



600 Series | A603

High-Precision Platform-Mount Tiltmeter

The model A603 platform mount tiltmeter is our new model designed to fill the gap left by the obsoleted 520M. Units come with the same leveling worm-gear feet that were on the 520M. The A603 also includes two switchable gains and two low-pass filter settings. Using an absolute gravity referenced electrolytic sensor, the A603 delivers ultra-high sensitivity to <2.5 nrad with virtually zero long-term drift. Output is a stable ± 8 DC voltage (± 16 VDC differential). Rugged, reliable, and extremely accurate, the A603 is the preferred choice for volcano monitoring, high-precision geotechnical engineering, precision metrology, radar platform leveling, and high-accuracy tilt monitoring applications worldwide.



| | | Model A603-A (High Gain) | Model A603-C (Ultra High Gain) |
|-----------------------------|------------|--|--|
| Angular Range | High-Gain: | $\pm 200 \mu\text{radians} (\pm 0.0115^\circ)$ | $\pm 20 \mu\text{radians} (\pm 0.00115^\circ)$ |
| | Low-Gain: | $\pm 2000 \mu\text{radians} (\pm 0.115^\circ)$ | $\pm 200 \mu\text{radians} (\pm 0.0115^\circ)$ |
| Scale Factor | High-Gain: | 25 nradian/mV | 2.5 nradian/mV |
| | Low-Gain:: | 250 nradian/mV | 25 nradian/mV |
| Non-Linearity | | 2.0% | |
| Resolution | | <25 nradians | <2.5 nradians |
| Time Constant | | Filter on: 7.5 sec; Filter off 0.5 sec | |
| Kz Temp Coefficient (deg/C) | | $\pm 3 \mu\text{radians}/^\circ\text{C}$ (typical) | |
| Ks Temp Coefficient (%/°C) | | 0.05%/°C (typical) | |
| Output | | $\pm 8\text{VDC}$ (single ended); $\pm 16\text{VDC}$ (differential) | |
| Channels | | X-tilt, Y-tilt, Temperature | |
| Output Impedance | | 270 ohms | |
| Temperature Output | | 0.1°C/mV typical (single ended; 0°C = 0mV) | |
| Power | | ± 11 to ± 15 VDC @ $+11$ and -6mA , 250 mV ripple max, reverse polarity protected | |
| Environmental | | -25 to $+70^\circ\text{C}$ operational; -30 to $+100^\circ\text{C}$ storage; IP50 Seal | |
| Dimensions | | 9.25 x 9.25 x 5 inches (24 x 24 x 12.7 cm), Weight: (estimated) 10.5 lbs (2.7 kg) | |
| Materials | | Anodized and painted aluminum dome, Stainless Steel base and hardware | |

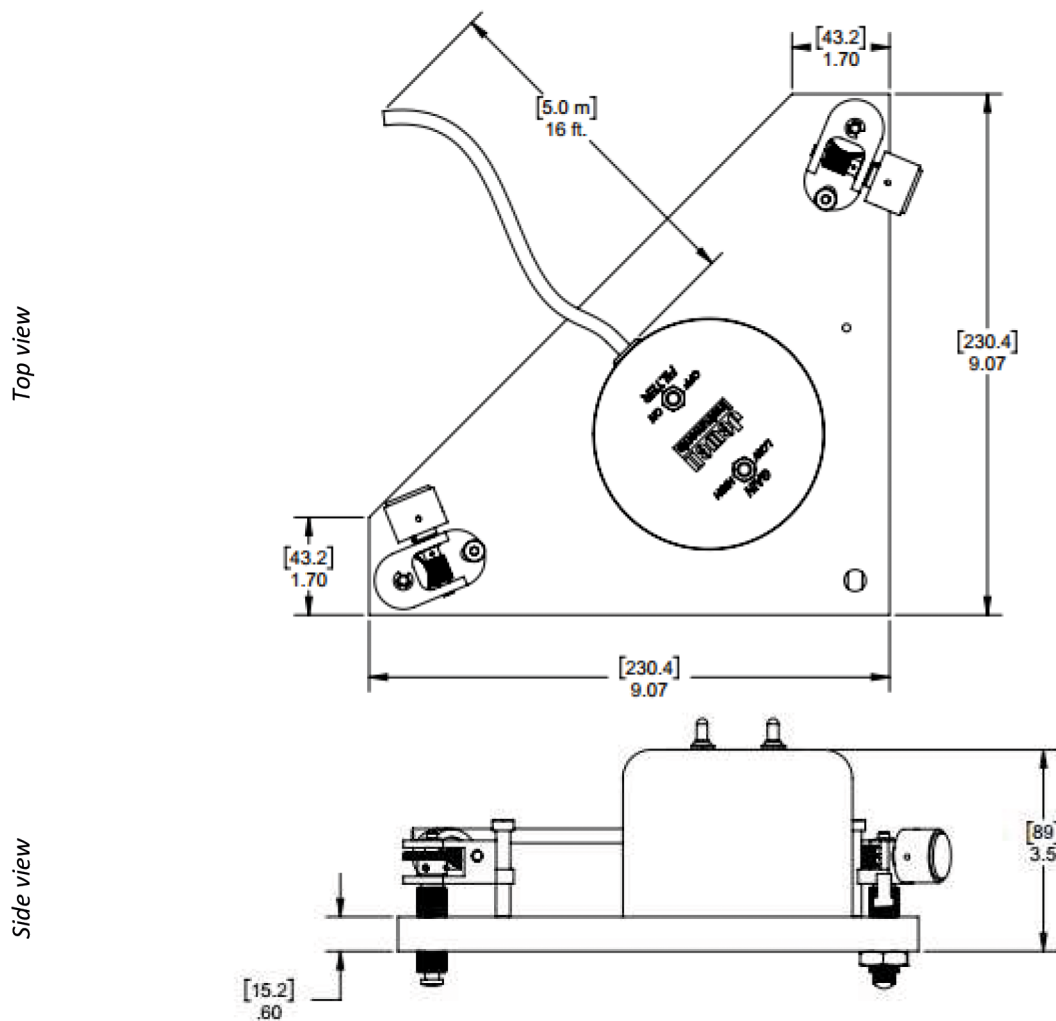
Specifications subject to change without notice on account of continued product development

ORDERING CODE

A603-A “High gain” with 5 meter tethered cable
A603-C “Ultra High Gain”, with 5m tethered cable



DIMENSIONS:



Dimensions in inches (mm)

WIRING:

| CABLE CONNECTIONS | |
|-------------------|-------------------|
| RED | +12 to +15V POWER |
| BLACK | POWER GROUND |
| VIOLET | -12 to -15V POWER |
| BLUE | +Y TILT OUT |
| BROWN | -Y TILT OUT |
| GRAY | -X TILT OUT |
| GREEN | +X TILT OUT |
| WHITE | SIGNAL GROUND |
| YELLOW | TEMPERATURE OUT |