

Triaxial accelerometer with integral cable

993A-5

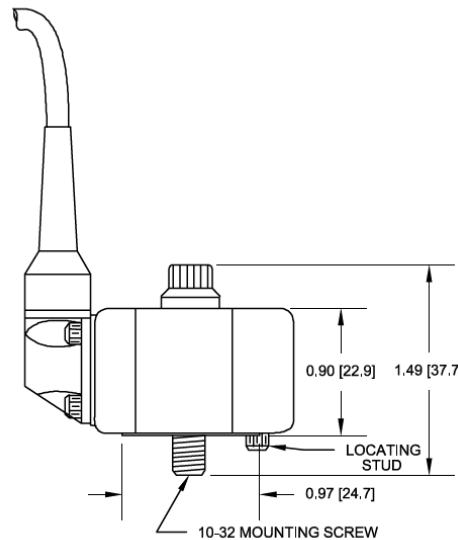
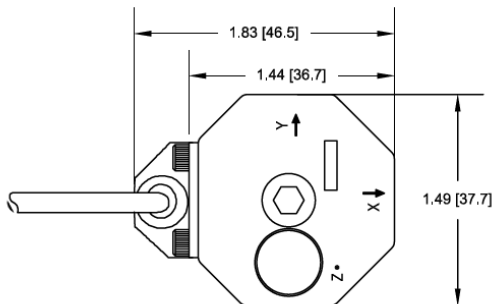


Triaxial accelerometers consist of three sensing elements within a single housing. Wilcoxon's 993A-5 senses three mutually perpendicular axes at a single mounting location. Proponents of multi-axial sensors cite the increased speed of data collection, inherently consistent readings and reduction in wiring for permanent installations. Triaxial sensors are useful to monitor machinery with limited access to mounting areas. They provide full dynamic data over a wide frequency range in horizontal, vertical and axial directions from a single mounting location. The 993A-5 is epoxy-sealed and comes with rugged integral cabling providing a secure connection and reliable data output.

Key features

- Monitors 3 axes at a time
- Easy to mount
- ESD-protected
- Reverse wiring protection
- Manufactured in an approved ISO 9001 facility

Certifications



| Connections | |
|-----------------------|-----------------------|
| Function | Cable conductor color |
| axis X, power/signal | green |
| axis Y, power/signal | red |
| axis Z, power/signal | white |
| common (all channels) | black |
| N/C | shield |

Note: Due to continuous process improvement, specifications are subject to change without notice. This document is cleared for public release.

Wilcoxon Sensing Technologies
 20511 Seneca Meadows Parkway
 Germantown, MD 20876
 info@wilcoxon.com

Tel: (301) 330 8811
 Fax: (301) 330 8873
 www.wilcoxon.com

Wilcoxon Sensing Technologies
 An Amphenol Company

Triaxial accelerometer with integral cable

993A-5

SPECIFICATIONS

| | English | Metric |
|---|------------------------------------|-----------------------------------|
| Sensitivity, ±10%, 25° C | 100 mV/g | 10.2 mV/m/sec ² |
| Acceleration range | 50 g peak | 490 m/sec ² peak |
| Amplitude nonlinearity | 1% | 1% |
| Frequency response: all channels, ±10% | 2 - 2,000 Hz | 2 - 2,000 Hz |
| Transverse sensitivity, max | 5% of axial | 5% of axial |
| Temperature response: | | |
| -50° C | +10% | +10% |
| +25° C | 0% | 0% |
| +80° C | +3% | +3% |
| +120° C | -7% | -7% |
| Power requirement: | | |
| Voltage source | 18 - 30 VDC | 18 - 28 VDC |
| Current regulating diode | 2 - 10 mA | 2 - 10 mA |
| Electrical noise, equiv. g: | | |
| Broadband 2.5 Hz to 25 kHz | 150 µg | 1471 m/sec ² |
| Spectral 10 Hz | 20 µg/√Hz | 19.6 m/sec ² /√Hz |
| 100 Hz | 2 µg/√Hz | 19.6 m/sec ² /√Hz |
| 1,000 Hz | 0.6 µg/√Hz | 5.9 m/sec ² /√Hz |
| Output impedance, max | 100 Ω | 100 Ω |
| Bias output voltage | 12 VDC | 12 VDC |
| Grounding | case isolated, internally shielded | |
| Temperature range | -58 to +248° F | -50 to +120° C |
| Vibration limit | 500 g peak | 4,900 m/sec ² peak |
| Shock limit | 5,000 g peak | 49,000 m/sec ² peak |
| Electromagnetic sensitivity, equiv. g | 100 µg/gauss | 245.2 m/sec ² /gauss |
| Sealing | epoxy | |
| Base strain sensitivity | 0.002 g/µstrain | 0.019 m/sec ² /µstrain |
| Sensing element design | PZT, shear | PZT, shear |
| Weight | 3.17 oz | 90 grams |
| Case material | hardcoated aluminum | |
| Mounting | 10-32 captive screw | |
| Recommended cabling | 6 ft J98 integral cable | 1.8 m integral cable |

Contact

Wilcoxon Sensing Technologies

20511 Seneca Meadows Parkway
Germantown MD 20876, USA

Tel: +1 301 330 8811
Fax: +1 301 330 8873

info@wilcoxon.com

www.wilcoxon.com

Accessories supplied:

- Calibration data (level 2)
- #11085 captive screw

Accessories available:

SF8-8 cementing pad, 10-32 metric mounting, keyed

Options: cable length, connector

Note: Due to continuous process improvement, specifications are subject to change without notice.
This document is cleared for public release.

Wilcoxon Sensing Technologies
20511 Seneca Meadows Parkway
Germantown, MD 20876
info@wilcoxon.com

Tel: (301) 330 8811
Fax: (301) 330 8873
www.wilcoxon.com

Wilcoxon Sensing Technologies
An Amphenol Company