



# RT100

## *Automotive Torque Measurement*

### ALL WEATHER, NON-CONTACTING MEASUREMENT OF TORQUE ON FWD, RWD AND AWD TEST VEHICLES

**T**eledyne Instruments - Test Services (TTS) offers a unique Automotive Torque testing tool, the **RT100 Torque Sensing System**, designed for long term in-vehicle or dynamometer testing.

No outboard wiring or slip rings are required. The RT100 is entirely weatherproof making it an excellent choice for fleet testing.

The RT100 uses non-contact, data transfer technology providing the user with a clean and responsive signal. Power is supplied to the rotating collar inductively eliminating the need for batteries.

The RT100 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 driveshaft.

#### **Applications**

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

#### **Features**

- Operates in rain, snow and mud
- Designed for unattended testing
- Shunt calibration from inside the vehicle
- Analog output with 1 kHz frequency response
- User selectable scaling
- Collar projects 0.62 inches from shaft diameter, 3.9 inches long
- Custom form factors available
- Turnkey installation available with 0.5% accuracy NIST traceable
- Temperature compensated -15 to +75°C, -40 to +120 available
- No batteries or slip rings
- Non-critical antenna placement ( $\pm 0.75$  inches)
- Light weight collar does not present balance problems
- Racing and dynamometer units available
- Two channel versions available for measuring thrust, strain or temperature

# RT100 Automotive Torque Measurement

## Specifications

### RT100 Shaft Electronics (Rotor & Stator)

Torque capacity:	Dependent on shaft size, typically $\pm 3500$ ft-lbs
Calibration range:	0 to 6000 ft-lbs (8100 Nm)
Operating temperature range:	-15 to +75°C (-40 to +120°C available)
Physical size:	0.62 inches radial projection typical, 3.9 to 5.5 inches long based on required form factor
Environmental concerns:	Completely weatherproof injection molded collar
Maximum speed:	8000 RPM typical (shaft diameter dependent)

### RT100 Stationary Electronics (Receiver)

Combined accuracy:	<.5% FS
Calibration:	Remote shunt calibration (receiver momentary toggle)
System frequency response:	1000 or 100 Hz (-3dB), user selectable
Output signal:	0 $\pm 2$ to $\pm 10$ V user selectable and scaleable
Input power requirements:	8-32 VDC, 1.6 amp @ 12V
Operating temperature range:	0 to 70°C (32 - 158°F)
Physical size (LxWxH):	9.0" x 4.1" x 3.1"

For more information, contact:  
Mike Sullivan (ext. 125)  
or  
Roger Masson (ext. 105)

