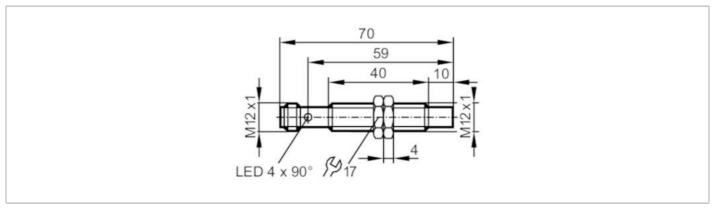
# **IFT245**

#### Inductive full-metal sensor

IFK3006-BPKG/AM/P/US





# C € : Usted ER EC 1935/2004 FD

| Product characteristics                         |       |   |  |
|---|-------|---|--|
| Electrical design                               |       | PNP   |  |
| Output function                                 |       | normally open   |  |
| Sensing range                                   | [mm]  | 6   |  |
| Housing   |       | threaded type   |  |
| Dimensions                                      | [mm]  | M12 x 1 / L = 70  |  |
| Application                                     |       |   |  |
| Special feature                                 |       | Gold-plated contacts; Increased sensing range; Full-metal housing             |  |
| Application                                     |       | constant cleaning with aggressive cleaning agents; regular cleaning processes |  |
| Pressure rating                                 | [bar] | 100   |  |
| Note on pressure rating                         |       | sensing face  |  |
| Electrical data                                 |       |   |  |
| Operating voltage                               | [V]   | 1036 DC   |  |
| Current consumption                             | [mA]  | < 25  |  |
| Protection class                                |       | III   |  |
| Reverse polarity protection                     |       | yes   |  |
| Outputs   |       |   |  |
| Electrical design                               |       | PNP   |  |
| 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]  | 500   |  |
| Short-circuit protection                        |       | yes   |  |
| Type of short-circuit protection                |       | pulsed  |  |
| Overload protection                             |       | yes   |  |

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| <b>Detection zone</b>    |                   |  |                                     |  |
|--------------------------|-------------------|--|-------------------------------------|--|
| Sensing range            | [mm]              | 6  |                                     |  |
| Real sensing range Sr    | [mm]              | 6 ± 10 %   |                                     |  |
| Operating distance       | [mm]              | 04.9   |                                     |  |
| Increased sensing range  | <b>.</b>          | yes  |                                     |  |
| Accuracy / deviations    |                   |  |                                     |  |
| Correction factor        |                   | steel: 1 / stainless steel: 1 / brass:   | 0.9 / aluminium: 0.75 / copper: 0.6 |  |
| Hysteresis               | [% of Sr]         | 120  |                                     |  |
| Switch point drift       | [% of Sr]         | -1010  |                                     |  |
| Operating conditions     |                   |  |                                     |  |
| Ambient temperature      | [°C]              | 0100   |                                     |  |
| Protection               |                   | IP 65; IP 67; IP 68; IP 69K  |                                     |  |
| Tests / approvals        |                   |  |                                     |  |
|                          |                   | EN 61000-4-2 ESD   | 4 kV CD / 8 kV AD                   |  |
|                          |                   | EN 61000-4-3 HF radiated   | 10 V/m                              |  |
| EMC                      |                   | EN 61000-4-4 Burst   | 2 kV                                |  |
|                          |                   | EN 61000-4-6 HF conducted  | 10 V                                |  |
|                          |                   | EN 55011 emission  | class B                             |  |
| Impact resistance        |                   |  | 1 J                                 |  |
| MTTF                     | [years]           | 1265   |                                     |  |
| UL approval              |                   | Та   | 040 °C                              |  |
|                          |                   | Enclosure type   | Type 1                              |  |
|                          | _                 | power supply   | Limited Voltage/Current             |  |
|                          |                   | File number UL   | E174191                             |  |
| Mechanical data          |                   |  |                                     |  |
| Weight                   | [g]               | 29.75  |                                     |  |
| Housing                  |                   | threaded type  |                                     |  |
| Mounting                 |                   | non-flush mountable  |                                     |  |
| Dimensions               | [mm]              | M12 x 1 / L = 70   |                                     |  |
| Thread designation       |                   | M12 x 1  |                                     |  |
| Materials                |                   | housing: stainless steel (1.4404 / 316L); sensing face: stainless steel (1.4404 / 316L); LED window: PEI; lock nuts: stainless steel (1.4404 / 316L) |                                     |  |
| Full-metal housing       |                   | yes  |                                     |  |
| Displays / operating ele | ements            |  |                                     |  |
| Display                  |                   | switching status   | 4 x 90° LED, yellow                 |  |
| Accessories              |                   |  |                                     |  |
| Items supplied           |                   | lock nuts: 2   |                                     |  |
| Remarks                  |                   |  |                                     |  |
| Pack quantity            |                   | 1 pcs.   |                                     |  |
| Electrical connection -  | plug              |  |                                     |  |
| Connector: 1 x M12; codi |                   | gold-plated  |                                     |  |
|                          | J , : : ::::::30. |  |                                     |  |

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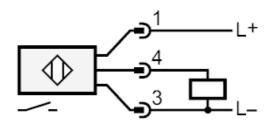
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#### Connection



| Diagrams and graphs |    |
|---------------------|----|
| Installation        | 45 |