

AMPLIFIER CONTROL UNITS

Michigan Scientific Remote Amplifier Control Units provide control of the bridge excitation and shunt calibration of Michigan Scientific Strain Gage Amplifiers. They can also be used to provide power to Thermocouple Amplifiers in either vehicle or laboratory applications.

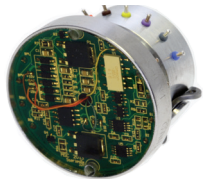


Remote Amplifier Control Unit | PS-AC



Remote Amplifier Control Unit | PS-DC

FEATURED PRODUCTS



	Multi-Channel Strain Gage Amplifier	Transducer Display Module	S-Series Slip Ring with Integrated Amplifiers
Model	SGA12A-PS	TDM	S6G_, S6TC3_, S82G_
Channels per Unit	3-12	1	1 or 2
Excitation	5 V or 10 V	10 V	2.5 V, 5 V, 10 V
Gain Range	100 V/V to 2,000 V/V		
Bandwidth	20 kHz		
Minimum Bridge Resistance	120 Ω		



	Wheel Instrumentation Package	Wheel Force Transducer Amplifier	Multiplexing Strain Gage Amplifier
Model	WIP	WFTAMP	MUX-BC-12
Channels per Unit	1 (dual range)	6	12 (stackable)
Excitation	5 V or 10 V	10 V	4.5 V (ratiometric)
Gain Range	100 V/V to 2,000 V/V	50 V/V to 2,000 V/V	1000 µε to 5000 µε
Bandwidth	20 kHz		1.6 kHz
Minimum Bridge Resistance	120 Ω		350 Ω



Signal Conditioning Amplifiers

Precision Instrumentation & Measurement Solutions



STRAIN GAGE AMPLIFIERS

Michigan Scientific Strain Gage Amplifiers assist in providing superior data accuracy and are commonly used for signal transmission in rotating applications, stress monitoring in aircraft components, and critical systems and component testing. The amplifiers are designed to be located closer to the Wheatstone bridge sensor, which reduces errors due to long lead wires, connector or slip ring resistance variations, and electro-magnetic interference.

Features

- Precision low-noise differential amplifier
 - High-level voltage signal output
 - Highly accurate bridge excitation
- Externally adjustable gain and shunt resistance
 - Remote shunt calibration and bridge excitation on/off capability

Ideal for limited-space applications, our Single-Channel Miniature Amplifiers are available in a variety of configurations. Our Modular Spinning Amplifiers pilot onto Michigan Scientific SR-Series Slip Ring rotors and can be stacked or arrayed around an adapter plate for additional channels.



Single-Channel Miniature Strain Gage Amplifiers			
Model	AMP-SG-M1	AMP-SG-MH	AMP-SG-MH-BC
Channels per Unit	1		
Excitation	2.5 V, 5 V, 10 V		
Gain Range	100 V/V to 2,000 V/V		
Bandwidth	20 kHz		
Minimum Bridge Resistance	120 Ω		
Dimensions (in)	1.25 x 0.79 x 0.25	1.25 x 1.00 x 0.27	
Dimensions (mm)	31.75 x 20.06 x 6.35	32.51 x 25.40 x 6.85	



Modular Spinning Strain Gage Amplifiers			
Model	AMP-SG-U2	AMP-SG2-U2	AMP-SG3-U2
Channels per Unit	1	2	3
Excitation	2.5 V, 5 V, 10 V		
Gain Range	100 V/V to 2,000 V/V		
Bandwidth	10 kHz	20 kHz	
Minimum Bridge Resistance	120 Ω		
Dimensions (in)	Ø 2.102 x 0.667	Ø 2.101 x 0.620	Ø 2.101 x 0.845
Dimensions (mm)	Ø 53.39 x 16.94	Ø 53.37 x 15.75	Ø 53.37 x 21.46

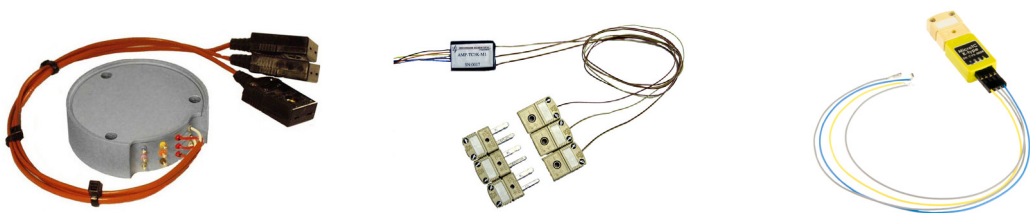
THERMOCOUPLE AMPLIFIERS

Michigan Scientific Thermocouple Amplifiers are designed to provide cold junction compensation and improve signal-to-noise ratio of thermocouple sensors. These models are commonly used for thermal sensing for medical devices, thermal management in electric vehicles (EVs), and temperature measurements on rotating vehicle parts.

Features

- Cold junction compensated
 - Precision low-noise, differential amplifier
 - High-level voltage signal
 - Greatly reduced potential for error
- Minimizes use of thermocouple wire to DAQ
 - Signal is greatly immune to external noise sources
 - Improved accuracy and reliability of measurements

We offer models for use with a variety of applications. Some models can be used in conjunction with Michigan Scientific Slip Rings. The MicroTC Linear Thermocouple Amplifier combines a thermocouple connector and amplifier in one compact unit, ideal for harsh environments and applications in hard-to-reach areas.



	Modular Spinning Thermocouple Amplifier	Miniature Thermocouple Amplifier	MicroTC Linear Thermocouple Amplifier
Model	AMP-TC	AMP-TC-M1	MicroTC
Overview	Pilots to SR-Series Slip Rings	Miniature thermocouple package	Thermocouple connector & amplifier in one small unit
Channels per Unit	1 to 9	1 to 3	1
TC Type	K, J, T		K
Linear Range	N/A	N/A	-25 °C to 400 °C (-13 °F to 752 °F)
Non-Linear Range	-260 °C to 1,000 °C (-426 °F to 1,832 °F)		-200 °C to 970 °C (-328 °F to 1,778 °F)
Bandwidth	1.56 kHz		2.35 kHz
Accuracy	±2 °C (±3.6 °F)	±3 °C (±5.4 °F)	±2 °C (±3.6 °F)
Dimensions (in)	Ø 2.101 x 0.840	1.25 x 0.79 x 0.25	1.02 x 0.68 x 0.32
Dimensions (mm)	Ø 53.37 x 21.34	31.75 x 20.06 x 6.35	25.90 x 17.27 x 8.12