



ACCUSTAR® IP-66

4 to 20mA Loop Powered Clinometer

SPECIFICATIONS

- ♦ $\pm 3^\circ$ to $\pm 45^\circ$ sensing ranges
- ♦ IP-66 rated
- ♦ 4 to 20mA and analog outputs
- ♦ Zero and span adjustable
- ♦ -25° to $+60^\circ\text{C}$ temp range
- ♦ Rugged die-cast housing

The **AccuStar® IP-66** is a 4 to 20mA loop powered clinometer specifically designed for industrial and outdoor applications. Rated to IP-66, the rugged die-cast, powder coated aluminum housing provides protection in the most hostile environments.

The heart of the system is a variable resistance-based tilt sensor with no moving parts. When rotated about its sensitive axis, this unique sensor provides an exceedingly linear variation in resistance, which is then electronically converted into 4 to 20mA and VDC analog outputs proportional to the angular position.

FEATURES

- ♦ Ranges from $\pm 3^\circ$ to $\pm 45^\circ$
- ♦ Rugged die-cast aluminum housing
- ♦ Dust and water tight to IP-66
- ♦ Current or voltage output
- ♦ 3m (10 ft.) long jacketed cable

APPLICATIONS

- ♦ Crane safety systems
- ♦ Machine tool angle positioning
- ♦ Barge leveling and load distribution
- ♦ Medical vehicle leveling / mobile CT & MRI
- ♦ Mining equipment
- ♦ Solar array tracking systems

The AccuStar® IP-66 may be operated as either a 2-wire loop powered angle transmitter, or a 4-wire analog output tilt sensor. Mounting features integrated into the die cast housing, make installation onto any vertical surface easy.

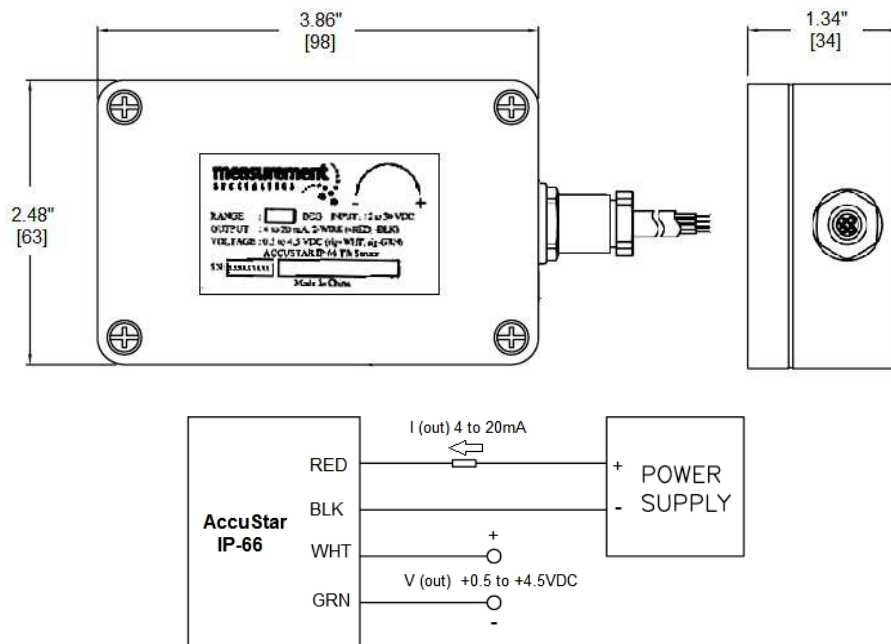
PERFORMANCE SPECIFICATIONS

| ELECTRICAL | |
|-----------------------------------|--|
| Linear range | $\pm 3^\circ$ to $\pm 45^\circ$ |
| Input voltage (unregulated) | +12 to +30VDC (+18VDC min. required for 4 to 20mA operation) |
| Output* | 4 to 20mA or +0.5 to +4.5VDC (see note) |
| Zero (level) output | 12mA or +2.5VDC |
| Max loop resistance | 500 Ω at +24VDC |
| Linearity | |
| Null to 10° | $\pm 0.1^\circ$ |
| 10° to 45° | $\pm 1\%$ |
| Null repeatability | 0.05 $^\circ$ |
| Cross axis error | <1% up to 45° |
| Frequency response | 0.5Hz @ -3db |
| ENVIRONMENTAL/MECHANICAL | |
| Operating temperature range | -25 $^\circ$ to +60 $^\circ$ C |
| Temp. coefficient of null | 0.05 $^\circ$ / $^\circ$ C |
| Temp. coefficient of scale factor | $\pm 3^\circ$ & $\pm 5^\circ$ models = 0.3% / $^\circ$ C All Others = 0.1% / $^\circ$ C |
| Cable | Shielded cable with FEP jacket, four conductors, stranded 22 AWG, 3m (10 foot) long min.. |

Notes:

* Unit supplied with 4 to 20mA output calibrated. Use of the +0.5 to +4.5VDC output requires subsequent calibration!
 All values are nominal unless otherwise noted!

DIMENSIONS AND WIRING



Dimensions are in inches [mm]

ORDERING INFORMATION

| Model | Measurement range | Part Number |
|-----------------|-------------------|--------------|
| AccuStar® IP-66 | ±3° | 72162000-003 |
| | ±5° | 72162000-005 |
| | ±10° | 72162000-010 |
| | ±15° | 72162000-015 |
| | ±20° | 72162000-020 |
| | ±30° | 72162000-030 |
| | ±45° | 72162000-045 |

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