

Inductive sensor

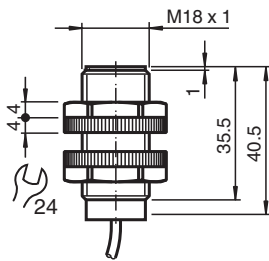
NJ3-18GK-S1N-5M



- Nonferrous targets
- 3 mm flush in ST37 / 1.0037
- Usable up to SIL 3 acc. to IEC 61508
- ATEX approval Ex-i and Ex-nA/tc for zone 0-2 and zone 20-22
- Degree of protection IP68



Dimensions



Technical Data

General specifications

| | | |
|------------------------------|-------|--|
| Switching function | | Normally open (NO) |
| Output type | | NAMUR with safety function |
| Rated operating distance | s_n | 3 mm |
| Installation | | flush in mild steel |
| Assured operating distance | s_a | 0 ... 2.4 mm |
| Actual operating distance | s_r | 2.7 ... 3.3 mm typ. |
| Reduction factor r_{AI} | | 1 |
| Reduction factor r_{Cu} | | 1 |
| Reduction factor r_{304} | | 0 |
| Safety Integrity Level (SIL) | | up to SIL3 acc. to IEC 61508 Danger! In safety-related applications the sensor must be operated with a qualified fail safe interface from Pepperl+Fuchs, such as KFD2-SH-EX1. Consider the "exida Functional Safety Assessment" document which is available on www.pepperl-fuchs.com as an integral part of this product's documentation. |
| Output type | | 2-wire |

Nominal ratings

| | | |
|---------------------|-------|--------------------------------------|
| Nominal voltage | U_o | 8.2 V (R_i approx. 1 k Ω) |
| Switching frequency | f | 0 ... 200 Hz |

Release date: 2020-12-15 Date of issue: 2020-12-15 Filename: 250836_eng.pdf

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

Pepperl+Fuchs Group
www.pepperl-fuchs.com

USA: +1 330 486 0001
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111
fa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com

PEPPERL+FUCHS

Technical Data

| | |
|---|---|
| Current consumption | |
| Measuring plate not detected | ≤ 1 mA |
| Measuring plate detected | ≥ 3 mA |
| Functional safety related parameters | |
| Safety Integrity Level (SIL) | SIL 3 |
| MTTF _d | 10660 a |
| Mission Time (T _M) | 20 a |
| Diagnostic Coverage (DC) | 0 % |
| Compliance with standards and directives | |
| Standard conformity | |
| Standards | EN 60947-5-2:2007 EN 60947-5-2/A1:2012 IEC 60947-5-2:2007 IEC 60947-5-2 AMD 1:2012 |
| Approvals and certificates | |
| IECEX approval | |
| Equipment protection level Ga | IECEX PTB 11.0092X |
| Equipment protection level Gb | IECEX PTB 11.0092X |
| Equipment protection level Da | IECEX PTB 11.0092X |
| Equipment protection level Mb | IECEX PTB 11.0092X |
| ATEX approval | |
| Equipment protection level Ga | PTB 00 ATEX 2049 X |
| Equipment protection level Gb | PTB 00 ATEX 2049 X |
| Equipment protection level Gc (ic) | PF13CERT2895 X |
| Equipment protection level Gc (nA) | PF15CERT3754X |
| Equipment protection level Da | PTB 00 ATEX 2049 X |
| Equipment protection level Dc (tc) | PF15CERT3774X |
| EAC conformity | TR CU 012/2011 |
| FM approval | |
| Control drawing | 116-0165 |
| UL approval | |
| Ordinary Location | E87056 |
| Hazardous Location | E501628 |
| Control drawing | 116-0454 |
| CCC approval | |
| Hazardous Location | 2020322315002308 |
| NEPSI approval | |
| NEPSI certificate | GYJ16.1392X |
| Ambient conditions | |
| Ambient temperature | -25 ... 100 °C (-13 ... 212 °F) |
| Mechanical specifications | |
| Connection type | cable silicone , 5 m |
| Core cross-section | 0.75 mm ² |
| Housing material | Crastin (PBT), black |
| Sensing face | Crastin (PBT), black |
| Degree of protection | IP68 |
| Cable | |
| Cable diameter | 6.8 mm ± 0.2 mm |
| Bending radius | > 10 x cable diameter |
| Note | only for non-ferrous metal |
| General information | |
| Use in the hazardous area | see instruction manuals |

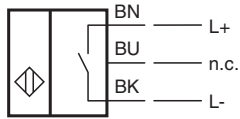
Release date: 2020-12-15 Date of issue: 2020-12-15 Filename: 250936_eng.pdf

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


Pepperl+Fuchs Group
www.pepperl-fuchs.comUSA: +1 330 486 0001
fa-info@us.pepperl-fuchs.comGermany: +49 621 776 1111
fa-info@de.pepperl-fuchs.comSingapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com

PEPPERL+FUCHS

Connection



Accessories

| | | |
|---|---------------------|-------------------------------|
|  | <p>BF 18</p> | <p>Mounting flange, 18 mm</p> |
|---|---------------------|-------------------------------|

Release date: 2020-12-15 Date of issue: 2020-12-15 Filename: 250836_eng.pdf

Application

**Danger!**

In safety-related applications the sensor must be operated with a qualified fail safe interface from Pepperl+Fuchs, such as KFD2-SH-EX1.

Consider the "exida Functional Safety Assessment" document which is available on www.pepperl-fuchs.com as an integral part of this product's documentation.