

# IFS216



## Inductive sensor

IFK3002-BPKG/US-104



### Product characteristics

|                    |                  |
|--------------------|------------------|
| Electrical design  | PNP              |
| Output function    | normally open    |
| Sensing range [mm] | 2                |
| Housing            | Threaded type    |
| Dimensions [mm]    | M12 x 1 / L = 70 |

### Application

|             |                         |
|-------------|-------------------------|
| System      | gold-plated contacts    |
| Application | Industrial applications |

### Electrical data

|                             |            |
|-----------------------------|------------|
| Operating voltage [V]       | 10...30 DC |
| Current consumption [mA]    | < 10       |
| Protection class            | II         |
| 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]                          | 700                |
| Short-circuit protection                             | yes                |
| Type of short-circuit protection                     | yes (non-latching) |
| Overload protection                                  | yes                |

### Monitoring range

|                            |          |
|----------------------------|----------|
| Sensing range [mm]         | 2        |
| Real sensing range Sr [mm] | 2 ± 10 % |
| Operating distance [mm]    | 0...1.62 |

### Accuracy / deviations

|                   |                                                                            |
|-------------------|----------------------------------------------------------------------------|
| Correction factor | steel: 1 / stainless steel: 0.7 / brass: 0.5 / aluminum: 0.4 / copper: 0.3 |
|-------------------|----------------------------------------------------------------------------|

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|                    |           |          |
|--------------------|-----------|----------|
| Hysteresis         | [% of Sr] | 1...20   |
| Switch-point drift | [% of Sr] | -10...10 |

### Operating conditions

|                     |      |          |
|---------------------|------|----------|
| Ambient temperature | [°C] | -25...70 |
| Protection          |      | IP 67    |

### 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]                   | 1134              |
| UL approval | Ta                        | 0...40 °C         |
|             | Enclosure type            | Type 1            |
|             | voltage supply            | Hazardous voltage |
|             | UL approval number        | A003              |
|             | File number UL            | E174191           |

### Mechanical data

|                    |      |                                                                                                                        |
|--------------------|------|------------------------------------------------------------------------------------------------------------------------|
| Weight             | [g]  | 30.6                                                                                                                   |
| Housing            |      | Threaded type                                                                                                          |
| Mounting           |      | flush mountable                                                                                                        |
| Dimensions         | [mm] | M12 x 1 / L = 70                                                                                                       |
| Thread designation |      | M12 x 1                                                                                                                |
| Material           |      | housing: brass white bronze coated; sensing face: PBT orange;<br>LED window: PEI; lock nuts: brass white bronze coated |
| Tightening torque  | [Nm] | 7                                                                                                                      |

### Displays / operating elements

|         |                  |                 |
|---------|------------------|-----------------|
| Display | Switching status | 4 x LED, yellow |
|---------|------------------|-----------------|

### Accessories

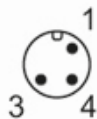
|                |              |
|----------------|--------------|
| Items supplied | lock nuts: 2 |
|----------------|--------------|

### Remarks

|               |        |
|---------------|--------|
| Pack quantity | 1 pcs. |
|---------------|--------|

### Electrical connection - plug

Connector: 1 x M12; coding: A; Contacts: gold-plated



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### Connection

