



# 0729-1720-99

## Microprocessor Based Dual Axis Signal Conditioner Assembly



### Description

The **0729-1720-99** Signal Conditioner is a Microprocessor based electronics and 0717-4304-99 MCL tilt sensor assembly. This New design has proven successful in applications that demand high accuracy, low power consumption, and "in field" durability. This standard board can be custom configured for a wide variety of angle ranges and outputs. It can be used as an evaluation tool for testing specific sensors as well as in challenging production and instrument applications.

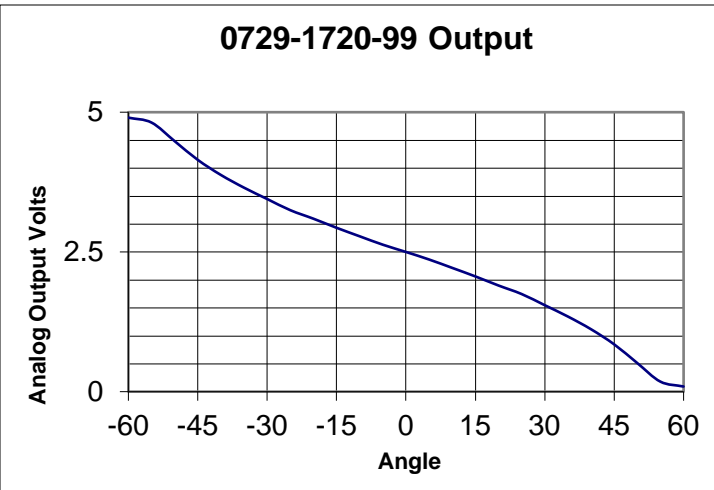
- +7 to +16 Volt Single Power Supply
- ±60° Angle Range
- 0 to 5 VDC Analog Output

### Applications Include

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

### Environmental

Temperature Range	
Operating	-40 to +85°C
Storage	-55 to +100°C



### Sensor Operating Specifications

Tilt Sensor Part Number	0717-4304-99
Operating Range (max)	± 60°
Linear Range	± 25°
Null Voltage	≤ 0.025 Volts
Null Current(max.)	0.2 mA (continuous)
Null Impedance (nom)	40 K Ohms (25°C)
	(measured left to right electrode) see fig. 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
Materials	magnetic

### Circuit Board Operating Specifications

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

