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Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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AccuStar®-EA Electronic Clinometer



- ±60° linear sensing range
- Single-Ended and Bipolar DC models
- High accuracy / low cost
- Lightweight and compact
- Rugged plastic housing
- CE certified

RoHS

DESCRIPTION

The AccuStar®-EA Electronic Clinometer is the next generation in the highly acclaimed **AccuStar**® family. Building on the success of the original AccuStar®, the AccuStar®-EA takes low cost tilt sensing to the next level by combining 100% solid state technology with digital calibration and proprietary filtering techniques. The result is an extremely accurate tilt sensor with improved linearity, expanded linear sensing range (±60°), generous operating temperature range (-40° to +80°C), and a 70% reduction in temperature induced errors.

Like its predecessor, the **AccuStar®-EA** measures just 2 inches in diameter, making this compact and affordable sensor the ideal choice where high accuracy tilt measurements are required in space restrictive applications.

The AccuStar[®]-EA mounts easily onto any vertical surface using just two #6 or M3.5 screws. The slot at the base allows for fine adjustment of the zero angle position after installation. With a choice of either Single-Ended or Bipolar DC output models, the AccuStar[®]-EA is designed for easy installation and integration.

Also see our other models, **AccuStar® IP-66** (2-wire current loop or voltage output, IP-66 rating) and the **AngleStar® Protractor System** (AngleStar® Electronic Clinometer with digital readout).

Measurement Specialties, Inc. offers many other types of sensors. Data sheets can be downloaded from our web site at: <u>http://www.meas-spec.com/datasheets.aspx</u>

FEATURES

- ±65° total sensing range
- Single-Ended or Bipolar DC operation
- Rugged plastic housing
- 18" flying lead termination

APPLICATIONS

- Wheel alignment
- Construction equipment
- Antenna position
- Robotics



AccuStar®-EA Electronic Clinometer

PERFORMANCE SPECIFICATIONS (COMMON)

ELECTRICAL			
Total range	±65°		
Linear range	±60°		
Linearity			
Null to ±15°	0.075°		
±15° to 60°	±0.5% of reading		
±60° to 65°	Monotonic		
Resolution	0.05°		
Null repeatability	0.05°		
Cross axis error	<1% up to 90°		
Frequency response	2.0Hz @ -3db		
ENVIRONMENTAL/MECHANICAL			
Operating temperature range	-40° to +80°C		
Storage temperature range	-55° to +80°C		
Temp. coefficient of null	0.010°/°C		
Temp. coefficient of scale factor	0.01% / ° C		
Cable	18" flying leads, PTFE insulation		
EMC			
Emissions	EN 61000-6-3		
Immunity	EN 61000-6-2		

Notes:

All values are nominal unless otherwise noted!

DIMENSIONS (COMMON)



Dimensions are in inches (mm)



SINGLE-ENDED OUTPUT MODEL

SPECIFICATIONS		
Input voltage	+5 to +30VDC (unregulated)	
Input current (max)	5mA	
Load resistance (min)	10kΩ	
Output	+0.5 to +4.5VDC, ±0.5%	
Level output (0°)	+2.5Vdc	
ELECTRICAL CONNECTIONS		
Red	+ 5 to +30VDC (unregulated)	
Black	Power ground	
Yellow	Signal output (referenced to power ground)	



measurement

ANALOG OUTPUT MODEL

SPECIFICATIONS		
Input voltage range	±5 to ±15VDC	
Input current (max)	5mA / supply	
Scale factor	60mV / degree, ±0.5%	
Load resistance (min)	10kΩ	
Level output (0°)	0 VDC	
ELECTRICAL CONNECTIONS		
Red	+5 to +15VDC	
Black	Power ground	
Gray	- 5 to -15VDC	
Blue	Signal output (referenced to power ground)	



ORDERING INFORMATION

Model	Part Number
Single-Ended	02114002-000
Analog	02115002-000

TECHNICAL CONTACT INFORMATION

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