

SPECTROTILT™

RS485 / 12 bit Electronic Inclinometer



The **SPECTROTILT™ RS485 / 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 two available tilt ranges, +/-11.3 degrees or +/- 45 degrees, on-board linearity and temperature correction, ESD and EMI protection, aluminum housing, all in a hermetically sealed package. 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

Input Voltage +5 to +30Vdc (unregulated)
 Input Current 35mA
 Output RS485 MODBUS (Canbus, contact factory)

Tilt Range..... +/-11.3 deg +/- 45 deg
 Resolution:..... 0.003248 0.011721
 Accuracy:..... +/-0.06 deg +/-0.06 deg (@ +/-6 deg)
 +/-0.11 deg (@ +/- 12 deg)
 +/-0.18 deg (@ +/- 45 deg)
 Output at null (zero degrees) 0 counts

Temperature Range
 • operating -40° to +80° C
 • storage..... -55° to +125° C

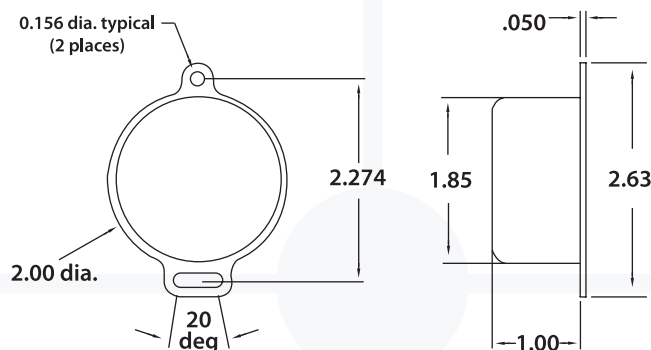
Temp sensor output:..... 0.25 deg C/count
 Start-up Time..... <2 second
 Vibration..... MIL Std. 810, method 514.4

* The output is transmitted in RS485 format, 9600 baud rate 8 data bits, 1 stop Bit, even parity, 13 bit, Hexadecimal format

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

Physical Dimensions (inches)

• vertical mounting shown!



Electrical Connections

- Black** = Ground
- Red** = +5 to +30Vdc (unregulated)
- Green** = A (RS485)
- Blue** = B (RS485)

Ordering Information

Part Number	Description
SSY0185-VDS12-RS485-11	Vertical mount
SSY0185-VDS12-RS485-45	Vertical mount