

## Technical Data

*For detailed data and product description refer to the data sheets at **www.pepperl-fuchs.com***

| General Data | |
|---|---|
| Rated operating distance | 2.5 mm |
| Installation | flush mountable |
| Switching element function | PNP Dual NO |
| Operating voltage | 10 ... 30 VDC |
| No-load supply current | ≤ 25 mA |
| Reverse polarity protection | all connections |
| Switching frequency | 0 ... 100 Hz |
| Operating current | 0 ... 100 mA |
| Off-state current | 0 ... 0.5 mA typ. 0.1 µA |
| Short-circuit protection | pulsing |
| Operating voltage display | LED, green |
| Indication of the switching state | LED, yellow |
| Valve status indication | LED, yellow |
| Ambient temperature | -40 ... 75 °C (-40 ... 167 °F) |
| Housing material | PC |
| Protection degree | IP66 / IP67 / IP69K |
| Connection (system side) | screw terminal |



| Model Number | | NBN3-F31K2-E8-B13-S | NBN3-F31K2M-E8-B13-S | NBN3-F31K2M-E8-B23-S | NBN3-F31K2-E8-B33-S |
|---|---|---|---|---|---|
| Housing base | aluminum | | ● | ● | |
| | PC | ● | | | ● |
| Thread for cable gland | 1/2" - 14 NPT | | | ● | |
| | M20 x 1.5 | ● | ● | | ● |
| Connection (valve side) | 4-pin, M12 x 1 socket | | | | ● |



| Approvals and Certificates | | | | | |
|---|---|---|---|---|---|
| UL approval | cULus Listed, General Purpose, Class 2 Power Source | ● | ● | ● | ● |
| CCC approval | Products with a maximum operating voltage of ≤36 V do not bear a CCC marking because they do not require approval. | | | | |

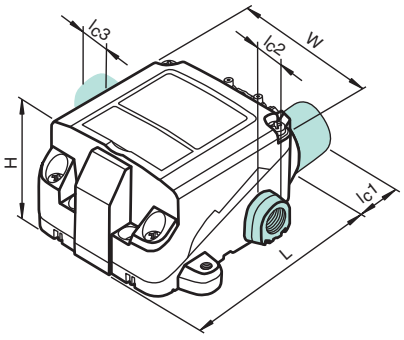
| Dimensions | | | | |
|---|---|---|---|---|
| Length L [mm] | 106 | | | |
| Width W [mm] | 100 | | | |
| Height H [mm] | 53 | | | |
| Connector area $l_c1$ [mm] | depends on the cable gland being used | | | |
| Connector area $l_c2$ [mm] | - | - | - | 15 |
| Connector area $l_c3$ [mm] | - | - | - | 15 |

## Properties

- **F31K2 housing**
- **3 mm, flush mountable**
- **DC, dual 3-wire switching output**
- **Terminal compartment**
- **Versions with connectors for valve control**

## Your Benefit

- **LED indicators for switching state and valve output**
- **Direct mounting without additional mounting aids on NAMUR bore holes 30 x 80 and 30 x 130**
- **Tight sealing and temperature resistance**




## Accessories

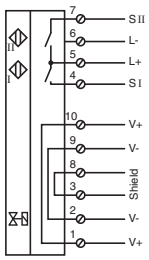
**This and more accessories can be found in chapter 10**
See pages from 974 ... for cordsets See pages 1074 ... for mounting aids

| | |
|---|---|
| **BT65A** | Activator for F31 series |
| **BT65X** | Activator for F31 series |
| **BT115A** | Activator for F31 series |
| **BT115X** | Activator for F31 series |
| **BT65B** | Activator for F31 series |
| **BT115B** | Activator for F31 series |
| **BT65-F31K2-RG-EN** | Activator for F31K2 series |

## Electrical Connection



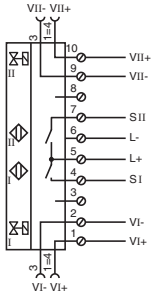
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Date of issue 08/06/2012