Heavy Duty Wheel Force Transducer, 6 Axis

Model LW-1T-25K

- 25,000 lb (111 kN) radial load capacity
- 12,500 lb (56 kN) lateral load capacity
- Measures 3 forces and 3 moments
- Adapts to 22.5” and larger wheels
- Measures load input from one tire in a dual wheel set
- Environmentally protected
- Temperature compensated
- Rugged stainless steel construction

Description

The *LW-1T-25K Wheel Force Transducer (WFT)* is capable of measuring all of the wheel forces and moments on a single wheel for 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. Two sensors are required for a dual wheel set, one for each 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	25,000 lb (111 kN)
[Fy] Lateral at Tire Patch	12,500 lb (56 kN)
Maximum Torque Capacity, [Mx, My, Mz]	20,000 lb ft (27 kN-m)
Sensor	4 arm strain gage bridges
Nonlinearity	< 1% of full scale output
Hysteresis	< 0.5% of full scale output
Repeatability	Within 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)
Radial Sensitivity Variation	<1% of full scale output
Angular Resolution	0.17 °

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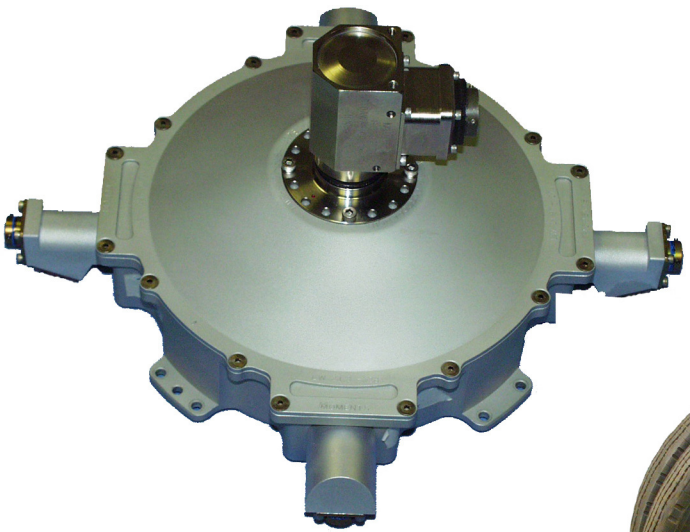
Heavy Duty Wheel Force Transducer, 6 Axis

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



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