

Technical data sheet Light curtain receiver Part no.: 50122929 CML720i-R05-2640.R/PB-M12



 Leuze electronic GmbH + Co. KG
 info@leuze.com • www.leuze.com
 changes

 The Sensor People
 In der Braike 1, D-73277 Owen/Germany
 Phone: +49 7021 573-0 • Fax: +49 7021 573-199
 eng • 2024-06-21

Technical data

Leuze

Series 720 Operating principle Throughbeam principle Device type Receiver Contains Accessories for the use of the BT-2R1 Application Object measurement Special version Crossed-beam scanning Special version Crossed-beam scanning Operating range 0.1 3.5 m Operating range Out-anteed operating range Operating range limit 0.1 4.5 m Operating range limit 0.1 4.5 m Operating range limit 1 4.5 m Operating range limit Typical operating range Measurement field length 2.640 mm Number of beams 528 Piece(s) Beam spacing 5 mm Measurement data Minimum object diameter 10 mm Electrical data Portective circuit Polarity reversal protection Short circuit protected Transient protection Short circuit protected Transient protection Open-circuit current 0 435 mA, The specified values refer Output current, max. 100 mA <td< th=""><th>720</th></td<>	720
Device type Receiver Contains Accessories for the use of the BT-2R1 Application Object measurement Special version Crossed-beam scanning Diagonal-beam scanning Parallel-beam scanning Special version Crossed-beam scanning Diagonal-beam scanning Operating range 0.1 3.5 m Operating range 0.1 4.5 m Operating range limit 1 4.5 m Operating range limit 1 4.5 m Number of beams 528 Piece(s) Beam spacing 5 mm Measurement data Number of beams Performance data Short circuit protected Supply voltage Ug 18 30 V, DC Residual ripple 0 15 %, From Ug Open-circuit current 0 45 m, The specified values refer to the entire package consisting of trans mitter and receiver. Inputs/outputs selectable Output current, max. 100 mA Input resistance 6,0000 Ω Number of inputs/output Selectable	
Contains Accessories for the use of the BT-2R1 Application Object measurement Special version Crossed-beam scanning Diagonal-beam scanning Parallel-beam scanning Operating range 0.1 3.5 m Operating range 0.1 3.5 m Operating range 0.1 4.5 m Operating range limit 0.1 4.5 m Operating range limit Typical operating range Measurement field length 2,640 mm Number of beams 528 Piece(s) Beam spacing 5 mm Measurement data 10 mm Electrical data Polarity reversal protection Short circuit protected Transient protection Short circuit protected Transient protection Short circuit current 0 15 %, From U _B Open-circuit current 0 435 mA, The specified values refer to the entire package consisting of transmitter and receiver. Inputs/outputs selectable Output current, max. 100 mA Output current, max. 100 mA Inputs/output selectable Output current, max. 100 mA Inputs/output Sel	
Application Object measurement Special version Special version Crossed-beam scanning Diagonal-beam scanning Parallel-beam scanning Parallel-beam scanning Parallel-beam scanning Operating range Sumply voltage Operating Operating voltage Operating voltage, outputs Operating voltage, outputs Cover selectable Output outge, outputs Operating voltage, outputs Cover selectable Operoting voltage, outputs Cover selectable Operoting voltage, outputs Cover selectable Cover selectable Operoting voltage, outputs Cover selectable Cover selectable Cover selectable Cover selectable Operoting voltage, outputs Cover selectable Cover sele	
Special version Special version Crossed-beam scanning Diagonal-beam scanning Parallel-beam scanning Parallel-beam scanning Parallel-beam scanning Parallel-beam scanning Operating range Operating range Operating range Operating range Oil 3.5 m Operating range Operating range Operating range Operating range Operating range Operating range Savement field length 2,640 mm Number of beams S28 Piece(s) Beam spacing S mm Measurement data Minimum object diameter 10 mm Electrical data Protective circuit Potective circuit Potective circuit Potective circuit Potective circuit Performance data Supply voltage U _B 18 30 V, DC Residual ripple 0 15 %, From U _B Open-circuit current 0 435 mA. The specified values refer to the entire package consisting of trans mitter and receiver. Inputs/outputs selectable Output current, max. 100 mA Input resistance 6,000 Ω Number of inputs/outputs selectable Voltage type, outputs DC Switching voltage, inputs DC Switching voltage, in	
Special version Crossed-beam scanning Diagonal-beam scanning Parallel-beam scanning Parallel-beam scanning Optical data Operating range 0.13.5 m Operating range Operating range 0.14.5 m Operating range 015 %, From U _B Open-circuit current 04.5 m Operating range 0	Object measurement
Diagonal-beam scanning Parallel-beam scanning Parallel-beam scanning Optical data Operating range Scale Dece(s) Beam spacing Scale Scale Fortective circuit Polarity reversal protection Short circuit protected Transient protected Transient protection Performance data Supply voltage U _B 18 30 V, DC Residual ripple 0 15 %, From U _B Open-circuit current Output selectable Output current, max. 100 mA Input resistance Number of inputs/outputs selectable Voltage type, outputs DC Switching voltage, inputs DC Switchin	
Parallel-beam scanning Optical data Operating range 0.1 3.5 m Operating range limit 0.1 4.5 m Operating range limit 1 4.5 m Operating range limit 2.640 mm Number of beams 528 Piece(s) Beam spacing 5 mm Measurement field length 2.640 mm Number of beams 528 Piece(s) Beam spacing 5 mm Measurement data 10 mm Electrical data Polarity reversal protection Short circuit protected Transient protected Transient protection Short circuit protected Supply voltage U _B 18 30 V, DC Residual ripple 0 435 mA, The specified values refer Other tirre package consisting of transmitter and receiver. Input resistance Mumber of inputs/outputs selectable 2 Piece(s) Type Input/output Voltage type, outputs DC Switching voltage, inputs DC Switching voltage, outputs Typ. U _g / 0 V Voltage type, inputs DC <td>Crossed-beam scanning</td>	Crossed-beam scanning
Optical data 0.13.5 m Operating range 0.13.5 m Operating range limit 0.14.5 m Operating range limit 0.14.5 m Operating range limit 2.640 m Number of beams 528 Piece(s) Beam spacing 5 mm Measurement field length 2.640 m Number of beams 528 Piece(s) Beam spacing 5 mm Measurement data 10 mm Electrical data Polarity reversal protection Short circuit protected Transient protected Transient protection Short circuit protected Supply voltage U _B 18 30 V, DC Residual ripple 0 435 m, The specified values refer Open-circuit current 0 435 m, The specified values refer Inputs/outputs selectable Output current, max. Number of inputs/outputs selectable Output current, max. Number of inputs/outputs selectable Piece(s) Type Inputs/output Selectable Voltage type, outputs DC Switching voltage, outputs Typ. U _b / 0 V </td <td>Diagonal-beam scanning</td>	Diagonal-beam scanning
Operating range 0.13.5 m Operating range Guaranteed operating range Operating range limit 0.14.5 m Operating range limit 7ypical operating range Measurement field length 2,640 mm Number of beams 528 Piece(s) Beam spacing 5 mm Measurement data Minimum object diameter Minimum object diameter 10 mm Electrical data Polarity reversal protection Short circuit protected Transient protection Shopply voltage Ug 18 30 V, DC Residual ripple 0 15 %, From Ug Open-circuit current 0 435 mA, The specified values refer to the entire package consisting of transmitter and receiver. Inputs/outputs selectable Output current, max. Output current, max. 100 mA Input resistance 6,000 Ω Number of inputs/outputs selectable 2 Piece(s) Type Inputs/output Voltage type, outputs DC Switching voltage, outputs Typ. Ug / 0 V Voltage type, inputs DC Switching vo	Parallel-beam scanning
Operating range 0.1 3.5 m Operating range Guaranteed operating range Operating range limit 0.1 4.5 m Operating range limit Typical operating range Measurement field length 2,640 mm Number of beams 528 Piece(s) Beam spacing 5 mm Measurement data Minimum object diameter Minimum object diameter 10 mm Electrical data Polarity reversal protection Short circuit protected Transient protection Shopply voltage Ug 18 30 V, DC Residual ripple 0 435 mA, The specified values refer to the entire package consisting of transmitter and receiver. Inputs/outputs selectable Output current, max. Open-circuit current 0 435 mA, The specified values refer to the entire package consisting of transmitter and receiver. Inputs/outputs selectable Output current, max. Number of inputs/outputs selectable 2 Piece(s) Type Number of inputs/outputs selectable 2 Piece(s) Type	
Operating range Guaranteed operating range Operating range limit 0.14.5 m Operating range limit Typical operating range Measurement field length 2,640 nm Number of beams 528 Piece(s) Beam spacing 5 mm Measurement data Minimum object diameter 10 mm Electrical data Polarity reversal protection Protective circuit Polarity reversal protection Short circuit protected Transient protected Transient protection Short circuit protected Supply voltage UB 18 30 V, DC Residual ripple 0 15 %, From UB Open-circuit current 0 435 mA, The specified values refer to the entire package consisting of transmitter and receiver. Inputs/outputs selectable Output current, max. Output current, max. 100 mA Input resistance 6,000 Ω Number of inputs/outputs selectable 2 Piece(s) Type Input/output 1 Activation/disable delay 1 ms Time behavior 10.24 ms Cycle time 16.24 ms	0.1 3.5 m
Operating range limit 0.1 4.5 m Operating range limit Typical operating range Measurement field length 2,640 mm Number of beams 528 Piece(s) Beam spacing 5 mm Measurement data Minimum object diameter Minimum object diameter 10 mm Electrical data Polarity reversal protection Short circuit protected Transient protection Performance data Supply voltage UB 18 30 V, DC Residual ripple 0 15 %, From UB Open-circuit current Open-circuit current 0 435 mA, The specified values refer to the entire package consisting of transmitter and receiver. Inputs/outputs selectable Output current, max. 100 mA Input resistance 6,000 Ω Number of inputs/outputs selectable 2 Piece(s) 2 Piece(s) Type Inputs/outputs selectable Voltage type, outputs DC Switching voltage, inputs DC Switching voltage, inputs DC Switching voltage, inputs DC Imput/output 1 Activation/disable delay Activation/disable delay 1 ms <	Guaranteed operating range
Operating range limit Typical operating range Measurement field length 2,640 mm Number of beams 528 Piece(s) Beam spacing 5 mm Measurement data Minimum object diameter 10 mm Electrical data Polarity reversal protection Short circuit protected Transient protected Protective circuit Polarity reversal protection Supply voltage UB 18 30 V, DC Residual ripple 0 15 %, From UB Open-circuit current 0 435 mA, The specified values refer to the entire package consisting of transmitter and receiver. Inputs/outputs selectable Output current, max. 100 mA Input resistance 6,000 Ω Number of inputs/outputs selectable 2 Piece(s) Type Inputs/outputs Voltage type, outputs DC Switching voltage, inputs DC Switching voltage, inputs DC Switching voltage, inputs DC Input/output 1 Activation/disable delay Activation/disable delay 1 ms Time behavior 16.24 ms Cycle time 16.24 ms	
Measurement field length 2,640 mm Number of beams 528 Piece(s) Beam spacing 5 mm Minimum object diameter 10 mm Electrical data Polarity reversal protection Short circuit protected Transient protection Supply voltage U _B 18 30 V, DC Residual ripple 0 15 %, From U _B Open-circuit current 0 435 mA, The specified values refer to the entire package consisting of transmitter and receiver. Inputs/outputs selectable Output current, max. Output current, max. 100 mA Input resistance 6,000 Ω Number of inputs/outputs selectable 2 Piece(s) Type Inputs/outputs selectable Voltage type, outputs DC Switching voltage, inputs DC Switching voltage, inputs DC Switching voltage, inputs DC Input/output 1 Activation/disable delay Activation/disable delay 1 ms Time behavior 30 µs Cycle time 16.24 ms Response time per beam 30 µs Interface Type	
Number of beams 528 Piece(s) Beam spacing 5 mm Measurement data 10 mm Electrical data Polarity reversal protection Short circuit protected Transient protection Performance data Supply voltage U _B Supply voltage U _B 18 30 V, DC Residual ripple 0 15 %, From U _B Open-circuit current 0 435 mA, The specified values refer to the entire package consisting of transmitter and receiver. Inputs/outputs selectable Output current, max. Input resistance 6,000 Ω Number of inputs/outputs selectable 2 Piece(s) Type Inputs/outputs selectable Voltage type, outputs DC Switching voltage, inputs DC Switching voltage, inputs DC Switching voltage, inputs DC Input/output 1 Activation/disable delay Activation/disable delay 1 ms Time behavior 30 µs Interface 30 µs Interface PROFIBUS DP	
Beam spacing 5 mm Measurement data Minimum object diameter 10 mm Electrical data Polarity reversal protection Short circuit protected Short circuit protected Transient protection Short circuit protected Supply vottage U _B 18 30 V, DC Residual ripple 0 45 %, From U _B Open-circuit current 0 435 mA, The specified values refer to the entire package consisting of transmitter and receiver. Inputs/outputs selectable Output current, max. Output current, max. 100 mA Input resistance 6,000 Ω Number of inputs/outputs selectable 2 Piece(s) Type Input/output selectable Voltage type, outputs DC Switching voltage, inputs DC Switching voltage, inputs DC Switching voltage, inputs DC Input/output 1 Activation/disable delay Activation/disable delay 1 ms Time behavior 30 µs Interface 30 µs	,
Measurement data Minimum object diameter 10 mm Electrical data Polarity reversal protection Short circuit protected Short circuit protected Transient protection Short circuit protected Performance data Supply voltage U _B 18 30 V, DC Residual ripple 0 15 %, From U _B Open-circuit current Open-circuit current 0 435 mA, The specified values refer to the entire package consisting of transmitter and receiver. Inputs/outputs selectable Output current, max. 100 mA Input resistance 6,000 Ω Number of inputs/outputs selectable 2 Piece(s) Type Inputs/outputs selectable Voltage type, outputs DC Switching voltage, unputs DC Switching voltage, inputs DC Switching voltage, inputs DC Input/output 1 Activation/disable delay Activation/disable delay 1 ms Time behavior 30 µs Interface PROFIBUS DP	
Minimum object diameter 10 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 0 435 mA, The specified values refer to the entire package consisting of trans mitter and receiver. Inputs/outputs selectable Output current, max. 100 mA Input resistance 6,000 Ω Number of inputs/outputs selectable 2 Piece(s) Type Inputs/outputs selectable 2 Piece(s) Type Inputs/outputs selectable DC Switching voltage, outputs DC Switching voltage, inputs DC Switching voltage, inputs DC Switching voltage, inputs 1 Activation/disable delay 1 ms Time behavior Cycle time 16.24 ms Response time per beam 30 μs Interface Type PROFIBUS DP	
Electrical data Protective circuit Polarity reversal protection Short circuit protected Transient protection Supply voltage U _B 18 30 V, DC Residual ripple 0 15 %, From U _B Open-circuit current 0 435 mA, The specified values referto the entire package consisting of transmitter and receiver. Inputs/outputs selectable Output current, max. Output current, max. 100 mA Inputs/outputs selectable 0 400 mA Number of inputs/outputs selectable 2 Piece(s) Type Inputs/outputs selectable Voltage type, outputs DC Switching voltage, inputs 1 ms Time behavior Input/output 1 Activation/disable delay 1 ms Time behavior 30 μs Interface Type Type PROFIBUS DP	10 mm
Protective circuit Polarity reversal protection Short circuit protected Transient protection Performance data Supply voltage UB 18 30 V, DC Residual ripple 0 15 %, From UB Open-circuit current 0 435 mA, The specified values refer to the entire package consisting of transmitter and receiver. Inputs/outputs selectable 0 utput current, max. 100 mA Input resistance 6,000 Ω Number of inputs/outputs selectable 2 Piece(s) Type Inputs/outputs Voltage type, outputs DC Switching voltage, outputs DC Switching voltage, inputs DC Input/output 1 Activation/disable delay Activation/disable delay 1 ms Time behavior 30 µs Interface Type Type PROFIBUS DP	iu mm
Short circuit protected Transient protectionPerformance dataSupply voltage UB18 30 V, DCResidual ripple0 15 %, From UBOpen-circuit current0 435 mA, The specified values refer to the entire package consisting of transmitter and receiver.Inputs/outputs selectableOutput current, max.Output current, max.100 mAInput resistance6,000 Ω Number of inputs/outputs selectable2 Piece(s)TypeInputs/outputs selectableVoltage type, outputsDCSwitching voltage, outputsTyp. UB / 0 VVoltage type, inputsDCSwitching voltage, inputsDCSwitching voltage, inputshigh: ≥6VIow: ≤ 4 VInput/output 1 Activation/disable delay1 msTime behavior16.24 msCycle time16.24 msResponse time per beam30 µsInterfaceTypeTypePROFIBUS DPPROFIBUS DPPROFIBUS DP	
Performance data Supply voltage U _B 18 30 V, DC Residual ripple 0 15 %, From U _B Open-circuit current 0 435 mA, The specified values refer to the entire package consisting of transmitter and receiver. Inputs/outputs selectable Output current, max. Output current, max. 100 mA Input resistance 6,000 Ω Number of inputs/outputs selectable 2 Piece(s) Type Inputs/outputs selectable Voltage type, outputs DC Switching voltage, inputs DC Switching voltage, inputs DC Switching voltage, inputs DC Input/output 1 Activation/disable delay Activation/disable delay 1 ms Time behavior 30 µs Cycle time 16.24 ms Response time per beam 30 µs Interface Type Type PROFIBUS DP	Polarity reversal protection
Performance dataSupply voltage U_B 18 30 V, DCResidual ripple0 15 %, From U_B Open-circuit current0 435 mA, The specified values refer to the entire package consisting of transmitter and receiver.Inputs/outputs selectable0 mAOutput current, max.100 mAInput resistance6,000 QNumber of inputs/outputs selectable2 Piece(s)TypeInputs/outputs selectableVoltage type, outputsDCSwitching voltage, outputsDCSwitching voltage, inputsDCSwitching voltage, inputsDCInput/output 1 Activation/disable delay1 msTime behavior30 µsCycle time16.24 msResponse time per beam30 µsInterfaceTypeTypePROFIBUS DPPROFIBUS DPPROFIBUS DP	Short circuit protected
Supply voltage UB18 30 V, DCResidual ripple0 15 %, From UBOpen-circuit current0 435 mA, The specified values refer to the entire package consisting of transmitter and receiver.Inputs/outputs selectable00 mAOutput current, max.100 mAInput resistance6,000 ΩNumber of inputs/outputs selectable2 Piece(s)TypeInputs/outputs selectableVoltage type, outputsDCSwitching voltage, outputsDCSwitching voltage, inputsDCSwitching voltage, inputsInput / 0VVoltage type, inputsDCSwitching voltage, inputs1 msTime behavior16.24 msCycle time16.24 msResponse time per beam30 μsInterface9ROFIBUS DPPROFIBUS DP9ROFIBUS DP	Transient protection
Supply voltage U _B 18 30 V, DC Residual ripple 0 15 %, From U _B Open-circuit current 0 435 mA, The specified values refer to the entire package consisting of transmitter and receiver. Inputs/outputs selectable 0 0 mA Output current, max. 100 mA Input resistance 6,000 Ω Number of inputs/outputs selectable 2 Piece(s) Type Inputs/outputs selectable Voltage type, outputs DC Switching voltage, outputs DC Switching voltage, inputs DC Switching voltage, inputs bigh: ≥6V Iow: ≤ 4 V Iow: ≤ 4 V Input/output 1 Activation/disable delay Activation/disable delay 1 ms Time behavior 30 µs Interface Type PROFIBUS DP PROFIBUS DP	
Residual ripple 0 15 %, From U _B Open-circuit current 0 435 mA, The specified values refer to the entire package consisting of transmitter and receiver. Inputs/outputs selectable Output current, max. Input resistance 6,000 Ω Number of inputs/outputs selectable 2 Piece(s) Type Inputs/outputs selectable Voltage type, outputs DC Switching voltage, outputs DC Switching voltage, inputs DC Switching voltage, inputs DC Input/output 1 Activation/disable delay Activation/disable delay 1 ms Time behavior 30 µs Interface PROFIBUS DP	18 30 V, DC
Open-circuit current0 435 mA, The specified values refer to the entire package consisting of transmitter and receiver.Inputs/outputs selectable100 mAOutput current, max.100 mAInput resistance6,000 ΩNumber of inputs/outputs selectable2 Piece(s)TypeInputs/outputs selectableVoltage type, outputsDCSwitching voltage, outputsDCSwitching voltage, inputsDCSwitching voltage, inputsDCSwitching voltage, inputsDCInput/output 1Activation/disable delayActivation/disable delay1 msTime behavior30 μsCycle time16.24 msResponse time per beam30 μsInterfacePROFIBUS DP	0 15 %, From U _B
Output current, max. 100 mA Input resistance 6,000 Ω Number of inputs/outputs selectable 2 Piece(s) Type Inputs/outputs selectable Voltage type, outputs DC Switching voltage, outputs DC Switching voltage, inputs DC Switching voltage, inputs DC Switching voltage, inputs DC Input/output 1 Activation/disable delay Activation/disable delay 1 ms	to the entire package consisting of trans
Output current, max. 100 mA Input resistance 6,000 Ω Number of inputs/outputs selectable 2 Piece(s) Type Inputs/outputs selectable Voltage type, outputs DC Switching voltage, outputs DC Switching voltage, inputs DC Switching voltage, inputs DC Switching voltage, inputs high: ≥6V Input/output 1 Activation/disable delay Activation/disable delay 1 ms Time behavior 30 µs Interface PROFIBUS DP	
Input resistance 6,000 Ω Number of inputs/outputs selectable 2 Piece(s) Type Inputs/outputs selectable Voltage type, outputs DC Switching voltage, outputs DC Switching voltage, inputs DC Switching voltage, inputs DC Switching voltage, inputs high: ≥6V Input/output 1 Activation/disable delay Activation/disable delay 1 ms Time behavior 30 µs Interface PROFIBUS DP	100 mA
Number of inputs/outputs selectable 2 Piece(s) Type Inputs/outputs selectable Voltage type, outputs DC Switching voltage, outputs DC Switching voltage, inputs DC Switching voltage, inputs high: ≥6∨ Input/output 1 Activation/disable delay Activation/disable delay 1 ms Time behavior 30 μs Interface PROFIBUS DP	
Type Inputs/outputs selectable Voltage type, outputs DC Switching voltage, outputs Typ. U _B / 0 V Voltage type, inputs DC Switching voltage, inputs high: ≥6V Input/output 1 Activation/disable delay Activation/disable delay 1 ms Time behavior 30 μs Interface PROFIBUS DP	- ,
Voltage type, outputs DC Switching voltage, outputs Typ. U _B / 0 V Voltage type, inputs DC Switching voltage, inputs high: ≥6V low: ≤ 4 V low: ≤ 4 V Input/output 1 Activation/disable delay Activation/disable delay 1 ms Time behavior 20 μs Cycle time 16.24 ms Response time per beam 30 μs Interface PROFIBUS DP	
Switching voltage, outputs Typ. U _B / 0 V Voltage type, inputs DC Switching voltage, inputs high: ≥6V low: ≤ 4 V Input/output 1 Activation/disable delay 1 ms Time behavior Cycle time Response time per beam 30 μs Interface Type PROFIBUS DP	
Voltage type, inputs DC Switching voltage, inputs high: ≥6∨ low: ≤ 4 ∨ Input/output 1 Activation/disable delay 1 ms Time behavior Cycle time 16.24 ms Response time per beam 30 μs Interface Type PROFIBUS DP PROFIBUS DP	
Switching voltage, inputs high: ≥6∨ Input/output 1 Input/output 1 Activation/disable delay 1 ms Time behavior 16.24 ms Cycle time 16.24 ms Response time per beam 30 μs Interface PROFIBUS DP	-
low: ≤ 4 V Input/output 1 Activation/disable delay 1 ms Time behavior Cycle time 16.24 ms Response time per beam 30 μs Interface Type PROFIBUS DP	
Input/output 1 Activation/disable delay 1 ms Time behavior 16.24 ms Cycle time 16.24 ms Response time per beam 30 μs Interface PROFIBUS DP	•
Activation/disable delay 1 ms Time behavior 16.24 ms Cycle time 16.24 ms Response time per beam 30 µs Interface Type PROFIBUS DP PROFIBUS DP	
Activation/disable delay 1 ms Time behavior 16.24 ms Cycle time 16.24 ms Response time per beam 30 µs Interface Type PROFIBUS DP PROFIBUS DP	
Cycle time 16.24 ms Response time per beam 30 μs Interface Type PROFIBUS DP	
Cycle time 16.24 ms Response time per beam 30 μs Interface Type PROFIBUS DP	1 ms
Response time per beam 30 µs Interface Type PROFIBUS DP	1 ms
Interface Type PROFIBUS DP PROFIBUS DP	
Type PROFIBUS DP PROFIBUS DP	16.24 ms
PROFIBUS DP	16.24 ms
	16.24 ms
	16.24 ms 30 μs
	16.24 ms 30 μs
Time behavior Cycle time Response time per beam Interface Type PROFIBUS DP	

Service interface	
Туре	IO-Link
IO-Link	
Function	Configuration via software
	Service
Connection	
Number of connections	2 Piece(s)
Plug outlet	Rear side
Connection 1	
Function	Configuration interface
	Connection to transmitter
	Signal IN
	Signal OUT
Type of connection	Voltage supply Connector
Thread size	M12
Туре	Male
Material	Metal
No. of pins	8 -pin
Encoding	A-coded
Connection 2	
Function	BUS IN
	BUS OUT
Type of connection	Connector
Thread size	M12 Female
Type Material	Metal
No. of pins	5 -pin
Encoding	B-coded
Mechanical data	
Design	Cubic
Dimension (W x H x L)	29 mm x 35.4 mm x 2,663 mm
Housing material	Metal
Metal housing	Aluminum
Lens cover material Net weight	Plastic 2,750 g
Housing color	Silver
Type of fastening	Groove mounting
51000	Via optional mounting device
On such and all such as	
Operation and display	
Type of display	LED
	OLED display
Number of LEDs	2 Piece(s)
Type of configuration	Software Teach-in
Operational controls	Nembrane keyboard
eponational controls	
Environmental data	
Ambient temperature, operation	-30 60 °C
Ambient temperature, storage	-40 70 °C

Technical data

Certifications

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

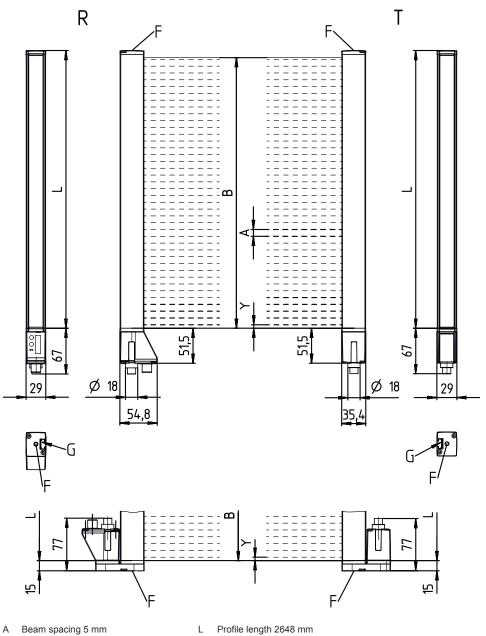
Classification

Customs tariff number	90314990
ECLASS 5.1.4	27270910
ECLASS 8.0	27270910
ECLASS 9.0	27270910
ECLASS 10.0	27270910
ECLASS 11.0	27270910
ECLASS 12.0	27270910
ECLASS 13.0	27270910
ECLASS 14.0	27270910
ETIM 5.0	EC002549
ETIM 6.0	EC002549
ETIM 7.0	EC002549
ETIM 8.0	EC002549
ETIM 9.0	EC002549



Dimensioned drawings

All dimensions in millimeters



- Beam spacing 5 mm А
- В Measurement field length 2640 mm
- F M6 thread G Fastening groove
- R Receiver

Т

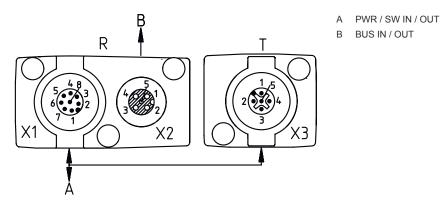
2.5 mm Υ

Transmitter

Leuze

Dimensioned drawings





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

Electrical connection

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



LED	Display	Meaning
1	Green, continuous light	Operational readiness
	Green, flashing	Teach / error
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
50119481	CML720i-T05- 2640.R-M12	Light curtain transmitter	Operating range: 0.1 3.5 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
22	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: Axial connector outlet 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



Part number code



DDD	Special equipment -PS: Power Setting
EEE	Electrical connection M12: M12 connector
FFF	-EX: Explosion protection
	Note
A	S A list with all available device types can be found on the Leuze 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 cable	Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin Connector, LED: No Connection 2: Open end Shielded: No Cable length: 5.000 mm Sheathing material: PVC

Connection technology - Y distribution cables

	Part no.	Designation	Article	Description
	50118183	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

Leuze

Accessories

Mounting technology - Mounting brackets

 Part no.	Designation	Article	Description
 50142900	BT 700M.5-2SET	Mounting device set	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
429029	BT-2RG	Mounting bracket set	Fastening, at system: Through-hole mounting Mounting bracket, at device: Clampable Type of mounting device: Turning, 360° Material: Metal, Plastic

Configuration devices

 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
y; U	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.
	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.

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