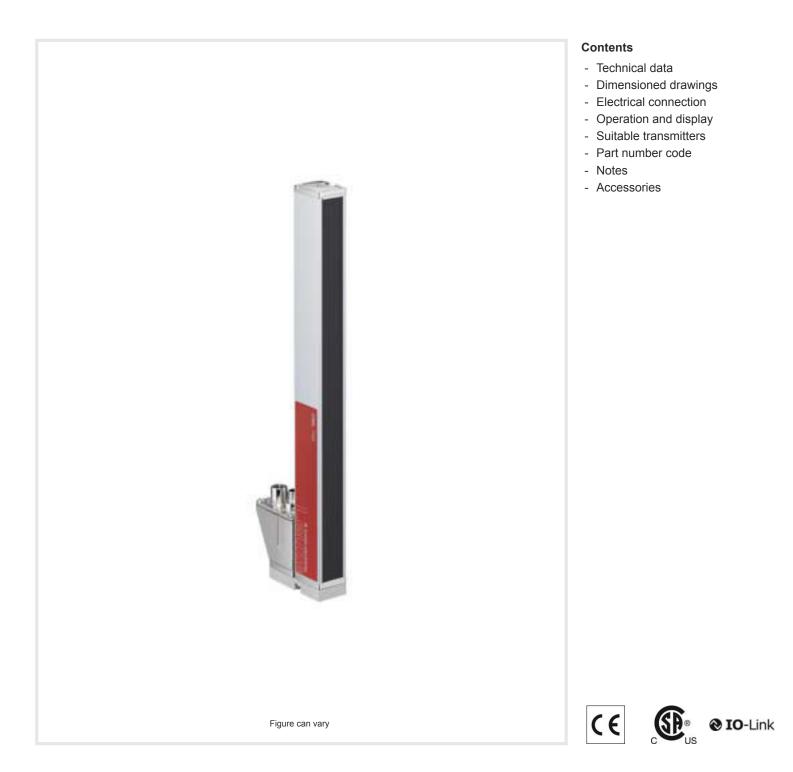
# Leuze

## **Technical data sheet** Light curtain receiver Part no.: 50120071 CML720i-R05-2640.R/L-M12



The Sensor People In der Braike 1, 73277 Owen

Leuze electronic GmbH + Co. KG info@leuze.com • www.leuze.com Phone: +49 7021 573-0 • Fax: +49 7021 573-199

## **Technical data**

# Leuze

#### Rasic data

720
Throughbeam principle
Receiver
Accessories for the use of the BT-2R1
Object measurement
Crossed-beam scanning
Diagonal-beam scanning
Parallel-beam scanning
Guaranteed operating range
0.1 3.5 m
Typical operating range
0.1 4.5 m
2,640 mm
528 Piece(s)
5 mm
10 mm
Delerity reversel protection
Polarity reversal protection
Short circuit protected
Transient protection
18 30 V, DC
0 15 %, From U <sub>B</sub>
0 435 mA, The specified values refer to the entire package consisting of trans- mitter and receiver.
100 mA
6,000 Ω
4 Piece(s)
Inputs/outputs selectable
DC
DC Typ. U <sub>B</sub> / 0 V DC
Тур. U <sub>в</sub> / 0 V
Typ. U <sub>B</sub> / 0 V DC
Typ. U <sub>B</sub> / 0 V DC high: ≥6V
Typ. U <sub>B</sub> / 0 V DC high: ≥6V
Typ. U <sub>B</sub> / 0 ∨ DC high: ≥6V Iow: ≤4V
Typ. U <sub>B</sub> / 0 V DC high: ≥6V low: ≤4V 0 1 ms
Typ. U <sub>B</sub> / 0 ∨ DC high: ≥6∨ low: ≤4∨ 0 1 ms
Typ. U <sub>B</sub> / 0 ∨ DC high: ≥6∨ low: ≤4∨ 0 1 ms 400 ms 16.24 ms
Typ. U <sub>B</sub> / 0 ∨ DC high: ≥6∨ low: ≤4∨ 0 1 ms
Typ. U <sub>B</sub> / 0 ∨ DC high: ≥6∨ low: ≤4∨ 0 1 ms 400 ms 16.24 ms

IO-Link	
COM mode	COM2
Specification	V1.0.1
-	V1.1
Min. cycle time	COM2 = 2.3 ms
Service interface	
Туре	IO-Link
IO-Link	
Function	Configuration via software
	Service
Connection	
Number of connections	2 Piece(s)
Plug outlet	Rear side
Connection 1	
Function	Configuration interface
	Signal IN
	Signal OUT
Type of correction	Voltage supply
Type of connection Thread size	M12
Type	Male
Material	Metal
No. of pins	8 -pin
Encoding	A-coded
Connection 2	Commontions to terrore itten
Function	Connection to transmitter
Type of connection Thread size	Connector M12
Type	Female
Material	Metal
No. of pins	5 -pin
Encoding	A-coded
Mechanical data	
Design	Cubic
Dimension (W x H x L)	29 mm x 35.4 mm x 2,663 mm
Housing material	Metal
Metal housing	Aluminum
Lens cover material	Plastic
Net weight	2,750 g
Housing color	Silver
Type of fastening	Groove mounting
	Via optional mounting device
Operation and display	
Type of display	LED
	OLED display
Number of LEDs	2 Piece(s)
Type of configuration	Software
	Teach-in
Operational controls	Membrane keyboard
Environmental data	
Ambient temperature, operation	-30 60 °C
	-40 70 °C

2/8

## **Technical data**

# Leuze

#### Certifications

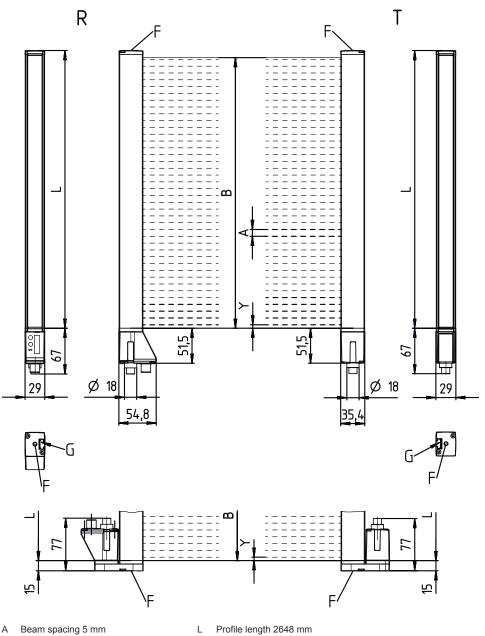
65
CSAUS
C 60947-5-2

#### Classification

Customs tariff number	90314990
eCl@ss 5.1.4	27270910
eCl@ss 8.0	27270910
eCl@ss 9.0	27270910
eCl@ss 10.0	27270910
eCl@ss 11.0	27270910
ETIM 5.0	EC002549
ETIM 6.0	EC002549
ETIM 7.0	EC002549
Cl@ss 10.0 Cl@ss 11.0 FIM 5.0 FIM 6.0	27270910 27270910 EC002549 EC002549

## **Dimensioned drawings**

All dimensions in millimeters



Beam spacing 5 mm А

Fastening groove

- В Measurement field length 2640 mm
- F M6 thread

G

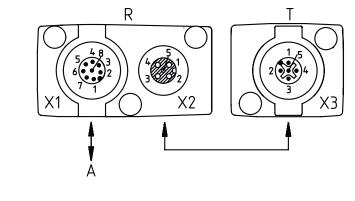
- Transmitter Т
- R Receiver
- 2.5 mm Υ



# Leuze

## **Dimensioned drawings**





A PWR / SW IN / OUT

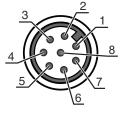
## **Electrical connection**

**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	103
7	104
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**

## Leuze Meaning

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

Pa	art no.	Designation	Article	Description
50				Operating range: 0.1 3.5 m Connection: Connector, M12, Rear side, 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: 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
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.

 ${\ensuremath{\,\textcircled{\tiny \ensuremath{\,\Downarrow}}}}$  The product may only be put into operation by competent persons.

	For UL applications:
A	<ul> <li>For UL applications, use is only permitted in Class 2 circuits in accordance with the NEC (National Electric Code).</li> <li>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)</li> </ul>

#### Accessories

#### 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 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: IO-Link, 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

#### Mounting technology - Mounting brackets

	Part no.	Designation	Article	Description
1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 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

Leuze

#### Accessories

# Leuze

## Mounting technology - Swivel mounts

	Part no.	Designation	Article	Description
ęr.	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
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.

## Note

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