

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.

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 $\pm 3^\circ$ 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

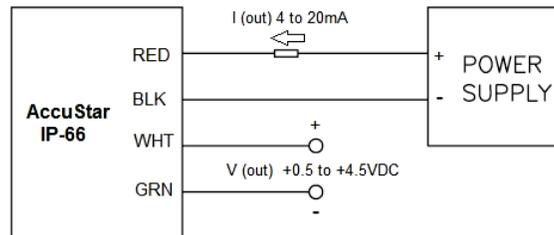
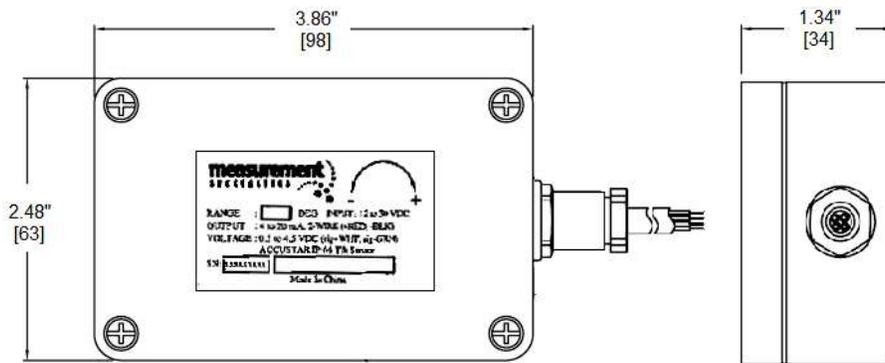
PERFORMANCE SPECIFICATIONS

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]

ACCUSTAR® IP-66

4 to 20mA Loop Powered Clinometer

ORDERING INFORMATION

Model	Measurement range	Part Number
AccuStar® IP-66	$\pm 3^\circ$	72162000-003
	$\pm 5^\circ$	72162000-005
	$\pm 10^\circ$	72162000-010
	$\pm 15^\circ$	72162000-015
	$\pm 20^\circ$	72162000-020
	$\pm 30^\circ$	72162000-030
	$\pm 45^\circ$	72162000-045