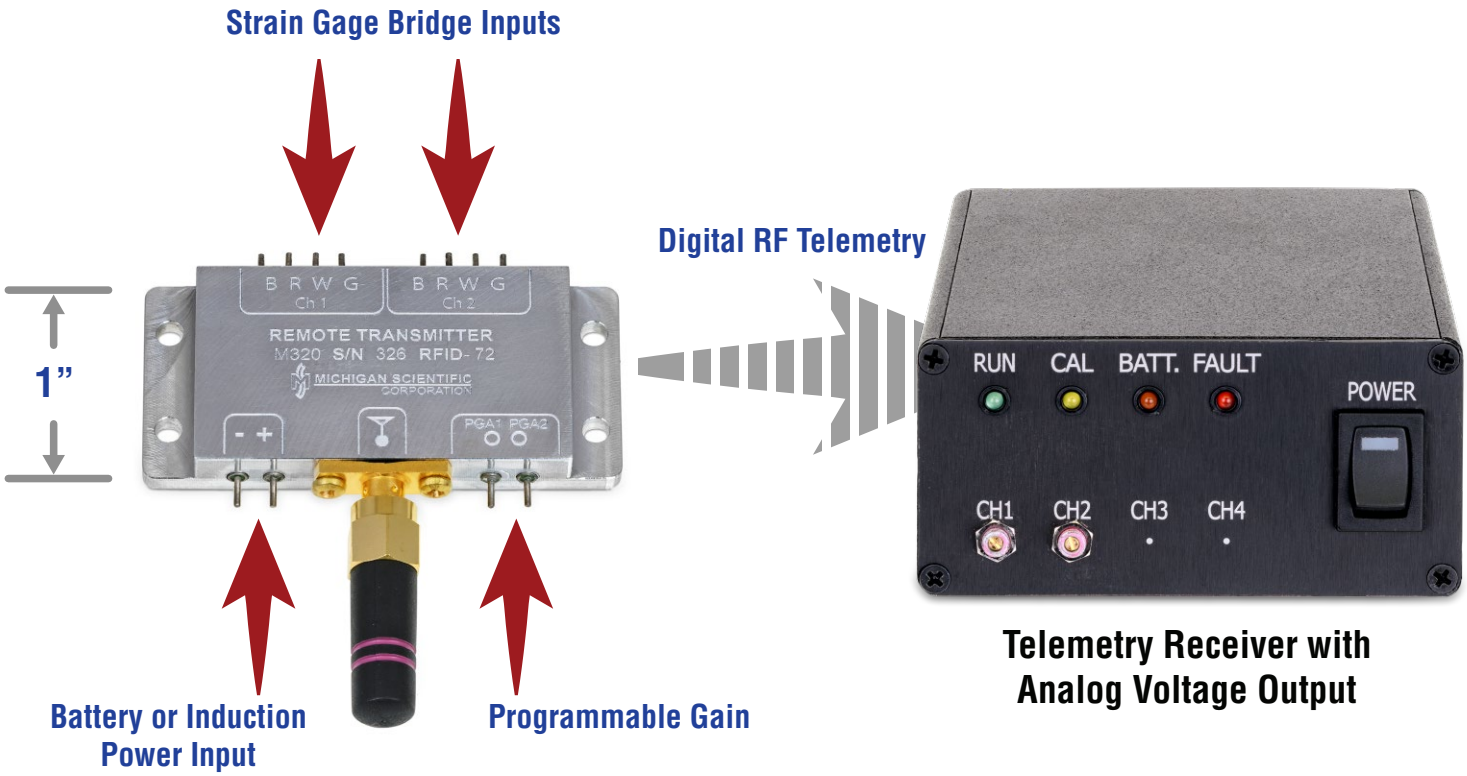
Programmable Telemetry



Telemetry Receiver with Analog Voltage Output

Programmable Telemetry Transmitter

Michigan Scientific's programmable gain transmitter is designed for wirelessly transmitting two channels of strain measurements. Both amplifiers have independently programmable gain using a MSC-USB programmer. The signals are transmitted digitally with error checking to provide stable accurate measurements. The small ruggedized aluminum housing is intended for hostile environments where vibration, extreme temperature, high acceleration and contaminants are present. A telemetry receiver provides +/- 10V analog outputs.

Transmitter Features

- Independent programmable channels (gain)
- Input range: 0.1 to 10 mV/V
- Digital RF Link with error checking for reliable accurate measurements
- Integrated strain gage driver with excitation and shunt mode for setup and verification of data.
- Medium to short range operation
- Rugged environmentally sealed aluminum housing
- Powered by battery or induction power

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General Specifications

Transmitter	
Analog channels	2 Full Bridge Strain Gage
Input Range	0.1 to 10 mV/V using MSC-USB programmer
Channel filter selection	2-pole low-pass jumper selectable 100hz/1Khz
Data sampling rate	3 kHz all channels sampled simultaneously
System Resolution	12 Bits
Channel to channel skew	Negligible (sample and hold)
Operating temperature	-40°F to +185°F (-40°C to +85°C)
Power requirement	6 Volts DC / 53mA with 2 350Ω bridges
Receiver	
Output at full scale	±10V
Output resolution	0.0244% of full scale
Channel filter type	2-pole low-pass
Channel filter selection	100Hz, 1kHz (jumper selectable)
Current output per channel	±10mA
Operating temperature	-40°F to +158°F (-40°C to +70°C)
RF antenna connector	Reverse polarity SMA
Power requirement	9 to 36 Volts / 500mA
Dimensions (L x W x H)	9.25 x 3.5 x 1.75 in. (235 x 88.9 x 45.47 mm)
System General	
Total system delay (unfiltered data)	<670µs Max
RF channels available	16 Min

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