

# IF7107



## Inductive sensor

IFK3004-ANKG/2M/PUR



1 LED yellow



### Product characteristics

|                    |                  |
|--------------------|------------------|
| Electrical design  | NPN              |
| Output function    | normally open    |
| Sensing range [mm] | 4                |
| Housing            | threaded type    |
| Dimensions [mm]    | M12 x 1 / L = 60 |

### Electrical data

|                             |            |
|-----------------------------|------------|
| Operating voltage [V]       | 10...30 DC |
| Current consumption [mA]    | < 10       |
| Protection class            | III        |
| Reverse polarity protection | yes        |

### Outputs

|                                                      |               |
|------------------------------------------------------|---------------|
| Electrical design                                    | NPN           |
| Output function                                      | normally open |
| Max. voltage drop switching output DC [V]            | 2.5           |
| Permanent current rating of switching output DC [mA] | 100           |
| Switching frequency DC [Hz]                          | 800           |
| Short-circuit protection                             | yes           |
| Overload protection                                  | yes           |

### Detection zone

|                               |              |
|-------------------------------|--------------|
| Sensing range [mm]            | 4            |
| Real sensing range $S_r$ [mm] | $4 \pm 10\%$ |
| Operating distance [mm]       | 0...3.24     |

### Accuracy / deviations

|                                  |                                                                             |
|----------------------------------|-----------------------------------------------------------------------------|
| Correction factor                | steel: 1 / stainless steel: 0.7 / brass: 0.5 / aluminium: 0.4 / copper: 0.3 |
| Hysteresis [% of $S_r$ ]         | 3...15                                                                      |
| Switch point drift [% of $S_r$ ] | -10...10                                                                    |

### Operating conditions

|                          |          |
|--------------------------|----------|
| Ambient temperature [°C] | -25...75 |
| Protection               | IP 67    |

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| Tests / approvals             |                           |                                                                                                                        |
|-------------------------------|---------------------------|------------------------------------------------------------------------------------------------------------------------|
| EMC                           | EN 61000-4-2 ESD          | 4 kV CD / 8 kV AD                                                                                                      |
|                               | EN 61000-4-3 HF radiated  | 10 V/m                                                                                                                 |
|                               | EN 61000-4-4 Burst        | 2 kV                                                                                                                   |
|                               | EN 61000-4-6 HF conducted | 10 V                                                                                                                   |
|                               | EN 55011                  | class B                                                                                                                |
| MTTF                          | [years]                   | 1627                                                                                                                   |
| Embedded software included    |                           | yes                                                                                                                    |
| UL approval                   | Ta                        | -25...75 °C                                                                                                            |
|                               | Enclosure type            | Type 1                                                                                                                 |
|                               | power supply              | Limited Voltage/Current                                                                                                |
|                               | UL Approval no.           | A002                                                                                                                   |
|                               | File number UL            | E174191                                                                                                                |
| Mechanical data               |                           |                                                                                                                        |
| Weight                        | [g]                       | 93.2                                                                                                                   |
| Housing                       |                           | threaded type                                                                                                          |
| Mounting                      |                           | non-flush mountable                                                                                                    |
| Dimensions                    | [mm]                      | M12 x 1 / L = 60                                                                                                       |
| Thread designation            |                           | M12 x 1                                                                                                                |
| Materials                     |                           | housing: brass white bronze coated; sensing face: PBT orange;<br>LED window: PEI; lock nuts: brass white bronze coated |
| Tightening torque             | [Nm]                      | 12                                                                                                                     |
| Displays / operating elements |                           |                                                                                                                        |
| Display                       | switching status          | 1 x LED, yellow                                                                                                        |
| Accessories                   |                           |                                                                                                                        |
| Items supplied                |                           | lock nuts: 2                                                                                                           |
| Remarks                       |                           |                                                                                                                        |
| Pack quantity                 |                           | 1 pcs.                                                                                                                 |

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### Electrical connection

Cable: 2 m, PUR, Ø 4.0 mm; 3 x 0.34 mm<sup>2</sup>

### Connection



|    |              |
|----|--------------|
|    | Core colours |
| BN | brown        |
| BK | black        |
| BU | blue         |