

Wireless Sensor Telemetry Systems

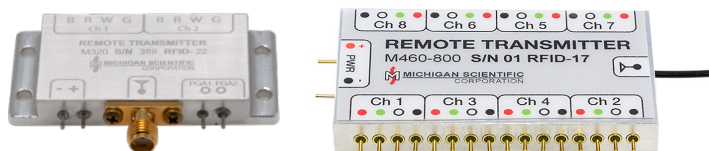


Reliability and precision in testing innovation

Michigan Scientific Corporation (MSC) Wireless Sensor Telemetry Systems are the ideal tool for non-contact signal transmission in harsh conditions. With many standard options available, the transmitter's small size and light weight allows for signal transmission in areas with limited space in rotating applications. In addition to standard transmitters, MSC has developed reliable and innovative telemetry solutions for countless applications, including engine and drivetrain measurements.

Features

- Standard units have up to 8 channels
- Fixed or programmable gain
- Battery or induction power
- Strain gauge or thermocouple-based measurements
- Non-contacting digital wireless link
- ± 10 V analog output
- Ruggedized and weatherproof



MSC Standard Telemetry Systems have a digital wireless link that provides dependable, accurate, and error-free data transmission. Each system is compact, weatherproof, and designed to operate in harsh environments typical in a vehicle powertrain.

STANDARD REMOTE TRANSMITTERS

	M320	M460	M540
Number of Channels	2	≤ 8	≤ 3
Programmable Gain Option	•		
Resolution	12-bit	16-bit	14-bit
Sample Rate	3.0 ksps	2.2 ksps	7.0 ksps - 15.0 ksps
Power Requirement	36 mA	65 mA	38 mA - 56 mA
Nominal Case Dimensions in (mm)	2.21 x 1.0 x .31 (56.1 x 25.4 x 7.9)	2.82 x 1.29 x .3 (71.6 x 32.8 x 7.6)	1.71 x .77 x .25 (43.4 x 19.6 x 6.4)
Operating Temperature	-40°F to 248°F (-40°C to 120°C)		

Telemetry Systems

MOUNTING TO SHAFTS

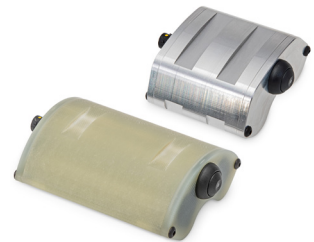
Clamping Induction Telemetry (CIT)

The CIT is a wireless, non-contact signal transmitter that easily mounts to shafts with a diameter of 1.0 inches (25 mm) or larger. The built-in amplifier has programmable gain and strain gauge signals are transmitted digitally with error checking to provide stable and accurate measurements. The small rugged housing is intended for hostile environment experiencing vibration, extreme temperature, high acceleration, and contaminants.



Clamping Battery Telemetry (CBT)

The CBT and CBT-mini are wireless, battery-powered, signal transmitters for strain gauges. Their small and rugged housing is designed for hostile environments. They mount to shafts with a diameter of 1.0 inches (25mm) or larger. The CBT includes two strain gauge channels and up to 48 hours of battery life. The CBT-mini includes one strain gauge channel and up to 28 hours of battery life.



Split Collar Telemetry and Induction System (TEL-SC)

The TEL-SC Systems have a built-in telemetry and induction power system. The induction hoops can be custom made to fit shafts with diameters of 0.9 inches (23 mm) or larger. They can be configured to transmit strain gauge or thermocouple signals. The systems have a low-profile design and single or multiple channel models are available. The digital wireless links provide accurate, error-free data transmission in harsh conditions.

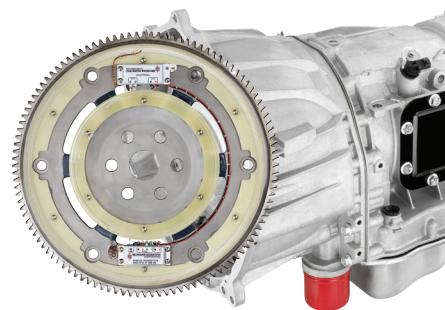


SPECIALIZED APPLICATIONS



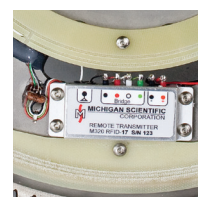
Telemetry Wheel Packages

Most commonly paired with Michigan Scientific Wheel Torque Transducers, these can also be configured to transmit strain gauge or thermocouple signals. The battery powered packages are designed to fit most wheel sizes.



Flexplate Telemetry Measurement Systems

Designed to replace production engine flexplates, these are used to measure engine harmonics and cylinder firing events. Flexplate Telemetry Measurement Systems can measure thrust and temperature in addition to torque.



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