SMART SENSOR BUSINESS

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Part no.: 50122981 CML720i-R10-2240.A/PB-M12 Light curtain receiver





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- Notes
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Part no.: 50122981 – CML720i-R10-2240.A/PB-M12 – Light curtain receiver

Technical data

Basic data	
Series	720
Operating principle	Throughbeam principle
Device type	Receiver
Contains	2x BT-NC sliding block
Application	Object measurement
On a stall de stan	
Special design	Crossed hear compiler
Special design	Crossed-beam scanning Diagonal-beam scanning Parallel-beam scanning
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	2,240 mm
Number of beams	224 Piece(s)
Beam spacing	10 mm
Measurement data	
Minimum object diameter	20 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 15 $\%$, From U_B 0 435 mA , The specified values refer to the entire package consisting of transmitter and receiver.
Open-circuit current Inputs/outputs selectable	0 435 mA , The specified values refer to the entire package con-
	0 435 mA , The specified values refer to the entire package con-
Inputs/outputs selectable	0 435 mA , The specified values refer to the entire package consisting of transmitter and receiver.
<i>Inputs/outputs selectable</i> Output current, max.	0 435 mA , The specified values refer to the entire package con- sisting of transmitter and receiver. 100 mA
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Inputs/outputs selectable Output current, max. Input resistance Number of inputs/outputs selectable	0 435 mA , The specified values refer to the entire package con- sisting of transmitter and receiver. 100 mA 6,000 Ω 2 Piece(s)
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Inputs/outputs selectableOutput current, max.Input resistanceNumber of inputs/outputs selectableTypeVoltage type, outputsSwitching voltage, outputsVoltage type, inputsSwitching voltage, inputsSwitching voltage, inputs	0 435 mA , The specified values refer to the entire package con- sisting of transmitter and receiver. 100 mA 6,000 Ω 2 Piece(s) Inputs/outputs selectable DC Typ. U _B / 0 V DC high: ≥6V low: ≤4V

Part no.: 50122981 – CML720i-R10-2240.A/PB-M12 – Light curtain receiver

Type PROFIBUS DP Picolinus DP Process Service interface D-Link ID-Link D-Link Process Congenitation via software Service Congenitation via software Connection 2 Pleos(s) Number of connectons 2 Pleos(s) Plug outet Axial Connection Congenitation interface Function Connection transmitter Signal OUT Signal OUT Type of connection Connector Type of connecton Connector Type of connecton Connector Type of connecton Connector Type of connecton Material No. of pins 8 -pin Encoding A-coded Connector BUS IN T Type of connecton Connector Type of connecton Connector <	Interface	
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Housing color Silver Type of fastening Groove mounting Via optional mounting device Operation and display LED OLED display Type of display LED OLED display Number of LEDs 2 Piece(s) Type of configuration Software	Lens cover material	Plastic
Type of fastening Groove mounting Via optional mounting device Operation and display LED OLED display Type of display LED display Number of LEDs 2 Piece(s) Type of configuration Software	Net weight	2,300 g
Via optional mounting device Via optional mounting device Operation and display Type of display LED OLED display Number of LEDs 2 Piece(s) Type of configuration Software	Housing color	Silver
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Type of display LED OLED display Number of LEDs 2 Piece(s) Type of configuration Software		
OLED display Number of LEDs 2 Piece(s) Type of configuration Software	Operation and display	
Number of LEDs 2 Piece(s) Type of configuration Software	Type of display	
Type of configuration Software	Number of LEDs	
Ieacn-in		
Operational controls Membrane keyboard	Operational controls	

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Part no.: 50122981 – CML720i-R10-2240.A/PB-M12 – Light curtain receiver

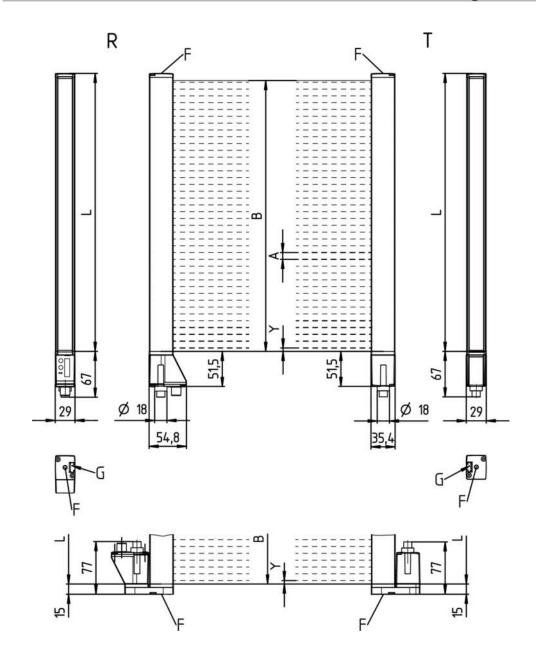
Environmental data		
Ambient temperature, operation	-30 60 °C	
Ambient temperature, storage	-40 70 °C	
Certifications		
Degree of protection	IP 65	
Protection class	III	
Certifications c CSA US		
Standards applied	IEC 60947-5-2	

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.: 50122981 – CML720i-R10-2240.A/PB-M12 – Light curtain receiver



A Beam spacing 10 mm B Measurement field length 2240 mm

F M6 thread

- G Fastening groove
- L Profile length 2248 mm
- T Transmitter
- R Receiver
- Y 5 mm

Part no.: 50122981 – CML720i-R10-2240.A/PB-M12 – Light curtain receiver



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

Electrical connection

Connection 1	
Function	Configuration interface Connection to transmitter 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

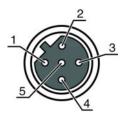
Pin	Pin assignment
1	V+
2	I/O 1
3	GND
4	IO-Link
5	I/O 2
6	RS 485 Tx+
7	RS 485 Tx+
8	FE/SHIELD



Connection 2		
Function	BUS IN BUS OUT	
Type of connection	Connector	
Thread size	M12	
Туре	Female	
Material	Metal	
No. of pins	5 -pin	
Encoding	B-coded	

Part no.: 50122981 – CML720i-R10-2240.A/PB-M12 – Light curtain receiver

Pin	Pin assignment
1	V+
2	Tx-
3	PB GND
4	Tx+
5	FE/SHIELD



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
50119418	CML720i- T10-2240.A-M12	Light curtain transmitter	Operating range: 0.3 6 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

Part no.: 50122981 – CML720i-R10-2240.A/PB-M12 – Light curtain receiver

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.

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
50132079	KD U-M12-5A- V1-050		Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin Connection 2: Open end Shielded: No Cable length: 5,000 mm Sheathing material: PVC

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Connection technology - Y distribution cables

	Part no.	Designation	Article	Description
		K-Y1 M12A-5m- M12A-S-PUR	Interconnection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin Connection 2: Connector, M12, Axial, Male, A-coded, 5 -pin Connection 3: Connector, M12, Axial, Female, A-coded, 8 -pin Shielded: Yes Cable length fork 1: 5,000 mm Cable length fork 2: 150 mm Sheathing material: PUR
	50123265	K-YPB M12A-5m- M12A-S-PUR	Interconnection cable	Suitable for interface: PROFIBUS DP Connection 1: Connector, M12, Axial, Male, B-coded, 5 -pin Connection 2: Connector, M12, Axial, Female, B-coded, 5 -pin Connection 3: Connector, M12, Axial, Male, B-coded, 5 -pin Shielded: Yes Cable length fork 1: 5,000 mm Cable length fork 2: 250 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
ęł.	429046	BT-2R1	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.	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.

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Part no.	Designation	Article	Description
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.

Ν	o	t	e

A list with all available accessories can be found on the Leuze electronic website in the Download tab of the article detailed page.