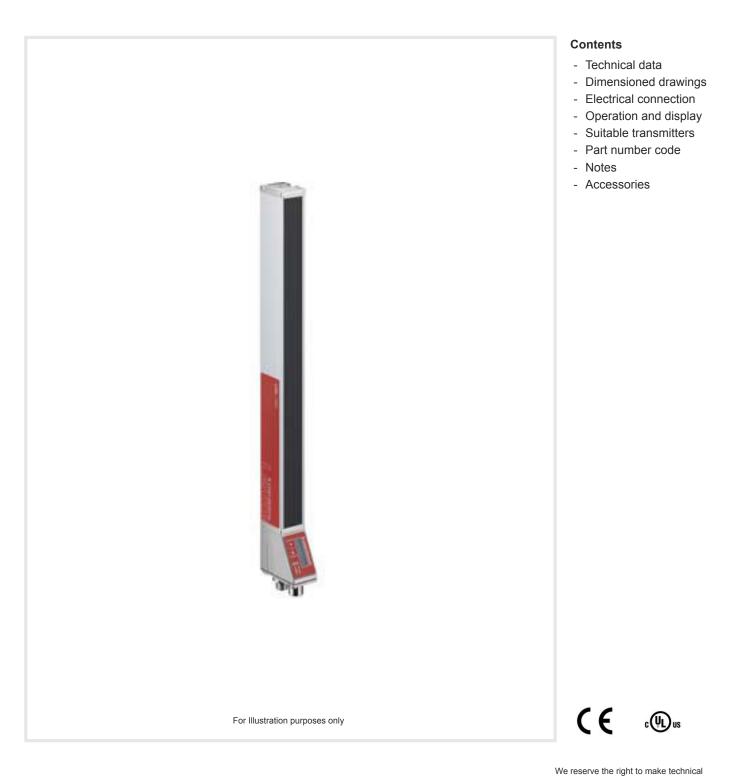


Technical data sheet Light curtain receiver Part no.: 50122955 CML720i-R05-880.A/PB-M12



 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

1/8

Technical data

Leuze

720
Throughbeam principle
Receiver
2x BT-NC sliding block
Object measurement
Crossed-beam scanning
Diagonal-beam scanning
Parallel-beam scanning
0.1 3.5 m
Guaranteed operating range 0.1 4.5 m
Typical operating range 880 mm
176 Piece(s) 5 mm
10 mm
Polarity reversal protection
Polarity reversal protection
Short circuit protected
Transient protection
18 30 V, DC
0 15 %, From U _B
0 215 mA, The specified values refer to the entire package consisting of trans- mitter and receiver.
100 mA
100 11/1
6.000 Ω
6,000 Ω 2 Piece(s)
2 Piece(s)
2 Piece(s) Inputs/outputs selectable
2 Piece(s) Inputs/outputs selectable DC
2 Piece(s) Inputs/outputs selectable
2 Piece(s) Inputs/outputs selectable DC Typ. U _B / 0 V DC
2 Piece(s) Inputs/outputs selectable DC Typ. U _B / 0 V
2 Piece(s) Inputs/outputs selectable DC Typ. $U_B / 0 V$ DC high: $\geq 6V$
2 Piece(s) Inputs/outputs selectable DC Typ. $U_B / 0 V$ DC high: $\geq 6V$
2 Piece(s) Inputs/outputs selectable DC Typ. $U_B / 0 V$ DC high: $\geq 6V$
2 Piece(s) Inputs/outputs selectable DC Typ. $U_B / 0 \vee$ DC high: $\geq 6 \vee$ low: $\leq 4 \vee$
2 Piece(s) Inputs/outputs selectable DC Typ. $U_B / 0 \vee$ DC high: $\geq 6 \vee$ Iow: $\leq 4 \vee$ 1 ms
2 Piece(s) Inputs/outputs selectable DC Typ. $U_B / 0 V$ DC high: $\geq 6V$ low: $\leq 4 V$ 1 ms 5.68 ms
2 Piece(s) Inputs/outputs selectable DC Typ. $U_B / 0 \vee$ DC high: $\geq 6 \vee$ Iow: $\leq 4 \vee$ 1 ms
2 Piece(s) Inputs/outputs selectable DC Typ. $U_B / 0 \vee$ DC high: $\geq 6 \vee$ low: $\leq 4 \vee$ 1 ms 5.68 ms
2 Piece(s) Inputs/outputs selectable DC Typ. $U_B / 0 \vee$ DC high: $\geq 6 \vee$ low: $\leq 4 \vee$ 1 ms 5.68 ms
2 Piece(s) Inputs/outputs selectable DC Typ. $U_B / 0 \vee$ DC high: $\geq 6 \vee$ low: $\leq 4 \vee$ 1 ms 5.68 ms 30 µs
2 Piece(s) Inputs/outputs selectable DC Typ. $U_B / 0 \vee$ DC high: $\geq 6 \vee$ low: $\leq 4 \vee$ 1 ms 5.68 ms 30 µs

Гуре	IO-Link
IO-Link	
Function	Configuration via software Service
Connection	
Number of connections	2 Piece(s)
Plug outlet	Axial
Connection 1 Function	Configuration interface
Function	Configuration interface
	Connection to transmitter
	Signal IN
	Signal OUT
Turne of compacting	Voltage supply
Type of connection	Connector
Thread size	M12
Type	Male
Material	Metal
No. of pins	8 -pin
Encoding	A-coded
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	
Design	Cubic
Dimension (W x H x L)	29 mm x 35.4 mm x 955 mm
lousing material	Metal
Metal housing	Aluminum
ens cover material	Plastic
Net weight	1,100 g
lousing color	Silver
Type of fastening	Groove mounting Via optional mounting device
Operation and display	via optional mounting dovide
Operation and display	
Гуре 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
Ambient temperature, storage	-40 70 °C

Technical data

Leuze

Certifications

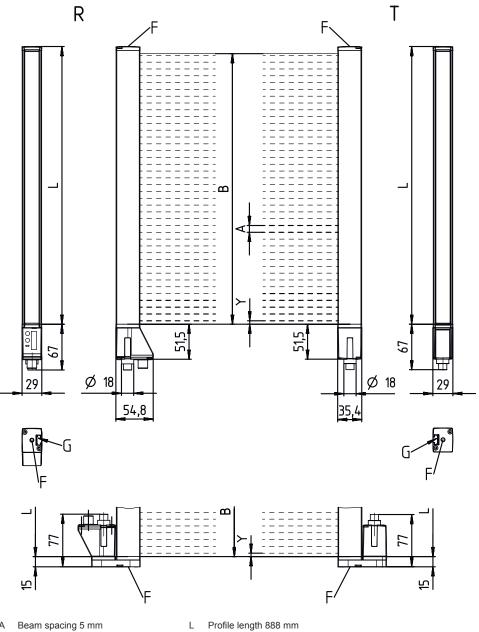
Degree of protection	IP 65
Protection class	III
Approvals	c UL US
Standards applied	IEC 60947-5-2

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 880 mm
- F M6 thread

G

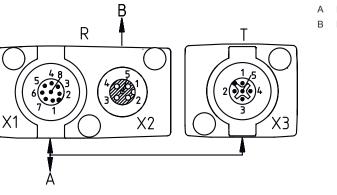
- Fastening groove
- Transmitter R Receiver
- Υ 2.5 mm

Т

Leuze

Dimensioned drawings





A PWR / SW IN / OUT B BUS IN / OUT

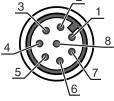
Electrical connection

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

Pin Pin assignment V+ 1 2 Tx-3 PB GND 4 Tx+ 5 FE/SHIELD

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
50119378	CML720i-T05-880.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. Only use 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 - 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

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.