

Model 786 Signal Conditioner

(Rack Mount)

Model 786 is a convenient multi-channel, rack mount signal conditioner for use with all electrolytic tilt sensors. It will produce top performance from your 755-, 756-, 757- and 758-Series

Miniature Tilt Sensors. Model 786 simultaneously excites two to sixteen tilt channels and conditions the returned signals into high-level analog outputs proportional to tilt angle.



RACK MOUNT SIGNAL CONDITIONER

Gain and filter control switches on the front panel of this AC-powered unit add to your measurement flexibility. Model 786 also takes temperature readings from National Semiconductor LM35 temperature sensors.

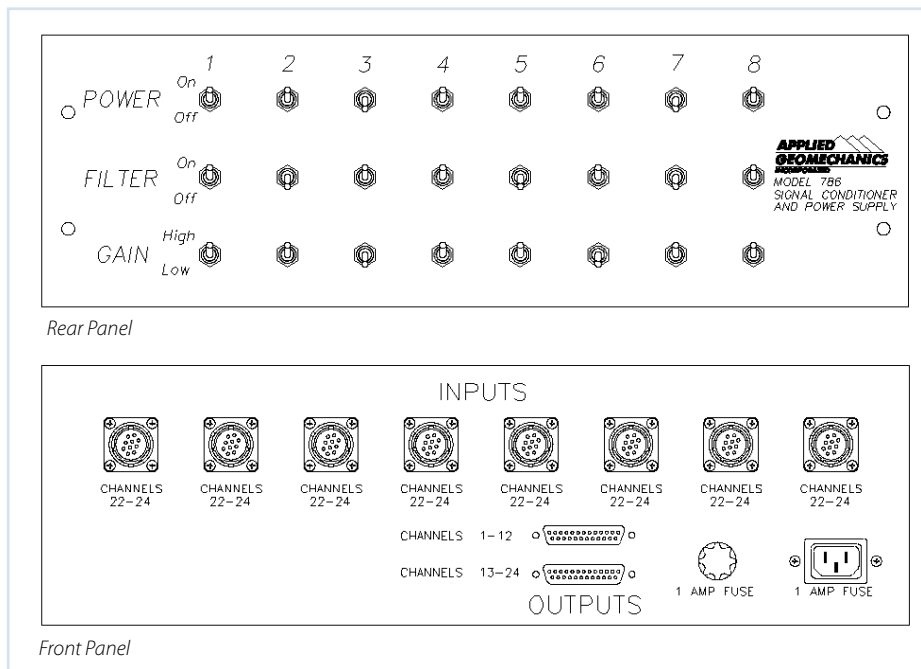


Model 786 Rack Mount Signal Conditioning Unit

MODEL 786 RACK MOUNT SIGNAL CONDITIONING UNIT

INPUT CHANNELS	Expandable in pairs from 2 to 16 tilt sensors; one LM-35 temperature sensor channel is supplied for every two tilt channels			
TILT OUTPUT	2 to 16 single-ended and 2 to 16 differential analog, proportional to tilt: Output voltage range: ± 8 VDC (single-ended), ± 16 VDC (differential)			
OUTPUT GAINS	Two switchable gains, 10:1 ratio standard, other ratios on request			
SCALE FACTORS†	<u>WHEN USED WITH:</u>	<u>HIGH-GAIN</u>	<u>LOW-GAIN</u>	<u>RANGE</u>
	755-Series Sensors:	0.1 μ radian/mV*	1.0 μ radian/mV	± 8000 μ radians
	756-Series Sensors:	0.1 degree/V	1.0 degree/V	± 8 degrees
	757-Series Sensors:	1.0 degree/V	10 degrees/V	± 60 degrees
OUTPUT FILTERS	Two switchable low-pass integrators, roll-off = 6 dB/octave. Time constants: 0.05 and 7.5 seconds, other settings on request			
OUTPUT IMPEDANCE	270 ohms, short circuit and surge protected			
TEMPERATURE OUTPUT	0.1°C/mV (single-ended), -40° to $+100^{\circ}$ C, $\pm 0.75^{\circ}$ C accuracy, 0° C = 0 mV			
OUTPUT IMPEDANCE	270 ohms, short circuit and surge protected			
POWER REQUIREMENTS	110-120 VAC American version or 220-240 VAC export version, @ 50-60 Hz; fuse protected (1 Amp)			
CONNECTIONS	Quarter-turn connectors for tilt & temperature inputs; DB25 subminiature connectors for output. All connections on rear panel.			
ENVIRONMENTAL	-25° to $+70^{\circ}$ C operational, -30° to $+100^{\circ}$ C storage; 0 to 90% humidity, noncondensing			
MATERIALS	Painted aluminum and steel case			
SIZE & WEIGHT	19 x 5 x 15 inch (483 x 127 x 381 mm), EIA standard 19-inch rack mount; 8.5 lb (3.9 kg)			

* 1 degree = 3600 arc seconds = 17453 μ radians (microradians) † Single-ended outputs; divide by 2 for differential scale factors.



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ORDER CODES:

- Model 786-2** Signal Conditioning Unit with 2 tilt channels and 1 temperature channel
- Model 786-4** Signal Conditioning Unit with 4 tilt channels and 2 temperature channels
- Model 786-X** X = number of tilt channels (expandable in pairs up to 16). Example: Model

USEFUL ACCESSORIES:

- P/N 70308** Sensor Hook-up Cable

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