

- 100,000 lb (445 kN) radial load capacity
- 50,000 lb (225 kN) lateral capacity at tire patch
- Measures 3 forces and 3 moments
- Measures X & Z accelerations
- Measures combined loads of one or two tires
- Adapts to 22.5 inch and larger wheels
- Environmentally protected
- Temperature compensated
- Rugged stainless steel construction



Description

The *LW-2T-100K Wheel Force Transducer (WFT)* is capable of measuring all of the wheel forces and moments on class 8 trucks, large off-road vehicles and heavy equipment. 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

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|---|---------------------------------|
| Maximum Force Capacity, [Fx, Fz] (radial) | 100,000 lb (445 kN) |
| [Fy] (lateral) at Tire Patch | 50,000 lb (225 kN) |
| Maximum Torque Capacity [Mx, My, Mz] | 100,000 lb-ft (135 kN-m) |
| Accelerometer range | ± 55g |
| Sensor | 4 arm strain gage bridges |
| Nonlinearity | ≤ 1% of full scale output |
| Hysteresis | < 0.5% 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

