### Product Specifications

#### SM31FH Fitness Headset Condenser Microphone

**Overview**
The new SM31FH adds hydrophobic materials to the industry-standard, road-tested Shure SM family in a rugged and durable cardioid condenser microphone. TA4F 4-pin connectors make it a viable replacement for any existing Shure wireless headset system, and is also available with BLX and GLX-D wireless system bundles. The moisture-repelling cartridge housing protects the microphone and ensures a long lifetime of use, all but eliminating the need to frequently replace typical headsets.

**Features**
- Wearable wireframe headset with secure, comfortable fit made for fitness and aerobics instructors
- Integrated moisture-repelling hydrophobic fabric protects the microphone element from harmful corrosion for use in humid environments
- Flexible gooseneck design provides discrete adjustment options to optimize placement for greatest isolation
- Lightweight and low-profile form factors stave off fatigue during high-impact use
- Compatible with Shure wireless bodypack systems for direct replacement of TA4F-connected microphones
- Available with a wide variety of Shure wireless systems, renowned for their ease of use and reliable performance
- Included windscreen tames plosive, breath and wind noise for clean and intelligible sound
- Tailored frequency response refined for crisp and clear vocal reproduction
- Legendary Shure precision engineering for durability and performance

**Available Models**

- **SM31FH-TQG** Fitness Headset Cardioid Condenser Microphone with Windscreen
- **BLX1288/SM31** BLX Dual-Channel Wireless Combo System
- **BLX14/SM31** BLX Wireless Headset System
- **BLX188/SM31** BLX Dual-Channel Wireless Headset System
- **BLX14R/SM31** BLX Rack-Mounted Wireless Headset System
- **GLXD14/SM31** GLX-D Digital Wireless Headset System

**Specifications**

<table>
<thead>
<tr>
<th>Type</th>
<th>Electret Condenser</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency Response</td>
<td>45 Hz to 20,000 Hz</td>
</tr>
<tr>
<td>Polar Pattern</td>
<td>Unidirectional (cardioid)</td>
</tr>
<tr>
<td>Output Impedance @ 1 kHz</td>
<td>600 Ω</td>
</tr>
<tr>
<td>Audio Output Level</td>
<td>-50 dBV/Pa</td>
</tr>
<tr>
<td>Signal-to-Noise Ratio [1] @ 1 kHz</td>
<td>66 dB</td>
</tr>
<tr>
<td>Maximum SPL [1] @ 1000 Ω level @ 3% THD</td>
<td>145.0 dB</td>
</tr>
<tr>
<td>Dynamic Range [1] @ 1 kHz, 1000 Ω level</td>
<td>117.0 dB</td>
</tr>
<tr>
<td>Equivalent Output Noise [1]</td>
<td>28 dB</td>
</tr>
<tr>
<td>Power Requirements</td>
<td>+5 V DC (nominal), 10 V maximum (DC bias)</td>
</tr>
<tr>
<td>Polarity</td>
<td>Positive pressure on diaphragm produces positive voltage on pin 3 with respect to pin 1</td>
</tr>
<tr>
<td>Cable</td>
<td>1.1 m (45 in.)</td>
</tr>
<tr>
<td>Connector</td>
<td>TA4F</td>
</tr>
<tr>
<td>Net Weight</td>
<td>60 g (2.11 oz.)</td>
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</table>

[1] Measurements taken using RK100PK preamp set @ 0 dB using 8k bias resistor.

**Optional Accessories**

- **RK379** Replacement kit with clip + 2 foam windscreeens

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**Polar Patterns**

- **20 Hz**
- **100 Hz**
- **1 kHz**
- **10 kHz**

**Frequency Response**

- **0.6 m (2 ft.) from sound source**
- **1 cm (0.4 in.) from sound source**

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