

FL 70 R-...D / FL 70 RA-...D

Fibre-optic sensor with display



PRODUCT HIGHLIGHTS

- Fibre-optic sensor for the adaptation of a wide variety of fibre-optic cables
- Very user-friendly thanks to combination of display and teach-in
- Several operating modes for individual adaptation to the application
- DIN-rail mounting
- No mutual interference thanks to automatic communication
- Variants with supplementary analogue output

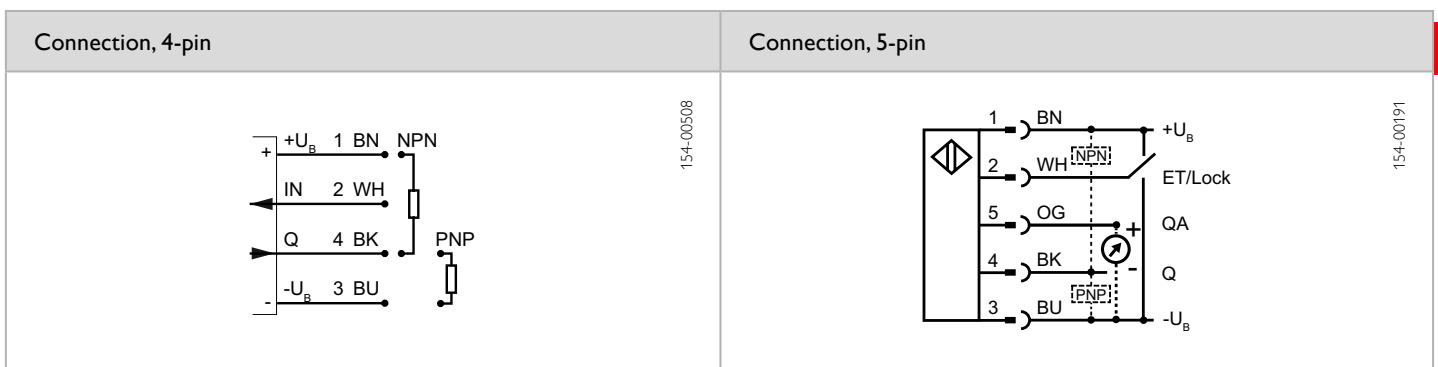
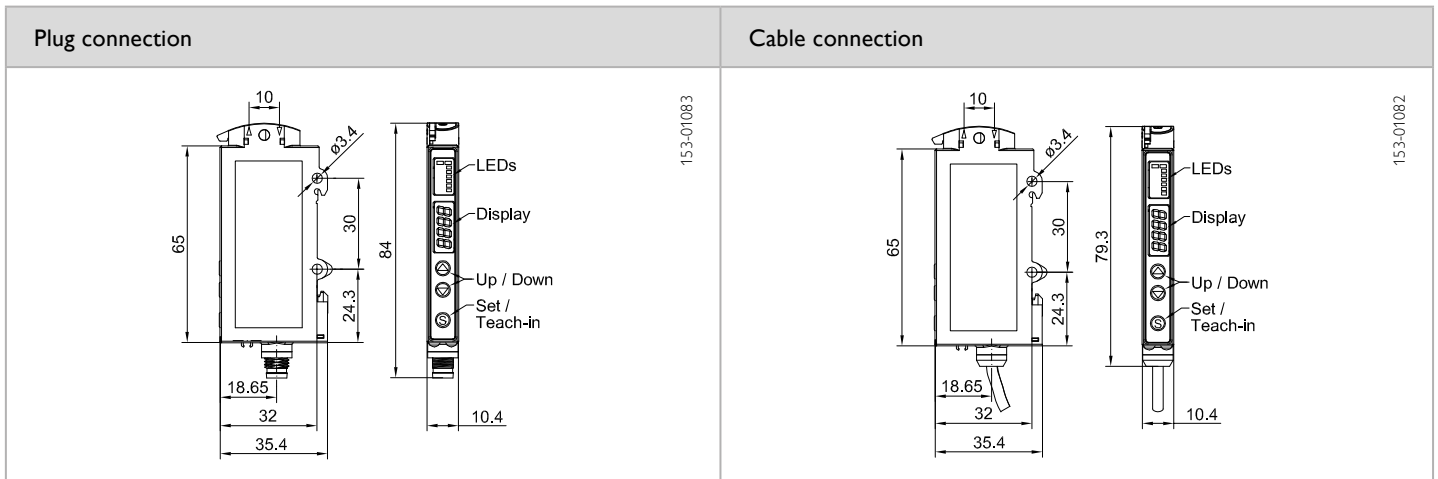
| Optical data | | Functions | |
|--|--|--------------------------------|--|
| Scanning distance | Dependant on fibre-optic cable (scanner) ¹ | Indicator LED, green | Operating voltage indicator |
| Operating range | Dependant on fibre-optic cable (cabinet) | Indicator LED, yellow | Switching output indicator |
| Type of light | LED, red, 630 nm | Indicator LEDs, red (x6) | Feedback on selected functions |
| Distance hysteresis | < 10 % of set scanning distance | Teach-in modes | Switching point / switching window |
| | | Scanning distance adjustment | Fine adjustment of the switching point |
| | | Adjustment possibilities | Via teach-in and control input |
| | | | Invert switching output |
| | | | Switching frequency / accuracy |
| | | | Timer function (e.g. switch-on delay) |
| | | | Button lock, default settings |
| | | Default settings | N.O. / no special functions active |
| Functions | | Mechanical data | |
| Operating voltage, +U _B | 10 ... 30V DC ² | Dimensions | 84 x 35 x 10 mm |
| No-load current, I ₀ | ≤ 25 mA | Enclosure rating | IP 64 ³ |
| Output current, I _e | ≤ 100 mA | Material, housing | ABS |
| Protective circuits | Reverse-polarity protection, U _B / short-circuit protection (Q) | Type of connection | See Selection Table |
| Protection Class | 2 | Ambient temperature: operation | -20 ... +60 °C |
| Switching output, Q | PNP/NPN (see Selection Table) | Ambient temperature: storage | -20 ... +80 °C |
| Output function | N.O./N.C. | Weight (plug device) | 20 g |
| Switching frequency, f (ti/tp 1:1) | Dependent on the setting / operating mode Standard Mode 1000 Hz / Fast Mode 8000 Hz Fine Mode 125 Hz / High Distance Mode 125 Hz | Weight (cable device) | 50 g |
| Control input, IN (only 4-pin version) | + U _B = teach-in - U _B = button locked Open = normal operation | | |
| Analogue output (non-scalable) | See Selection Table | | |
| Display value 0000 | 0V | | |
| Display value 4095 | 10V | | |

¹ Reference material: white, 90 % reflectivity

² Max. 10 % ripple, within U_B

³ With connected IP 64 plug

| Switching output | Analogue output | Type of connection | Part number | Article number |
|------------------|-----------------|--------------------|-----------------|----------------|
| PNP | No | Plug, M8x1, 4-pin | FL 70 R-PSD-M4 | 567-71004 |
| NPN | No | Plug, M8x1, 4-pin | FL 70 R-NSD-M4 | 567-71005 |
| PNP | 0...10V / 2 mA | Cable, 2 m, 5-wire | FL 70 RA-PSD-K5 | 567-71006 |
| NPN | 0...10V / 2 mA | Cable, 2 m, 5-wire | FL 70 RA-NSD-K5 | 567-71007 |



| Accessories | |
|--------------------|----------------|
| Connection cables | From Page A-38 |
| Brackets | From Page A-4 |
| Fibre-optic cables | From Page 514 |