

# Dual-Axis Servo-Inclinometer, model TSD-232



Comprising two TS inclinometers packaged in a single housing. As such, it features the same high performance resulting from closed loop operation: high linearity, virtually infinite resolution, low temperature sensitivity. RS232 communication.

## FEATURES:

- High accuracy closed loop operation
- Virtually infinite resolution
- Excellent repeatability
- High environmental resistance
- Supplied with 3m long cable



## SPECIFICATIONS:

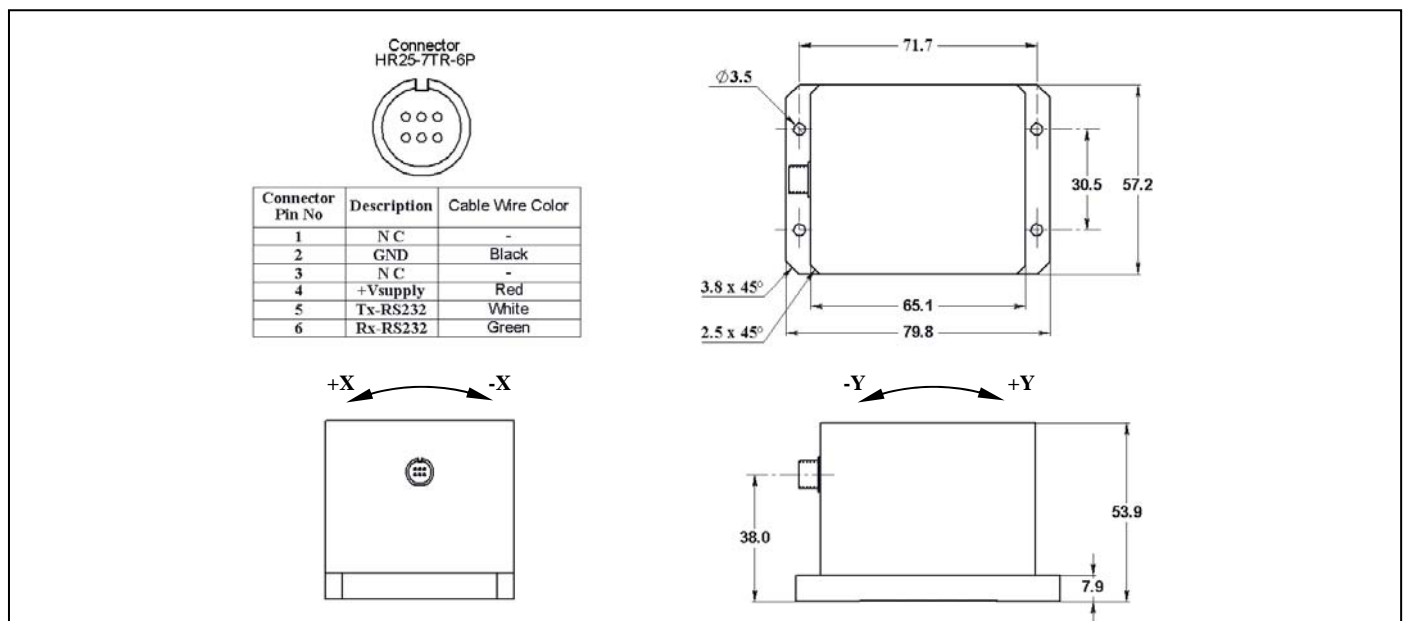
|                                   |  |
|-----------------------------------|--|
| Measuring range                   | $\pm 5^\circ$ ; $\pm 10^\circ$ ; $\pm 30^\circ$ ; $\pm 60^\circ$                                       |
| Non-linearity error <sup>1)</sup> | 0.02%FR  |
| Resolution                        | 0.0001° for $\pm 5^\circ$ and $\pm 10^\circ$ range; 0.001° for $\pm 30^\circ$ and $\pm 60^\circ$ range |
| Non-repeatability & Hysteresis    | < 0.005% FR  |
| Sensitive axis misalignment       | 0.5° typ   |
| Cross-axis sensitivity            | < 0.002g/g   |
| Bias                              | < 0.1% FR  |
| Power supply                      | 5VDC ( $\pm 5\%$ ) or 7 to 24VDC unregulated; 100mA  |
| Output                            | RS232  |
| Step response                     | > 150 msec   |
| Zero temperature coefficient      | 0.0005°/°C typ   |
| Span temperature coefficient      | 0.01%/°C typ   |
| Temperature range                 | -30°C to +70°C operating; -40°C to +85°C survival  |
| Maximum overload                  | 100g constant acceleration   |
| Shock survival                    | 250g, 11msec   |
| Housing material                  | Sulphuric anodized # 2024 Aluminum alloy   |
| Weight                            | 350 grams  |

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

## How to order?

Ordering examples: TSD-232 with +/-5 measuring range and 24VDC unregulated supply will be named TSD-232-5-24V  
TSD-232 with +/-60 measuring range and 5VDC regulated supply will be named TSD-232-60-5V

## DIMENSIONS (mm):



Rev. C

© Singer Instruments & Control Ltd., 2017

WWW.SINGER-INSTRUMENTS.COM

Information furnished by Singer Instruments & Control is believed to be accurate and reliable. However, no responsibility is assumed by Singer 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 Singer Instruments & Control Ltd.

**Singer Instruments & Control Ltd.**

2 Yozma St., Tirat Carmel 39032, ISRAEL  
info@singer-instruments.com

Tel: 972-4-857-8880  
Fax: 972-4-857-8881