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Figure can vary

Part no.: 50126389
CML720i-T10-140.A-M12-EX
Light curtain transmitter

Contents

- Technical data
- Suitable receivers
- Dimensioned drawings
- Electrical connection
- Operation and display
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Leuze electronic GmbH + Co. KG, In der Braike 1, D-73277 Owen
Phone: +49 7021 573-0, Telefax +49 7021 573-199

info@leuze.de • www.leuze.com

Part no.: 50126389 – CML720i-T10-140.A-M12-EX – 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	0.3 ... 6 m
Operating range limit	Typical operating range
Operating range limit	0.2 ... 9 m
Measurement field length	140 mm
Number of beams	140 Piece(s)
Beam spacing	10 mm
Light source	LED, Infrared
LED light wavelength	940 nm

Measurement data	
Minimum object diameter	20 mm

Timing	
Readiness delay	450 ms
Cycle time	1 ms

Electrical data	
Protective circuit	Transient protection, Short circuit protected, Polarity reversal protection

Performance data	
Supply voltage	18 ... 30 V, DC
Residual ripple	0 ... 15 %, From U_B
Open-circuit current	0 ... 135 mA, The specified values refer to the entire package consisting of transmitter and receiver.

Connection	
Number of connections	1 Piece(s)
Plug outlet	Axial

Connection 1	
Type of connection	Connector
Function	Connection to receiver, Voltage supply, Sync-input
Thread size	M12
Type	Male
Material	Metal
No. of pins	5 -pin
Encoding	A-coded

Mechanical data	
Design	Cubic

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Dimension (W x H x L)	30.7 mm x 40.3 mm x 173 mm
Housing material	Metal, Aluminum
Lens cover material	Plastic
Housing color	Silver
Type of fastening	Via optional mounting device, Groove mounting

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

Ex specification	
Ex-zone	22, 2
Ex device group	II

Certifications	
Degree of protection	IP 65
Protection class	III
Standards applied	IEC 60947-5-2

Special design	
Special design	Ex-protected, Parallel-beam scanning, Diagonal-beam scanning, Crossed-beam scanning

Classification	
eCl@ss 8.0	27270910
eCl@ss 9.0	27270910
ETIM 5.0	EC002549

Suitable receivers

	Part no.	Designation	Article	Description
	50126358	CML720i-R10-140.A/CN-M12-EX	Light curtain receiver	Operating range: 0.3 ... 7 m Interface: CANopen, IO-Link Connection: Connector, M12, Axial, 8 -pin

Dimensioned drawings

All dimensions in millimeters

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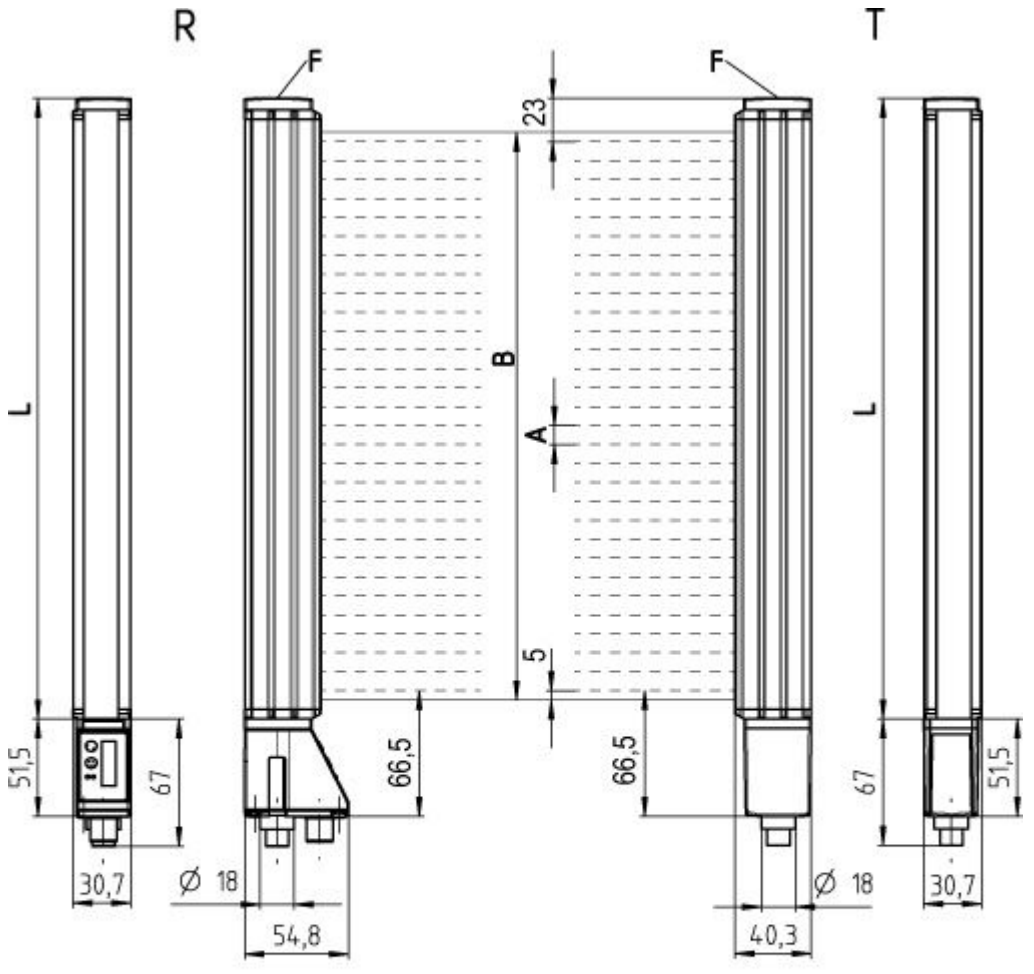
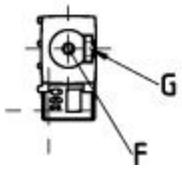
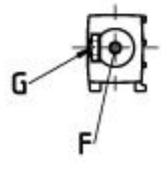
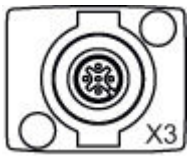






A Beam spacing 10 mm
B Measurement field length 140 mm
F M6 thread
G Fastening groove
L Profile length 168 mm
T Transmitter
R Receiver

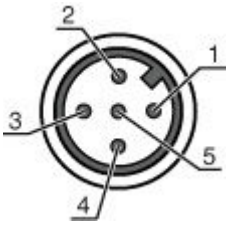


A PWR / SW IN/OUT
B BUS IN / OUT

Electrical connection

Connection 1	
Type of connection	Connector
Function	Connection to receiver, Voltage supply, Sync-input
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-



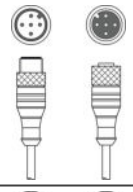
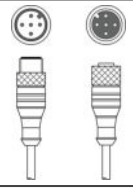
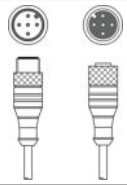
Operation and display

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

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

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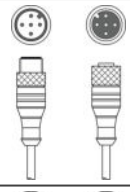
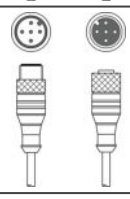
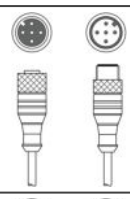
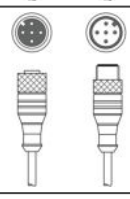
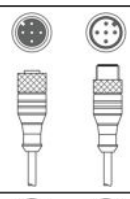
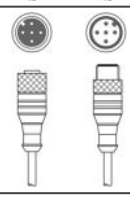
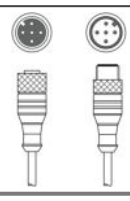
	Part no.	Designation	Article	Description
	50122339	KB DN/ CAN-20000 SBA	Interconnection cable	Suitable for interface: CANopen, DeviceNet Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin Connection 2: Connector, M12, Axial, Male, A-coded, 5 -pin Shielded: Yes Cable length: 20,000 mm Sheathing 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
	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 Mounting bracket, 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 Mounting bracket, at system: Through-hole mounting Mounting bracket, at device: Screw type Material: Metal

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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 Mounting bracket, 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 Mounting bracket, 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 Mounting bracket, 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 Mounting bracket, at system: Mounting thread Mounting bracket, at device: Groove mounting Material: Metal
	424417	BT-2P40	Mounting bracket set	Design of mounting device: Mounting clamp Mounting bracket, 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 Mounting bracket, at system: Through-hole mounting Mounting bracket, at device: Clampable 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 Mounting bracket, at system: Through-hole mounting Mounting bracket, at device: Clampable Swivel range: -8 ... 8 ° Material: Metal Shock absorber: Yes
	429058	BT-2SSD	Mounting bracket set	Mounting bracket, 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	Mounting bracket, at system: Through-hole mounting Mounting bracket, at device: Screw type, Clampable, Groove mounting Type of mounting device: Swiveling Material: Metal

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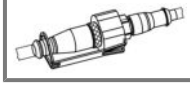
	Part no.	Designation	Article	Description
	429059	BT-4SSD	Mounting bracket set	Contains: 4x Mounting bracket, at system: Through-hole mounting Mounting bracket, at device: Groove mounting, Clampable, Screw type Type of mounting device: Swiveling Material: Metal

	Part no.	Designation	Article	Description
	50121098	SET MD12-US2-IL1.1 + Zub.	Diagnostics set	Connection: Connector, M12, 5 -pin Functions: Configuration and test device

General

	Part no.	Designation	Article	Description
	50109217	K-V M12-Ex	Safety locking device	Housing material: Plastic, PA

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)