM 6.0	EC002549
ETIM 7.0	EC002549
ETIM 8.0	EC002549
ETIM 9.0	EC002549



### **Dimensioned drawings**

All dimensions in millimeters



A Beam spacing 5 mm

- B Measurement field length 640 mm
- F M6 thread

G

Fastening groove

L Profile length 648 mm

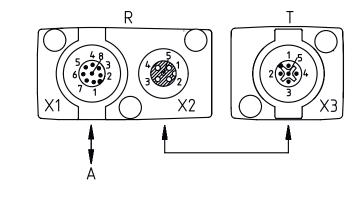
- Transmitter
- R Receiver

Т

Y 2.5 mm

### **Dimensioned drawings**





A PWR / SW IN / OUT

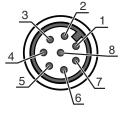
### **Electrical connection**

**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	IO1		
3	GND		
4	IO-Link		
5	102		
6	IO3		
7	IO4		
8	GND		

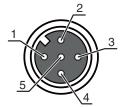


#### **Connection 2**

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**

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
50119375	CML720i-T05-640.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

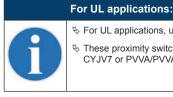
CML	Operating principle Measuring light curtain
7XXi	Series           720i: 720i series           730i: 730i series
Y	Device type T: transmitter R: receiver
ZZ	Beam spacing 05: 5 mm 10: 10 mm 20: 20 mm 40: 40 mm
AAAA	Measurement field length [mm], dependent on beam spacing
В	Equipment A: Axial connector 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
DDD	Special equipment -PS: Power Setting
EEE	Electrical connection M12: M12 connector
FFF	-EX: Explosion protection
Note	
A list wi	th 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.

 $\ensuremath{^{\ensuremath{\Downarrow}}}$  Only use the product in accordance with its intended use.



Ŕ,	> For UL ap	plicatior	ns, use	is only pe	rmitted in Clas	s 2 circuits	in accordan	ce with the I	NEC (Na	tional	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 unit

	Part no.	Designation	Article	Description
C. LEATING	50144900	MD 798i-11-82/L5- 2222	IO-Link master	Type: IO-Link master Current consumption, max.: 11,000 mA Switching outputs for each sensor connection: 1 Piece(s) Switching output: Transistor, PNP Interface: IO-Link, Automatic protocol detection, EtherNet IP, Modbus TCP, PROFINET Connections: 12 Piece(s) Sensor connections: 8 Piece(s) Connections for voltage supply: 2 Piece(s) Interface connections: 2 Piece(s) Degree of protection: IP 67, IP 65, IP 69K

#### 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 Connector, LED: No
				Connection 2: Open end Shielded: Yes Cable length: 5.000 mm Sheathing material: PUR

#### 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

# Leuze

### 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

#### 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.
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.

Note

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