SMART SENSOR BUSINESS

Leuze electronic

the sensor people



Part no.: 50119733 CML720i-R05-1520.A/L-M12 Light curtain receiver



Figure can vary

Contents

- Technical data
- Dimensioned drawings
- Electrical connection
- · Operation and display
- Suitable transmitters
- Part number code
- Notes
- Accessories

Part no.: 50119733 – CML720i-R05-1520.A/L-M12 – Light curtain receiver

Technical data

720
Throughbeam principle
Receiver
2x BT-NC sliding block
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
1,520 mm
304 Piece(s)
5 mm
10 mm
Polarity reversal protection Short circuit protected Transient protection
18 30 V , DC
0 15 % , From U _B
0 350 mA , The specified values refer to the entire package con- sisting of transmitter and receiver.
100 mA
6,000 Ω
4 Piece(s)
Inputs/outputs selectable
DC
Тур. U _В / 0 V
DC
high: ≥6V low: ≤4V
0 1 ms
0 1 ms
400 ms

Leuze electronic GmbH + Co. KG, In der Braike 1, 73277 Owen Phone: +49 7021 573-0, Fax: +49 7021 573-199 info@leuze.com • www.leuze.com We reserve the right to make technical changes • eng 2019-12-07 2 / 9

Part no.: 50119733 – CML720i-R05-1520.A/L-M12 – Light curtain receiver

Interface		
Туре	IO-Link	
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	Axial	
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	
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	
Mechanical data		
Design	Cubic	
Dimension (W x H x L)	29 mm x 35.4 mm x 1,595 mm	
Housing material	Metal , Aluminum	
Lens cover material	Plastic	
Net weight	1,650 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)	

Part no.: 50119733 – CML720i-R05-1520.A/L-M12 – Light curtain receiver

Type of configuration	Software			
	Teach-in			
Operational controls	Membrane keyboard	Membrane keyboard		
Environmental data				
Ambient temperature, operation	-30 60 °C			
Ambient temperature, storage	-40 70 °C			
Certifications				
Degree of protection	IP 65	IP 65		
Protection class	III	111		
Certifications	c CSA US			
Standards applied	IEC 60947-5-2	IEC 60947-5-2		
Classification				
Customs tariff number	90314990			
eCl@ss 8.0	27270910			
eCl@ss 9.0	27270910			
ETIM 5.0	EC002549	EC002549		

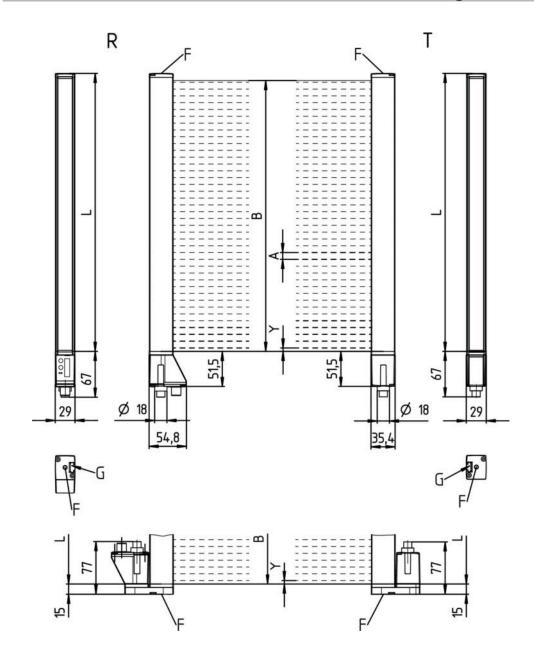
EC002549

Dimensioned drawings

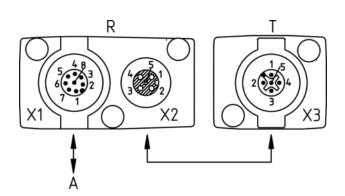
All dimensions in millimeters

ETIM 6.0

Part no.: 50119733 – CML720i-R05-1520.A/L-M12 – Light curtain receiver



- A Beam spacing 5 mm B Measurement field length 1520 mm
- F M6 thread
- G Fastening groove
- L Profile length 1528 mm
- T Transmitter
- R Receiver
- Y 2.5 mm



Leuze electronic GmbH + Co. KG, In der Braike 1, 73277 Owen Phone: +49 7021 573-0, Fax: +49 7021 573-199

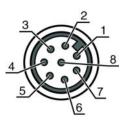
Part no.: 50119733 – CML720i-R05-1520.A/L-M12 – Light curtain receiver

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	101
3	GND
4	IO-Link
5	102
6	103
7	IO4
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-



Part no.: 50119733 – CML720i-R05-1520.A/L-M12 – Light curtain receiver

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
50119386	CML720i- T05-1520.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				
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				
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.

Part no.: 50119733 – CML720i-R05-1520.A/L-M12 – Light curtain receiver

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
50		KD S-M12-8A- P1-050		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
	KDS DN-M12-5A- M12-5A-P3-050	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
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

Part no.: 50119733 – CML720i-R05-1520.A/L-M12 – Light curtain receiver

Mounting technology - Swivel mounts

	Part no.	Designation	Article	Description
RR.	429046	BT-2R1	Mounting bracket 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

Part no.	Designation	Article	Description
50121098	SET MD12-US2-IL1.1 + Zub.	Ŭ	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 electronic website in the Download tab of the article detailed page.