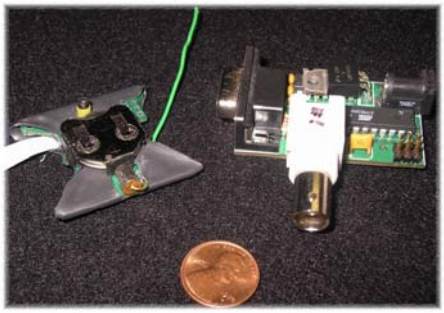
TECAT Torque Telemetry

TECAT's digital torque telemetry system is the smallest, lightest, most power efficient torque measuring device available. The strain gage based measuring system is easy to install, with no need to modify the equipment being monitored. The watch battery used to power the transmitter lasts for several days of low frequency data transmission, and for several hours of testing at data rates up to 500 Hz. The transmitter automatically shuts off when not testing, further preserving battery life. The receiver accommodates a remote antenna, for easy access to a clean line of sight to the transmitter.



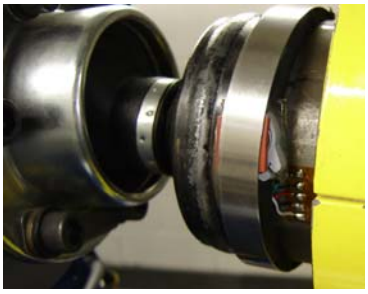
The TECAT Solution

The TECAT Product offers the following competitive advantages:

- Long Battery Life – transmitter runs off a watch battery, no external power supply required
- Compact Size – can be packaged almost anywhere
- Low Weight – minimal impact on the shaft being measured
- Ease of Use – open architecture easily interfaces with any data acquisition system
- Wireless Technology – as easy to use on the road as it is in the lab
- Highly Accurate – within +/- 0.1%

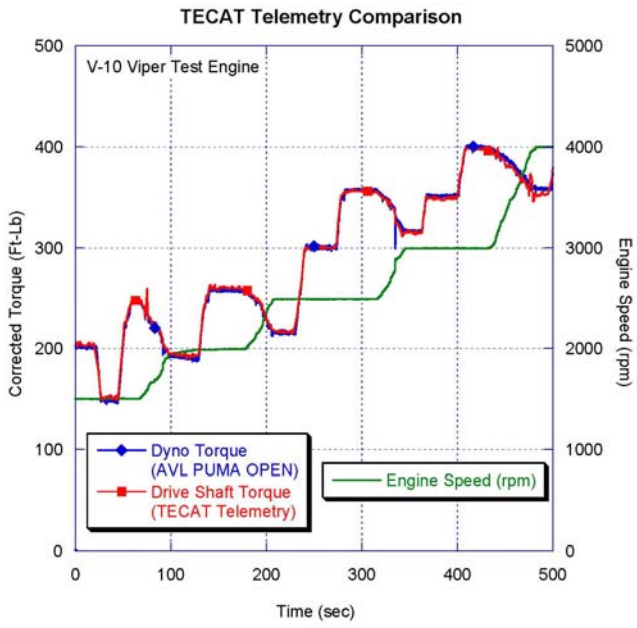
Sample Installations

Hose Clamp Mounting



Screwed into DriveShaft End

TECAT Data Compared to AVL PUMA Dynamometer Data

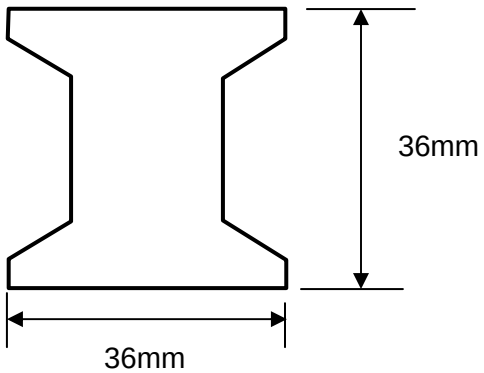


TECAT Torque Telemetry
Product Specifications

Sensor Input	Full Wheatstone Bridge strain gage
Bridge Input	3.0 VDC, Regulated
Pre-Set Gain	set at 1 or 100, per customer spec
Offset	software programmable
Sensor & Power Connection	spring terminal block
Transmitter Power Input	6 VDC, 800uA average
Transmission Frequency	916 MHz
Transmitter Battery Life	Active:110 hours on 2 coin cell batteries Idle: 3 year shelf life
Transmit Distance	100 feet or more
Operating Temperature	-20 to 120^{o}C
Transmitter Size	36mm x 36mm x 10mm
Transmitter Weight	8 g (includes coin cell batteries)
Receiver Connection	DB9 - 9 pin serial connector
Receiver Power Input	12-18 VDC, 250 mA
Receiver Size	30mm x 53mm x 12mm
Receiver Weight	0.75 oz (21 g)
Resolution	10 bit x 64 samples averaged - effective 16 bit (+/-full scale = 65536)
Data Rate	Up to 500 Hz
Software	MS Excel compatible
PC Comm	Serial Port 19.2 kbaud
# of Network Channels	1

Testing, development, monitoring and control - contact TECAT for all of your torque measurement needs.

Transmitter Footprint



Height: 10mm
(includes batteries)

TECAT Engineering, Incorporated
4668 Freedom Drive
Ann Arbor, MI 48108
Phone: 248.615.9862
Fax: 248.615.9872
info@tecatengineering.com
www.tecatengineering.com