



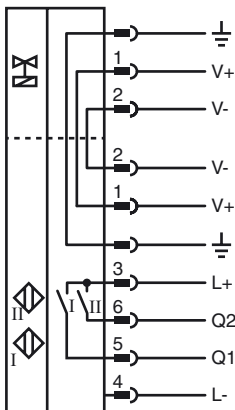
**Model Number**

NBN3-F31-E8-K-K-Y223735

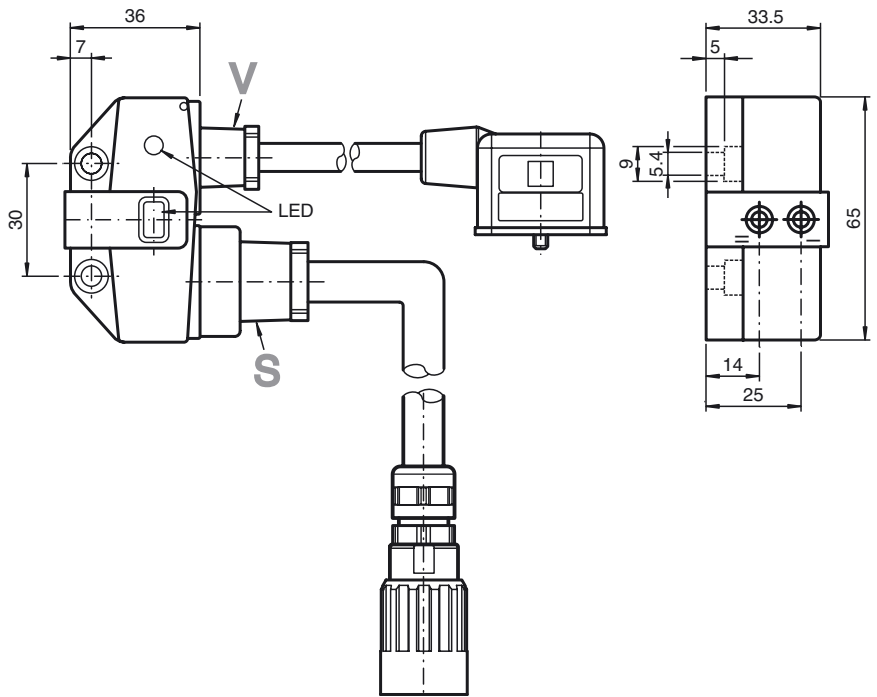
**Features**

- Direct mounting on standard actuators
- Compact and stable housing
- Fixed setting
- Satisfies machinery directive

**Connection**



**Dimensions**



**Technical Data**

**General specifications**

|                             |       |                 |
|-----------------------------|-------|-----------------|
| Switching element function  | PNP   | Dual NO         |
| Rated operating distance    | $s_n$ | 3 mm            |
| Installation                |       | flush mountable |
| Output polarity             |       | DC              |
| Assured operating distance  | $s_a$ | 0 ... 2.43 mm   |
| Reduction factor $r_{A1}$   |       | 0.5             |
| Reduction factor $r_{Cu}$   |       | 0.4             |
| Reduction factor $r_{303}$  |       | 1               |
| Reduction factor $r_{S137}$ |       | 1.2             |

**Nominal ratings**

|                                   |       |  |
|-----------------------------------|-------|--|
| Operating voltage                 | $U_B$ | 10 ... 30 V                            |
| Switching frequency               | $f$   | 0 ... 500 Hz                           |
| Hysteresis                        | $H$   | typ. 5 %                               |
| Reverse polarity protected        |       | all connections                        |
| Short-circuit protection          |       | pulsing                                |
| Voltage drop                      | $U_d$ | $\leq 3$ V                             |
| Operating current                 | $I_L$ | 0 ... 100 mA                           |
| Off-state current                 | $I_r$ | 0 ... 0.5 mA typ. 0.1 $\mu$ A at 25 °C |
| No-load supply current            | $I_0$ | $\leq 25$ mA                           |
| Operating voltage display         |       | LED, green                             |
| Indication of the switching state |       | LED, yellow                            |
| Valve status indication           |       | LED, yellow                            |

**Ambient conditions**

|                     |  |                                |
|---------------------|--|--------------------------------|
| Ambient temperature |  | -25 ... 70 °C (-13 ... 158 °F) |
|---------------------|--|--------------------------------|

**Mechanical specifications**

|                                  |   |
|----------------------------------|---|
| Connection (system side)         | 300 mm PUR cable<br>Harting connector No. 09370030301 , Type R15-gg<br>Number of pins, 6+PE<br>Pflitsch cable gland, blue globe |
| Core cross-section (system side) | 0.5 mm <sup>2</sup>   |
| Connection (valve side)          | 400 mm PUR cable<br>Valve socket, DIN EN 175301-803 ,<br>Number of pins, 2+PE   |
| Core cross-section (valve side)  | 0.75 mm <sup>2</sup>  |
| Housing material                 | PBT   |
| Sensing face                     | PBT   |
| Protection degree                | IP67  |

**Compliance with standards and directives**

|                     |   |
|---------------------|---|
| Standard conformity |   |
| Standards           | EN 60947-5-2:2007<br>IEC 60947-5-2:2007 |

**Approvals and certificates**

|              |  |
|--------------|--|
| UL approval  | cULus Listed, General Purpose  |
| CSA approval | cCSAus Listed, General Purpose   |
| CCC approval | Products with a maximum operating voltage of $\leq 36$ V do not bear a CCC marking because they do not require approval. |

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