



# FT100

## CV Shaft Torque Measurement

### ALL WEATHER, NON-CONTACTING MEASUREMENT OF TORQUE ON TEST VEHICLES WITH CV SHAFTS

**T**eledyne Instruments - Test Services (TTS) has developed a torque testing tool for CV shafts. The **FT100 Torque Sensing System** is designed for long term in-vehicle or dynamometer testing.

No slip rings or outboard wiring are required. The FT100 is entirely weatherproof making it an excellent choice for fleet testing.

The FT100 uses non-contact, digital data transfer technology providing the user with a clean and responsive signal. Power is inductively supplied to the rotating collar eliminating the need for batteries. The FT100 is truly a "hands off" torque measurement system, as once installed, it is invisible to the user.

TTS offers this exciting product as a turnkey installation onto the customer's CV shaft.

#### Applications

- Engine development
- Transmission development
- Powertrain torque monitoring
- Traction control
- Racing vehicles
- Fleet testing
- Customer use testing

#### Features

- Operates in rain, snow and mud
- Designed for long-term Fleet Tests
- No components or wiring outboard of wheel
- Digital data transfer for a clean signal
- Analog output with 1 kHz frequency response, user selectable scaling
- Collar size 3.0" OD, 2.75" W, adapts to a range of shaft diameters
- Turnkey installation available with 0.5% accuracy NIST traceable
- Temperature compensated from -40 to +85°C
- No batteries or slip rings
- Racing and dynamometer units available

# FT100 Shaft Torque Measurement System

## Specifications

### FT100 Rotating Electronic (Collar)

Torque capacity:	Dependent on shaft size, typically $\pm 2500$ ft-lbs
Calibration range:	0-6000 ft-lbs (8100 Nm)
Operating temperature range:	-40 to +85°C
Physical size:	3.0 OD X 2.75 W (inches)
Environmental concerns:	Completely weatherproof sealed housing/bearings
Maximum speed:	5500 RPM (seals)

### FT100 Stationary Electronics

Combined accuracy:	0.5% FS
Interface to Collar:	Serial digital
Calibration:	Digital calibration including zero and span
System frequency response:	2600 s/s, 500 Hz (-3dB), 300 K s/s possible
Output signal:	0 $\pm$ 5 VDC (scaleable)
Input power requirements:	9-18 VDC, 0.8 amp (1.8 amp startup surge)
Operating temperature range:	0-70°C (32-158°F)
Physical size (LxWxH):	5.0" x 2.5" x 1.5"

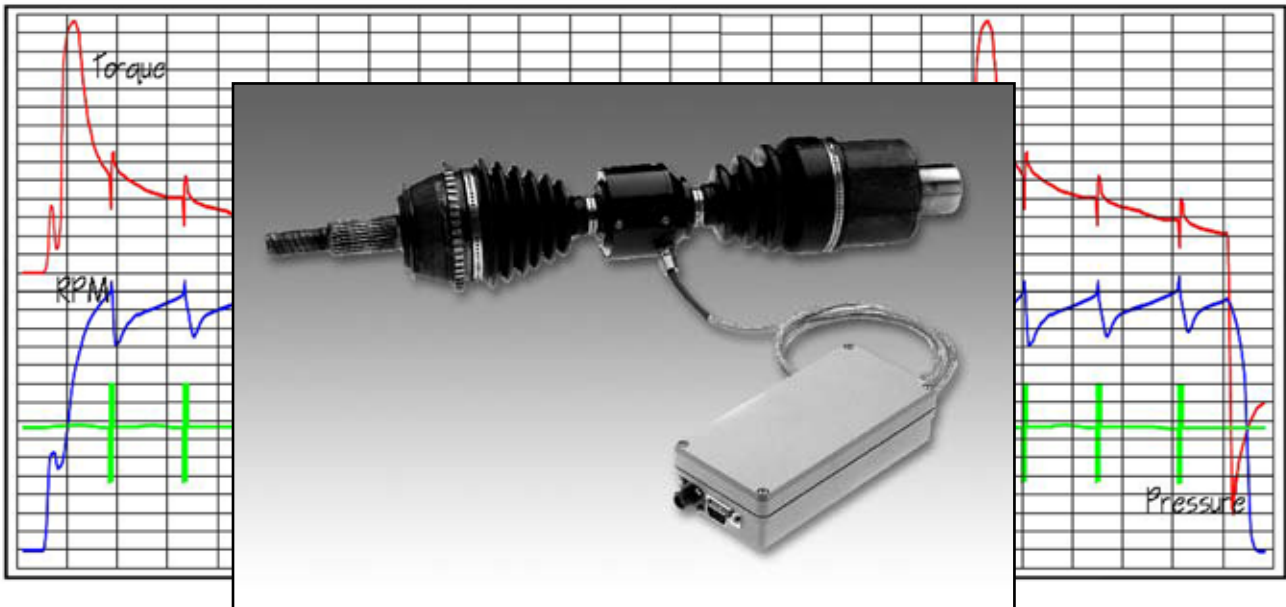
For more information, contact:

Mike Sullivan (ext. 125)

or

Roger Masson (ext. 105)

Typical FT100 installation



**TELEDYNE INSTRUMENTS**  
Test Services  
A Teledyne Technologies Company

513 Mill Street • Marion, MA • 02738  
Tel: 508-748-0103 Fax: 508-748-1093

[www.teledynetestservices.com](http://www.teledynetestservices.com)  
email: [rwmasson@teledyne.com](mailto:rwmasson@teledyne.com)