SPECTROTILT™

RS232 / 12 bit Electronic Inclinometer

SPECTRON
WHEN IT COMES TO MEASURABILITY WE'RE ON THE LEVEL

The SPECTROTILT™ RS232 / 12 bit Electronic Inclinometer offers unparalleled accuracy and value. By combining a single axis / hybrid electrolytic tilt sensor, with custom digital electronics and software, Spectron has successfully spanned the gap between cost and performance. Features include a +/-60 degree linear sensing range, on-board linearity and temperature correction, ESD and EMI protection, aluminum housing, all in a hermetically sealed package.

The angular range, scale factor/resolution, and number of readings internally averaged (ie: filtering), can all be custom tailored to satisfy most applications. The viscosity of the fluid inside the sensing element can also be altered, to decrease susceptibility in high vibration environments. In addition, the digital output signal is ideal for long cable runs, eliminating concerns over signal loss and noise.

Applications

Construction Equipment (Boom Angle, Safe Load Indicators)
Road Graders and Pavers (Blade Angle)
Wheel Alignment (Caster and Chamber measurement)
Antenna Position (Satellite Dish Elevation Angle)

General Specifications

Temp. Coefficient of Scale	0.1% / Co
Start-up Time	<1 second
Weight	80 grams
put Voltage	+7 to +14Vdc (unregulated)
Input Current	20mA
Output	RS232
Range (linear)	+/-60 degrees
Accuracy	+/-0.3 degrees maximum
Scale Factor/Resolution	0.03425 degrees per count
Output at null (zero degrees)	2048 counts

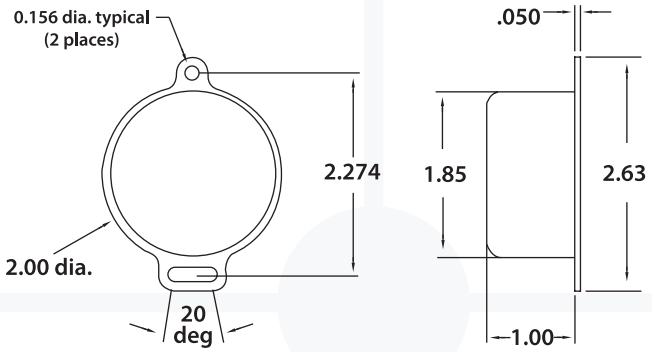
Temperature Range
- operating -40° to +80° C
- storage -55° to +80° C

Start-up Time	<1 second
Vibration	MIL Std. 810, method 514.4

** The output is transmitted in RS232 format, 9600 baud rate, at CMOS logic levels (0 and +5Vdc). The most and least significant bytes are transmitted at 15msec intervals.*

*** Accuracy includes all effects, and is defined as the maximum output deviation from the absolute input angle.*

Physical Dimensions (inches)



Electrical Connections

Black = Ground
Red = +7 to +14Vdc input (unregulated)
White = Data output line (referenced to Ground)

Ordering Information

Part Number	Description
SSY0185-VDS12	Vertical mount
SSY0185-HDS12	Horizontal mount

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www.spectronsensors.com | Specifications are subject to change without notice | Doc.# SDS-127-0304