

SIGNAL CONDITIONER 84828



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1. Introduction

Model 84828 is suitable for operating all Applied Geomechanics electrolytic tilt sensors. One 84828 operates both channels of the 5-pin (biaxial) 900-Series tilt sensors, or one 3-pin (uniaxial) Miniature Tilt Sensor (Series 755, 756 or 757). Two 84828s are required for operating a biaxial Miniature Tilt Sensor, which contains two orthogonal uniaxial sensors.

The table below presents the electrical and mechanical specifications of Model 84828. Tilt resolution, angular range, scale factor, linearity, repeatability, hysteresis and temperature coefficient depend on the tilt sensor used. For these values see the sensor specifications and the calibration certificate(s) supplied with your system. All Model 84828 Signal Conditioners are supplied with a prewired connector with 18-inch (450 mm) pigtail for making connections at location J2.

CAUTION: POWER INPUT AND SIGNAL OUTPUT CONNECTIONS ARE MADE AT CONNECTOR J2 (SEE DRAWING). ALL SENSOR CONNECTIONS ARE MADE AT J3. DO NOT SWITCH THESE CONNECTORS!

OUTPUT CHANNELS	Two orthogonal tilt outputs on pins J2-3 and J2-4 when used with 5-pin 900-Series sensors. One tilt output on pin J2-3 when used with 3-pin uniaxial sensors.
OUTPUT VOLTAGE RANGE	±4 volts standard version, -1.5 to +6.5 offset version. Outputs are single-ended.
TIME CONSTANT, T	150 milliseconds
OUTPUT IMPEDANCE	270 ohms, short circuit protected
POWER REQUIREMENTS	+8 to +24 VDC (standard version) or +10.5 to +26.5 VDC (offset version) @ 7 mA, 250 mV ripple max., reverse polarity protected
ENVIRONMENTAL	-10° to +70°C operating and storage (wider ranges available); 0-80% humidity, noncondensing
DIMENSIONS	See drawing
WEIGHT	< 0.5 oz (15 g)
MATERIALS	Fiberglass PC board
TEMPERATURE OUTPUT	0.1°C/mV, ±0.75° C accuracy; 0°C = 0 mV (standard version), 0°C = 2.5 V (offset version)

