

# 2-AXIS ELECTRONIC INCLINOMETER (RS232)

## Dual Axis Electronic Inclinometer With RS232 Output

The ST-D range of inclinometers are Dual Axis Digital Inclinometers, which deliver an RS232 output. It combines the quality and reliability of the SP 5000 Series tilt sensor, with a microprocessor and 12 bit A to D converter. It features the same open architecture as the rest of this electronic tilt sensor family, which facilitates easy mounting and installation. The output easily interfaces with most PLC and PC controllers, and is ideal for noisy environments and long cable runs. This range is available in three standard angular ranges, and also with custom fluid viscosities and calibration.



### General Specifications

Input voltage ..... +7.0 to +30Vdc  
 Input current ..... 5mA @ +12Vdc  
 Settling time ..... 500 mSec  
 Null offset adjustment ..... programmable  
 Operating Temp range ..... -20 to +70 degC  
 Storage Temp Range ..... -40 to +90 degC  
 Temp. Coefficient of Null ..... 10 arc sec / deg C<sup>0</sup>  
 Temp Coefficient of Scale ..... 0.1% / deg C<sup>0</sup> (typ)

(cont'd)

Model	Scale Factor (factory calibration)	Output at Null (counts)
ST-D-U-20	800 cts @ 10 degrees	2048
ST-D-U-45	1,800 cts. @ 45 degrees	2048

### Communication Protocol

Baud rate ..... 19200  
 Parity ..... none  
 Data width ..... 8 bits  
 Flow control ..... none  
 Stop bit ..... 1

\* Consult factory for detailed RS232 protocol information!

Model#	Linear Range (degrees)	Total Range (degrees)	Linearity (typ. @ 50% lin. range)
ST-D-U-20	+/-20	+/-35	1%
ST-D-U-45	+/-45	+/-50	4%

### Dimensions, Electrical Connections, and Adjustments

