



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.

FEATURES

- Ranges from ± 3 to ± 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

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

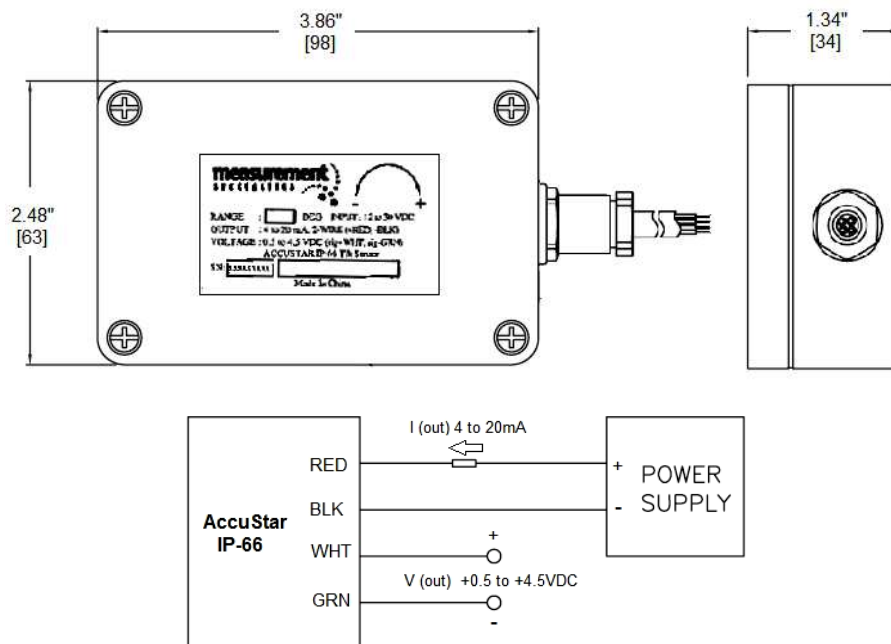
The AccuStar® IP-66 may be operated as either a 2-wire loop powered angle transmitter, or a 4-wire analog output tilt sensor. Mounting features integrated into the die cast housing, make installation onto any vertical surface easy.

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°
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	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

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

TE.com/sensorsolutions

Measurement Specialties, Inc., a TE Connectivity company.

Measurement Specialties, TE Connectivity, TE Connectivity (logo) and EVERY CONNECTION COUNTS are trademarks. All other logos, products and/or company names referred to herein might be trademarks of their respective owners.

The information given herein, including drawings, illustrations and schematics which are intended for illustration purposes only, is believed to be reliable. However, TE Connectivity makes no warranties as to its accuracy or completeness and disclaims any liability in connection with its use. TE Connectivity's obligations shall only be as set forth in TE Connectivity's Standard Terms and Conditions of Sale for this product and in no case will TE Connectivity be liable for any incidental, indirect or consequential damages arising out of the sale, resale, use or misuse of the product. Users of TE Connectivity products should make their own evaluation to determine the suitability of each such product for the specific application.

© 2015 TE Connectivity Ltd. family of companies All Rights Reserved.