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Part no.: 50123636 CML720i-R20-1110.R/D3-M12 Light curtain receiver



Figure can vary

Contents

- Technical data
- · Dimensioned drawings
- Electrical connection
- · Operation and display
- Suitable transmitters
- Part number code
- Notes
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Part no.: 50123636 – CML720i-R20-1110.R/D3-M12 – Light curtain receiver

Technical 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		
0.3 7 m		
Typical operating range		
0.2 9 m		
1,110 mm		
56 Piece(s)		
20 mm		
20 11111		
30 mm		
Polarity reversal protection		
Short circuit protected Transient protection		
18 30 V , DC		
0 15 % , From U _B		
0 270 mA , The specified values refer to the entire package consisting of transmitter and receiver.		
100 mA		
6,000 Ω		
2 Piece(s)		
Inputs/outputs selectable		
DC		
Тур. U _B / 0 V		
high: ≥6V Iow: ≤4V		
1 ms		
2.08 ms		

Part no.: 50123636 – CML720i-R20-1110.R/D3-M12 – Light curtain receiver

Type RS 485 Function Process Service interface Process Type IO-Link IOLInk Configuration via software Service IOLInk Configuration via software Service Connection 2 Process Number of connections 2 Process Pug outlet Rear side Connection 1 Configuration interface Connection to transmitter Signal OUT Voltage supply Type of connection Configuration interface No. of pins 8-pin Encoding A coded Connection 2 Function Function BUS IN BUS OUT Type of connection Connector Thread size M12 Type Material No. of pins 8-pin Encoding A coded Connection 2 Function Function BUS NT Type of connection Connector Thread size M12 Type Fernale Material Metai N	Interface	
R8:485 Function Process Service interface Type IO-Link IO-Link Configuration via software Service IO-Link Function Configuration via software Service Connection 2 Piece(s) Plug outlet Rear side Connection 1 Configuration interface Connection 1 Function Configuration interface Signal NL Signal N		PS 485
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Type of fastening Groove mounting Via optional mounting device Operation and display Type of display LED		
Operation and display LED		
Type of display LED	··· •	Via optional mounting device
Type of display LED		
LED OLED display		
		OLED display
	Number of LEDs	
Type of configuration Software Teach-in	Type of configuration	
Operational controls Membrane keyboard	Operational controls	Membrane keyboard

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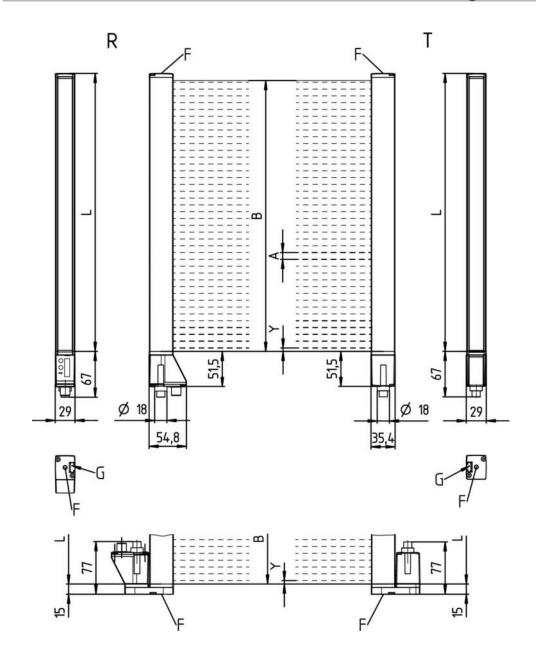
Environmental data		
Ambient temperature, operation	-30 60 °C	
Ambient temperature, storage	-40 70 °C	
Certifications		
Degree of protection	IP 65	
Protection class	III	
Certifications c CSA US		
Standards applied IEC 60947-5-2		

Classification	
Customs tariff number	90314990
eCl@ss 8.0	27270910
eCl@ss 9.0	27270910
ETIM 5.0	EC002549
ETIM 6.0	EC002549

Dimensioned drawings

All dimensions in millimeters

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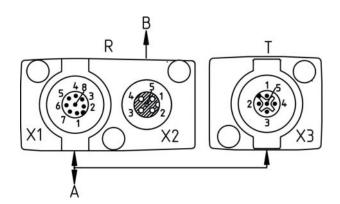


A Beam spacing 20 mm B Measurement field length 1110 mm

F M6 thread

- G Fastening groove
- L Profile length 1128 mm
- T Transmitter
- R Receiver
- Y 5 mm

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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

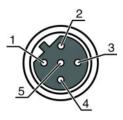
Pin	Pin assignment
1	V+
2	I/O 1
3	GND
4	IO-Link
5	I/O 2
6	RS 485 Tx+
7	RS 485 Tx+
8	FE/SHIELD



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	

Part no.: 50123636 – CML720i-R20-1110.R/D3-M12 – Light curtain receiver

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



Operation and display

LEDs

LED	Display	Meaning
1	Green, continuous light	Operational readiness
	Green, flashing	Teach / error
		Measurement frequency display
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
	CML720i- T20-1110.R-M12	Light curtain transmitter	Operating range: 0.3 6 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
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

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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 with all available device types can be found on the Leuze electronic 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

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Connection technology - Y distribution cables

	Part no.	Designation	Article	Description
		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
	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: Connector, M12, Axial, Female, B-coded, 5 -pin Connection 3: Connector, M12, Axial, Male, B-coded, 5 -pin Shielded: Yes Cable length fork 1: 5,000 mm Cable length fork 2: 250 mm Sheathing material: PUR

Mounting technology - Mounting brackets

Part no.	Designation	Article	Description
50142900	BT 700M.5-2SET	Mounting device set	Contains: 2x mounting brackets, 1 teach template, 4 M6 x 10 screws 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
RR.	429046	BT-2R1	set	Contains: 2x BT-R swivel mount, 1 cylinder for mounting on the light curtain 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.
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 electronic website in the Download tab of the article detailed page