**Dual-Frequency Capability**
The M191 features dual-frequency capability in a compact, lightweight housing. These frequencies have low sidelobes, which focus more energy on target and provide good definition in hard-bottom areas. The low-ring (Q) versions give clear, bottom detail and are especially effective at surveying in extremely, shallow-water.

**Options**
- Impedance to customer’s specifications using matching transformer
- Single-frequency transducers available

**Portable-Mount**
**700 W - 1 kW**
**Broadband**

**Applications**
- River, harbor, or estuary survey

**Features**
- Stainless-steel, threaded stem easily attaches to portable-mounting apparatus
- Can be mounted on a towed body
- Not suitable for thru-hull mounting
- Internal transformer provides correct impedance match to echosounder and allows use of longer cable
- Seamless, SEALCAST™, urethane housing for long life underwater
Technical Information

As Airmar constantly improves its products, all specifications are subject to change without notice. All Airmar products are designed to provide high levels of accuracy and reliability, however they should only be used as aids to navigation and not as a replacement for traditional navigation aids and techniques. SEALCAST™ is a trademark of Airmar Technology Corporation. Other company or product names mentioned in this document may be trademarks or registered trademarks of their respective companies, which are not affiliated with Airmar.

### SPECIFICATIONS

#### Weight
Varies depending on configuration (Call for weight)

#### Acoustic Window
Urethane

#### Stem Thread
1/2"-14 NPS

#### Cable Type
C-44
Three shielded twisted pair (two 2-18 AWG and one 2-22 AWG) with foil and braided shield overall, black TPR jacket, 11 mm (7/16") diameter

### DIMENSIONS

**Configuration Dimension A**

- 38 mm (1.50")
- 51 mm (2.00")

**Configuration Dimension B**

- 38 mm (1.50")
- 51 mm (2.00")

### Frequencies

#### Configuration Beamwidth (±3 dB) RMS Power (kW) FOM (dB) Q Series Impedance (R-jX)

<table>
<thead>
<tr>
<th>Frequencies</th>
<th>Configuration</th>
<th>Beamwidth (±3 dB)</th>
<th>RMS Power (kW)</th>
<th>FOM (dB)</th>
<th>Q</th>
<th>Series Impedance (R-jX)</th>
</tr>
</thead>
<tbody>
<tr>
<td>24 kHz-K/200 kHz-Awlg</td>
<td>A</td>
<td>33°/7°</td>
<td>900 W</td>
<td>-18/-16</td>
<td>9/10</td>
<td>60-j0(Ω)/60-j0(Ω)</td>
</tr>
<tr>
<td>33 kHz-E/200 kHz-Awlg</td>
<td>B</td>
<td>23°/6°</td>
<td>700 W</td>
<td>-13/-16</td>
<td>7/10</td>
<td>60-j0(Ω)/60-j0(Ω)</td>
</tr>
<tr>
<td>50 kHz-Y/200 kHz-Aw</td>
<td>B</td>
<td>15°/6°</td>
<td>1 kW</td>
<td>-13/-16</td>
<td>8/10</td>
<td>60-j0(Ω)/60-j0(Ω)</td>
</tr>
</tbody>
</table>

### Technical Data—200 kHz-AWlq

TVR in dB re 1μPa/Volt at 1 m

RVR in dB re 1 Volt/μPa

### Directivity Pattern—200 kHz-AWlq

<table>
<thead>
<tr>
<th>Configuration</th>
<th>Dimension A</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>115 mm (4.5&quot;)</td>
</tr>
<tr>
<td>B</td>
<td>89 mm (3.5&quot;)</td>
</tr>
</tbody>
</table>