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Part no.: 50119380
CML720i-T05-1040.A-M12
Light curtain transmitter



Contents

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



Part no.: 50119380 – CML720i-T05-1040.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	1,040 mm
Number of beams	208 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 Transient protection Short circuit protected
Performance data	
Supply voltage	18 ... 30 V, DC
Residual ripple	0 ... 15 %, From U_B
Open-circuit current	0 ... 270 mA, The specified values refer to the entire package consisting of transmitter and receiver.
Timing	
Readiness delay	450 ms
Cycle time	6.64 ms
Connection	
Number of connections	1 Piece(s)
Plug outlet	Axial
Connection 1	
Type of connection	Connector
Function	Voltage supply Sync-input Connection to receiver
Thread size	M12
Type	Male
Material	Metal
No. of pins	5 -pin
Encoding	A-coded




Part no.: 50119380 – CML720i-T05-1040.A-M12 – Light curtain transmitter

Mechanical data	
Design	Cubic
Dimension (W x H x L)	29 mm x 35.4 mm x 1,115 mm
Housing material	Metal, Aluminum
Lens cover material	Plastic
Net weight	1,200 g
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
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

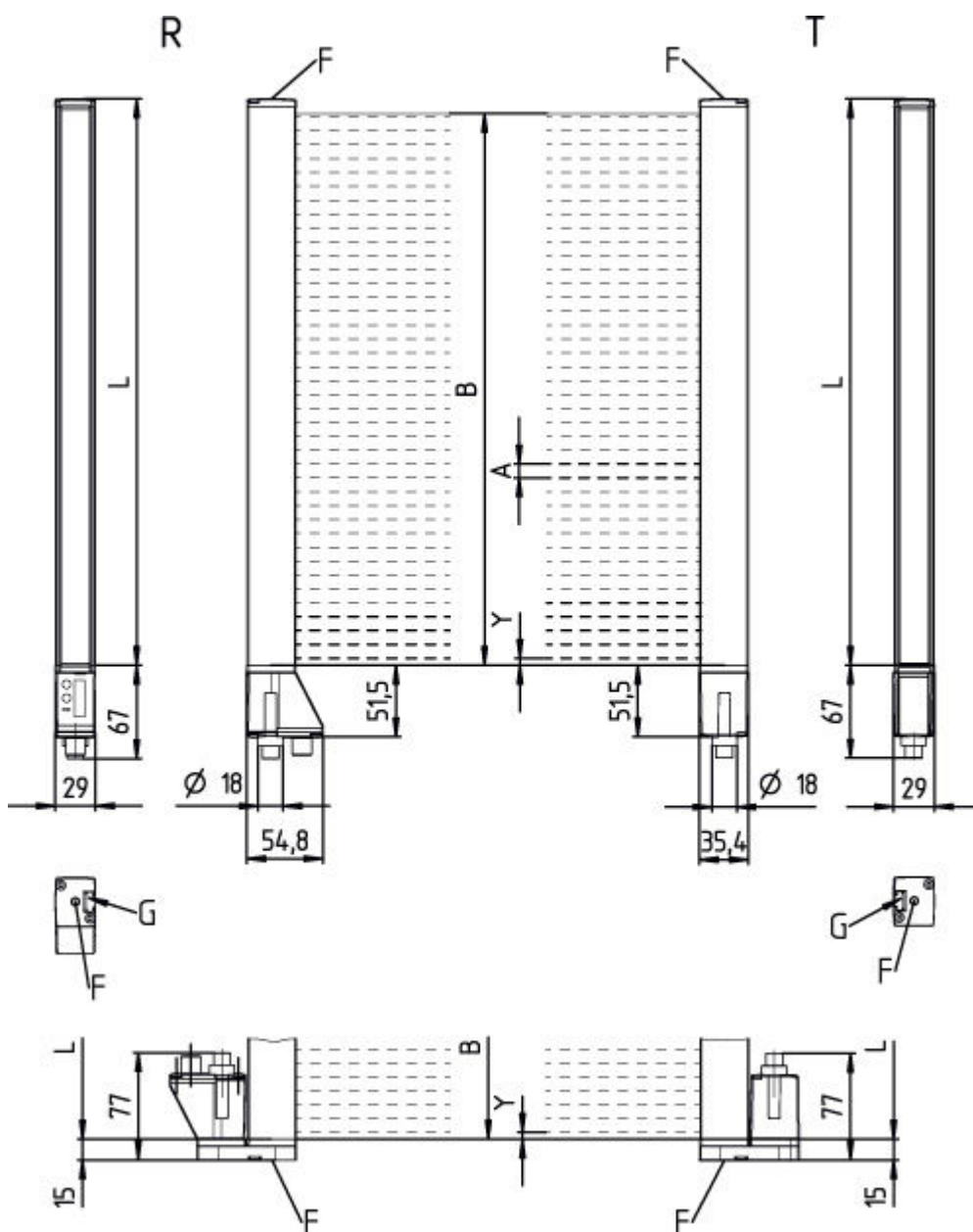
	Part no.	Designation	Article	Description
	50119618	CML720i-R05-1040.A/CN-M12	Light curtain receiver	Operating range: 0.1 ... 3.5 m Interface: CANopen Connection: Connector, M12, Axial, 8 -pin
	50119808	CML720i-R05-1040.A/CV-M12	Light curtain receiver	Operating range: 0.1 ... 3.5 m Analog outputs: 2 Piece(s), Voltage, Current Connection: Connector, M12, Axial, 8 -pin
	50123452	CML720i-R05-1040.A/D3-M12	Light curtain receiver	Operating range: 0.1 ... 3.5 m Interface: RS 485 Connection: Connector, M12, Axial, 8 -pin

Part no.: 50119380 – CML720i-T05-1040.A-M12 – Light curtain transmitter

	Part no.	Designation	Article	Description
	50119727	CML720i-R05-1040.A/L-M12	Light curtain receiver	Operating range: 0.1 ... 3.5 m Interface: IO-Link Connection: Connector, M12, Axial, 8 -pin
	50122880	CML720i-R05-1040.A/PB-M12	Light curtain receiver	Operating range: 0.1 ... 3.5 m Interface: PROFIBUS DP Connection: Connector, M12, Axial, 8 -pin
	50131842	CML720i-R05-1040.A/PN-M12	Light curtain receiver	Operating range: 0.1 ... 3.5 m Interface: PROFINET Connection: RJ45, M12, Axial, 8 -pin

Dimensioned drawings

All dimensions in millimeters



- | | |
|---|----------------------------------|
| A | Beam spacing 5 mm |
| B | Measurement field length 1040 mm |
| F | M6 thread |
| G | Fastening groove |
| L | Profile length 1048 mm |
| T | Transmitter |
| R | Receiver |
| Y | 2.5 mm |

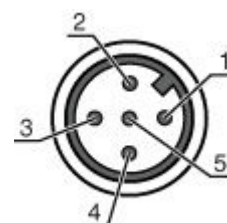


Part no.: 50119380 – CML720i-T05-1040.A-M12 – Light curtain transmitter

Electrical connection

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



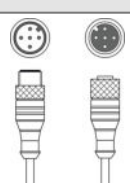
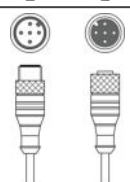
Operation and display

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


Part no.: 50119380 – CML720i-T05-1040.A-M12 – Light curtain transmitter

	Part no.	Designation	Article	Description
	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
	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

Part no.: 50119380 – CML720i-T05-1040.A-M12 – Light curtain transmitter

	Part no.	Designation	Article	Description
	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



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	Contains: 2x BT-P40 clamp bracket 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, an der seitlichen C-Nut 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, an der seitlichen C-Nut 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

Part no.: 50119380 – CML720i-T05-1040.A-M12 – Light curtain transmitter

	Part no.	Designation	Article	Description
	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
	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

Device columns

	Part no.	Designation	Article	Description
	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
	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

Part no.: 50119380 – CML720i-T05-1040.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)