

Inductive sensor

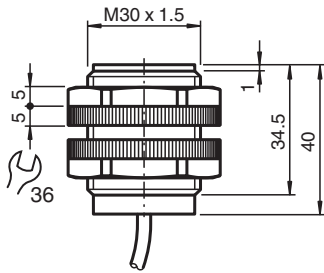
NJ5-30GK-S1N



- Nonferrous targets
- 5 mm flush in ST37 / 1.0037
- Usable up to SIL 3 acc. to IEC 61508
- Degree of protection IP68
- ATEX-/IECEx-approvals for zone 0/1/20/21 (Ex i)
- ATEX-/IECEx-approvals for zone 2/22 (Ex ec/tc)



Dimensions



Technical Data

| General specifications | | |
|------------------------------|-------|---|
| Switching function | | Normally open (NO) |
| Output type | | NAMUR with safety function |
| Rated operating distance | s_n | 5 mm |
| Installation | | flush in mild steel |
| Assured operating distance | s_a | 0 ... 4.05 mm |
| Reduction factor r_{Al} | | 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_f approx. 1 k Ω) |
| Switching frequency | f | 0 ... 150 Hz |
| Suitable for 2:1 technology | | yes , with reverse polarity protection diode |

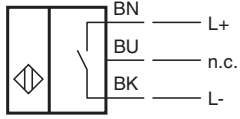
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Technical Data

| | | |
|---|---|--|
| 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 | | 11850 a |
| Mission Time (T _M) | | 20 a |
| Diagnostic Coverage (DC) | | 0 % |
| Compliance with standards and directives | | |
| Standard conformity | | |
| Standards | | EN IEC 60947-5-2 |
| Approvals and certificates | | |
| IECEX approval | | |
| Equipment protection level Ga | | IECEX PTB 11.0092X |
| Equipment protection level Gb | | IECEX PTB 11.0092X |
| Equipment protection level Gc (ec) | | IECEX TUR 21.0017X |
| Equipment protection level Da | | IECEX PTB 11.0092X |
| Equipment protection level Dc (tc) | | IECEX TUR 21.0018X |
| 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 (ec) | | TÜV 20 ATEX 8523 X |
| Equipment protection level Da | | PTB 00 ATEX 2049 X |
| Equipment protection level Dc (tc) | | TÜV 20 ATEX 8524 X |
| UL approval | | |
| Ordinary Location | | E87056 |
| Hazardous Location | | E501628 |
| Control drawing | | 116-0454 |
| CCC approval | | |
| Hazardous Location | | 2020322315002308 2024322315005947 2024322315005860 |
| Ambient conditions | | |
| Ambient temperature | | -25 ... 100 °C (-13 ... 212 °F) |
| Mechanical specifications | | |
| Connection type | | cable |
| 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 |
| Material | | silicone |
| Core cross section | | 0.75 mm ² |
| Length | L | 2 m |
| Dimensions | | |
| Length | | 40 mm |
| Diameter | | 30 mm |
| Note | | only for non-ferrous metal |
| General information | | |
| Scope of delivery | | Supplied with 2 nuts |
| Use in the hazardous area | | see instruction manuals |

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Connection Assignment



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Application

**Danger!**

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