



0729-1755-99

Dual Axis Inclinometer Analog



Description

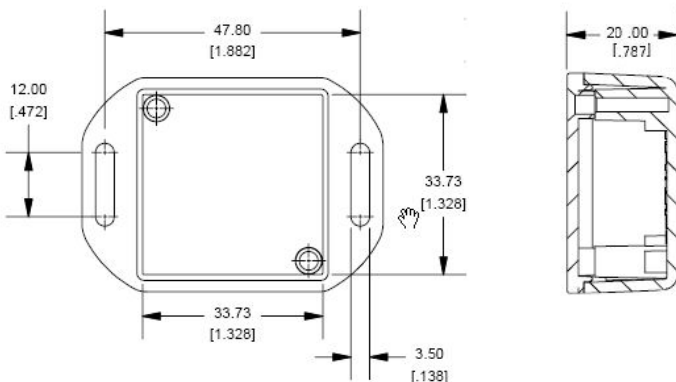
The dual axis inclinometer in a compact, high-impact plastic housing offers microprocessor based electronics with 0-5 V output for easy use and interface with instrumentation and equipment. Assembly includes the Fredericks dual axis TrueTilt 0717-4318-99 sensor which provides long term repeatability and environmental durability in the most demanding applications.

- Angle range +/-60° (X & Y axis)
- Resolution .003 degrees
- Repeatability +/-0.1 Degrees
- Outputs (X& Y Axis) Analog 0-5 Volts
PWM & Temperature
- Power Supply Voltage 7 to 16 VDC

Operating Specifications

| | |
|---------------------------------|-------------------------|
| Output | 0-5 Volts |
| Angle Range | * +/-60° (X&Y axis) |
| Resolution (.003 degrees) | 0.2 Arc Minutes |
| Repeatability | +/- 0.1 degrees |
| Power supply voltage | 7 to 16 VDC (regulated) |
| Power supply current | 20mA @ 7VDC |
| Operating temperature range | -40°C to + 85°C |
| Storage temperature range | -40°C to + 85°C |
| Symmetry (typ.) | 5% |
| Null Offset | 5.0° |
| Mech. Crosstalk / Deg. (to 20°) | 0.025° |
| Temperature Coefficient | |
| Null | 20 arc sec / °C |
| Scale | 0.1% / °C |
| Stability @ 24 hrs | 0.1° |

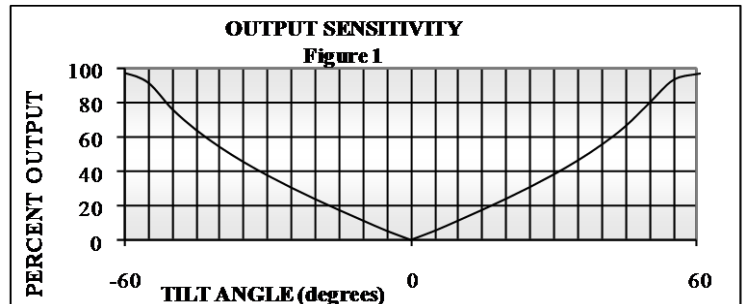
Physical Dimensions



Applications Include

- Solar Tracking
- Aerial Lift Platforms
- Construction machines
- Alarm System Activation
- Medical positioning and monitoring
- Machine tool leveling
- Mobile and stationary cranes

Sensor Output Sensitivity Chart



Circuit Board Specifications

| Wire color | Signal name | Direction | Description |
|------------|---------------|-----------|---|
| RED | Vcc | Input | Supply voltage input: +7 to + 16 vdc |
| BLK | GND | - | Ground – The reference for the digital signals and the supply voltage |
| YEL | Temperature | Output | Voltage output from the on board temperature sensor MCP9700 Note: To convert the voltage from the on board MCP9700 use the following formula; Temp C = (MCP9700 output voltage – 0.5)/0.010 |
| GRN | X axis analog | Output | X axis voltage output- ratiometric with internal 5V regulated supply voltage. For example: Null (zero degrees of angle) = 2.5 volts with supply voltage at 5V |
| BLU | Y axis analog | Output | Y axis voltage output- ratiometric with internal 5V regulated supply voltage. For example: Null (zero degrees of angle) = 2.5 volts with supply voltage at 5V |
| N/C* | X axis PWM | Output | X axis PWM output – 122 Hz duty cycle, 16 bit resolution (1% to 99%) For example: Null (zero degrees of angle) = 50% modulation |
| N/C* | Y axis PWM | Output | Y axis PWM output – 122 Hz duty cycle, 16 bit resolution (1% to 99%) For example: Null (zero degrees of angle) = 50% modulation |

Note: The analog voltage output circuit is integrated from the PMW output. This circuit will be sensitive to moisture. Protected environment or conformal coating may be needed in higher humidity conditions.

Note: Installed sensor is 0717-4318-99, other sensors can be utilized per customer request.

*Optional outputs can be provided upon request.



Distribuidor

Brasil e América do Sul

CONTATO

Endereço

Rua Sete de Setembro, 2671 - Centro
13560-181 - São Carlos - SP - Brasil

Telefone

+ 55 (16) 3371-0112
+ 55 (16) 3372-7800

Internet

www.metrolog.net
metrolog@metrolog.net



The Fredericks Company
2400 Philmont Avenue Huntingdon Valley, Pennsylvania 19006-0067

www.metrolog.net / metrolog@metrolog.net

Phone: (215) 947-2500
Fax: (215) 947-7464
Web: www.frederickscom.com
sensors@frederickscom.com