

Heavy Duty Wheel Load Transducer, 6 Axis

Model LW-2T-50K

- 50,000 lb (222 kN) radial load capacity
- 25,000 lb (111 kN) lateral capacity at tire patch
- Measures 3 forces and 3 moments
- Measures combined loads of one or two tires
- Adapts to 19.5 inch and larger wheels
- Low cross axis sensitivity
- Environmentally protected
- Temperature compensated
- Rugged stainless steel construction
- Configured to minimize magnetic sensitivity



Description

The *LW-2T-50K Load Wheel Transducer* 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.

An amplifier package is available that bolts on to, and rotates with, the *LW-2T-50K Load Wheel Transducer*. The amplifiers provide high level signals and remote electrical calibration.

High grade stainless steel material and weatherproof sealing combine to provide excellent resistance to corrosion and environmental conditions. Temperature compensation of the wheel load transducer ensures stable output throughout a wide temperature range.

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	(67.8 kN-m)
Full Scale Output	1 mV/V nominal	
Sensor	4 arm strain gage bridges	
Nonlinearity	Less than 1% of full scale output	
Hysteresis	Less than 1% of full scale output	
Repeatability	Within 1% of full scale output	
Zero Balance prior to installation	Within 2% of full scale output	
Cross Axis Sensitivity	<2% of full scale (with amplifier)	
Temperature Range, Operating	-40 ° F to 257 ° F (-40 ° C to 125 ° C)	
Radial Sensitivity Variation	<1%	
Bridge Resistance	350 to 1400Ω, axis dependent	
Insulation Resistance, Bridge/Case	Exceeds 1000 MΩ	

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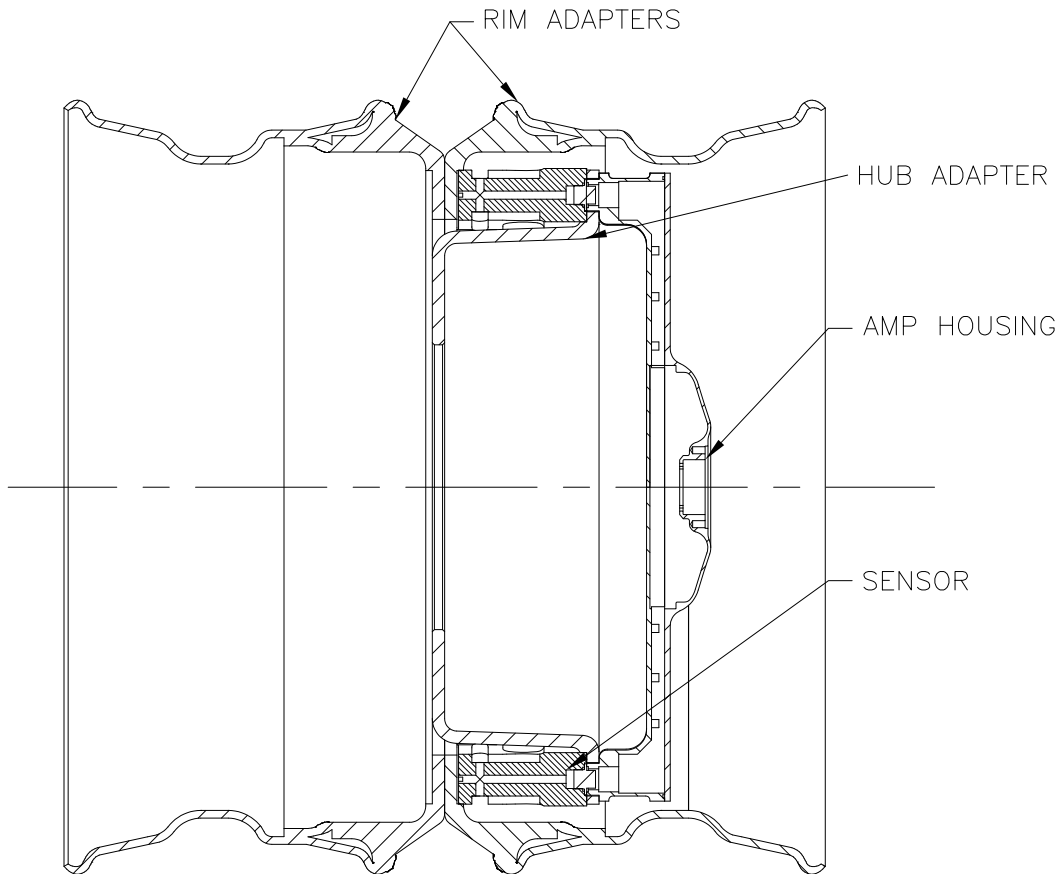
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LW-2T-50K Configuration



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LW-2T-50K
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Ordering Options

Custom designs with alternative output sensitivities and load capacities may also be ordered.

Michigan Scientific offers a fully weatherproof slip ring, resolver, and amplifier instrumentation assembly to be used with all wheel torque or load transducers. Refer to the product literature section "Instrumentation Assemblies" for more information.

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