

1) Optical axis, 2) Operating voltage, 3) Output function normally open



Basic features

| | |
|------------------------|------------------------------|
| Approval/Conformity | Ecolab CE UKCA WEEE |
| Basic standard | IEC 60947-5-2 |
| Principle of operation | Fork sensor |
| Series | F |
| Style | Fork Straight connection |

Electrical connection

| | |
|-----------------------------------|--|
| Cable diameter D | 4.20 mm |
| Cable length L | 0.25 m |
| Connection | Cable with connector, M12x1- Male, 4-pin, 0.25 m, PUR |
| Polarity reversal protected | yes |
| Protection against device mix-ups | yes |
| Short-circuit protection | yes |

Display/Operation

| | |
|---------|---|
| Display | Output function- LED yellow LED green: Power |
|---------|---|

Electrical data

| | |
|--|-------------|
| Load capacitance max. at Ue | 0.5 µF |
| No-load current I _o max. at Ue | 35 mA |
| Operating voltage U _b | 10...30 VDC |
| Rated insulation voltage U _i | 75 V DC |
| Rated operating current I _e | 200 mA |
| Rated operating voltage U _e DC | 24 V |
| Ready delay t _v max. | 200 ms |
| Residual current I _r max. | 50 µA |
| Ripple max. (% of U _e) | 10 % |
| Switching frequency | 3000 Hz |
| Turn-off delay t _{off} max. | 0.167 ms |
| Turn-on delay t _{on} max. | 0.167 ms |
| Utilization category | DC -13 |
| Voltage drop U _d max. at I _e | 3 V |

Environmental conditions

| | |
|-------------------------|---|
| Ambient temperature | -10...60 °C |
| EN 60068-2-27, Shock | Half-sinus, 100 g _n , 2 ms, 3x8000 Half-sinus, 30 g _n , 11 ms, 3x6 |
| EN 60068-2-6, Vibration | 55 Hz, amplitude 1 mm, 3x30 min |
| IP rating | IP67/IP69K |

Interface

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|------------------|--|
| Switching output | 2x PNP normally open/normally closed (NO/NC) |
|------------------|--|

Material

| | |
|--------------------------|------------------------|
| Housing material | 1.4404 stainless steel |
| Material jacket | PUR |
| Material sensing surface | PMMA |

Mechanical data

| | |
|---------------|-----------------|
| Dimension | 12 x 85 x 86 mm |
| Fork opening | 50 mm |
| Mounting part | Screw M4 |

Optical features

| | |
|--------------------------------|----------------------|
| Ambient light max. | 5000 Lux |
| Beam characteristic | Divergent |
| LED group per IEC 62471 | Exempt Group |
| Light spot size | Ø 1.25 mm Light exit |
| Light type | LED, red light |
| Principle of optical operation | Fork sensor |
| Smallest part typ. | 0.80 mm |
| Switching function, optical | dark-on/light-on |
| Wave length | 660 nm |

Range/Distance

| | |
|------------------------------|---------|
| Hysteresis H max. | 0.05 mm |
| Repeat accuracy lateral max. | 25 µm |

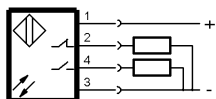
Remarks

Order accessories separately.
 For additional information, refer to user's guide.
 The sensor is functional again after the overload has been eliminated.
 Reference object (target): Steel plate, 50 x 50, thickness 0.5 mm, lateral approach.

Connector Drawings



Wiring Diagrams (Schematic)



Opto Symbols

