

Model 2000i-HX Radio Telemetry System

Half-Shaft 無線量測系統



● Auto Motor ● Heavy Equipment ● Industrial Manufacturing ● National Defense



2010i-XCL 微型 Half-Shaft 無線項圈可將正在轉動的轉軸所量測到的扭力訊號傳送至遠端的接收器當中，運用的原理為將黏貼在轉軸上的應變規所回傳的應變訊號轉換為扭力訊號，透過項圈中的微小發射器將訊號發射至接收器。由於 Half-Shaft 的規格較小，因此這套系統就是專為規格較小的轉動件量測所設計的，非常適合用於賽車的賽道測試或汽車出廠前的各種路況測試，目的在於即時的擷取扭力訊號。這套系統可以符合任何規格大小的轉軸上，使用者也能夠輕易的自行組裝及拆卸。

2010i-XCL Half-Shaft 扭力無線量測系統同時還以玻璃纖維保護項圈內部的發射器，非常適合惡劣環境下的量測，如高溫的引擎、充滿油漬的汽缸、及海水下的螺旋槳測試；設計相當輕巧，沒有滑環的裝置，只需要 0.5 英吋的 Clearance 就能裝在任何的 Half-Shaft 作量測。

發射器完全不需要電池就可傳送訊號，它是靠感應式線圈天線發電導通項圈內的天線致使發射器作用，不會因為轉軸角度的盲點而造成量測間斷，適用於任何大小的轉軸量測，非常的彈性。訊號接收器包含有 Backlit LCD 顯示、類比訊號輸出，及 12VDC 至 120VAC 電源供應選擇。

產品特色

- ✦ 感測器所量到的訊號可透過無線發射裝置將訊號傳送至遠端的接收器中。
- ✦ 待測物無需作任何規格上的改變。項圈可為任何轉軸大小及形狀作客製化的設計。
- ✦ 鉗式設計的項圈，使用者可輕易的自行拆裝。內建有發射天線。
- ✦ 沒有任何滑環的裝置。
- ✦ 若規格特殊，您可將待測物寄到本公司，原廠提供從設計到安裝的完整服務。
- ✦ 可適用多通道的量測。

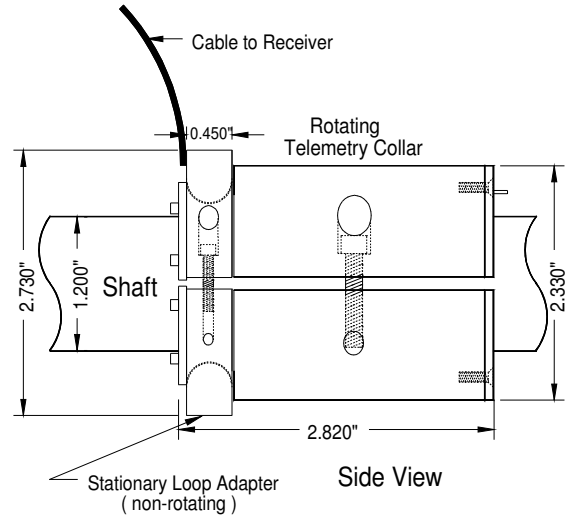
Specifications

SYSTEM

Bandwidth: Wide Band DC to 1100 Hz
 Filtered DC to 100 Hz
 Integral Non-Linearity $\pm .10\%$
 Repeatability $\pm .05\%$
 Maximum Error $< 0.25\%$ Full Scale

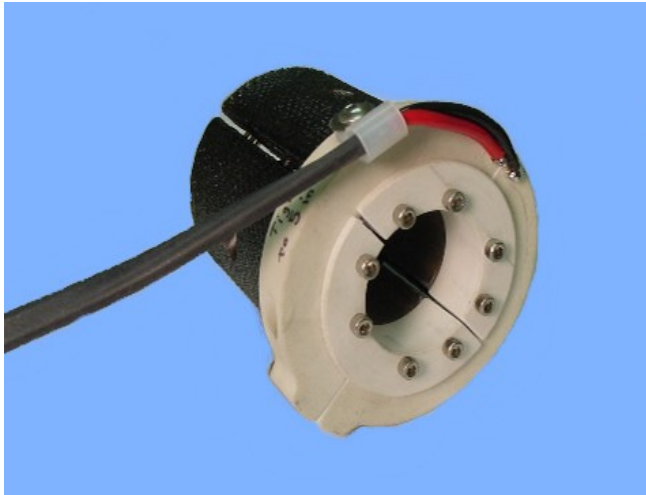
RECEIVER: Model 2025i-R

Power 120 Volts AC
 and 12 Volts DC
 Output 0-2, 5, 10; $\pm 2, 5, 10$ VDC;
 (0-20, 4-20 mA Optional)
 Display $3\frac{1}{2}$ Digit Backlit LCD
 Output Ripple < 2 mV (Filtered)
 < 15 mV (Wide band)
 Size 8.0"L x 5.0"W x 3.48"H



MINIATURE TRANSMITTER COLLAR: Requires only 0.500" clearance!

Power 500KHz Induction Power
 Zero Drift $.02\%$ / $^{\circ}\text{C}$
 Span Drift $.02\%$ / $^{\circ}\text{C}$
 Operating Temperature Range -40°C to 140°C

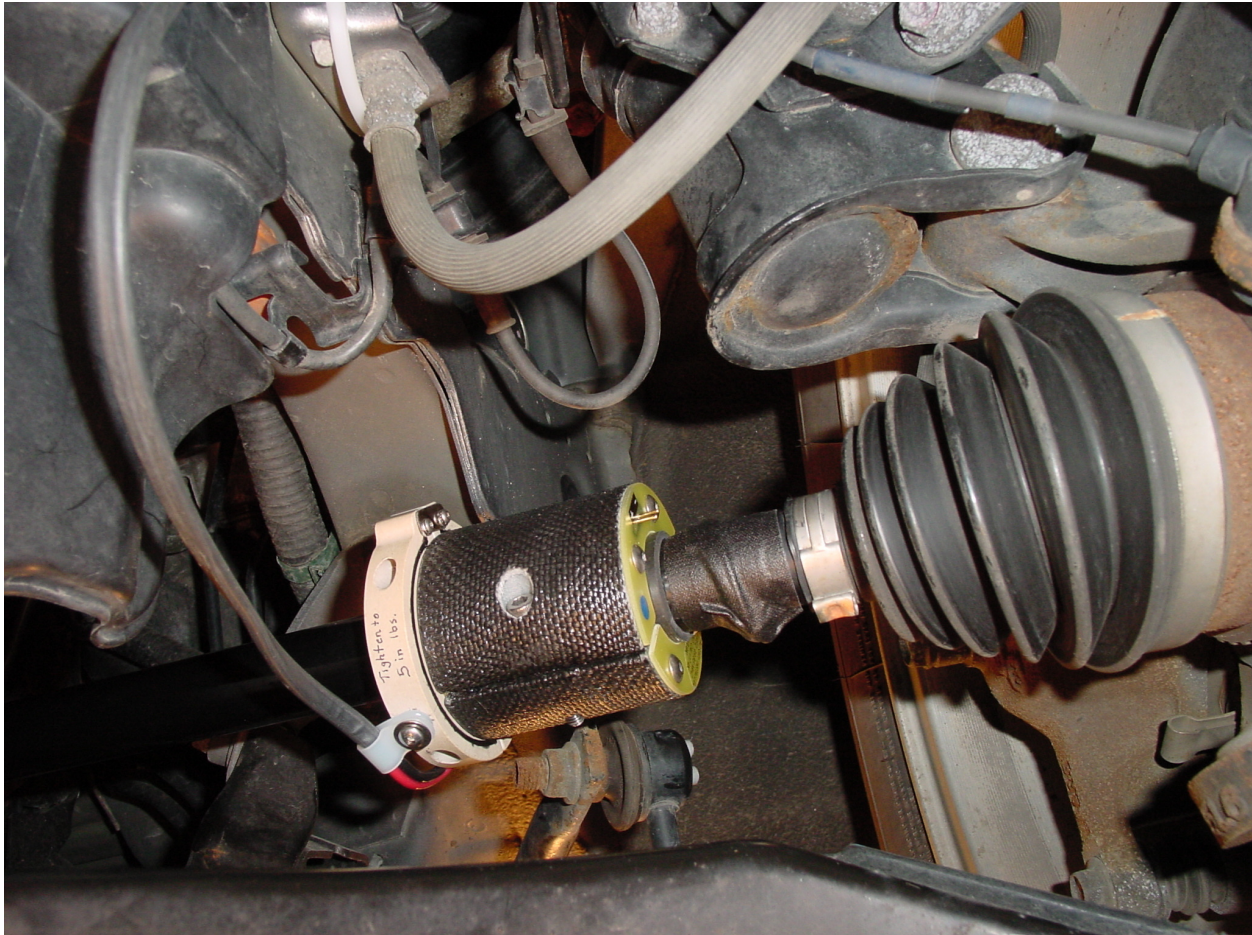


Model	Transmitter Type	Input	Excitation
2040BC-M	Strain Gage	4 arm Wheatstone Bridge (>120 ohms)	5 Volts DC
2041BC-M	Voltage	± 50 mV to 10 Volts Full Scale	5 Volts DC
2042BC-M	Thermocouple	Type J or K Thermocouples, Specify Measurement Range	--
2043BC-M	Acceleration	Compatible with most ICP type accelerometers	1mA constant current

Specifications *continued*

- ☑ **Remote Calibration Option:** Terminals provided on top of Transmitter for mounting shunt calibration resistor. Positive and Negative Cal buttons on the front panel of the Receiver cause Transmitter's shunt cal resistor to be connected to the appropriate leg of the bridge for 15 seconds.
- ☑ Included with the system is the Stationary Loop Adapter, a non-rotating slip collar which clamps over the backside of the rotating collar.
- ☑ Systems available, which incorporate removable Transmitters (shown below).

Installation View:



Custom Collars

available for most any shaft size. Multiple transmitters can be housed in one collar. (Refer to 2010B specification sheet for further information.)



Multi-channel Receivers

available when multiple torque measurements are required; such as with 4-wheel drive vehicles.

