

Technical data sheet

Throughbeam photoelectric sensor transmitter

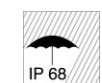
Part no.: 50150350

LS35CI.XR1/XX-200-M12



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- Electrical connection
- Suitable receivers
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Technical data

Basic data

| | |
|---------------------|--|
| Series | 35C |
| Operating principle | Throughbeam principle |
| Device type | Transmitter |
| Application | Detection of products in bag packaging |

Optical data

| | |
|--------------------------|--------------------------------------|
| Operating range | 0 ... 180 m |
| Operating range | Guaranteed operating range |
| Operating range limit | 0 ... 220 m |
| Operating range limit | Typical operating range |
| Light source | LED, Infrared |
| Wavelength | 860 nm |
| Transmitted-signal shape | Pulsed |
| LED group | Exempt group (in acc. with EN 62471) |

Electrical data

| | |
|----------------------|---|
| Protective circuit | Polarity reversal protection Short circuit protected |
| Performance data | |
| Supply voltage U_B | 10 ... 30 V, DC, Incl. residual ripple |
| Residual ripple | 0 ... 15 %, From U_B |
| Open-circuit current | 0 ... 20 mA |

Time behavior

| | |
|-----------------|--------|
| Readiness delay | 300 ms |
|-----------------|--------|

Connection

| | |
|--------------------|----------------------|
| Connection 1 | |
| Function | Voltage supply |
| Type of connection | Cable with connector |
| Cable length | 200 mm |
| Sheathing material | PVC |
| Cable color | Black |
| Wire cross section | 0.2 mm ² |
| Thread size | M12 |
| Type | Male |
| Material | Stainless steel |
| No. of pins | 4 -pin |
| Encoding | A-coded |

Mechanical data

| | |
|---------------------------------|--|
| Dimension (W x H x L) | 18.8 mm x 55.3 mm x 32.4 mm |
| Housing material | Stainless steel |
| Material of operational control | Plastic (POM Hostaform C9021, copoly-ester Tritan TX1001), non-diffusive |
| Housing roughness | Ra ≤ 0,8, Typical value for the stainless steel housing |
| Stainless steel housing | AISI 316L, DIN X2CrNiMo17132, W. No1.4404 |
| Lens cover material | Plastic (PMMA+) with scratch-resistant Indium protective coating |
| Net weight | 120 g |
| Housing color | Silver |
| Type of fastening | Through-hole mounting Via optional mounting device |
| Compatibility of materials | CleanProof+ ECOLAB Johnson Diversey |

Operation and display

| | |
|-------------------------------------|------------------------|
| Operational controls | 270° potentiometer |
| Function of the operational control | Sensitivity adjustment |

Environmental data

| | |
|--------------------------------|---------------|
| Ambient temperature, operation | -40 ... 70 °C |
| Ambient temperature, storage | -40 ... 70 °C |

Certifications

| | |
|----------------------|--------------------------|
| Degree of protection | IP 67 IP 68 IP 69K |
| Protection class | III |
| Approvals | c UL US |
| Standards applied | IEC 60947-5-2 |

Classification

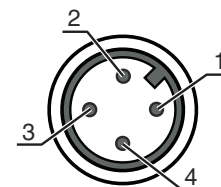
| | |
|-----------------------|----------|
| Customs tariff number | 85365019 |
| ECLASS 5.1.4 | 27270901 |
| ECLASS 8.0 | 27270901 |
| ECLASS 9.0 | 27270901 |
| ECLASS 10.0 | 27270901 |
| ECLASS 11.0 | 27270901 |
| ECLASS 12.0 | 27270901 |
| ECLASS 13.0 | 27270901 |
| ECLASS 14.0 | 27270901 |
| ECLASS 15.0 | 27270901 |
| ETIM 5.0 | EC002716 |
| ETIM 6.0 | EC002716 |
| ETIM 7.0 | EC002716 |
| ETIM 8.0 | EC002716 |
| ETIM 9.0 | EC002716 |
| ETIM 10.0 | EC002716 |

Electrical connection


Connection 1

| | |
|--------------------|---------------------|
| Wire cross section | 0.2 mm ² |
| Thread size | M12 |
| Type | Male |
| Material | Stainless steel |
| No. of pins | 4 -pin |
| Encoding | A-coded |

| Pin | Pin assignment |
|-----|----------------|
| 1 | V+ |
| 2 | n.c. |
| 3 | GND |
| 4 | n.c. |



Suitable receivers

| | Part no. | Designation | Article | Description |
|--|----------|-----------------------|---|---|
|  | 50150347 | LE35CI.XR1/LG-200-M12 | Throughbeam photoelectric sensor receiver | Application: Detection of products in bag packaging Operating range limit: 0 ... 220 m Supply voltage: DC Digital switching outputs: 2 Piece(s) Switching output 1: Transistor, Push-pull, IO-Link / light switching (PNP)/dark switching (NPN) Switching output 2: Transistor, Push-pull, Dark switching (PNP)/light switching (NPN) Switching frequency: 100 Hz Interface: IO-Link Connection: Cable with connector, 200 mm, M12, Stainless steel, 4 -pin Operational controls: 270° potentiometer |

Part number code

Part designation: AAA35C d EE.GGH/iJ-K

| | |
|---------------|---|
| AAA35C | Operating principle LS35C: Throughbeam photoelectric sensor transmitter LE35C: Throughbeam photoelectric sensor receiver PRK35C: Retro-reflective photoelectric sensor with polarization filter HT35C: Diffuse reflection sensor with background suppression DRT35C: Dynamic reference diffuse sensor |
| d | Light type n/a: red light I: infrared light |
| EE | Light source n/a: LED PP: Power PinPoint LED L1: laser class 1 |
| GG | Equipment A: Autocollimation principle (single lens) D: Detection of stretch-wrapped objects X: extended model XL: Extra long light spot TT: autocollimation principle (single lens) for highly transparent bottles with tracking R: greater operating range XXR: super power transmitter |
| H | Operating range adjustment 1: 270° potentiometer 2: multiturn potentiometer 3: teach-in via button |
| i | Switching output/function OUT 1/IN: Pin 4 or black conductor X: pin not used 8: activation input (activation with high signal) L: IO-Link interface (SIO mode: PNP light switching, NPN dark switching) 4: PNP transistor output, light switching |

Part number code

J **Switching output / function OUT 2/IN: pin 2 or white conductor**
 T: teach-in via cable
 G: Push-pull switching output, PNP dark switching, NPN light switching
 X: pin not used
 P: PNP transistor output, dark switching

K **Electrical connection**
 n/a: cable, standard length 2000 mm, 4-wire
 200-M12: cable, length 200 mm with M12 connector, 4-pin, axial (plug)
 M12: M12 connector, 4-pin (plug)

Note



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.

Further information

- Ambient temperature, operation: +70 °C permissible only briefly (≤ 15min)
- IP 69K only in combination with connector
- Light source: Average life expectancy 100,000 h at an ambient temperature of 25 °C
- Sum of the output currents for both outputs 100 mA

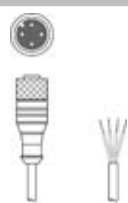


Accessories

Connection technology - Connection unit


| | Part no. | Designation | Article | Description |
|--|----------|-----------------------|----------------|---|
|  | 50144900 | MD 798i-11-82/L5-2222 | IO-Link master | Type: IO-Link master Current consumption, max.: 11,000 mA Switching outputs for each sensor connection: 1 Piece(s) Switching output: Transistor, PNP Interface: IO-Link, Automatic protocol detection, EtherNet IP, Modbus TCP, PROFINET Connections: 12 Piece(s) Sensor connections: 8 Piece(s) Connections for voltage supply: 2 Piece(s) Interface connections: 2 Piece(s) Degree of protection: IP 67, IP 65, IP 69K |

Accessories



Connection technology - Connection cables

| | Part no. | Designation | Article | Description |
|--|----------|------------------------|------------------|---|
|  | 50130657 | KD U-M12-4A-P1-050 | Connection cable | Connection 1: Connector, M12, Axial, Female, A-coded, 4 -pin Connector, LED: No Connection 2: Open end Shielded: No Cable length: 5.000 mm Sheathing material: PUR |
|  | 50148349 | KD U-M12-4A-T0-020 F+B | Connection cable | Connection 1: Connector, M12, Axial, Female, A-coded, 4 -pin Connector, LED: No Connection 2: Open end Shielded: No Cable length: 2.000 mm Sheathing material: TPE |
|  | 50148350 | KD U-M12-4A-T0-050 F+B | Connection cable | Connection 1: Connector, M12, Axial, Female, A-coded, 4 -pin Connector, LED: No Connection 2: Open end Shielded: No Cable length: 5.000 mm Sheathing material: TPE |

Mounting technology - Mounting brackets

| | Part no. | Designation | Article | Description |
|---|----------|-------------|------------------|---|
|  | 50118543 | BT 300M.5 | Mounting bracket | Design of mounting device: Angle, L-shape Fastening, at system: Through-hole mounting Mounting bracket, at device: Screw type, Suited for M4 screws Type of mounting device: Adjustable Material: Stainless steel |

Mounting technology - Rod mounts

| | Part no. | Designation | Article | Description |
|--|----------|----------------|-----------------|--|
|  | 50117252 | BTU 300M-D12 | Mounting system | Design of mounting device: Mounting system Fastening, at system: For 12 mm rod, Sheet-metal mounting Mounting bracket, at device: Screw type, Suited for M4 screws Type of mounting device: Clampable, Adjustable, Turning, 360° Material: Metal |
|  | 50120425 | BTU 300M.5-D12 | Mounting system | Design of mounting device: Mounting system Fastening, at system: For 12 mm rod, Sheet-metal mounting Mounting bracket, at device: Screw type, Suited for M4 screws Type of mounting device: Clampable, Adjustable, Turning, 360° Material: Stainless steel |

Accessories

Note



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