

Technical data sheet

Light curtain receiver

Part no.: 50131362
CSL505-R100-2300-M8

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For illustration purposes only



Technical data

Basic data

| | |
|---------------------|--------------------------|
| Series | 505 |
| Operating principle | Throughbeam principle |
| Device type | Receiver |
| Application | Precise object detection |

Special version

| | |
|-----------------|------------------------|
| Special version | Crossed-beam scanning |
| | Diagonal-beam scanning |
| | Parallel-beam scanning |
| | Teach input |
| | Warning output |

Optical data

| | |
|--------------------------|----------------------------|
| Operating range | 0.3 ... 5 m |
| Operating range | Guaranteed operating range |
| Measurement field length | 2,300 mm |
| Number of beams | 24 Piece(s) |
| Beam spacing | 100 mm |

Measurement data

| | |
|-------------------------|----------|
| Minimum object diameter | 102.5 mm |
|-------------------------|----------|

Electrical data

| | |
|--------------------|------------------------------|
| Protective circuit | Inductive protection |
| | Polarity reversal protection |
| | Short circuit protected |

Performance data

| | |
|----------------------|-----------------|
| Supply voltage U_B | 18 ... 30 V, DC |
|----------------------|-----------------|

Outputs

| | |
|-------------------------------------|------------|
| Number of digital switching outputs | 2 Piece(s) |
|-------------------------------------|------------|

Switching outputs

| | |
|-------------------------|--------------------------|
| Type | Digital switching output |
| Voltage type | DC |
| Switching current, max. | 150 mA |

Switching output 1

| | |
|---------------------|-----------------------|
| Switching element | Transistor, Push-pull |
| Switching principle | Light/dark switchable |

Switching output 2

| | |
|---------------------|-----------------------|
| Switching element | Transistor, Push-pull |
| Switching principle | Light/dark switchable |

Time behavior

| | |
|------------------------|---------------|
| Cycle time | 28 ms |
| Response time per beam | 1,000 μ s |

Connection

| | |
|-----------------------|------------|
| Number of connections | 1 Piece(s) |
|-----------------------|------------|

Connection 1

| | |
|--------------------|----------------|
| Function | Signal OUT |
| | Teach input |
| | Voltage supply |
| Type of connection | Connector |
| Thread size | M8 |
| Type | Male |
| Material | Metal |
| No. of pins | 4 -pin |
| Encoding | A-coded |

Mechanical data

| | |
|-----------------------|--------------------------|
| Design | Cubic |
| Dimension (W x H x L) | 10 mm x 27 mm x 2,380 mm |
| Housing material | Metal |
| Metal housing | Aluminum |
| Lens cover material | Plastic |
| Housing color | Silver |
| Type of fastening | Through-hole mounting |

Operation and display

| | |
|-----------------------|--------------------|
| Type of display | LED |
| Number of LEDs | 2 Piece(s) |
| Type of configuration | Software |
| | Via pin assignment |

Environmental data

| | |
|--------------------------------|---------------|
| Ambient temperature, operation | -30 ... 50 °C |
| Ambient temperature, storage | -40 ... 65 °C |

Certifications

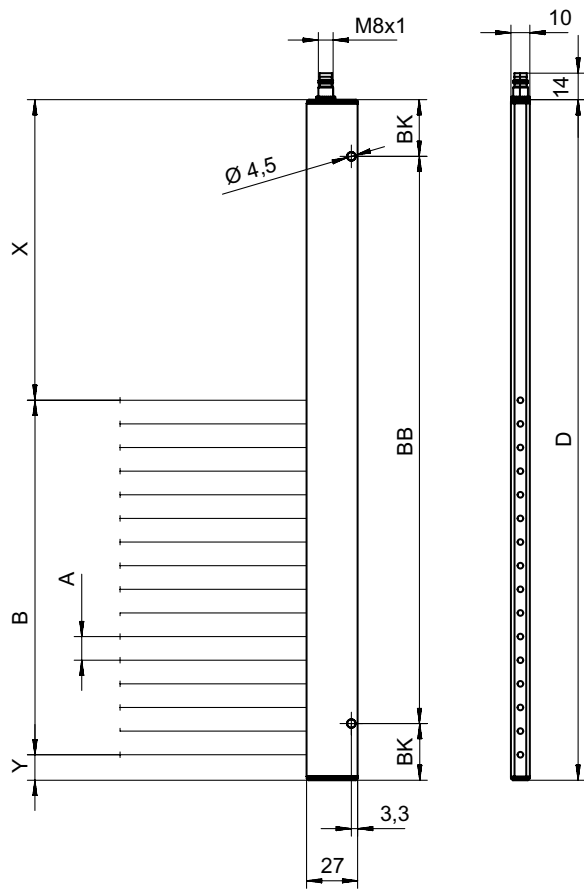
| | |
|----------------------|-------------------------------|
| Degree of protection | IP 65 |
| Protection class | III |
| Standards applied | EN 60947-5-2 (German version) |

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 |
| ECLASS 15.0 | 27270910 |
| ETIM 5.0 | EC002549 |
| ETIM 6.0 | EC002549 |
| ETIM 7.0 | EC002549 |
| ETIM 8.0 | EC002549 |
| ETIM 9.0 | EC002549 |
| ETIM 10.0 | EC002549 |

Dimensioned drawings

All dimensions in millimeters



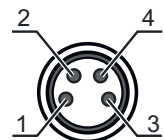
"Observe the exact dimensions in the chapter "Technical data, dimensioned drawings" in the operating instructions.

Electrical connection

Connection 1

| | |
|--------------------|---|
| Function | Signal OUT Teach input Voltage supply |
| Type of connection | Connector |
| Thread size | M8 |
| Type | Male |
| Material | Metal |
| No. of pins | 4 -pin |
| Encoding | A-coded |

| Pin | Pin assignment |
|-----|-----------------------------------|
| 1 | V+ |
| 2 | OUT 1 / Teach-in / Warning output |
| 3 | GND |
| 4 | OUT 2 |



Operation and display

| Display LED 1 | Display LED 2 | Meaning |
|----------------------------|----------------------------|----------------------------------|
| Off | Off | Off |
| Red, continuous light | Red, continuous light | Operational readiness |
| Red, continuous light | Off | Object detected |
| Red, flashing | Red, continuous light | Ready with minor error |
| Red, flashing | Off | Object detected with minor error |
| Red, double flash | Off | Configuration error |
| Red, flashing in phase | Red, flashing in phase | Serious error A |
| Red, flashing out of phase | Red, flashing out of phase | Serious error B |
| Red, continuous light | Red, double flash | Teach event successful |

Suitable transmitters

| Part no. | Designation | Article | Description |
|----------|---------------------|---------------------------|--|
| 50131418 | CSL505-T100-2300-M8 | Light curtain transmitter | Application: Precise object detection Special version: Diagonal-beam scanning, Crossed-beam scanning, Parallel-beam scanning Operating range: 0.3 ... 5 m Connection: Connector, M8, 4 -pin |

Part number code

Part designation: **CSL505-XXXX-ZZZZ-AA-BBB**

| | |
|-------------|---|
| X | Operating principle T: transmitter R: receiver |
| YYY | Beam spacing 05: 5 mm 12.5: 12.5 mm 25: 25 mm 50: 50 mm 100: 100 mm |
| ZZZZ | Measurement field length Measurement field length [mm], dependent on beam spacing |
| AA | Electrical connection M8: M8 connector, 4-pin (plug) |

Note



A list with all available device types can be found on the Leuze website at www.leuze.com.

Accessories

Connection technology - Connection cables

| Part no. | Designation | Article | Description |
|----------|-------------------|------------------|---|
| 50130850 | KD U-M8-4A-V1-050 | Connection cable | Connection 1: Connector, M8, Axial, Female, 4 -pin Connector, LED: No Connection 2: Open end Shielded: No Cable length: 5,000 mm Sheathing material: PVC |



Accessories

| | Part no. | Designation | Article | Description |
|--|----------|-------------------|------------------|--|
| | 50130871 | KD U-M8-4W-V1-050 | Connection cable | Connection 1: Connector, M8, Angled, Female, 4 -pin Connector, LED: No Connection 2: Open end Shielded: No Cable length: 5.000 mm Sheathing material: PVC |

Configuration devices

| | Part no. | Designation | Article | Description |
|--|----------|------------------|---------|---|
| | 50132069 | CSL505-Interface | Module | Functions: Configuration and test device Connection: Sub-D |

Note



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