



SM-15 Geophone

- 14-Hz natural frequency with high spurious, over 500 Hz, provides extended frequency bandwidth
- Suitable for 1-ms recording sample period
- Vertical and horizontal versions are suitable for multi-component applications
- 2-year limited warranty



The SM-15 geophone is a wide-bandwidth, digital-grade geophone suitable for use with data recorders, sampling at up to 1-ms period. The geophone is available in vertical or horizontal versions, making it suitable for extended frequency, multi-component recording. The SM-15 is a good choice for economical seismograph operations where sensor's bandwidth flexibility is important.

The SM-15 can be installed in a variety of I/O Sensor geophone cases.

Typical application: high-resolution seismograph reflection surveys.

Specifications

INPUT/OUTPUT, INC.

SM-15/U-B 14 Hz 375 Ω

Frequency

Natural frequency (f_n) 14 Hz
 Tolerance ±5%
 Maximum tilt angle for specified f_n 25°
 Typical spurious frequency >500 Hz

Distortion

Distortion with 0.7 in/s p.p. coil-to-case velocity ≤0.2%
 Distortion measurement frequency 14 Hz
 Maximum tilt angle for distortion specification 20°

Damping

Open-circuit damping 0.18
 Damping calibration-shunt resistance 645 Ω
 Damping with shunt 0.60
 Tolerance with shunt ±5%

Resistance

Standard coil resistance 375 Ω
 Tolerance ±5%

Sensitivity

Open-circuit sensitivity 28.8 V/m/s (0.73 V/in/s)
 Tolerance ±5%
 $R_t B_c f_n$ 6,000 ΩHz
 Moving mass 11 g (0.38 oz)
 Maximum coil excursion p.p. 2 mm (0.08 in)

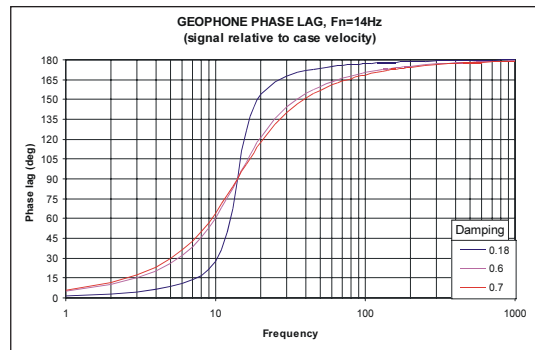
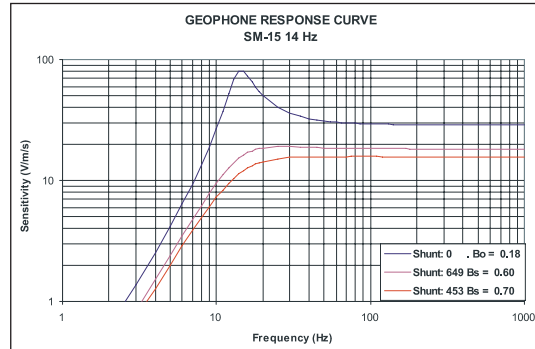
Physical Characteristics

Diameter 25.4 mm (1 in)
 Height 32 mm (1.26 in)
 Weight 74 g (2.6 oz)
 Operating temperature range -40°C to +100°C (-40°F to +212°F)

Limited Warranty Period*

2 years
 * Warranty excludes damage caused by high-voltage and physical damage to the element case.

All parameters are specified at +20°C in the vertical position unless otherwise stated.



Ordering Information

SM-15

SM-15/U-B	14 Hz	375 Ω	(upright)	P/N 1015010
SM-15/H-B	14 Hz	375 Ω	(horizontal)	P/N 1015020

United States – Stafford, TX
 Input/Output, Inc.
 Fax 281.879.3500
 Phone 281.933.3339

Russia
 Input/Output, Inc.
 Fax 7.095.2322240
 Phone 7.095.2322254

England
 Input/Output, Inc.
 Fax 44.1603.411403
 Phone 44.1603.411400

Web Site
www.i-o.com