



- 12,000 lb (53.4 kN) radial load capacity
- 6,000 lb (26.7 kN) lateral load capacity
- Measures 3 Forces and 3 Moments
- Wireless Telemetry and Induction System
- CAN, Analog, and Ethernet signal outputs
- · Adapts to 14" and larger wheels
- Low cross axis sensitivity
- · Temperature compensated
- Remove wheel without removing electronics

## Description



The *LW12.8-TEL Wheel Force Transducer (WFT)* is capable of measuring all of the wheel forces and moments on passenger cars and light duty trucks. It provides independent output signals for vertical, lateral, and longitudinal forces as well as camber, steer, and torque moments. It is completely weatherproof making it ideal for testing in any weather conditions.

The Telemetry and Induction Power electronics are packaged into the transducer to create a low profile and durable assembly.

The CT2-TEL Transducer Telemetry Interface Box performs real-time coordinate transformation and cross-talk compensation, and outputs analog, CAN, and Ethernet signals. An embedded web page allows the user to configure the WFT System.

## Specifications

Maximum Force Capacity, [Fx, Fz] Radial	12,000 lb (53 kN)
[Fy] Lateral at Tire Patch	6,000 lb (26 kN)
Maximum Torque Capacity [Mx, My, Mz]	6,000 lb-ft (8.1 kN-m)
Full Scale Output	0.8 mV/V nominal
Sensor	4 arm strain gage bridges
Nonlinearity	≤ 1% of full scale output
Hysteresis	< 0.5% of full scale output
Cross Axis Sensitivity Before Compensation	<1% of full scale output
Radial Sensitivity Variation	< 1% of full scale output
Transducer Temperature Range, Operating	-40°F to 257°F (-40°C to 125°C)
CT2-TEL Temperature Range	-5°F to 140°F (-20°C to 60°C)
Weight (Transducer & Telemetry Electronics)	13.0 lb (6.0 kg)
Angular Resolution	0.25°
Transmission Rate of Data	2,200 Hz
Data Bandwidth	200 Hz (<-0.1 dB) ; 500 Hz (<-1.0 dB)
Data Resolution in Engineering Units (16 bit ADC)	0.4 lb (1.8 N) ; 0.2 lb-ft (0.27 N-m)
System Delay on Analog Channels	20.69 ms
Anti-Alias filter type	Bessel Linear Phase
Input Power Requirements	10-36 VDC, ~2.0 Amps @ 13.5 VDC Typ





## **CT2 Transducer Interface Box**

- Performs real-time coordinate transformation and cross-talk compensation
- Easy to use Zero, Shunt Calibration, and Bridge Power Off functions
- Simultaneous Analog, CAN, & Ethernet signal outputs
- Embedded web page enables user to:
  - -Change set-up options -Move WFT measurement origin -View Transducer static values -Create .dbc file

## **Telemetry Stator**

- · Receives and Decodes the telemetry signal from the Transducer
- Provides High Resolution Speed & Position Signals
- Mounts inboard of the Transducer









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