

Technical data sheet

Light curtain receiver

Part no.: 50131646
CSL505-R100-3100-VB-M8

Contents

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



Figure can vary



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 | Guaranteed operating range |
| Operating range | 0.3 ... 5 m |
| Measurement field length | 3,100 mm |
| Number of beams | 32 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

Switching output 1

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

Switching output 2

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

Timing

| | |
|------------------------|---------------|
| Cycle time | 36 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 3,370 mm x 27 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 |
| eCl@ss 5.1.4 | 27270910 |
| eCl@ss 8.0 | 27270910 |
| eCl@ss 9.0 | 27270910 |
| eCl@ss 10.0 | 27270910 |
| eCl@ss 11.0 | 27270910 |
| ETIM 5.0 | EC002549 |
| ETIM 6.0 | EC002549 |
| ETIM 7.0 | 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 |
|----------|------------------------|---------------------------|--|
| 50132067 | CSL505-T100-3100-VB-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 |

Accessories

Connection technology - Connection cables

| Part no. | Designation | Article | Description |
|----------|-------------------|------------------|--|
| 50130856 | KD U-M8-4A-P1-050 | Connection cable | Connection 1: Connector, M8, Axial, Female, 4 -pin Connection 2: Open end Shielded: No Cable length: 5,000 mm Sheathing material: PUR |
| 50130850 | KD U-M8-4A-V1-050 | Connection cable | Connection 1: Connector, M8, Axial, Female, 4 -pin Connection 2: Open end Shielded: No Cable length: 5,000 mm Sheathing material: PVC |
| 50130869 | KD U-M8-4W-V1-020 | Connection cable | Connection 1: Connector, M8, Angled, Female, 4 -pin Connection 2: Open end Shielded: No Cable length: 2,000 mm Sheathing material: PVC |

Configuration devices

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

Accessories

Note



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