

VE-33 / VE-32 / VE-31-V / VE-31-H Velocity Sensor

Features

- Sensitivity G 27.3 Vs/m
- Bandwidth 4.5 Hz to 315 Hz
- Civil Engineering and general vibration measurement applications
- Single Bolt Mounted Housing provides up to $\pm 10^\circ$ of levelling adjustment
- Surface and Wall mount
- Temperature compensated



Outline

The VE Velocity Sensors are engineered for consistent performance over a long lifetime. Advanced computerised testing, manufacturing techniques and quality control are used in the production process to provide both, the uniform parameters and the rugged qualities required in modern velocity sensors.

The sensor module has proven itself successfully worldwide for many years in different applications. The symmetrical rotating dual coil construction minimises the force on the spring arms. The use of precious metals ensure optimum electrical contact and a long operating life.

The VE Velocity Sensors has its 3 dB at 4.5 Hz and can be used for a variety of civil engineering and general vibration measurement applications. The VE-31-H is uniaxial horizontal, the VE-31-V uniaxial vertical, VE-32 biaxial and the VE-33 is a triaxial velocity sensor.

The VE Velocity Sensors are housed in a very compact 195 x 112 x 96 mm case. The sealed cast aluminium housing contains a MS style connector or a sealed cable inlet. The housing also incorporates a single bolt mount with three levelling screws, which offers extended adjusting capability during mounting.

Specifications VE-33 / VE-32 / VE-31-V / VE-31-H Velocity Sensor

General Characteristics

Application: Civil engineering, general vibration measurement

Configurations:

VE-33:

VE-32-H:

VE-32-V:

VE-31-H:

VE-31-V:

| | Triaxial | Biaxial | Uniaxial | Axes | Alignment** |
|---------|----------|---------|----------|--------------|-------------|
| VE-33 | ■ | | | X - Y - Z | H - H - V |
| VE-32-H | | ■ | | X - Y | H - H |
| VE-32-V | | ■ | | X (or Y) - Z | H - V |
| VE-31-H | | | ■ | X (or Y) | H |
| VE-31-V | | | ■ | Z | V |

** H: Horizontal, V: Vertical

Specification

Instrument Type: Digital grade long travel geo-phones

Dynamic Range: > 96 dB

Linearity: < 0.3 % of full scale

Cross Axis Sensitivity: < 0.1 % of full scale

Frequency Response: 4.5 to 315 Hz

Damping: standard 0.7

Sensitivity G: 27.3 Vs/m

Output Impedance: 430 Ω

Measuring Range: See plot

Power

Supply Voltage: no power required

Connector Pin Configuration

Pin 1-2, 3-4, 5-6

Signal output for axis X, Y, Z

Pin 7

Shield

Environment / Housing

Housing Type:

Cast aluminium

Sealed access cover

Housing Size:

195 x 112 x 96 mm

Weight:

1.0 kg

Index of Protection:

IP 65

Temperature Range:

-25 to 85 °C (operating)

-40 to 100 °C (storage)

Humidity:

0 to 100 % (non-condensing)

Mounting:

Single bolt, surface mount, adjustable

within $\pm 10^\circ$

Standard VE-3x

Floor mounted

2 m cable with sensor mating connector,

concrete anchor and user manual on CD

Ordering Information

Specify:

Type of VE-3x, and other applicable options

