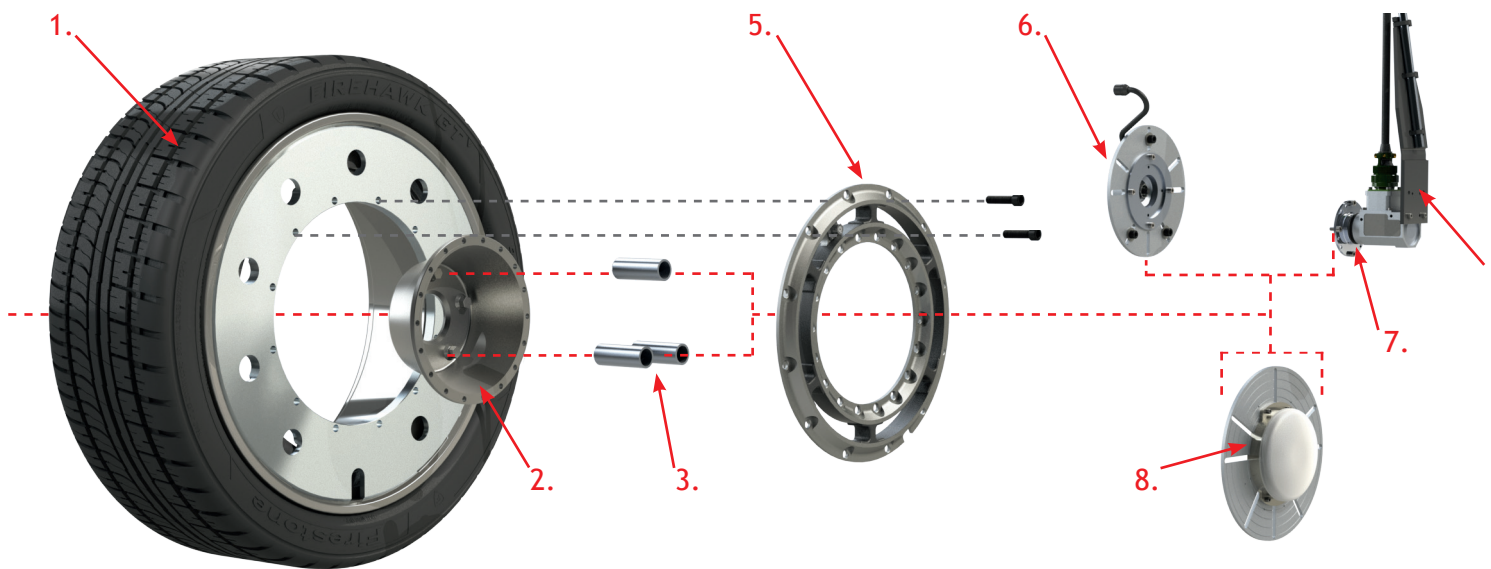


Wheel Torque Transducers





1. RIM ADAPTER

Modified production wheel or custom machined wheel for mounting transducer to wheel

2. HUB ADAPTER

Custom adapter that mounts transducer and rim adapter assembly to production vehicle hub

3. COLLET LUG

Quick connect collet lug nut extension mounts to standard lug nuts

4. STATOR RESTRAINING ROD

Stabilizes the stator of the slip ring assembly relative to the vehicle for angle reference

5. WHEEL TORQUE TRANSDUCER

Measures drive and braking torque at vehicle corner

SIGNAL CONDITIONING

6. Wheel Instrumentation Package (WIP)

Mounts to a variety of wheel lug bolt patterns and conditions signals from the transducer and provides (optional) thermocouple signal conditioning

7. Slip Ring Assembly

Measures rotational velocity and angular position while completing electrical connection between rotational and stationary components

OR

8. Telemetry Data Transmission Electronics

Wireless signal transfer to receivers located inside vehicle
Does not provide rotational velocity or angular position

FEATURES:

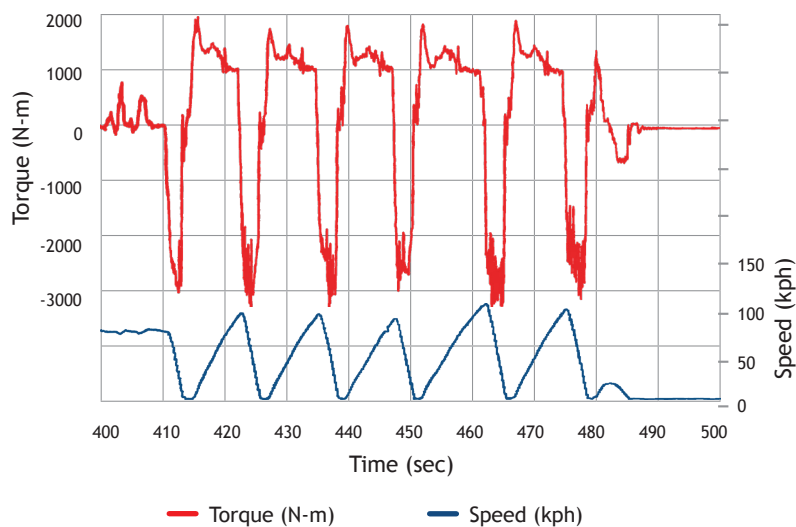
- Weatherproof and Environmentally Protected
- High Accuracy Encoder
- Slip Ring Assembly That Provides Rotational Velocity and Angular Position Data
- Precision Strain Gauge and Optional Thermocouple Spinning Amplifiers
- Durable
- Customizable
- 3 Year Warranty on Transducers

Michigan Scientific Corporation designs and manufactures highly sensitive Wheel Torque Transducers to measure drive and braking torque. The transducers are attached to adapters that duplicate the critical dimensions of the original rim and hub. Due to the high strength material and weatherproof sealing, the assemblies can be used under normal driving conditions. Precision transducers are useful for gathering data in brake systems, vehicle stability, and driveline development.

TRANSDUCER SPECIFICATIONS

	TW9.5	TW10.8	TW12.8	TW12.8ER	TW12.8 HRMS175	TW12.8 HRMS800	TWHR2000	TW15.0	TW-2T-12.5K	TW-2T-50K	TW-2T-60K-S
Application	ATV & Small Vehicle	Car, SUV, & Light Truck	Small Automobile to Light Truck				Class 8 truck, Agricultural & Construction Equipment	Light to Medium Duty Truck	Medium Duty Truck & SUV	Class 8 Truck, Agricultural & Construction Equipment	
Rim Size	≥ 10"	≥ 13"	≥ 14"				≥ 22.5"	≥ 15"	≥ 16"	≥ 19.5"	≥ 19.5"
High Resolution Wheel Torque					•	•	•				
Maximum Static Weight (Fz)	455 kg (1,000 lbs)	725 kg (1,600 lbs)	1,000 kg (2,250 lbs)	1,000 kg (2,250 lbs)	1,000 kg (2,250 lbs)	1,000 kg (2,250 lbs)	5,000 kg (11,000 lbs)	1,000 kg (2,250 lbs)	1,800 kg (4,000 lbs)	4,500 kg (10,000 lbs)	6,100 kg (13,480 lbs)
Full Scale Measurable Load	5.4 kN-m (4,000 lb-ft)	4.0 kN-m (3,000 lb-ft)	8.1 kN-m (6,000 lb-ft)	5.4 kN-m (4,000 lb-ft)	237 N-m (175 lb-ft)	1.0 kN-m (800 lb-ft)	2.7 kN-m (2,000 lb-ft)	9.5 kN-m (7,000 lb-ft)	17 kN-m (12,500 lb-ft)	67 kN-m (50,000 lb-ft)	81 kN-m (60,000 lb-ft)
Max Torque Capacity	5.4 kN-m (4,000 lb-ft)	4.0 kN-m (3,000 lb-ft)	8.1 kN-m (6,000 lb-ft)	5.4 kN-m (4,000 lb-ft)	8.1 kN-m (6,000 lb-ft)	8.1 kN-m (6,000 lb-ft)	27 kN-m (20,000 lb-ft)	9.5 kN-m (7,000 lb-ft)	17 kN-m (12,500 lb-ft)	67 kN-m (50,000 lb-ft)	81 kN-m (60,000 lb-ft)
Nonlinearity (% of Full Scale Output)	0.1%									1%	
Configuration	Light Duty Single Wheel	Medium Duty Single Wheel					Heavy Duty Single or Dual Wheel	Medium Duty Single Wheel	Medium Duty Single or Dual Wheel	Heavy Duty Single or Dual Wheel	

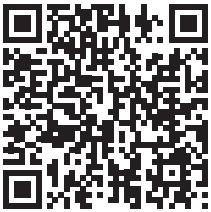
Severe (ABS) Brake Stops



HIGH RESOLUTION WHEEL TORQUE TRANSDUCERS

With Michigan Scientific High Resolution Wheel Torque Transducers it is possible to measure aerodynamic drag, brake drag, tire rolling resistance, and bearing seal drag during on road testing. Model *TW12.8HRMS175* can be used to test cars and SUVs and resolves 0.1 N-m, while model *TWHR2000* can be used to test commercial trucks and resolves 0.8 N-m.

High Resolution Wheel Torque Transducers are commonly used for on-road measurement of chassis system losses which influence fuel economy. It is the ideal tool for fuel regulation testing.



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REV: 4/3/19