

Model LW-2T-50K

- 50,000 lb (222 kN) radial load capacity
- 25,000 lb (111 kN) lateral load capacity
- Measures 3 forces and 3 moments
- Measures X & Z accelerations
- Measures combined loads of one or two tires
- Adapts to 19.5 inch and larger wheels
- Environmentally protected
- Temperature compensated
- Rugged stainless steel construction



Description

The *LW-2T-50K Wheel Force Transducer (WFT)* is capable of measuring all of the wheel forces and moments on class 8 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 on-road and off-road measurements. It can also be used to monitor and control laboratory tests. One sensor measures the combined loads for a dual wheel set or a single tire.

The matching amplifier package easily mounts onto the transducer. It amplifies and digitizes the transducer signals before they pass through the slip ring. The amplifier package also includes X and Z acceleration outputs and performs remote shunt calibration of the transducer.

The *CT2 Transducer 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)	50,000 lb (222 kN)
[Fy] (lateral) at Tire Patch	25,000 lb (111 kN)
Maximum Torque Capacity [Mx, My, Mz]	50,000 lb-ft (68 kN-m)
Accelerometer range	± 55g
Sensor	4 arm strain gage bridges
Nonlinearity	≤ 1% of full scale output
Hysteresis	< 1% of full scale output
Cross Axis Sensitivity after correction	< 1% of full scale output
Temperature Range, Operating	-40°F to 257°F (-40°C to 125°C)
Angular Resolution	0.17°

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



Amplifier & Slip Ring Package

- Internal X & Z accelerometers
- High resolution encoder for position & speed measurement
- Internal smart chip contains all calibration, zero, & shunt values
- Provides signal conditioning & amplification to the transducer strain gage signals
- Digitizes Transducer, Encoder, & Accelerometer signals
- Supports slip ring

