



Inductive sensor

IS-2003-FRKG/0,3M/PH



| Product characteristics                         |      |                                                    |
|-------------------------------------------------|------|----------------------------------------------------|
| Electrical design                               |      | PNP/NPN                                            |
| Output function                                 |      | normally open / normally closed; (parameterisable) |
| Sensing range                                   | [mm] | 3                                                  |
| Housing                                         |      | rectangular                                        |
| Dimensions                                      | [mm] | 28 x 10 x 16                                       |
| Application                                     |      |                                                    |
| Special feature                                 |      | Increased sensing range                            |
| Electrical data                                 |      |                                                    |
| Operating voltage                               | [V]  | 5...36 DC                                          |
| Current consumption                             | [mA] | < 15                                               |
| Protection class                                |      | II                                                 |
| Reverse polarity protection                     |      | yes                                                |
| Outputs                                         |      |                                                    |
| Electrical design                               |      | PNP/NPN                                            |
| Output function                                 |      | normally open / normally closed; (parameterisable) |
| Max. voltage drop switching output DC           | [V]  | 4.6                                                |
| Permanent current rating of switching output DC | [mA] | 200                                                |
| Switching frequency DC                          | [Hz] | 500                                                |
| Short-circuit protection                        |      | yes                                                |
| Overload protection                             |      | yes                                                |
| Detection zone                                  |      |                                                    |
| Sensing range                                   | [mm] | 3                                                  |
| Real sensing range Sr                           | [mm] | 3 ± 10 %                                           |

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|                                      |                           |                                                                             |
|--------------------------------------|---------------------------|-----------------------------------------------------------------------------|
| Operating distance                   | [mm]                      | 0...2.4                                                                     |
| Increased sensing range              |                           | yes                                                                         |
| <b>Accuracy / deviations</b>         |                           |                                                                             |
| Correction factor                    |                           | steel: 1 / stainless steel: 0.7 / brass: 0.5 / aluminium: 0.4 / copper: 0.3 |
| Hysteresis                           | [% of Sr]                 | 1...15                                                                      |
| Switch point drift                   | [% of Sr]                 | -10...10                                                                    |
| <b>Operating conditions</b>          |                           |                                                                             |
| Ambient temperature                  | [°C]                      | -25...80                                                                    |
| Protection                           |                           | IP 67                                                                       |
| <b>Tests / approvals</b>             |                           |                                                                             |
| EMC                                  | EN 61000-4-2 ESD          | 4 kV CD / 8 kV AD                                                           |
|                                      | EN 61000-4-3 HF radiated  | 3 V/m                                                                       |
|                                      | EN 61000-4-4 Burst        | 2 kV                                                                        |
|                                      | EN 61000-4-6 HF conducted | 3 V                                                                         |
|                                      | EN 55011                  | class B                                                                     |
| MTTF                                 | [years]                   | 2470                                                                        |
| UL approval                          | Ta                        | -25...75 °C                                                                 |
|                                      | Enclosure type            | Type 1                                                                      |
|                                      | power supply              | Limited Voltage/Current                                                     |
|                                      | File number UL            | E174191                                                                     |
| <b>Mechanical data</b>               |                           |                                                                             |
| Weight                               | [g]                       | 14.9                                                                        |
| Housing                              |                           | rectangular                                                                 |
| Mounting                             |                           | non-flush mountable                                                         |
| Dimensions                           | [mm]                      | 28 x 10 x 16                                                                |
| Materials                            |                           | PBT                                                                         |
| Tightening torque                    | [Nm]                      | < 0.5; (with washer)                                                        |
| <b>Displays / operating elements</b> |                           |                                                                             |
| Display                              | switching status          | 1 x LED, yellow                                                             |
| <b>Remarks</b>                       |                           |                                                                             |
| Pack quantity                        |                           | 1 pcs.                                                                      |

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### Electrical connection

Cable: 0.3 m, PUR / PVC; 2 x 0.14 mm<sup>2</sup>

### Connection



BK =  
WH =

Core colours :  
black  
white