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Part no.: 50120093 CML720i-R10-2880.R/L-M12 Light curtain receiver



Figure can vary

Contents

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- Dimensioned drawings
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Part no.: 50120093 – CML720i-R10-2880.R/L-M12 – Light curtain receiver

Technical data

Series 720 Operating principle Throughbeam principle Device type Receiver Contains Accessories for the use of the BT-2R1 Application Object measurement Special design Crossed-beam scanning Diagonal-beam scanning Parallel-beam scanning Operating range Guaranteed operating range Operating range 0.3 7 m Operating range 0.0 10 mm Measur	Basic data	
Operating principle Throughbeam principle Device type Receiver Contains Accessories for the use of the BT-2R1 Application Object measurement Special design Crossed-beam scanning Special design Crossed-beam scanning Operating range 0.3 7 m Operating range limit Typical operating range Operating range limit 0.2 9 m Weasurement field length 2.88 Price(s) Beam spacing 10 mm Mumber of beams 288 Price(s) Beam spacing 0 mm Mumber of beams 2.80 mm Verating range interversal protection Could the second the seco		720
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Output current, max.100 mAInput resistance $6,000 \Omega$ Number of inputs/outputs selectable 4 Piece(s) TypeInputs/outputs selectableVoltage type, outputsDCSwitching voltage, outputsTyp. UB / 0 VVoltage type, inputsDCSwitching voltage, inputsDCSwitching voltage, inputsDCSwitching voltage, inputsDCSwitching voltage, inputsDCSwitching voltage, inputsDCSwitching voltage, inputs0 1 msTimingReadiness delay400 msCycle time9.04 ms	Open-circuit current	
Input resistance 6,000 Ω Number of inputs/outputs selectable 4 Piece(s) Type Inputs/outputs selectable Voltage type, outputs DC Switching voltage, outputs Typ. UB / 0 V Voltage type, inputs DC Switching voltage, inputs DC Switching voltage, inputs DC Input/output 1 Activation/disable delay Activation/disable delay 0 1 ms	Inputs/outputs selectable	
Number of inputs/outputs selectable 4 Piece(s) Type Inputs/outputs selectable Voltage type, outputs DC Switching voltage, outputs Typ. U _B / 0 V Voltage type, inputs DC Switching voltage, inputs DC Switching voltage, inputs DC Switching voltage, inputs high: ≥6V low: ≤4V Input/output 1	Output current, max.	100 mA
Type Inputs/outputs selectable Voltage type, outputs DC Switching voltage, outputs Typ. U _B / 0 V Voltage type, inputs DC Switching voltage, inputs DC Switching voltage, inputs DC Input/output 1 Input/output 1 Activation/disable delay 0 1 ms Timing Readiness delay 400 ms Cycle time 9.04 ms	Input resistance	6,000 Ω
Voltage type, outputs DC Switching voltage, outputs Typ. U _B / 0 V Voltage type, inputs DC Switching voltage, inputs DC Switching voltage, inputs high: ≥6V low: ≤4V Input/output 1 0 1 ms Activation/disable delay 0 1 ms	Number of inputs/outputs selectable	4 Piece(s)
Switching voltage, outputs Typ. U _B / 0 V Voltage type, inputs DC Switching voltage, inputs high: ≥6V low: ≤4V Input/output 1 0 1 ms Activation/disable delay 0 1 ms Timing 400 ms Cycle time 9.04 ms	Туре	Inputs/outputs selectable
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Switching voltage, inputs high: ≥6V low: ≤4V Input/output 1 Activation/disable delay 0 1 ms Timing Readiness delay 400 ms Cycle time 9.04 ms	Switching voltage, outputs	Typ. U _B / 0 V
Input/output 1 Activation/disable delay 0 1 ms	Voltage type, inputs	DC
Input/output 1 Activation/disable delay 0 1 ms Timing Readiness delay 400 ms Cycle time 9.04 ms	Switching voltage, inputs	
Timing Readiness delay 400 ms Cycle time 9.04 ms	Input/output 1	
Readiness delay 400 ms Cycle time 9.04 ms	Activation/disable delay	0 1 ms
Readiness delay 400 ms Cycle time 9.04 ms	Timing	
Cycle time 9.04 ms	-	400 ms

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Interface				
Туре	IO-Link			
IO-Link	001/0			
COM mode	COM2			
Specification	V1.0.1 V1.1			
Min. cycle time	COM2 = 2.3 ms			
Service interface				
Туре	IO-Link			
IO-Link				
Function	Configuration via software			
T difetion	Service			
Connection				
Number of connections	2 Piece(s)			
Plug outlet	Rear side			
Connection 1				
Function	Configuration interface 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			
Connection 2				
Function	Connection to transmitter			
Type of connection	Connector			
Thread size	M12			
Туре	Female			
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 2,903 mm			
Housing material	Metal , Aluminum			
Lens cover material	Plastic			
Net weight	2,950 g			
Housing color	Silver			
Type of fastening	Groove mounting Via optional mounting device			
Operation and display				
Type of display	LED OLED display			
Number of LEDs	2 Piece(s)			

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Type of configuration	Software			
	Teach-in			
Operational controls	Membrane keyboard			
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	EC002549		

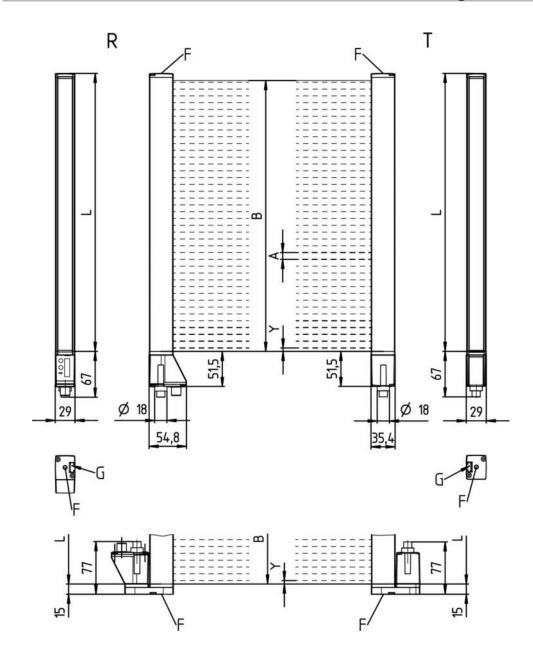
EC002549

Dimensioned drawings

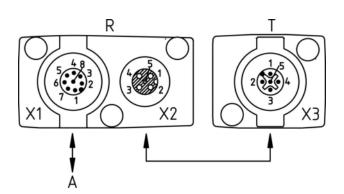
All dimensions in millimeters

ETIM 6.0

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- A Beam spacing 10 mm B Measurement field length 2880 mm
- F M6 thread
- G Fastening groove L Profile length 2888 mm
- T Transmitter
- R Receiver
- Y 5 mm



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A PWR / SW IN/OUT

Electrical connection

Connection 1		
Function	Configuration interface 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	101
3	GND
4	IO-Link
5	102
6	103
7	IO4
8	GND



Connection 2	
Function	Connection to transmitter
Type of connection	Connector
Thread size	M12
Туре	Female
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-



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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
50119504	CML720i- T10-2880.R-M12	Light curtain transmitter	Operating range: 0.3 6 m Connection: Connector, M12, Rear side, 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			
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.

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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
50		KD S-M12-8A- P1-050		Connection 1: Connector, M12, Axial, Female, A-coded, 8 -pin Connection 2: Open end Shielded: Yes Cable length: 5,000 mm Sheathing material: PUR

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

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Mounting technology - Swivel mounts

	Part no.	Designation	Article	Description
ęł.	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

Part no.	Designation	Article	Description
50121098	SET MD12-US2-IL1.1 + Zub.		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.