

Inductive sensor

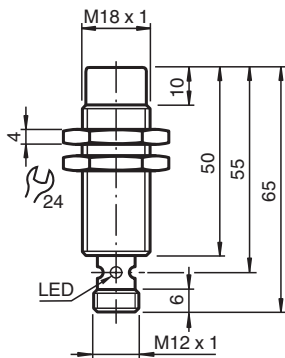
NJ8-18GM50-E3-V1



- Comfort series
- 8 mm non-flush



Dimensions



Technical Data

| General specifications | | |
|------------------------------|-------|--------------------------|
| Switching function | | Normally closed (NC) |
| Output type | | PNP |
| Rated operating distance | s_n | 8 mm |
| Installation | | non-flush |
| Output polarity | | DC |
| Assured operating distance | s_a | 0 ... 6.48 mm |
| Actual operating distance | s_r | 7.2 ... 8.8 mm typ. 8 mm |
| Reduction factor r_{Al} | | 0.42 |
| Reduction factor r_{Cu} | | 0.4 |
| Reduction factor r_{304} | | 0.72 |
| Reduction factor r_{Brass} | | 0.5 |
| Output type | | 3-wire |
| Nominal ratings | | |
| Installation conditions | | |
| A | | 10 mm |
| B | | 54 mm |

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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

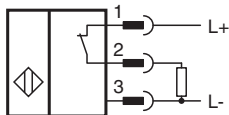
Singapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com

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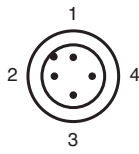
Technical Data

| | | |
|--|-------|---|
| C | | 24 mm |
| Operating voltage | U_B | 10 ... 60 V |
| Switching frequency | f | 0 ... 1000 Hz |
| Hysteresis | H | 1 ... 10 typ. 6 % |
| Reverse polarity protection | | reverse polarity protected |
| Short-circuit protection | | pulsing |
| Voltage drop | U_d | ≤ 3 V |
| Voltage drop at I_L | | |
| Voltage drop $I_L = 100$ mA, switching element on | U_d | 1.5 ... 2.5 V typ. 1.9 V |
| Operating current | I_L | 0 ... 200 mA |
| Lowest operating current | I_m | 0 mA |
| Off-state current | I_r | 0 ... 0.5 mA typ. 0.01 mA |
| Off-state current $T_U = 40$ °C, switching element off | | ≤ 100 μ A |
| No-load supply current | I_o | ≤ 9 mA |
| Time delay before availability | t_v | ≤ 30 ms |
| Switching state indicator | | LED, yellow |
| Functional safety related parameters | | |
| MTTF _d | | 1424 a |
| Mission Time (T_M) | | 20 a |
| Diagnostic Coverage (DC) | | 0 % |
| Compliance with standards and directives | | |
| Standard conformity | | |
| Standards | | EN 60947-5-2:2007 IEC 60947-5-2:2007 |
| Approvals and certificates | | |
| UL approval | | cULus Listed, General Purpose |
| CCC approval | | Certified by China Compulsory Certification (CCC) |
| Ambient conditions | | |
| Ambient temperature | | -25 ... 70 °C (-13 ... 158 °F) |
| Storage temperature | | -40 ... 85 °C (-40 ... 185 °F) |
| Mechanical specifications | | |
| Connection type | | Connector plug M12 x 1 , 4-pin |
| Housing material | | Stainless steel 1.4305 / AISI 303 |
| Sensing face | | PBT |
| Degree of protection | | IP67 |

Connection



Connection Assignment



Wire colors in accordance with EN 60947-5-2

| | | |
|---|----|---------|
| 1 | BN | (brown) |
| 2 | WH | (white) |
| 3 | BU | (blue) |
| 4 | BK | (black) |