Wheel Force Transducer, 6 Axis

Model LW-2T-20K

- 20,000 lbf (90 kN) radial load capacity
- 10,000 lbf (44 kN) lateral load capacity
- Measures 3 forces and 3 moments
- Measures X & Z accelerations
- Adapts to 16 in and larger single or dual wheels
- Temperature compensated
- Low cross axis sensitivity

Description

The *LW-2T-20K Wheel Force Transducer (WFT)* is capable of measuring all of the wheel forces and moments on light and heavy duty pickup trucks vans and SUVs. It provides independent output signals for vertical, lateral, and longitudinal forces as well as camber, steer, and torque moments. Being completely weatherproof, it is ideal for on-road and off-road measurements in all conditions. It can also be used to monitor and control laboratory tests. One *WFT* measures the combined loads for either 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 crosstalk compensation, and outputs analog, CAN, and ethernet signals. An embedded webpage allows the user to configure the *WFT* system.

Specifications

Maximum Force Capacity [Fx, Fz] (radial)	20,000 lbf (90 kN)
Maximum Force Capacity [Fy] (lateral) at Tire Patch	10,000 lbf (44 kN)
Maximum Torque Capacity [Mx, Mz]	11,000 lbf · ft (14.9 kN · m)
Maximum Torque Capacity [My]	15,000 lbf · ft (20 kN · m)
Accelerometer Range	± 55 g
Sensor	4 arm strain gauge bridges
Nonlinearity	≤ 0.5 % of full scale output
Hysteresis	< 0.5 % of full scale output
Crosstalk after Correction	< 1 % of full scale output
Temperature Range, Operating	-40 °F to 257 °F (-40 °C to 125 °C)
Angular Resolution	0.17°

8500 Ance Road
Charlevoix, MI 49720
Tel: 231-547-5511
Fax: 231-547-7070

03-7-22
Rev. A

MICHIGAN SCIENTIFIC corporation
http://www.michsci.com
Email: mscinfo@michsci.com

321 East Huron Street
Milford, MI 48381
Tel: 248-685-3939
Fax: 248-685-5406

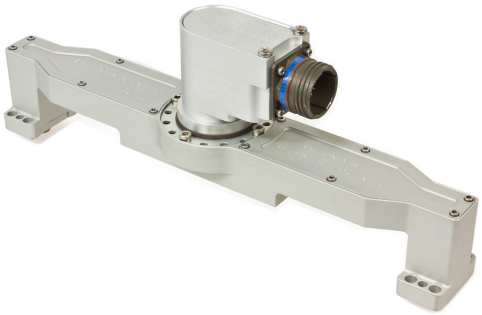
Wheel Force Transducer, 6 Axis

CT2 Transducer Interface Box

- Performs real-time coordinate transformation and crosstalk compensation
- Easy to use Zero, Shunt Calibration, and Bridge Power Off functions
- Simultaneous analog, CAN, and ethernet signal outputs
- Embedded webpage 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 and speed measurement
- Internal smart chip contains all calibration, zero, and shunt values
- Provides signal conditioning and amplification to the transducer strain gauge signals
- Digitizes transducer, encoder, and accelerometer signals
- Supports slip ring assembly



8500 Ance Road
Charlevoix, MI 49720
Tel: 231-547-5511
Fax: 231-547-7070
03-7-22
Rev. A

MICHIGAN SCIENTIFIC corporation
http://www.michsci.com
Email: mscinfo@michsci.com

321 East Huron Street
Milford, MI 48381
Tel: 248-685-3939
Fax: 248-685-5406