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Part no.: 50119407
CML720i-T10-480.A-M12
Light curtain transmitter

CE C CSA US

Figure can vary

Contents

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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	0.3 ... 7 m
Operating range limit	Typical operating range
Operating range limit	0.2 ... 9 m
Measurement field length	480 mm
Number of beams	48 Piece(s)
Beam spacing	10 mm
Light source	LED, Infrared
LED light wavelength	940 nm

Measurement data	
Minimum object diameter	20 mm

Electrical data		
Protective circuit		Short circuit protected Polarity reversal protection Transient protection
	Performance data	
	Supply voltage U_B	18 ... 30 V, DC
	Residual ripple	0 ... 15 %, From U_B
	Open-circuit current	0 ... 165 mA, The specified values refer to the entire package consisting of transmitter and receiver.

Timing	
Readiness delay	450 ms
Cycle time	1.84 ms

Connection		
Number of connections		1 Piece(s)
Plug outlet		Axial
	Connection 1	
	Type of connection	Connector
	Function	Sync-input Connection to receiver Voltage supply
	Thread size	M12
	Type	Male
	Material	Metal
	No. of pins	5 -pin
	Encoding	A-coded

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Mechanical data	
Design	Cubic
Dimension (W x H x L)	29 mm x 35.4 mm x 555 mm
Housing material	Metal, Aluminum
Lens cover material	Plastic
Net weight	650 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	
eCl@ss 8.0	27270910
eCl@ss 9.0	27270910
ETIM 5.0	EC002549

Suitable receivers

	Part no.	Designation	Article	Description
	50119645	CML720i-R10-480.A/CN-M12	Light curtain receiver	Operating range: 0.3 ... 7 m Interface: CANopen Connection: Connector, M12, Axial, 8 -pin
	50119835	CML720i-R10-480.A/CV-M12	Light curtain receiver	Operating range: 0.3 ... 7 m Analog outputs: 2 Piece(s), Voltage, Current Connection: Connector, M12, Axial, 8 -pin
	50123480	CML720i-R10-480.A/D3-M12	Light curtain receiver	Operating range: 0.3 ... 7 m Interface: RS 485 Connection: Connector, M12, Axial, 8 -pin

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|	Part no.	Designation	Article	Description
	50119754	CML720i-R10-480.A/L-M12	Light curtain receiver	Operating range: 0.3 ... 7 m Interface: IO-Link Connection: Connector, M12, Axial, 8 -pin
	50122987	CML720i-R10-480.A/PB-M12	Light curtain receiver	Operating range: 0.3 ... 7 m Interface: PROFIBUS DP Connection: Connector, M12, Axial, 8 -pin
	50131942	CML720i-R10-480.A/PN-M12	Light curtain receiver	Operating range: 0.3 ... 7 m Interface: PROFINET Connection: Connector, M12, Axial, 8 -pin

Dimensioned drawings

All dimensions in millimeters

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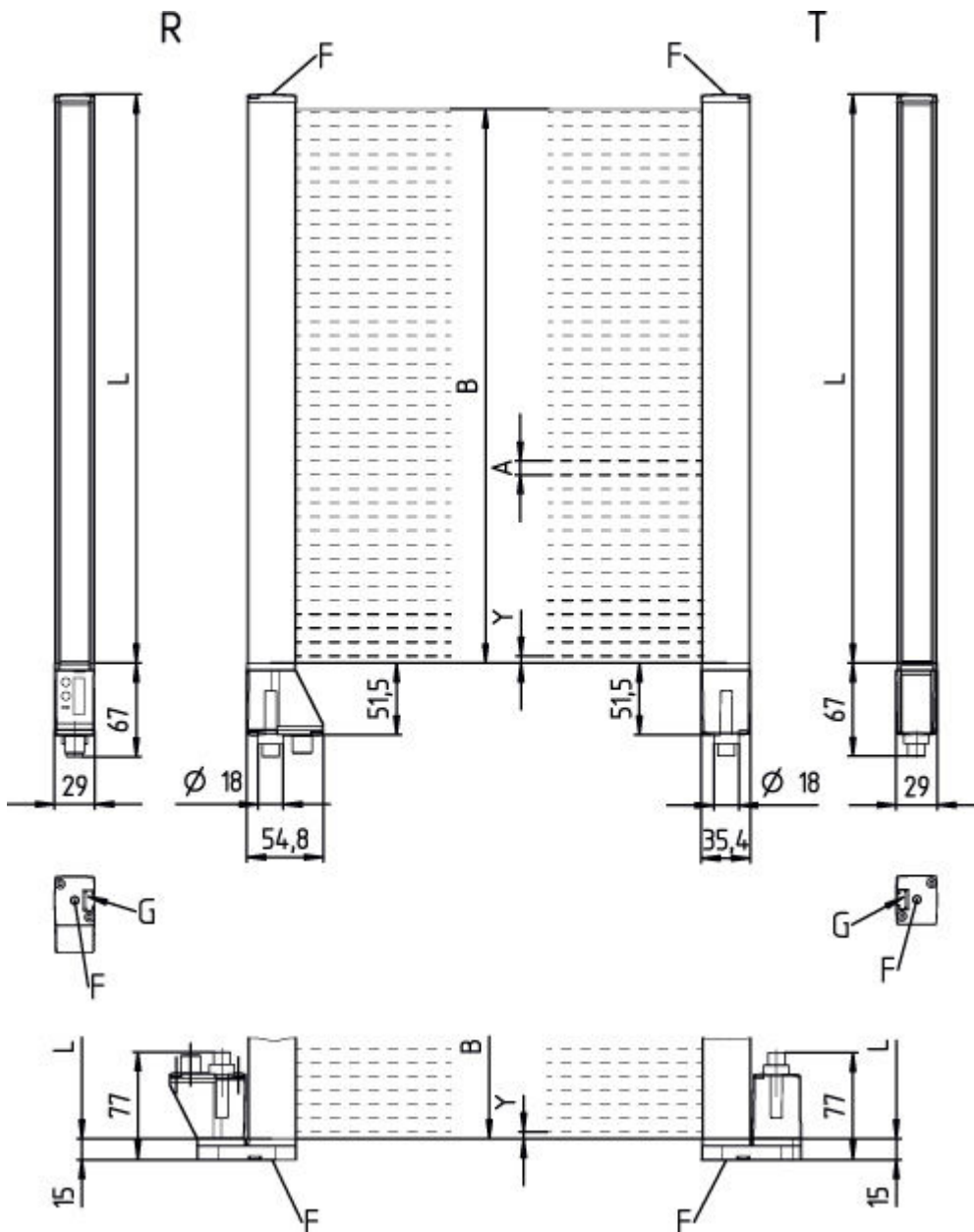
A   Beam spacing 10 mm
B   Measurement field length 480 mm
F   M6 thread
G   Fastening groove
L   Profile length 488 mm
T   Transmitter
R   Receiver
Y   5 mm

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Electrical connection

Connection 1	
Type of connection	Connector
Function	Sync-input Connection to receiver Voltage supply
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-
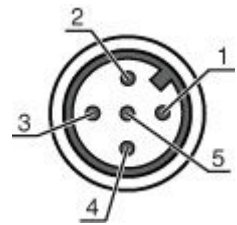
Operation and display

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

Part number code

Part designation: **CML7XXi-YZZ-AAAA.B/CC-DD-EEE-FF**

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
CC	**Interface:** L: IO-Link CN: CANopen PB: PROFIBUS PN: PROFINET CV: Analog current and voltage output D3: RS 485 Modbus

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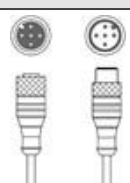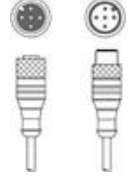
	DD	**Special equipment:** PS: Power Setting
	EEE	**Electrical connection:** M12: M12 connector
	FF	**EX: Explosion protection:**

Accessories

Connection technology - Interconnection cables

	Part no.	Designation	Article	Description
	50114691	KB DN/CAN-1000 SBA	Interconnection cable	Suitable for interface: 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: 1,000 mm Sheathing material: PUR
	50122338	KB DN/CAN-10000 SBA	Interconnection cable	Suitable for interface: 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: 10,000 mm Sheathing material: PUR
	50114694	KB DN/CAN-2000 SBA	Interconnection cable	Suitable for interface: 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: 2,000 mm Sheathing material: PUR
	50122339	KB DN/CAN-20000 SBA	Interconnection cable	Suitable for interface: CANopen, DeviceNet Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin Connection 2: Connector, M12, Axial, Male, A-coded, 5 -pin Shielded: Yes Cable length: 20,000 mm Sheathing material: PUR
	50114698	KB DN/CAN-5000 SBA	Interconnection cable	Suitable for interface: 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
	50129779	KDS DN-M12-5A-M12-5A-P3-010	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: 1,000 mm Sheathing material: PUR
	50129780	KDS DN-M12-5A-M12-5A-P3-020	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: 2,000 mm Sheathing material: PUR
	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

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	Part no.	Designation	Article	Description
	50129782	KDS DN-M12-5A-M12-5A-P3-100	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: 10,000 mm Sheathing material: PUR
	50129783	KDS DN-M12-5A-M12-5A-P3-200	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: 20,000 mm Sheathing material: PUR

Mounting technology - Mounting brackets

	Part no.	Designation	Article	Description
	429056	BT-2L	Mounting bracket set	Design of mounting device: Angle, L-shape Fastening, at system: Through-hole mounting Mounting bracket, at device: Screw type Material: Metal
	429057	BT-2Z	Mounting bracket set	Design of mounting device: Angle, Z-shape Fastening, at system: Through-hole mounting Mounting bracket, at device: Screw type Material: Metal

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

Mounting technology - Other

	Part no.	Designation	Article	Description
	425740	BT-10NC60	Sliding block set	Contains: 10x BT-NC sliding block Bore hole 1: Ø 4.7 mm Bore hole 2: M6 Design of mounting device: Sliding block Fastening, at system: Mounting thread Mounting bracket, at device: Groove mounting Material: Metal
	425741	BT-10NC64	Sliding block set	Contains: 10x BT-NC-M4-M6 sliding block Bore hole 1: M4 Bore hole 2: M6 Design of mounting device: Sliding block Fastening, at system: Mounting thread Mounting bracket, at device: Groove mounting Material: Metal
	425742	BT-10NC65	Sliding block set	Contains: 10x BT-NC-M5-M6 sliding block Bore hole 1: M5 Bore hole 2: M6 Design of mounting device: Sliding block Fastening, at system: Mounting thread Mounting bracket, at device: Groove mounting Material: Metal

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	Part no.	Designation	Article	Description
	424417	BT-2P40	Mounting bracket set	Contains: 2x BT-P40 clamp bracket Design of mounting device: Mounting clamp Fastening, at system: Groove mounting Mounting bracket, at device: Groove mounting Type of mounting device: Clampable Material: Metal
	424422	BT-2SB10	Mounting bracket set	Contains: 2x BT-SB10 Design of mounting device: Mounting clamp Fastening, at system: Through-hole mounting Mounting bracket, at device: Clampable, On the lateral C-groove Type of mounting device: Swiveling Swivel range: -8 ... 8 ° Material: Metal
	424423	BT-2SB10-S	Mounting bracket set	Contains: 2x BT-SB10-S Design of mounting device: Mounting clamp Fastening, at system: Through-hole mounting Mounting bracket, at device: Clampable, On the lateral C-groove Swivel range: -8 ... 8 ° Material: Metal Shock absorber: Yes
	429058	BT-2SSD	Mounting bracket set	Fastening, at system: Through-hole mounting Mounting bracket, at device: Groove mounting, Clampable, Screw type Type of mounting device: Swiveling Material: Metal
	429049	BT-2SSD-270	Mounting bracket set	Fastening, at system: Through-hole mounting Mounting bracket, at device: Screw type, Clampable, Groove mounting Type of mounting device: Swiveling Material: Metal
	429059	BT-4SSD	Mounting bracket set	Contains: 4x Fastening, at system: Through-hole mounting Mounting bracket, at device: Groove mounting, Clampable, Screw type Type of mounting device: Swiveling Material: Metal

	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

Device columns

	Part no.	Designation	Article	Description
	549881	UDC-1000-S2-R	Device column	Dimensions: 160 mm x 1,060 mm x 149 mm Column height without foot: 1,000 mm Functions: Adjustable, 3 directions, Mounting and protection of light curtains and multiple light beam devices
	549882	UDC-1300-S2-R	Device column	Dimensions: 160 mm x 1,360 mm x 149 mm Column height without foot: 1,300 mm Functions: Adjustable, 3 directions, Mounting and protection of light curtains and multiple light beam devices

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		Part no.	Designation	Article	Description
		549883	UDC-1600-S2-R	Device column	Dimensions: 160 mm x 1,660 mm x 149 mm Column height without foot: 1,600 mm Functions: Adjustable, 3 directions, Mounting and protection of light curtains and multiple light beam devices
		549884	UDC-1900-S2-R	Device column	Dimensions: 160 mm x 1,960 mm x 149 mm Column height without foot: 1,900 mm Functions: Adjustable, 3 directions, Mounting and protection of light curtains and multiple light beam devices
		549885	UDC-2500-S2-R	Device column	Dimensions: 160 mm x 2,560 mm x 149 mm Column height without foot: 2,500 mm Functions: Mounting and protection of light curtains and multiple light beam devices, Adjustable, 3 directions
		549886	UDC-3100-S2-R	Device column	Dimensions: 160 mm x 3,160 mm x 149 mm Column height without foot: 3,100 mm Functions: Mounting and protection of light curtains and multiple light beam devices, Adjustable, 3 directions

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)

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