

# SPECTROFILT™ II

## MICRO-50 ñ Dual Axis Digital Inclinometer

The Spectrofilt™ II ñ MICRO 50 is a Dual Axis Digital Inclinometer, which delivers 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 the Spectrofilt™ II 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. The MICRO-50 is available in three standard angular ranges, and also with custom fluid viscosities and calibration.



### Applications

- Safety Systems (Manlifts, Roll-over protection)
- Wheel Alignment (Caster and Chamber measurement)
- Platform Monitoring and Control
- Machine Leveling

### 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>

| Model#       | Linear Range (degrees) | Total Range (degrees) | Linearity (typ. @ 50% lin. range) |
|--------------|------------------------|-----------------------|-----------------------------------|
| MICRO-50-D20 | +/-20                  | +/-35                 | 1%                                |
| MICRO-50-D45 | +/-45                  | +/-50                 | 4%                                |
| MICRO-50-D70 | +/-45                  | +/-60                 | consult factory                   |

(cont'd)

| Model        | Scale Factor (factory calibration) | Output at Null (counts) |
|--------------|------------------------------------|-------------------------|
| MICRO-50-D20 | 800 cts @ 10 degrees               | 2048                    |
| MICRO-50-D45 | 1,800 cts. @ 45 degrees            | 2048                    |
| MICRO-50-D70 | 1,900 cts. @ 60 degrees            | 2048                    |

### Communication Protocol

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

\* Consult factory for detailed communication protocol information!

### Ordering Information

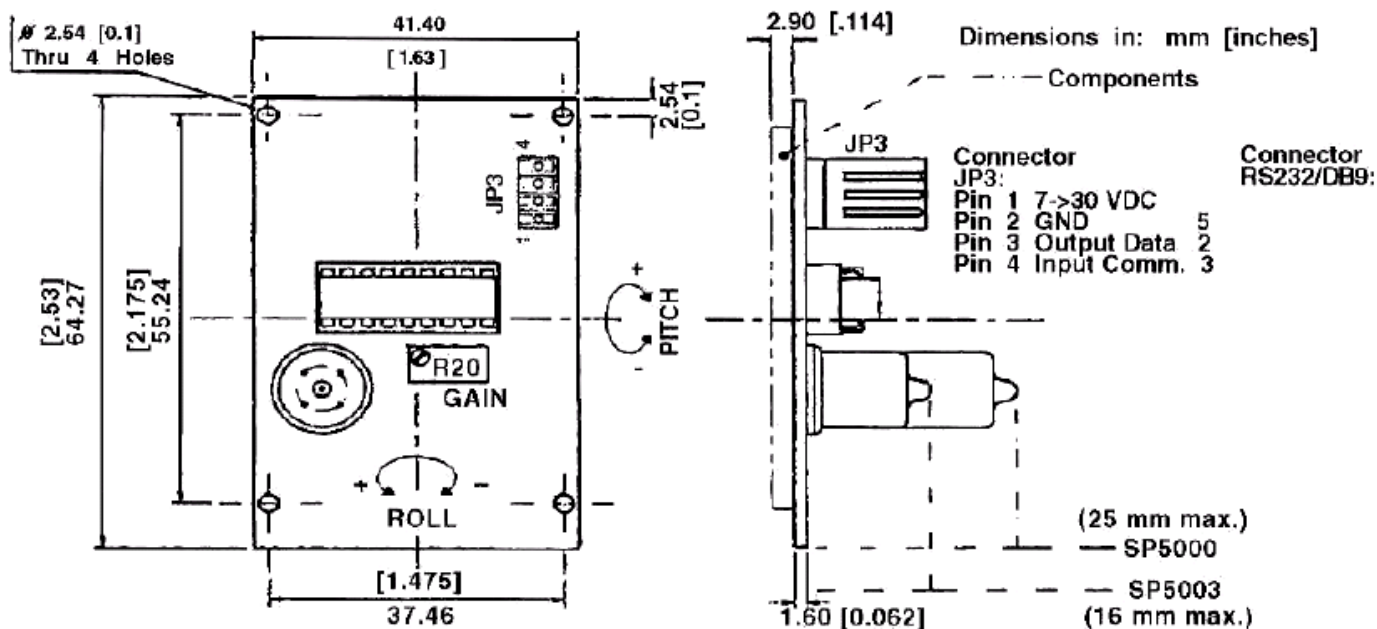
| Linear Range       | [Total Range]         | Model#       |
|--------------------|-----------------------|--------------|
| +/-20 <sup>0</sup> | [+/-35 <sup>0</sup> ] | MICRO-50-D20 |
| +/-45 <sup>0</sup> | [+/-50 <sup>0</sup> ] | MICRO-50-D45 |
| +/-45 <sup>0</sup> | [+/-60 <sup>0</sup> ] | MICRO-50-D70 |

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### Dimensions, Electrical Connections, and Adjustments



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