



# 0729-1723-99

## Microprocessor Based, Dual Axis Signal Conditioner Assembly

### Description

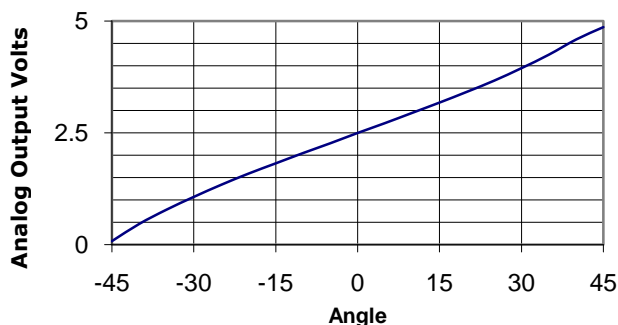
The Signal Conditioner Assembly is a combination Microprocessor based electronics and TrueTilt™ dual axis tilt sensor in a weather resistant, high-impact plastic case. This new design has proven successful in applications that demand high accuracy, low power consumption, "field" durability, and easy mounting. The assembly can be custom configured for a wide variety of angle ranges and outputs. It can be used as a stand-alone inclinometer as well as in challenging production and instrument applications.

- +7 to +16 Volt Single Power Supply
- ± 45 Degree Angle Range
- 0 to 5 VDC Analog Output

### Operating Specifications

Tilt Sensor part number	0717-4304-99
Operating Range (max.)	±45°
Linear Range	±25°
Null Voltage	≤ 0.025 Volts
Null Current (max.)	0.2mA (continuous)
Null Impedance (nom)	40 K Ohms (25°C)
(measured left to right electrode)	see figure 2
Repeatability	0.1°
Resolution	<0.2 arc minutes
Symmetry (typ.)	5%
Null Offset (max)	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°
Operating Temperature	-40°C to + 85°C
Storage Temperature	-55°C to + 100°C
Time Constant (1)	≤ 100 msec
Material	magnetic

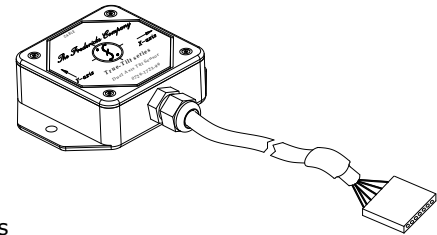
### 0729-1723-99 Output



### Applications Include

- Automotive Wheel Alignment
- Camera and Vehicle Stabilization
- Geophysical Monitoring
- Machine Tool Leveling
- Medical Positioning and Monitoring

### Physical Dimensions



#### Case Dimensions

Length	2.500"
Width	2.500"
Height	0.900"
Flange Length	3.500"
Flange Holes (centerline)	3.000"
Hole Diameter	0.190"

### Circuit Board Specifications

Circuit Board Part Number	1-6200-002
Power supply voltage (range)	+7 to +16 VDC
Power supply current (typical)	11.0 mA @ 9VDC
Analog output voltage (max)	Power supply voltage minus 2 Volts
Analog output load current (max)	1 mA
Analog output resolution (0 to 5 volts output)	1.5mV
Digital output voltage (typical)	0 to 5 Volts
Digital output load current (max)	1 mA
Digital resolution (percent) (time)	0.1% 2.0 usec
Digital output frequency	488 Hz

### Connector

J1-1	+7 to +16 VDC
J1-2	Common
J1-3	not used
J1-3	X axis analog
J1-5	Y axis analog
J1-6	X axis pulse width (optional)
J1-7	y axis pulse width (optional)

Cable Length 60.0"