

# AT100 CV Shaft Torque Measurement System



## All Weather, Non-Contacting Measurement of Torque on Test Vehicles with CV Shafts

### Key Features

- Low profile for space constrained FWD applications
- All weather operation
- No components or wiring outboard of wheel
- Digital data transfer for a clean signal
- Temperature compensated output
- Remote shunt calibration capability
- Scalable analog output
- User selectable frequency response
- Portability to other shafts by Teledyne Instruments
- No batteries or slip rings
- Racing and dynamometer units available

CV shaft torque is often difficult to obtain because of limited space in this very hostile under-vehicle environment. The AT100 uses non-contact, digital data transfer technology to provide the user with a clean and responsive torque signal. Power is inductively supplied to the rotating collar eliminating the need for batteries.

### Specifications

#### AT100 Rotating Electronics (Collar)

Torque capacity	Dependent on shaft size, typically $\pm 2k - 5k$ ft-lbs
Calibration range	0-6000 ft-lbs (8100 Nm)
Operating temperature range	-40 to +85C, -40 to +120C available
Physical size	2.2" OD x 2.5" W
Environmental concerns	Completely weatherproof sealed housing/bearings
Maximum speed	5500 RPM (consult factory for higher speeds)

#### Stationary Electronics

Combined accuracy	0.5% FS NIST Traceable
Interface to collar	Serial Digital
Output signal	0+/-5, 0+/-10 V (scalable)
Sample rate	27,000 s/s
System frequency response	2, 20, 200 or 2000 Hz (-3dB, user selectable)
Input power requirements	9 to 15 VDC, 0.8 amp (1.8 amp startup surge)
Operating temperature range	0 to +50C
Physical size	7.5"W x 7.5" D x 2.0" H

### Applications

- Transmission development
- Engine development
- Powertrain torque monitoring
- Traction control
- Fleet & customer-use testing
- Racing vehicles tuning