# IGT202

## Inductive sensor

IGKC012-ASKG/M/V4A/US-104-DRS

---

**Product characteristics**

<table>
<thead>
<tr>
<th><strong>Electrical design</strong></th>
<th>PNP/NPN</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Output function</strong></td>
<td>normally open</td>
</tr>
<tr>
<td><strong>Sensing range [mm]</strong></td>
<td>12</td>
</tr>
<tr>
<td><strong>Housing</strong></td>
<td>Threaded type</td>
</tr>
<tr>
<td><strong>Dimensions [mm]</strong></td>
<td>M18 x 1 / L = 70</td>
</tr>
</tbody>
</table>

**Application**

<table>
<thead>
<tr>
<th><strong>System</strong></th>
<th>gold-plated contacts; increased sensing range; optical setting aid</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Application</strong></td>
<td>Washdown applications</td>
</tr>
</tbody>
</table>

**Electrical data**

<table>
<thead>
<tr>
<th><strong>Operating voltage [V]</strong></th>
<th>10...30 DC</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current consumption [mA]</strong></td>
<td>12; (24 V)</td>
</tr>
<tr>
<td><strong>Protection class</strong></td>
<td>II</td>
</tr>
<tr>
<td><strong>Reverse polarity protection</strong></td>
<td>yes</td>
</tr>
</tbody>
</table>

**Outputs**

<table>
<thead>
<tr>
<th><strong>Electrical design</strong></th>
<th>PNP/NPN</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Output function</strong></td>
<td>normally open</td>
</tr>
<tr>
<td><strong>Max. voltage drop switching output DC [V]</strong></td>
<td>2.8</td>
</tr>
<tr>
<td><strong>Minimum load current [mA]</strong></td>
<td>2; (only in 2-wire operation)</td>
</tr>
<tr>
<td><strong>Max. leakage current [mA]</strong></td>
<td>0.5; (only in 2-wire operation)</td>
</tr>
<tr>
<td><strong>Permanent current rating of switching output DC [mA]</strong></td>
<td>100</td>
</tr>
<tr>
<td><strong>Switching frequency DC [Hz]</strong></td>
<td>300</td>
</tr>
<tr>
<td><strong>Short-circuit protection</strong></td>
<td>yes</td>
</tr>
<tr>
<td><strong>Type of short-circuit protection</strong></td>
<td>yes (non-latching)</td>
</tr>
<tr>
<td><strong>Overload protection</strong></td>
<td>yes</td>
</tr>
</tbody>
</table>

---

ifm efector, inc. • 1100 Atwater Drive • Malvern • PA 19355 — We reserve the right to make technical alterations without prior notice. — EN-US — IGT202-00 — 13.08.2004 — ©
# IGT202

**Inductive sensor**

| **IGKC012-ASKG/M/V4A/US-104-DRS** |

<table>
<thead>
<tr>
<th><strong>Monitoring range</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensing range</td>
<td>12</td>
</tr>
<tr>
<td>Real sensing range Sr</td>
<td>12 ± 10 %</td>
</tr>
<tr>
<td>Operating distance</td>
<td>0...9.7</td>
</tr>
<tr>
<td>Increased sensing range</td>
<td>yes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Accuracy / deviations</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Correction factor</td>
<td>steel: 1 / stainless steel: 0.7 / brass: 0.5 / aluminum: 0.4 / copper: 0.3</td>
</tr>
<tr>
<td>Hysteresis [% of Sr]</td>
<td>3...15</td>
</tr>
<tr>
<td>Switch-point drift [% of Sr]</td>
<td>-10...10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Operating conditions</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambient temperature [°C]</td>
<td>0...100</td>
</tr>
<tr>
<td>Protection</td>
<td>IP 68; IP 69K</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Tests / approvals</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EMC</td>
<td></td>
</tr>
<tr>
<td>EN 61000-4-2 ESD</td>
<td>4 kV CD / 8 kV AD</td>
</tr>
<tr>
<td>EN 61000-4-3 HF radiated</td>
<td>10 V/m</td>
</tr>
<tr>
<td>EN 61000-4-4 Burst</td>
<td>2 kV</td>
</tr>
<tr>
<td>EN 61000-4-6 HF conducted</td>
<td>10 V</td>
</tr>
<tr>
<td>EN 55011</td>
<td>class B</td>
</tr>
<tr>
<td>MTTF [years]</td>
<td>1359</td>
</tr>
<tr>
<td>UL approval</td>
<td></td>
</tr>
<tr>
<td>Ta</td>
<td>0...40 °C</td>
</tr>
<tr>
<td>Enclosure type</td>
<td>Type 1</td>
</tr>
<tr>
<td>voltage supply</td>
<td>Limited Voltage/Current</td>
</tr>
<tr>
<td>File number UL</td>
<td>E174191</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Mechanical data</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight [g]</td>
<td>52.7</td>
</tr>
<tr>
<td>Housing</td>
<td>Threaded type</td>
</tr>
<tr>
<td>Mounting</td>
<td>non-flush mountable</td>
</tr>
<tr>
<td>Dimensions [mm]</td>
<td>M18 x 1 / L = 70</td>
</tr>
<tr>
<td>Thread designation</td>
<td>M18 x 1</td>
</tr>
<tr>
<td>Material</td>
<td>stainless steel (1.4404 / 316L); sensing face: PEEK</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Displays / operating elements</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Display</td>
<td></td>
</tr>
<tr>
<td>Switching status</td>
<td>4 x 90° LED, yellow</td>
</tr>
<tr>
<td>Setting aid</td>
<td>1 x LED, red</td>
</tr>
<tr>
<td>Optical setting aid</td>
<td>yes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Accessories</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Accessories (supplied)</td>
<td>lock nuts: 2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Remarks</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Remarks</td>
<td>suitable for PLC type 1 according to IEC 61131-2</td>
</tr>
<tr>
<td>Pack quantity</td>
<td>1 pcs.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Electrical connection - plug</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector: 1 x M12; Contacts: gold-plated</td>
<td></td>
</tr>
</tbody>
</table>

ifm efector, inc. • 1100 Atwater Drive • Malvern • PA 19355 — We reserve the right to make technical alterations without prior notice. — EN-US — IGT202-00 — 13.08.2004 — 1
IGT202

Inductive sensor

IGKC012-ASKG/M/V4A/US-104-DRS