



ANGLESTAR® PROTRACTOR SYSTEM (APS)

SPECIFICATIONS

- ♦ Complete angle measurement system
- ♦ Battery or external powered
- ♦ Ranges: $\pm 19.99^\circ$, $\pm 45.0^\circ$ and 0 to $+90^\circ$
- ♦ Remote sensing up to 200 feet

The AngleStar® Protractor System (APS) is a ready to use, stand-alone system for angle measurements. The system incorporates an AngleStar® ratiometric electronic clinometer, a digital LCD display, and a four foot interconnecting cable (*cable lengths up to 200 feet are available, consult factory for details*).

This system will operate for 500 hours on one 9 volt battery (not included), or 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; ± 19.99 degrees with 0.01 degree resolution, $\pm 45^\circ$ or 0-90°, both having 0.1 degree resolution.

FEATURES

- ♦ Separate sensor and display
- ♦ Remote sensing up to 200 feet
- ♦ External power jack
- ♦ 500 hour battery life
- ♦ Integral easel stand for readout

APPLICATIONS

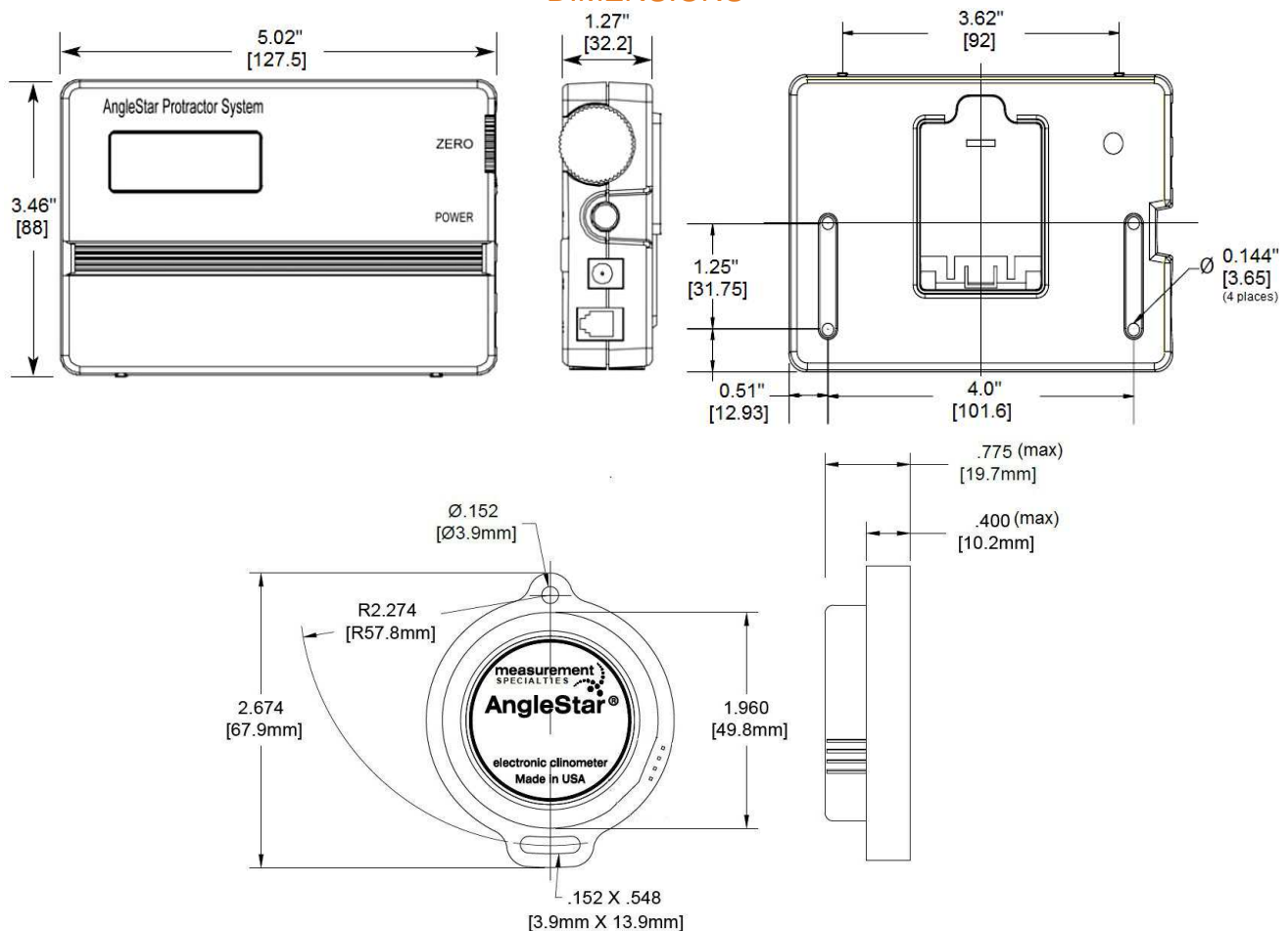
- ♦ Crane safety systems
- ♦ Crawler drill mast angle
- ♦ Antenna positioning
- ♦ Machine tool angle
- ♦ Platform leveling/monitoring
- ♦ Audio speaker array alignment

PERFORMANCE SPECIFICATIONS

| ELECTRICAL | |
|--|--|
| Battery life | 500 hours (approx.) |
| External power | +9 to +15VDC |
| Linearity | |
| P/N's 02160023-000 and 02160021-000 ($\pm 19.99^\circ$ & $\pm 45^\circ$ models) | |
| Null to 10° | $\pm 0.1^\circ$ |
| 10° to 45° | $\pm 1\%$ of reading |
| P/N 02160025-000 (0 to $+90^\circ$ model) | |
| 0° to $+90^\circ$ | $\pm 2\%$ of reading |
| Null repeatability | $\pm 0.1^\circ$ |
| Cross axis error | $< 1\%$ |
| Sensor time constant | 0.3 seconds |
| Sensor frequency response | 0.5Hz |
| ENVIRONMENTAL/MECHANICAL | |
| Temperature range | -18° to $+55^\circ\text{C}$ (0 to $+131^\circ\text{F}$) |
| Cable | Four conductors, 26 AWG, PVC jacket, 4 foot length standard |

* All values are nominal unless otherwise noted!

DIMENSIONS



Dimensions are in inches [mm], and are nominal unless otherwise specified

ORDERING INFORMATION

| MODEL | MEASUREMENT RANGE | PART NUMBER |
|-----------------|-------------------|--------------|
| Standard | ±45° | 02160021-000 |
| High Resolution | ±19.99° | 02160023-000 |
| 90 Degree | 0 to +90° | 02160025-000 |

| OPTIONS | |
|------------------|--------------|
| NIST calibration | 0216002X-400 |

| ACCESSORIES | |
|-------------------------|--------------|
| 10 foot cable assembly | 04160001-010 |
| 20 foot cable assembly | 04160001-020 |
| 30 foot cable assembly | 04160001-030 |
| 40 foot cable assembly | 04160001-040 |
| 50 foot cable assembly | 04160001-050 |
| 100 foot cable assembly | 04160001-100 |
| 150 foot cable assembly | 04160001-150 |
| 200 foot cable assembly | 04160001-200 |