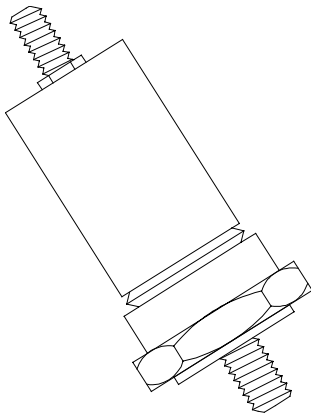


Specifications and Ordering Information 23732 Acceleration Transducer System



Description

The 23732 Acceleration Transducer System consists of an accelerometer, interconnect cable, and interface module. It is intended for critical machinery applications where casing acceleration measurements are required, such as gear mesh monitoring.

Caution

If housing measurements are being made for overall protection of the machine, thought should be given to the usefulness of the measurement for each application. Most common machine malfunctions (imbalance, misalignment, etc.) originate at the rotor and cause an increase (or at least a change) in rotor vibration. In order for any housing measurement alone to be effective for overall machine protection, a significant amount of rotor vibration must be faithfully transmitted to the bearing housing or machine casing, or more specifically, to the mounting location of the transducer.

In addition, care should be exercised in the physical installation of the transducer. Improper installation can result in a decrease of the transducer amplitude and frequency of the transducer amplitude and frequency response and/or the generation of signals which do not represent actual machine vibration.

Upon request, Bently Nevada can provide engineering services to determine the appropriateness of housing measurements for the machine in question and/or to provide installation assistance.

Note: For most applications, the newer 330400 or 330425 accelerometers represent a superior choice, and are compatible with most installations where the 23732 would be used. See Specifications and Ordering Information (p/n 141638-01), and consult your local Bently Nevada Sales or Service Professional.

Specifications

Output

Accelerometer

Sensitivity: 25 mV/g (2.55 mV/m/s²) ±5%

Acceleration Range: 75 g (735 m/s²) peak

Frequency Response: 10 Hz to 20 kHz
(600 cpm to 1.2 million cpm) ±3 dB,
30 Hz to 10 kHz
(1800 cpm to 600,000 cpm) ±5%.

Mounted Resonant Frequency: 30 kHz minimum

Amplitude Linearity: ±1% to 50 g (490 m/s²) peak.
±5% to 75 g (735 m/s²) peak,
tested at a single frequency
between 100 Hz and 500 Hz
per ANSI S2.11-1969.

Electrical Isolation: Case is internally connected to
system common. Isolation from
machine case is provided by a
built-in isolator.

Shock Survivability: ±5000 g (±49,050 m/s²) peak

Environmental Limits

Accelerometer

Operating and Storage Temperature: -29°C to +121°C
(-20°F to +250°F)

Relative Humidity: To 95%, noncondensing

Physical

Accelerometer

Mounted Height: 45 mm (1.8 in)

Mounting Surface: 17.5 mm diameter (0.69 in)

Mounting Thread: 1/4-in 28 UNF x 7.9 mm (0.31 in)
long

Hex: 19.0 mm (0.75 in) flats

Weight: 60 g (2.1 oz)

Case Material: 316L stainless steel

Input

Interface Module

Power Requirements: -18 to -24Vdc at 15 mA maximum;
10 mA typical.

Leadwire Length: 305 metres (1,000 feet) maximum
between I/F Module and 3300
monitor.

Output

Interface Module

Sensitivity: 100 mV/g (10.2 mV/m/s²) nominal.

Environmental Limits

Interface Module

Operating and Storage Temperature: -40°C to +100°C
(-40°F to +212°F)

Relative Humidity: To 95%, noncondensing

Weight: 170 g (6 oz)

Ordering Information

23732-01 Accelerometer

23733-03 Interface module

18622-AXXX-BXX Interconnect cable Option Descriptions

A: Cable Length Option Order in increments of 1 foot
(0.3 metre).
Minimum: 0 0 1 = 1 ft (0.3 m).
Maximum: 3 0 0 = 300 ft (91 m).

B: Armor/cable Option **0 0** Without armor, with Teflon®
cable
0 1 With armor, with Teflon® cable
0 2 Without armor, with Tefzel®
cable
0 3 With armor, with Tefzel® cable

Accessories

37439-01	Accel mounting base for the Standard Accelerometer.
81173-01	Standard Accelerometer Environmental Boot.
37631-01	Installation Tool.

81807-01	Standard Accelerometer Mount, glue-on version.
04590016	Standard Accelerometer Mount, Epoxy resin.
49560-01	Handheld Accelerometer

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Dimensional Drawing

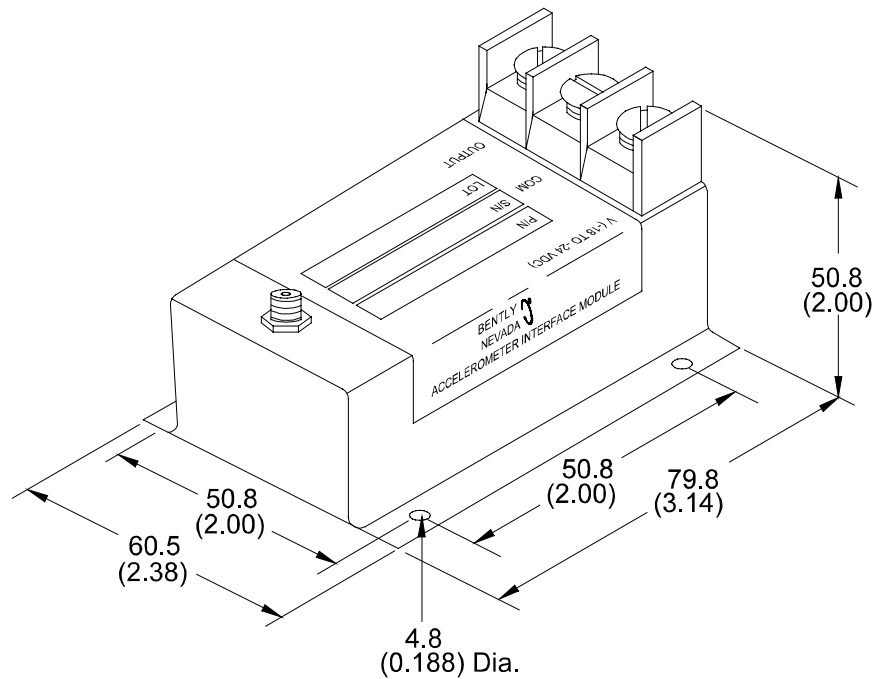


Figure 1: Accelerometer Interface Module Dimensional Drawing

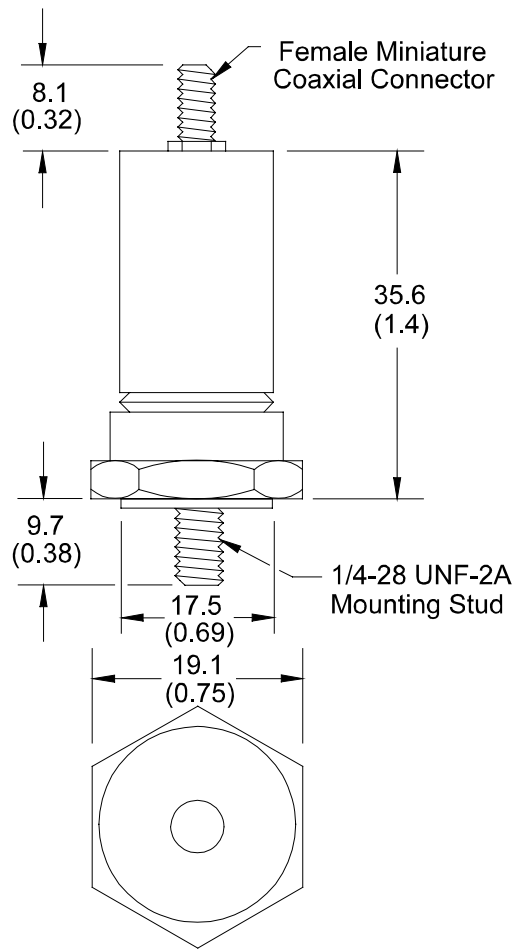


Figure 2: 23732 Accelerometer Dimensional Drawing
 Dimensions are in millimetres (inches)