

722 Clinómetro Borehole (2 gains and 2 filters)

El Modelo 722 está diseñado para medidas estables de largo plazo del suelo y movimientos en cimentaciones es usado en vulcanología, investigaciones geofísicas para mapeo de fracturas hidráulicas e ingeniería geotécnica.-Sus dos sensores ortogonales dan la pista precisa de la dirección y magnitud de la inclinación del movimiento. El inclinómetro se instala con rellenar la perforación con arena ó mezcla de mortero en la superficie de ésta.- Las conexiones de alimentación de energía y dataloggers se llevan a cabo en el interruptor de la caja en la superficie.- Los sensores y la electrónica van en una caja dentro del cuerpo de acero inoxidable del clinómetro para proveerlos de una máxima protección, estabilidad térmica y desempeño de bajo ruido. El modelo 722 maneja longitudes de cable mayores a 1,000m.

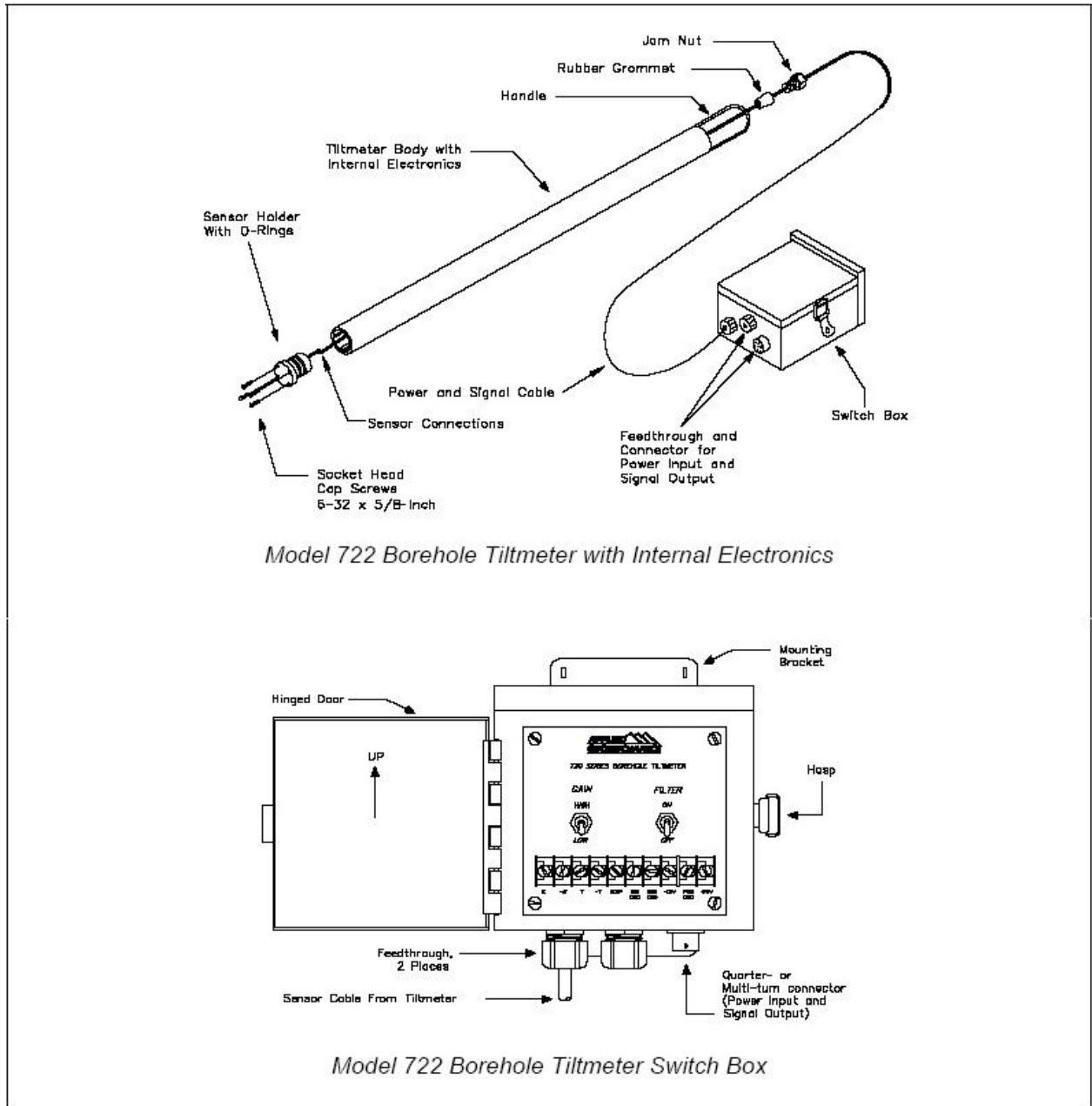


| | Model 722-A High-Gain Version | Model 722-B Mid-Range Version |
|---|--|---|
| ANGULAR RANGE Low-Gain Setting: High-Gain Setting: | $\pm 8000 \mu\text{radians}^*$ ($\pm 0.46 \text{ degree}$) $\pm 800 \mu\text{radians}$ ($\pm 0.046 \text{ degree}$) | $\pm 8 \text{ degrees}$ $\pm 0.8 \text{ degree}$ |
| SCALE FACTORS Low-Gain Setting:† High-Gain Setting:† | 1 $\mu\text{radian/mV}$ 0.1 $\mu\text{radian/mV}$ | 1 degree/Volt 0.1 degree/Volt |
| RESOLUTION | 0.1 μradian | 1 μradian |
| REPEATABILITY | 1 μradian | 2 $\mu\text{radians}$ |
| LINEARITY | High-gain setting: 0.2% of full span Low-gain setting: 2% of full span | High-gain setting: 0.2% of full span Low-gain setting: 1.5% of full span |
| TIME CONSTANTS | Filter on: 7.5 sec, Filter off: 0.5 sec (2-Pole Butterworth Low-Pass Filter) | Filter on: 7.5 sec, Filter off: 0.4 sec (2-Pole Butterworth Low-Pass Filter) |
| TEMPERATURE COEF. | Scale factor: $K_s = +0.05\%/^{\circ}\text{C}$ typical Zero shift: $K_z = \pm 3 \mu\text{radians}/^{\circ}\text{C}$ typical | $K_s = +0.05\%/^{\circ}\text{C}$ typical $K_z = \pm 0.001 \text{ degree}/^{\circ}\text{C}$ typical |
| TILT OUTPUT | Each axis: $\pm 8 \text{ Volts DC}$ (single-ended) and $\pm 16 \text{ Volts DC}$ (differential) | |
| TEMPERATURE OUTPUT | 0.1 $^{\circ}\text{C}/\text{mV}$ (single-ended), -40° to $+100^{\circ}\text{C}$, $\pm 0.75^{\circ}\text{C}$ accuracy, $0^{\circ}\text{C} = 0 \text{ mV}$ | |
| OUTPUT IMPEDANCE | 270 Ohms, short circuit and surge protected | |
| POWER REQ'TS. | ± 11 to $\pm 15 \text{ VDC}$ @ $+15$ and -7 mA , 250 mV peak-to-peak ripple max., reverse polarity protected | |
| CONNECTIONS | Quarter-turn connector on outside of switch box, terminal strip inside box | |
| ENVIRONMENTAL | -25° to $+70^{\circ}\text{C}$ operation, -30° to $+100^{\circ}\text{C}$ storage; tiltmeter submersible to 5 bars, rainproof switch box | |
| INSTALLATION | Sanding or grouting into cased or uncased borehole | |
| MATERIALS | Tiltmeter body: 304 stainless steel; Switch box: painted steel; Cable: polyurethane jacket | |
| SIZE & WEIGHT | Tiltmeter: 2.12 x 34.5 inches (54 x 876 mm), 15 lb (7 kg); Switch box: 6 x 6 x 5 in. (152 x 152 x 127 mm), 6 lb (2.7 kg); Cable: 25 ft (7.5m) std, greater lengths on request | |

* 1 degree = 3600 arc seconds = 17453 $\mu\text{radians}$ (microradians)

† Single-ended outputs; divide by 2 for differential scale factors.

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Ordering Information

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|--------------|--|
| Model 722-A | High-Gain Version (± 0.46 degrees range, $0.1 \mu\text{radian}$ resolution) |
| Model 722-B | Mid-Range Version (± 4.6 degrees range, $1 \mu\text{radian}$ resolution) |
| P/N 70352-01 | Additional cable, please specify length |
| Model 729 | Borehole Tiltmeter Installation Kit |
| Model 771 | Digital Readout Unit |