

Technical data sheet Light curtain receiver Part no.: 50123450 CML720i-R05-880.A/D3-M12



 Leuze electronic GmbH + Co. KG

 The Sensor People
 In der Braike 1, 73277 Owen

Leuze electronic GmbH + Co. KG info@leuze.com • www.leuze.com In der Braike 1, 73277 Owen Phone: +49 7021 573-0 • Fax: +49 7021 573-199

Technical data

Leuze

Basic data	
Series	720
Operating principle	Throughbeam principle
Device type	Receiver
Contains	2x BT-NC sliding block
Application	Object measurement
Special version	
Special version	Crossed-beam scanning
	Diagonal-beam scanning
	Parallel-beam scanning
Optical data	
Operating range	Guaranteed operating range
Operating range	0.1 3.5 m
Operating range limit	Typical operating range
Operating range limit	0.1 4.5 m
Measurement field length	880 mm
Number of beams	176 Piece(s)
Beam spacing	5 mm
Measurement data	
Minimum object diameter	10 mm
Electrical data	
Protective circuit	Polarity reversal protection
	Short circuit protected
	Transient protection
Performance data	
Supply voltage U _B	18 30 V, DC
Residual ripple	0 15 %, From U _B
Open-circuit current	0 215 mA, The specified values refer to the entire package consisting of trans- mitter and receiver.
Inputs/outputs selectable	100
Output current, max.	100 mA
Input resistance	6,000 Ω
Number of inputs/outputs selectable	Inputs/outputs selectable
Type	DC
Voltage type, outputs Switching voltage, outputs	
Switching voltage, outputs	Typ. U _B / 0 V high: ≥6V
Cratching voltage, inputs	low: ≤4V
	····· - · ·
Input/output 1	
Activation/disable delay	1 ms
Timing	
-	5.68 ms
Cycle time Response time per beam	30 µs
	oo ba
Interface	
Туре	RS 485 Modbus
RS 485	
Function	Process

9	IO-Link
O-Link	0 1
Function	Configuration via software
	Service
nnection	
mber of connections	2 Piece(s)
g outlet	Axial
Downootion 4	
Connection 1	Configuration interface
	Connection to transmitter
	Signal IN
	Signal OUT
	Voltage supply
Type of connection	Connector
Thread size	M12
Гуре	Male
Material	Metal
No. of pins	8 -pin
Encoding	A-coded
Connection 2	
Jonnection 2	BUS IN
	BUS OUT
Type of connection	Connector
Thread size	M12
Гуре	Female
Naterial	Metal
No. of pins	5 -pin
Encoding	B-coded
chanical data	
ign	Cubic
nension (W x H x L)	29 mm x 35.4 mm x 955 mm
using material	Metal
tal housing	Aluminum
is cover material	Plastic
weight	1,100 g
using color	Silver
e of fastening	Groove mounting
	Via optional mounting device
eration and display	
e of display	LED
o or alopidy	OLED display
mber of LEDs	2 Piece(s)
e of configuration	Software
	Teach-in
erational controls	Membrane keyboard
	,
vironmental data	20. 00.00
bient temperature, operation	-30 60 °C

 Leuze electronic GmbH + Co. KG
 info@leuze.com • www.leuze.com
 We reserve the rig

 The Sensor People
 In der Braike 1, 73277 Owen
 Phone: +49 7021 573-0 • Fax: +49 7021 573-199
 eng • 2020-12-21

We reserve the right to make technical changes

Technical data

Leuze

Certifications

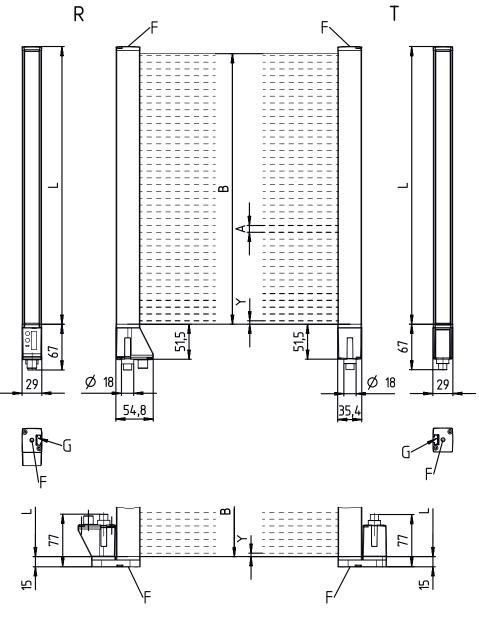
I
CSAUS
EC 60947-5-2

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

Dimensioned drawings

All dimensions in millimeters



A Beam spacing 5 mm

- B Measurement field length 880 mm
- F M6 thread

G

Fastening groove

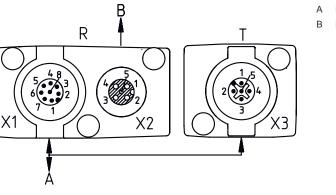
L Profile length 888 mm

- T Transmitter
- R Receiver
- Y 2.5 mm

Leuze

Dimensioned drawings





A PWR / SW IN / OUTB BUS IN / OUT

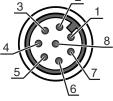
Electrical connection

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
Type Material	Female Metal

Electrical connection



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: 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
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 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 + 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

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.

Note

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