SMART
SENSOR
BUSINESS

△ **Leuze electronic**

the *sensor* people

Part no.: 50119398
CML720i-T05-2480.A-M12
Light curtain transmitter

CE

CSA
c US

Figure can vary

Contents

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

Part no.: 50119398 – CML720i-T05-2480.A-M12 – Light curtain transmitter

Technical data

Basic data	
Series	720
Operating principle	Throughbeam principle
Device type	Transmitter
Contains	2x BT-NC sliding block
Application	Object measurement

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	2,480 mm
Number of beams	496 Piece(s)
Beam spacing	5 mm
Light source	LED , Infrared
LED light wavelength	940 nm

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 ... 435 mA , The specified values refer to the entire package consisting of transmitter and receiver.

Timing	
Readiness delay	450 ms
Cycle time	15.28 ms

Connection		
Number of connections		1 Piece(s)
Plug outlet		Axial
Connection 1		
Function		Connection to receiver Sync-input Voltage supply
Type of connection		Connector
Thread size		M12
Type		Male
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 2,555 mm
Housing material	Metal , Aluminum
Lens cover material	Plastic
Net weight	2,500 g
Housing color	Silver
Type of fastening	Groove mounting Via optional mounting device

Operation and display

Type of display	LED
Number of LEDs	1 Piece(s)

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

Part no.: 50119398 – CML720i-T05-2480.A-M12 – Light curtain transmitter

A Beam spacing 5 mm
B Measurement field length 2480 mm
F M6 thread
G Fastening groove
L Profile length 2488 mm
T Transmitter
R Receiver
Y 2.5 mm

info@leuze.com • www.leuze.com
We reserve the right to make technical changes • eng 2019-12-07
4 / 8

Part no.: 50119398 – CML720i-T05-2480.A-M12 – Light curtain transmitter

Electrical connection

Connection 1	
Function	Connection to receiver Sync-input Voltage supply
Type of connection	Connector
Thread size	M12
Type	Male
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-

Operation and display

LEDs

LED	Display	Meaning
1	Green, continuous light	Continuous mode
	Off	No communication with the receiver / waiting for trigger
	green, flashing in sync with the measurement	Measurement frequency display

Suitable receivers

	Part no.	Designation	Article	Description
	50119636	CML720i-R05-2480.A/CN-M12	Light curtain receiver	Operating range: 0.1 ... 3.5 m Interface: CANopen Connection: Connector, M12, Axial, 8 -pin
	50119826	CML720i-R05-2480.A/CV-M12	Light curtain receiver	Operating range: 0.1 ... 3.5 m Analog outputs: 2 Piece(s), Voltage, Current Connection: Connector, M12, Axial, 8 -pin
	50123470	CML720i-R05-2480.A/D3-M12	Light curtain receiver	Operating range: 0.1 ... 3.5 m Interface: RS 485 Connection: Connector, M12, Axial, 8 -pin

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
5 / 8

Part no.: 50119398 – CML720i-T05-2480.A-M12 – Light curtain transmitter

	Part no.	Designation	Article	Description
	50119745	CML720i-R05-2480.A/L-M12	Light curtain receiver	Operating range: 0.1 ... 3.5 m Interface: IO-Link Connection: Connector, M12, Axial, 8 -pin
	50122918	CML720i-R05-2480.A/PB-M12	Light curtain receiver	Operating range: 0.1 ... 3.5 m Interface: PROFIBUS DP Connection: Connector, M12, Axial, 8 -pin
	50131882	CML720i-R05-2480.A/PN-M12	Light curtain receiver	Operating range: 0.1 ... 3.5 m Interface: PROFINET Connection: Connector, M12, Axial, 8 -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
B	**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.

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
6 / 8

Part no.: 50119398 – CML720i-T05-2480.A-M12 – Light curtain transmitter

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 - 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

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
	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

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
7 / 8

	Part no.	Designation	Article	Description
	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. 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.

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
8 / 8