

Clamping Battery Telemetry

Model CBT-MICRO

- Clamps to any shaft 25 mm or larger
- Smallest weatherproof battery-powered telemetry package
- One strain gauge bridge input channel
- Up to 8 hours of battery life
- Lightweight rugged IP67 housing
- Digital 2.4 GHz RF link for reliable transmission without interference or spikes



Description

The Michigan Scientific *Clamping Battery Telemetry (CBT-MICRO)* is a wireless, battery powered, signal transmitter for strain gages that easily mounts to shafts with a minimum diameter of 25 mm or larger, making it ideal for shaft mounting and very versatile. The Michigan Scientific Telemetry provides reliable signal transmission without interference or signal spikes. The *CBT-MICRO* can conveniently be strapped to any shaft with load rated plastic zip ties, steel banding, or hose clamp. The *CBT-MICRO* provides excitation and signal conditioning to the strain gages, then digitally transmits the signals via RF in the 2.4 GHz broadcast frequency range. For higher speed shafts when shaft balancing is required a counter weight can be purchased and should be mounted 180 ° opposite the *CBT-MICRO*. The *CBT-MICRO* is a small rugged housing and is designed for hostile environments.

Specifications

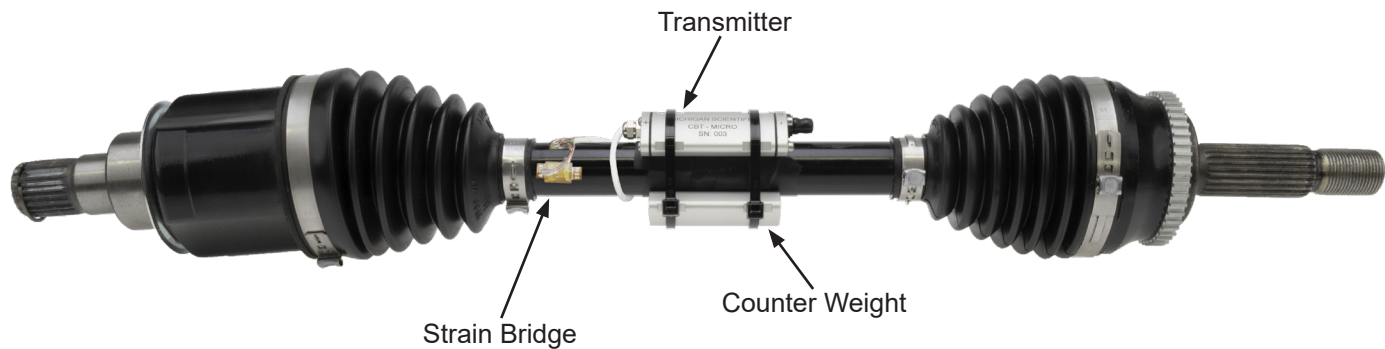
	CBT-MICRO	CBT-MICRO-3
RF Frequency Range	2.4 GHz	
Channel Type	Strain Gauge, Full Bridge, 350 Ω or higher	
Input Channel Count	1	
Output Channel Count	1	3
Transmitter Power	Two 10440 rechargeable batteries	
Receiver Power	9 Vdc to 36 Vdc, 1 A max. each	
Continuous Battery Life	8 h	6 h
Weight	90 g with batteries installed	
Input Range	20 mV/V standard (other input ranges available)	20 mV/V, 4 mV/V, & 2 mV/V bridge input standard (other gains available upon request)
Shunt Resistor	Fixed 49.9 k Ω standard, other shunt resistor values available	Fixed 100 k Ω standard, other shunt resistor values available
Typical Broadcast Distance	3 m to 4 m, line of sight (9.8 ft to 13.1 ft)	
Default Sample Rate	1 ksp/s (7 ksp/s available)	
Signal Output	Analog ± 10 V	
System Resolution	14 Bit	
Operating Temperature	-20 °C to +60 °C (-4 °F to 140 °F) (battery temperature limit)	
Total System Delay	<200 μ s	
RF Channels Available	16	

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