

# 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

<b>SM31FH-TQG</b>	Fitness Headset Cardioid Condenser Microphone with Windscreen
<b>BLX14/SM31</b>	BLX Wireless Headset System
<b>BLX14R/SM31</b>	BLX Wireless Half-Rack Headset System

### Specifications

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

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

\* All specifications measured with a 48 VDC phantom power supply. The microphone operates at lower voltages, but with slightly decreased headroom and sensitivity.

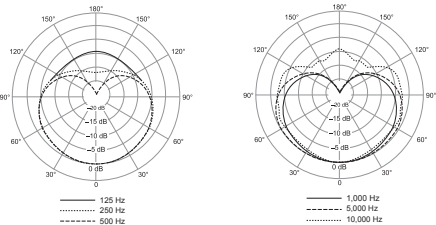
### Optional Accessories

<b>RK379</b>	Replacement kit with clip + 2 foam windscreens
--------------	--

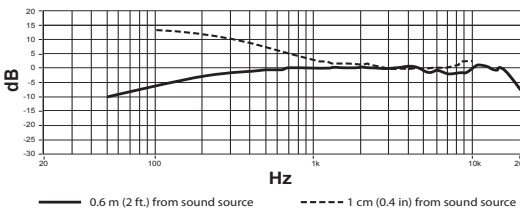


SM31FH

### Polar Patterns



### Frequency Response



**SHURE**<sup>®</sup>  
LEGENDARY  
PERFORMANCE<sup>™</sup>