

- Direct mounting on standard actuators
- ATEX & IECEx certifications

[illegible]

## General specifications

|                                  |                |                          |
|----------------------------------|----------------|--------------------------|
| Switching function               |                | 2 x normally closed (NC) |
| Output type                      |                | NAMUR                    |
| Rated operating distance         | s <sub>n</sub> | 3 mm                     |
| Installation                     |                | flush mountable          |
| Assured operating distance       | s <sub>a</sub> | 0 ... 2.43 mm            |
| Actual operating distance        | s <sub>r</sub> | 2.7 ... 3.3 mm typ.      |
| Reduction factor r <sub>AI</sub> |                | 0.52                     |
| Reduction factor r <sub>Cu</sub> |                | 0.43                     |

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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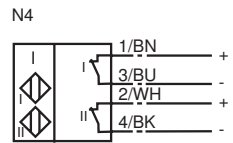
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## Technical Data

|                                                 |       |                                                                                             |
|-------------------------------------------------|-------|---------------------------------------------------------------------------------------------|
| Reduction factor $r_{304}$                      |       | 0.86                                                                                        |
| Reduction factor $r_{317}$                      |       | 1                                                                                           |
| Reduction factor $r_{Brass}$                    |       | 0.54                                                                                        |
| Output type                                     |       | 2-wire                                                                                      |
| <b>Nominal ratings</b>                          |       |                                                                                             |
| Nominal voltage                                 | $U_o$ | 8.2 V ( $R_i$ approx. 1 k $\Omega$ )                                                        |
| Switching frequency                             | $f$   | 0 ... 1500 Hz                                                                               |
| Hysteresis                                      | $H$   | typ. 5 %                                                                                    |
| Reverse polarity protection                     |       | reverse polarity protected                                                                  |
| Short-circuit protection                        |       | yes                                                                                         |
| Suitable for 2:1 technology                     |       | yes , Reverse polarity protection diode not required                                        |
| Current consumption                             |       |                                                                                             |
| Measuring plate not detected                    |       | $\geq 3$ mA                                                                                 |
| Measuring plate detected                        |       | $\leq 1$ mA                                                                                 |
| Time delay before availability                  | $t_v$ | $\leq 1$ ms                                                                                 |
| Switching state indicator                       |       | LED, yellow                                                                                 |
| <b>Functional safety related parameters</b>     |       |                                                                                             |
| MTTF <sub>d</sub>                               |       | 1010 a                                                                                      |
| Mission Time ( $T_M$ )                          |       | 20 a                                                                                        |
| Diagnostic Coverage (DC)                        |       | 0 %                                                                                         |
| <b>Compliance with standards and directives</b> |       |                                                                                             |
| Standard conformity                             |       |                                                                                             |
| NAMUR                                           |       | EN 60947-5-6:2000<br>IEC 60947-5-6:1999                                                     |
| Electromagnetic compatibility                   |       | NE 21:2007                                                                                  |
| Standards                                       |       | EN 60947-5-2:2007<br>EN 60947-5-2/A1:2012<br>IEC 60947-5-2:2007<br>IEC 60947-5-2 AMD 1:2012 |
| <b>Approvals and certificates</b>               |       |                                                                                             |
| FM approval                                     |       |                                                                                             |
| Control drawing                                 |       | 116-0165                                                                                    |
| UL approval                                     |       | cULus Listed, General Purpose                                                               |
| Ordinary Location                               |       | E87056                                                                                      |
| Hazardous Location                              |       | E501628                                                                                     |
| Control drawing                                 |       | 116-0456                                                                                    |
| CSA approval                                    |       | cCSAus Listed, General Purpose                                                              |
| CCC approval                                    |       | CCC approval / marking not required for products rated $\leq 36$ V                          |
| <b>Ambient conditions</b>                       |       |                                                                                             |
| Ambient temperature                             |       | -25 ... 100 °C (-13 ... 212 °F)                                                             |
| Storage temperature                             |       | -40 ... 100 °C (-40 ... 212 °F)                                                             |
| <b>Mechanical specifications</b>                |       |                                                                                             |
| Connection type                                 |       | Connector plug M12 x 1 , 4-pin                                                              |
| Housing material                                |       | PBT                                                                                         |
| Sensing face                                    |       | PBT                                                                                         |
| Degree of protection                            |       | IP67                                                                                        |
| Mass                                            |       | 45 g                                                                                        |
| Tightening torque, fastening screws             |       | M5 x 25 : 2.7 Nm                                                                            |
| Note                                            |       | Mounted on mechanical drive                                                                 |
| <b>General information</b>                      |       |                                                                                             |
| Use in the hazardous area                       |       | see instruction manuals                                                                     |

Connection



Accessories

|                                                                                    |                       |                                              |
|------------------------------------------------------------------------------------|-----------------------|----------------------------------------------|
|   | <b>BT32</b>           | Activator for F25 series                     |
|   | <b>BT32XS</b>         | Activator for F25 series                     |
|   | <b>BT32XAS</b>        | Activator for F25 series                     |
|   | <b>BT33</b>           | Activator for F25 series                     |
|   | <b>BT34</b>           | Activator for F25 series                     |
|  | <b>V1-G-N4-5M-PUR</b> | Female cordset, M12, 4-pin, NAMUR, PUR cable |

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