

IAMR Amplifiers Unregulated Excitation

Miniature, In-line Amplifier
 Unregulated Excitation
 Reverse Polarity Protection
 10 to 500 Fixed Gain Options



The compact IAMR In-line Amplifiers provide a fixed 10, 20, 50, 100, 200 or 500 Gain with 700kHz/G-3dB bandwidth. Each Unit features 0.1% non-linearity error and reverse polarity protection. Depending on options, sensor supply voltage can be 5 VDC, 10 VDC or 15 VDC. Common mode rejection is 85dB. Mating connectors are available for connector options and factory-wiring to the sensor is available upon request.

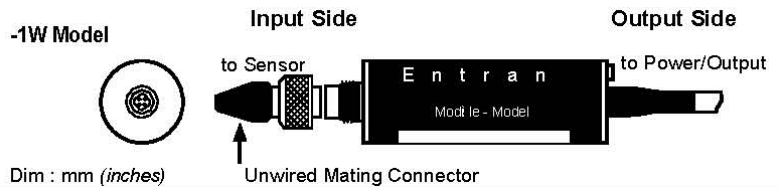
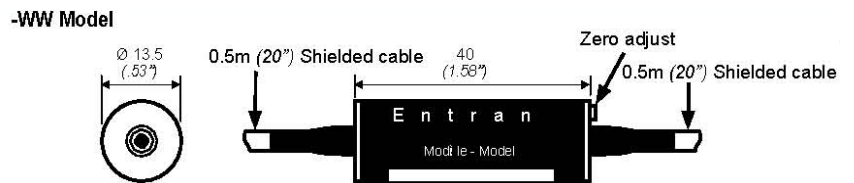
FEATURES

- Compact size
- Rugged construction
- Attractive packaging
- Short-circuit protection
- Optional wiring configuration
- Wide operating temperature

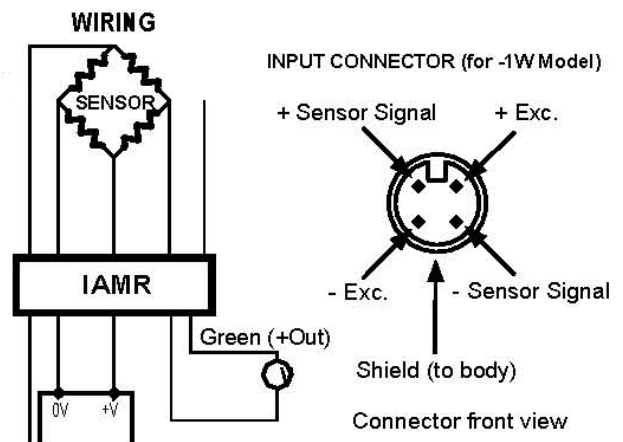
APPLICATIONS

- Instrumentation Labs
- Test Stands
- Process Monitoring
- Instrumentation Measurements

dimensions



wiring



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Supply for Sensors, General Characteristics, Options & Accessories

SENSOR SUPPLY VOLTAGE:	05=5V for Power type 12U 05=5V or 10=10V for Power type 28U
SENSOR SUPPLY CURRENT max.:	15mA
COMMON MODE REJECTION:	85dB @ G = 10 115dB @ G = 500
INPUT PROTECTION:	Reverse Polarity Protected
OUTPUT PROTECTION:	Short Circuit Protected
CE CONFORMANCE:	EN61010-1, EN 50081-1, EN 50082-1
OPERATING TEMPERATURE:	-20°C to 70°C (-4°F to 158°F)
STORAGE TEMPERATURE:	-55°C to 125°C (-67°F to 257°F)
WIRING:	WW = Shielded cable input and output 1W = Male connector on Input Side, type EM4 with unwired mate (will <u>not</u> mate with Option C connector), shielded cable on Output Side
SPECIAL OUTPUT CABLE LENGTH:	L00F = Replace "00" with total length in feet. L00M = Replace "00" with total length in meters.
CONNECTOR WIRED TO OUTPUT CABLE:	C = Microtech type male or equivalent on Output Side only (w/o mate), style EC-CM4 RS = RJ Telephone type male (w/o mate) WI = Wire to sensor
WIRE AMPLIFIER INPUT TO A SENSOR:	

Amplifier Performance

GAIN (G) ±5%:	10, 20, 50, 100, 200 or 500
BANDWIDTH (-3dB) nom.:	700KHz/G (70KHz @ G = 10, 1.4KHz @ G = 500)
SLEW RATE:	1V/μs
POWER REQUIRED:	12U = 10V to 14V Unregulated 28U = 24V to 32V Unregulated
OUTPUT SIGNAL max.:	For Power Type 12U : ±2V (Common Mode Voltage +2.5V) For Power Type 28U : ±4V (Common Mode Voltage +5V)
OUTPUT CURRENT max.:	5mA
INPUT IMPEDANCE nom.:	10MΩ
OUTPUT IMPEDANCE nom.:	1KΩ
BASE LINE (NULL) ADJUSTABILITY:	For Power Type 12U : ±0.7V For Power Type 28U : ±1.4V
NON-LINEARITY:	0.1% max.

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Model number construction

Series	Power Required	Sensor Supply Voltage	Gain	(IN/OUT) Cable or Connector	Options
IAMR	12U	05	10	WW	C or RS
			20	1W	L00F or L00M
	28U	05 or 10	50		WI
			100		
			200		
			500		

Example: IAMR-12U/05/10-WW – Model IAMR, 10V to HV Power required, 5V Sensor Supply, 10 Gain, Cable Input and Output