

## 781 Signal Conditioning Unit

El 781 es una unidad de precisión de dos canales de acondicionamiento de señal para todos los sensores electrolíticos de inclinación. Su diseño se optimiza para producir un funcionamiento máximo de sensores miniatura modelos 755, 756, 757 y los sensores de inclinación serie 758. El 781 genera una excitación balanceada del sensor de CA, después amplifica, rectifica y filtra las salidas del sensor para producir las señales de alto nivel de C.D proporcionales al ángulo de inclinación. Incluye un amplificador para un sensor de temperatura LM35 y conducirá señales de inclinación y de temperatura sobre longitudes de cable del 1000m. El gabinete de aluminio robusto del modelo 781 y su formato de Tapa-banco le hacen una opción eficaz para todas las aplicaciones de laboratorio y usos en interiores



**781 Unidad Acondicionadora de Señal con Sensor de Inclinación Miniatura 755-1172**

<b>INPUT CHANNELS</b>	Two electrolytic tilt sensors, one LM-35 temperature sensor (included with tilt sensors)																
<b>TILT OUTPUT</b>	Two single-ended <i>and</i> two differential analog outputs, proportional to tilt: Output voltage range: $\pm 8$ VDC (single-ended), $\pm 16$ VDC (differential)																
<b>OUTPUT GAINS</b>	Two switchable gains, 10:1 ratio standard, other ratios on request																
<b>SCALE FACTORS†</b>	<table border="1"> <thead> <tr> <th>When used with:</th> <th>High-Gain</th> <th>Low-Gain</th> <th>Range</th> </tr> </thead> <tbody> <tr> <td>755-Series Sensors:</td> <td>0.1 <math>\mu</math>radian/mV*</td> <td>1.0 <math>\mu</math>radian/mV</td> <td><math>\pm 8000</math> <math>\mu</math>radians</td> </tr> <tr> <td>756-Series Sensors:</td> <td>0.1 degree/V</td> <td>1.0 degree/V</td> <td><math>\pm 8</math> degrees</td> </tr> <tr> <td>757 &amp; 758-Series Sensors:</td> <td>1.0 degree/V</td> <td>10 degrees/V</td> <td><math>\pm 60</math> &amp; <math>\pm 80</math> degrees</td> </tr> </tbody> </table>	When used with:	High-Gain	Low-Gain	Range	755-Series Sensors:	0.1 $\mu$ radian/mV*	1.0 $\mu$ radian/mV	$\pm 8000$ $\mu$ radians	756-Series Sensors:	0.1 degree/V	1.0 degree/V	$\pm 8$ degrees	757 & 758-Series Sensors:	1.0 degree/V	10 degrees/V	$\pm 60$ & $\pm 80$ degrees
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<b>OUTPUT FILTERS</b>	Two switchable low-pass integrators, roll-off = 6 dB/octave. Time constants = 0.05 and 7.5 seconds, other settings on request																
<b>TEMPERATURE OUTPUT</b>	0.1°C/mV (single-ended), $-40^{\circ}$ to $+100^{\circ}$ C, $\pm 0.75^{\circ}$ C accuracy, $0^{\circ}$ C = 0 mV																
<b>OUTPUT IMPEDANCE</b>	270 ohms, short circuit and surge protected																
<b>POWER REQUIREMENTS</b>	$\pm 11$ to $\pm 15$ VDC @ $+11$ and $-6$ mA typical, 250 mV peak-to-peak ripple max., reverse polarity protected																
<b>CONNECTIONS</b>	Dual screw-terminal barrier strips on rear panel																
<b>ENVIRONMENTAL</b>	$-25^{\circ}$ to $+70^{\circ}$ C operational, $-30^{\circ}$ to $+100^{\circ}$ C storage; 0 to 90% humidity, noncondensing																
<b>MATERIALS</b>	Painted aluminum case																
<b>SIZE &amp; WEIGHT</b>	3.5 x 5 x 8.4 inches (88 x 127 x 213 mm), 2 lb (0.9 kg)																

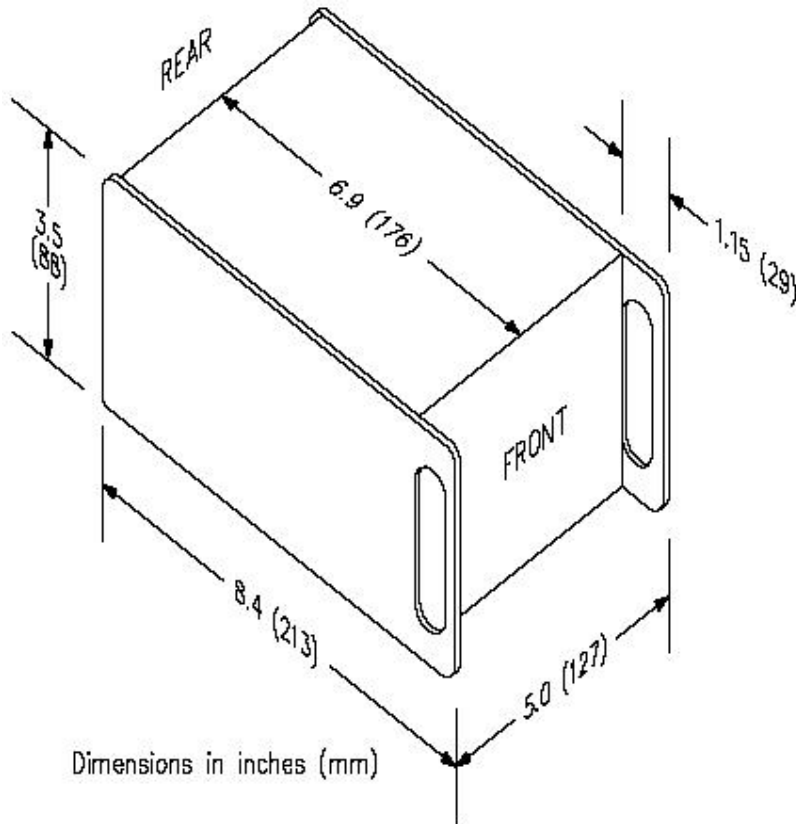
\* 1 degree = 3600 arc seconds = 17453  $\mu$ radians (microradians)

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

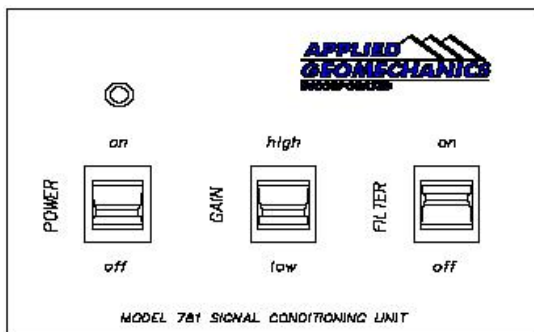
### Ordering Information

Model 781	Signal Conditioning Unit with two tilt channels & one temperature channel
Model D12-200	$\pm 12$ Volt DC Power Supply
P/N 81124-03	Spare temperature sensor with 18-inch (450mm) pigtail

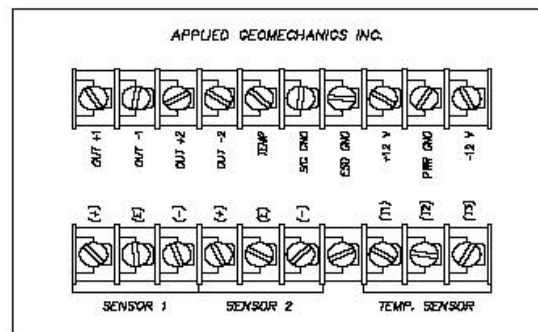
**781 Signal Conditioning Unit**



MODEL 781 SIGNAL  
CONDITIONING UNIT DIMENSIONS



FRONT



REAR

MODEL 781 SIGNAL CONDITIONING  
UNIT, FRONT AND REAR PANELS