# Battery Operated Servo-Inclinometer/ Accelerometer, TSB Series

## FEATURES:

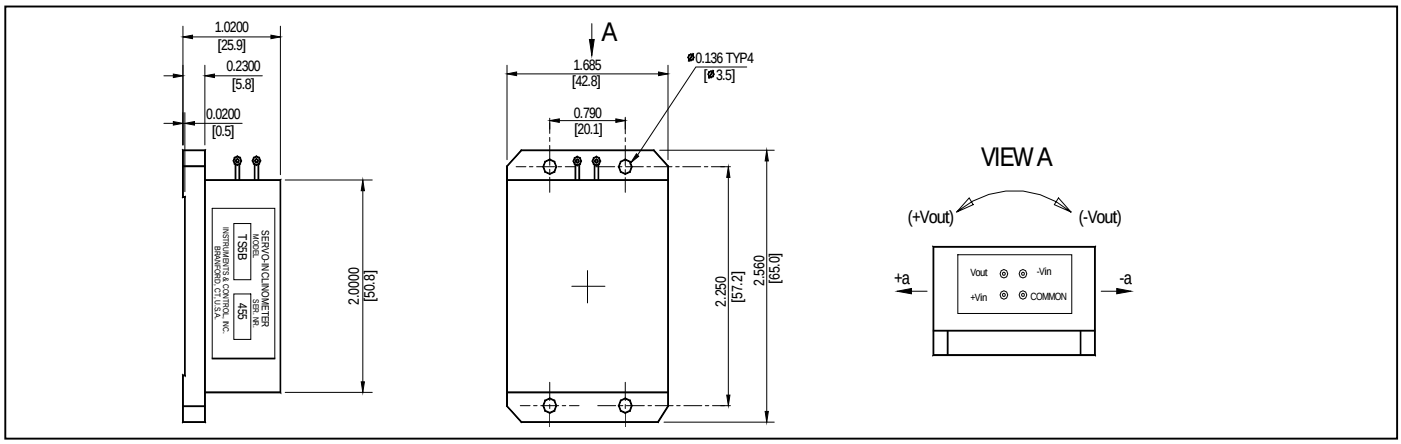
- Operates from a single 9V battery, 3mA current
- Low range acceleration/tilt sensor
- High accuracy closed loop operation
- Infinite resolution
- Excellent repeatability
- High environmental resistance
- Fast response
- Low power unregulated supply
- High level, low impedance output

## • SPECIFICATIONS:

| | ACCELERATION | TILT |
|---|---|---|
| Measuring range | ±0.1g, up to ±1g | ±5 to ±90 degrees |
| Non-linearity error [1)] | 0.01%FR typ | 0.01%FR typ |
| Resolution | <0.00001g | <1 arc-sec |
| Non-repeatability & Hysteresis | 0.005% FR | |
| Sensitive axis misalignment | < 0.5 deg | |
| Cross-axis sensitivity | <0.002g/g | |
| Bias | <0.1% FR | |
| Power supply | 9VDC @ 3mA unregulated (7 to 12VDC) | |
| Output | ±5v FS @ 10 mA max. | |
| Output impedance | <10 Ω | |
| Step response | 50 msec | |
| Zero temperature coefficient | 2 arc-sec /$^{o}$C typ | |
| Span temperature coefficient | 0.01%/$^{o}$C typ | |
| Temperature range ($^{o}$C) | -30 to +70 operating -40 to +85 survival | |
| Maximum overload | 100g constant acceleration | |
| Shock survival | 250g, 11msec | |
| Housing material | Sulfuric anodized # 2024 Aluminum alloy | |
| Weight | 100 grams | |

Notes: 1) Non-linearity error defined as maximum deviation of any point from the theoretical sine function line, in percents of the full measuring range.

## • DIMENSIONS (INCH/[mm]):





© **Instruments & Control Inc., 2004**
Information furnished by Instruments & Control is believed to be accurate and reliable. However, no responsibility is assumed by Instruments & Control for its use, nor for any infringements of patents or other rights of third parties which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of Instruments & Control Inc.

WWW.SINGER-INSTRUMENTS.COM

**Instruments & Control Inc.**

540 East Main St., Branford, CT 06405, **USA**
fred@singer-instruments.com

Tel: 203-481-7278
Fax: 203-488-7190