

# AngleStar®

## Electronic Protractor System

### DESCRIPTION

**The AngleStar® Protractor System (APS)** is a ready to use, stand alone system for angle measurements. The system incorporates a special AccuStar I ratiometric electronic clinometer, a digital display, and a standard four foot cable. (Cable lengths up to 200 feet are available. Consult factory for details.)

This system will operate for over 1,000 hours on one 9 volt battery and may be powered from an external power source between 9 and 15 Vdc, drawing minimal current.

The display may be mounted up to 200 feet from the sensor, for remote sensing applications such as drilling equipment or tower crane overload protection.

There are three systems to choose from,  $\pm 19.99$  degrees with a 0.01 degree resolution,  $\pm 45^\circ$ , or a  $+90^\circ$  with 0.1 degree resolution.



### performance specifications

#### Standard (P/N 02160001-000)

Linear Range	$\pm 45^\circ$
Threshold & Resolution	0.1°

#### High Resolution (P/N 02160003-000)

Linear Range	$\pm 19.99^\circ$
Threshold & Resolution	0.01°

#### 90 Degree (P/N 02160005-000)

Linear Range	0° to 90°
Threshold & Resolution	0.1°

#### Linearity\*

Null to 10°	0.1°
10° to 45°	$\pm 1\%$ of angle

Null Repeatability	$\pm 0.1^\circ$
--------------------	-----------------

Cross Axis Error	<1% up to 45°
------------------	---------------

Sensor Time Constant	0.3 second
----------------------	------------

#### Sensor Frequency

Response	0.5 Hz
----------	--------

### FEATURES

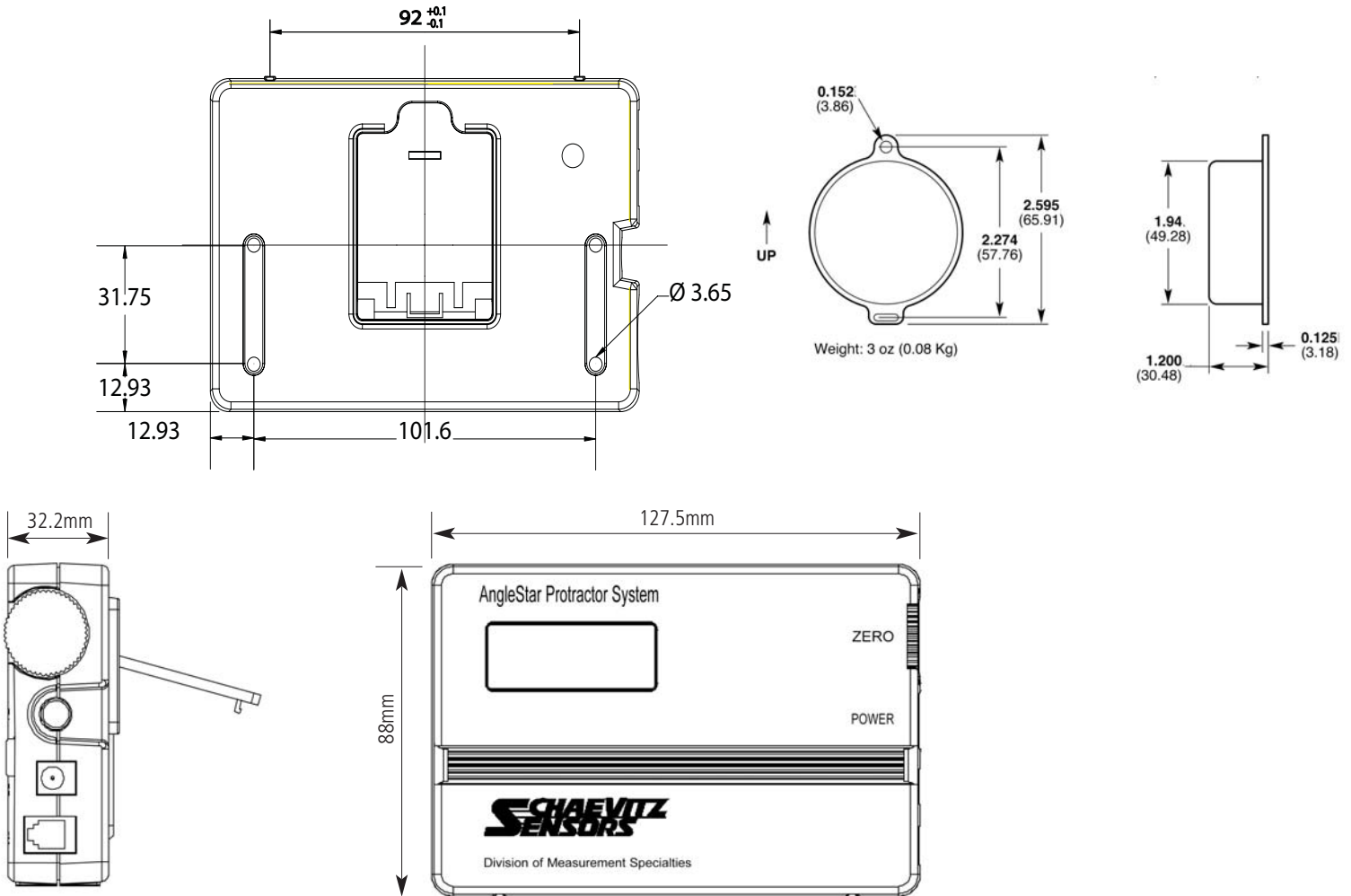
- ◆ Separate Sensor & Readout
- ◆ External Power Jack
- ◆ Remote Sensing-Up to 200 Feet from Display
- ◆ Ranges:  $\pm 19.99^\circ$ ,  $\pm 45.0^\circ$  or 0.0 to 90.0°

### APPLICATIONS

- ◆ Platform Leveling
- ◆ Antenna Positioning
- ◆ Mining Equipment
- ◆ Machine Tooling

## dimensions

in (mm)



## electrical specifications

<b>Battery Life (approx.)</b>	1000 hours (note: Battery must be removed for external power operation)
<b>External Power Supply</b>	
<b>Voltage</b>	9 to 15 Vdc
<b>Current</b>	<0.1mA
<b>Temperature Range</b>	-18° to 55°C
<b>Interconnect Cable</b>	
<b>Four Conductor, AWG 26, PVC Jacket</b>	
<b>Standard Length</b>	4 feet (@1.2 meters)
<b>Maximum Length</b>	200 feet (@61.5 meters)

\*Linearity specification applies to standard and high resolution systems only.

(Cable lengths up to 200 feet are available. Consult factory for details.)

## ordering information

Number	Description
02160001-000	±45°
02160003-000	±20°
02160005-000	0° to 90°