

Technical data sheet Light curtain receiver Part no.: 50119650 CML720i-R10-1280.A/CN-M12



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Technical data

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Series	720
Operating principle	Throughbeam principle
Device type	Receiver
Contains	2x BT-NC sliding block
pplication	Object measurement
nooial varaian	
pecial version	
pecial version	Crossed-beam scanning
	Diagonal-beam scanning
	Parallel-beam scanning
ptical data	
perating range	Guaranteed operating range
perating range	0.3 7 m
perating range limit	Typical operating range
perating range limit	0.2 9 m
leasurement field length	1,280 mm
umber of beams	128 Piece(s)
eam spacing	10 mm
leasurement data	
	20 mm
linimum object diameter	20 11111
lectrical data	
rotective 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	0 270 mA, The specified values refer to the entire package consisting of trans- mitter and receiver.
Innuto/outnuto coloctable	
Inputs/outputs selectable Output current, max.	100 mA
Input resistance	6,000 Ω
Number of inputs/outputs selectable	
Type	Inputs/outputs selectable
Voltage type, outputs	DC
Switching voltage, outputs	Typ. U _B / 0 V
Voltage type, inputs	DC
Switching voltage, inputs	high: ≥6V
	low: ≤4V
Input/output 1	
Activation/disable delay	1 ms
iming	
Readiness delay	450 ms
Cycle time	4.24 ms
Response time per beam	30 µs
nterface	
-	CANopen
уре	Oranopon
-	or nopen
ype CANopen Function	Process

S	Service interface				
Ту	уре	IO-Link			
	IO-Link				
	Function	Configuration via software			
		Service			
С	onnection				
N	umber of connections	2 Piece(s)			
PI	ug outlet	Axial			
	Connection 1 Function	Configuration interface			
	Function	Configuration interface Connection to transmitter			
		Signal IN			
		Signal OUT			
		Voltage supply			
	Type of connection	Connector			
	Thread size	M12			
	Type	Male			
	Material	Metal			
	No. of pins	8 -pin			
	Encoding	A-coded			
	Ū.				
	Connection 2				
	Function	BUS IN			
		BUS OUT			
	Type of connection	Connector			
	Thread size	M12			
	Туре	Female			
	Material	Metal			
	No. of pins	5 -pin			
	Encoding	A-coded			
Μ	echanical data				
D	esign	Cubic			
Di	imension (W x H x L)	29 mm x 35.4 mm x 1,355 mm			
	ousing material	Metal			
	etal housing	Aluminum			
	ens cover material	Plastic			
	et weight	1,450 g Silver			
	ousing color /pe of fastening	Groove mounting			
(י	he of lastening	Via optional mounting device			
		via optional mounting device			
0	peration and display				
Ту	vpe of display	LED			
		OLED display			
N	umber of LEDs	2 Piece(s)			
Ту	pe of configuration	Software			
		Teach-in			
0	perational controls	Membrane keyboard			
E	nvironmental data				
A	mbient temperature, operation	-30 60 °C			
	mbient temperature, storage	-40 70 °C			

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 We reserve the rig

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Certifications

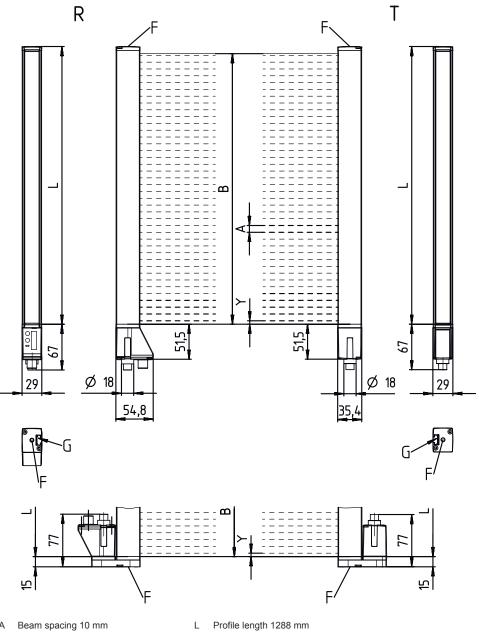
SAUS
60947-5-2

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 10 mm А
- В Measurement field length 1280 mm
- F M6 thread G Fastening groove
- R Receiver

Т

5 mm Υ

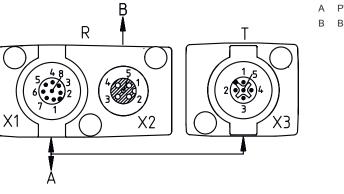
Transmitter



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Dimensioned drawings





A PWR / SW IN / OUTB BUS IN / OUT

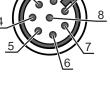
Electrical connection

Connection 1

Function	Configuration interface
Function	, C
	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	A-coded

Electrical connection

Pin	Pin assignment	2
1	FE/SHIELD	1
2	n.c.	
3	CAN GND	
4	CAN H	
5	CAN L	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
50119412	CML720i-T10- 1280.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

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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 - 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

Accessories

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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
	50118185	K-YCN M12A-M12A- S-PUR	Interconnection cable	Suitable for interface: CANopen Connection 1: Connector, M12, Axial, Male, A-coded, 5 -pin Connection 2: Connector, M12, Axial, Female, A-coded, 5 -pin Connection 3: Connector, M12, Axial, Male, A-coded, 5 -pin Shielded: Yes Cable length fork 1: 250 mm Cable length fork 2: 350 mm Sheathing material: PUR

Connection technology - Terminating resistors

 Part no.	Designation	Article	Description
50040099	TS 01-5-SA	Terminator plug	Suitable for: DeviceNet, CANopen Connection 1: Connector, M12, Axial, Male, A-coded, 5 -pin Function: Bus termination

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

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.

Accessories

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 Part no.	Designation	Article	Description
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
0	to A list with all available accessories can be found on the Leuze website in the Download tab of the article detailed page.

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 We reserve the right to make technical changes

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