



## Inductive sensor

IGK3012-BPKG/US-104



### Product characteristics

|                    |                  |
|--------------------|------------------|
| Electrical design  | PNP              |
| Output function    | normally open    |
| Sensing range [mm] | 12               |
| Housing            | Threaded type    |
| Dimensions [mm]    | M18 x 1 / L = 60 |

### Application

|             |                                               |
|-------------|-----------------------------------------------|
| System      | gold-plated contacts; Increased sensing range |
| Application | Oils and coolants                             |

### 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] | 200           |
| Switching frequency DC [Hz]                          | 300           |
| Short-circuit protection                             | yes           |
| Overload protection                                  | yes           |

### Monitoring range

|                            |           |
|----------------------------|-----------|
| Sensing range [mm]         | 12        |
| Real sensing range Sr [mm] | 12 ± 10 % |
| Operating distance [mm]    | 0...9.72  |
| Increased sensing range    | yes       |

### Accuracy / deviations

|                      |                                                                            |
|----------------------|----------------------------------------------------------------------------|
| Correction factor    | steel: 1 / stainless steel: 0.7 / brass: 0.5 / aluminum: 0.4 / copper: 0.3 |
| Hysteresis [% of Sr] | 3...15                                                                     |

# IGC220



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

### Operating conditions

|                     |      |                    |
|---------------------|------|--------------------|
| Ambient temperature | [°C] | -25...70           |
| Protection          |      | IP 68; ("Coolant") |

### 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]                   | 1083              |
| Embedded software included |                           | no                |
| UL approval                | Ta                        | 0...40 °C         |
|                            | Enclosure type            | Type 1            |
|                            | voltage supply            | Hazardous voltage |
|                            | UL approval number        | A004              |
|                            | File number UL            | E174191           |

### Mechanical data

|                    |      |                                                                                                                       |
|--------------------|------|-----------------------------------------------------------------------------------------------------------------------|
| Weight             | [g]  | 47.5                                                                                                                  |
| Housing            |      | Threaded type                                                                                                         |
| Mounting           |      | non-flush mountable                                                                                                   |
| Dimensions         | [mm] | M18 x 1 / L = 60                                                                                                      |
| Thread designation |      | M18 x 1                                                                                                               |
| Material           |      | housing: brass white bronze coated; sensing face: LCP white;<br>LED window: PEI; lock nuts: brass white bronze coated |

### Displays / operating elements

|         |                  |                     |
|---------|------------------|---------------------|
| 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; coding: A; Contacts: gold-plated





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### Connection

