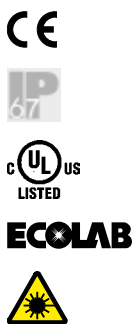


FS/FE 10-RL

Laser through-beam photoelectric sensor



PRODUCT HIGHLIGHTS

- Sub-miniature sensor for installation in the smallest of spaces
- Bright, precise laser light spot for optimum small-part detection and simple alignment
- High switching frequency for detection in even the fastest processes
- User-friendly operation via electronic Teach-in button or control line
- Robust, glass-fibre-reinforced plastic housings

| Optical data | | Functions | |
|--|--|-------------------------------------|--|
| Limit range | 0 ... 5 m | Indicator LED, green | Operating voltage indicator |
| Operating range | 0 ... 4 m | Indicator LED, yellow | Switching output indicator |
| Type of light | Laser, red, 655 nm | Sensitivity adjustment | Via Teach-in button and control input |
| Light spot size | See diagram | Teach-in modes | Mode 1: during running process Mode 2: during standing process |
| Laser Class (IEC 60825-1) | 1 | Adjustment possibilities (receiver) | N.O. / N.C. via Teach-in button and control input Button lock via control input |
| | | Default settings | Max. range and N.O. |
| Electrical data | | Mechanical data | |
| Operating voltage, +U _b | 10 ... 30V DC ¹ | Dimensions | 21.1 × 14.6 × 8 mm |
| No-load current, I ₀ | ≤ 12 mA | Enclosure rating | IP 67 ² |
| Output current, I _e | ≤ 50 mA | Material, housing | PUR |
| Protective circuits | Reverse-polarity protection, U _b / short-circuit protection (Q) | Material, front screen | PMMA |
| Protection Class | 2 | Type of connection | See Selection Table |
| Switching output, Q | PNP/NPN (see Selection Table) | Ambient temperature: operation | -20 ... +50 °C ³ |
| Output function | N.O./N.C. | Ambient temperature: storage | -20 ... +80 °C |
| Switching frequency, f (ti/tp 1:1) | ≤ 4000Hz | Weight (plug device) | Ca. 6 g |
| Response time | 125 µs | Weight (cable device) | Ca. 44 g |
| Control input, IN (receiver) (only 4-pin design) | +U _b = teach-in -U _b = button locked Open = normal operation | Weight (pigtail) | Ca. 20 g |
| Control input, Test (transmitter) | +U _b = Test (transmitter off) -U _b / Open = normal operation | | |

¹ Max. 10 % ripple, within U_b, ~ 50 Hz / 100 Hz ² With connected IP 67 plug ³ UL: -20 ... +30 °C

| Operating range | Switching output | Type of connection | Part number | Design | Article number |
|-----------------|------------------|-------------------------------------|--------------------|--------------------------------------|----------------|
| 1 ... 4 m | PNP | Plug, M5x0.5, 4-pin | FS/FE 10-RL-PS-E4 | Sensor pair (transmitter & receiver) | 611-51000 |
| 1 ... 4 m | NPN | Plug, M5x0.5, 4-pin | FS/FE 10-RL-NS-E4 | Sensor pair (transmitter & receiver) | 611-51001 |
| 1 ... 4 m | PNP | Cable, 2 m, 4-wire | FS/FE 10-RL-PS-K4 | Sensor pair (transmitter & receiver) | 611-51002 |
| 1 ... 4 m | NPN | Cable, 2 m, 4-wire | FS/FE 10-RL-NS-K4 | Sensor pair (transmitter & receiver) | 611-51003 |
| 1 ... 4 m | PNP | Pigtail, 200 mm with M8 plug, 4-pin | FS/FE 10-RL-PS-KM4 | Sensor pair (transmitter & receiver) | 611-51004 |
| 1 ... 4 m | NPN | Pigtail, 200 mm with M8 plug, 4-pin | FS/FE 10-RL-NS-KM4 | Sensor pair (transmitter & receiver) | 611-51005 |
| 1 ... 4 m | PNP | Pigtail, 200 mm with M8 plug, 3-pin | FS/FE 10-RL-PS-KM3 | Sensor pair (transmitter & receiver) | 611-51006 |
| 1 ... 4 m | NPN | Pigtail, 200 mm with M8 plug, 3-pin | FS/FE 10-RL-NS-KM3 | Sensor pair (transmitter & receiver) | 611-51007 |

Including dovetail clamp mounting MBD F 10 for all types

