

## 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
- ◆  $-25^\circ$  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.

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.

#### FEATURES

- ◆ Ranges from  $\pm 3$  to  $\pm 45$
- ◆ 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

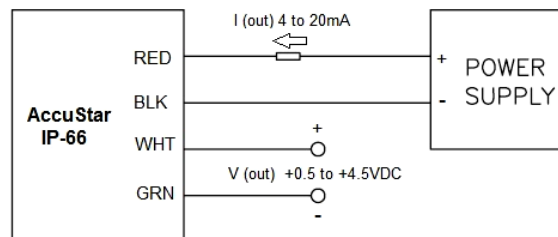
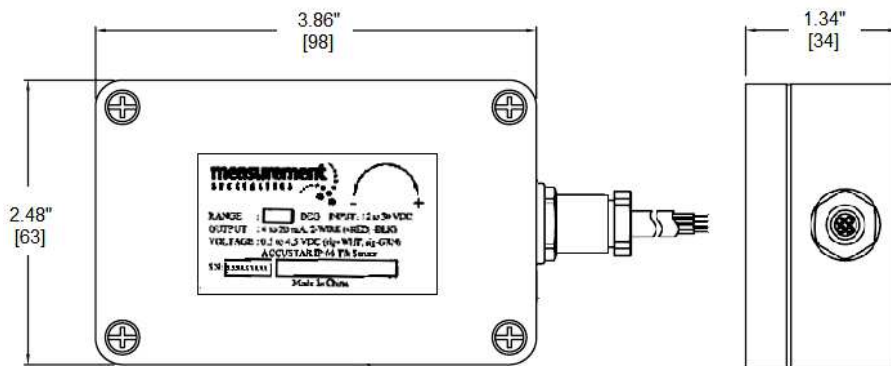
**PERFORMANCE SPECIFICATIONS**

ELECTRICAL	
Linear range	±3° to ±45°
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	500Ω at +24VDC
Linearity	
Null to 10°	±0.1°
10° to 45°	±1%
Null repeatability	0.05°
Cross axis error	<1% up to 45°
Frequency response	0.5Hz @ -3db
ENVIRONMENTAL/MECHANICAL	
Operating temperature range	-25° to +60°C
Temp. coefficient of null	0.05° / °C
Temp. coefficient of scale factor	±3° & ±5° models = 0.3% / °C      All Others = 0.1% / °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**

<b>Model</b>	<b>Measurement range</b>	<b>Part Number</b>
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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