The Spectrotilt™ II – 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 Spectrotilt™ 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 C⁰
Temp Coefficient of Scale .......... 0.1% / deg C⁰ (typ)

<table>
<thead>
<tr>
<th>Model#</th>
<th>Linear Range (degrees)</th>
<th>Total Range (degrees)</th>
<th>Linearity (typ. @ 50% lin. range)</th>
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<tbody>
<tr>
<td>MICRO-50-D20</td>
<td>+/-20</td>
<td>+/-35</td>
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<tr>
<td>MICRO-50-D45</td>
<td>+/-45</td>
<td>+/-50</td>
<td>4%</td>
</tr>
<tr>
<td>MICRO-50-D70</td>
<td>+/-45</td>
<td>+/-60</td>
<td>consult factory</td>
</tr>
</tbody>
</table>

**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**

<table>
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<tr>
<th>Linear Range</th>
<th>Total Range</th>
<th>Model#</th>
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<td>MICRO-50-D70</td>
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</tbody>
</table>

**Specifications subject to change without notice!**
SPECTROTILT™ II
MICRO-50 – Dual Axis Digital Inclinometer

Dimensions, Electrical Connections, and Adjustments

Dimensions in: mm [inches]

Connector JP3:
Pin 1 7-30 VDC 5
Pin 2 GND 2
Pin 3 Output Data 3
Pin 4 Input Comm.

Connector RS232/DB9:
(25 mm max.) SP5000
(16 mm max.) SP5003

Specifications subject to change without notice!