**SM-5 5Hz Vertical High Sensitivity Geophone**

**LOW FREQUENCY, CLOSE TOLERANCE GEOPHONE ELEMENT**

![Geophone Image](image)

<table>
<thead>
<tr>
<th>Specifications for: SM-5 UB 5 Hz 1850 ohm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Direction</td>
</tr>
<tr>
<td>Resistance</td>
</tr>
<tr>
<td>- Coil resistance</td>
</tr>
<tr>
<td>- Tolerance</td>
</tr>
<tr>
<td>Frequency</td>
</tr>
<tr>
<td>- Natural frequency (fn)</td>
</tr>
<tr>
<td>- Tolerance</td>
</tr>
<tr>
<td>- Typical spurious frequency</td>
</tr>
<tr>
<td>Damping</td>
</tr>
<tr>
<td>- Open-circuit damping</td>
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## Specifications for: SM-5 UB 5 Hz 1850 ohm

<table>
<thead>
<tr>
<th>Distortion</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Distortion with 0.7 V/in/s p.p. coil-to-case velocity</td>
<td>0.1 % max</td>
</tr>
<tr>
<td>Distortion measurement frequency</td>
<td>12 Hz</td>
</tr>
<tr>
<td>Maximum tilt angle for specified distortion</td>
<td>10°</td>
</tr>
<tr>
<td>RtBcFn</td>
<td>22436 Ω Hz</td>
</tr>
<tr>
<td>Moving mass</td>
<td>22.7 g (0.8 oz)</td>
</tr>
<tr>
<td>Maximum coil excursion p.p.</td>
<td>3 mm (0.12 in)</td>
</tr>
</tbody>
</table>

### Physical Characteristics

| Diameter                                | 30.5 mm (1.2 in) |
| Height                                  | 41.5 mm (1.63 in) |
| Weight                                  | 140 g (4.94 oz) |
| Operating temperature                   | -40 to 100 °C (-40 to 212 °F) |

### Special Notes

All parameters are specified at 22 °C (71.6 °F) in Upright (pins up) position, unless otherwise specified.

### Part Number

1005010

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**About ION**

ION has been a technology leader for 50 years with a strong history of innovation. Leveraging innovative technologies, ION creates value through data capture, analysis and optimization to enhance companies’ critical decision-making abilities and returns. Our offerings are focused on improving E&P decision-making, enhancing reservoir management and optimizing offshore operations.
## Specifications for: SM-5 HB 5 Hz 1850 ohm

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
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<tbody>
<tr>
<td>Work Direction</td>
<td>Horizontal</td>
</tr>
<tr>
<td>Resistance</td>
<td></td>
</tr>
<tr>
<td>Coil resistance</td>
<td>1850 Ω</td>
</tr>
<tr>
<td>Tolerance</td>
<td>± 5 %</td>
</tr>
<tr>
<td>Frequency</td>
<td></td>
</tr>
<tr>
<td>Natural frequency (fn)</td>
<td>5 Hz</td>
</tr>
<tr>
<td>Tolerance</td>
<td>± 7.5 %</td>
</tr>
<tr>
<td>Typical spurious frequency</td>
<td>&gt; 150 Hz</td>
</tr>
<tr>
<td>Damping</td>
<td></td>
</tr>
<tr>
<td>Open-circuit damping</td>
<td>0.6</td>
</tr>
<tr>
<td>Tolerance</td>
<td>± 7.5 %</td>
</tr>
<tr>
<td>Sensitivity</td>
<td></td>
</tr>
<tr>
<td>Open-circuit sensitivity</td>
<td>80V/m/s (2.03 V/in/s)</td>
</tr>
<tr>
<td>Tolerance</td>
<td>± 5 %</td>
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