# Wheel Torque Transducer

## Model TW12.8

- 4,000 lbf · ft (5.4 kN · m) and
  6,000 lbf · ft (8.1 kN · m) capacities
- Adapts to 14 in and larger wheels
- · Enhanced resolution model available
- Environmentally protected
- Rugged stainless steel construction
- · Consistent sensitivity among all units
- · Configured to minimize magnetic sensitivity

### Description



Michigan Scientific's *TW12.8* and *TW12.8ER Wheel Torque Transducers* are ideal for measuring wheel torque on both passenger cars and light duty trucks. Designed to attach to adapters that simulate production wheel rims, this model provides one channel of torque data and is completely weatherproof. The adapter system is fabricated by generating a profile of the original wheel rim and designing a hub and rim adapter, which fasten to the interior and exterior bolt circle respectively, and duplicate the critical dimensions of the original rim. The versatility of this system enables the torque transducers to be used with a variety of wheel rim designs.

Both the torque and combined steer/camber moment load ratings of the *TW12.8* transducer are 6,000 lbf  $\cdot$  ft. A model with enhanced resolution is also available. The *TW12.8ER* has torque and combined steer and camber moment load ratings of 4,000 lbf  $\cdot$  ft. The geometric configuration of these two models are identical, enabling them to be used with the same adapters.

High grade stainless steel material and weatherproof sealing combine to provide excellent resistance to corrosion and environmental conditions. Temperature compensation of the torque transducer ensures stable output throughout a wide temperature range; all wires are precisely located to reduce sensitivity to magnetic effects.

### Specifications

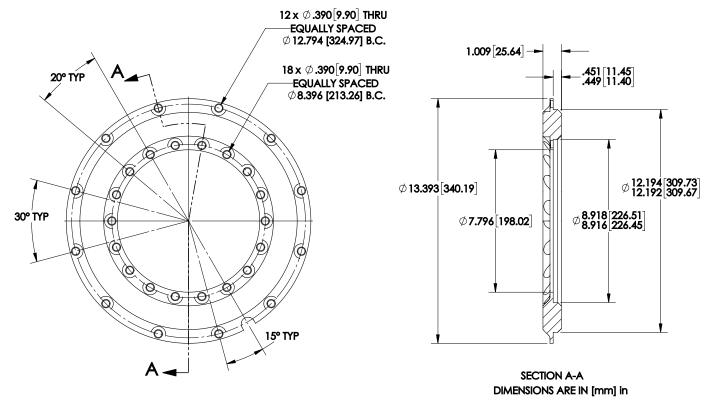
	TW12.8	TW12.8ER
Full Scale Measurable Load	6,000 lbf · ft (8.1 kN · m)	4,000 lbf · ft (5.4 kN · m)
Maximum Torque Capacity	6,000 lbf · ft (8.1 kN · m)	4,000 lbf · ft (5.4 kN · m)
Maximum Static Weight (Fz)	2,250 lb (1,000 kg)	2,250 lb (1,000 kg)
Rim Size	≥ 14 in	
Sensor	4 arm strain gauge bridge	
Nonlinearity	≤ 0.1 % of full scale output	
Hysteresis	0.05 % of full scale output	
Temperature Range, Operating	-40 °F to 257 °F (-40 °C to 125 °C)	
Excitation Voltage, Maximum	10 Vdc or Vac rms	
IP Rating	IP67	

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## **Wheel Torque Transducer**

#### TW12.8, TW12.8ER Configuration



#### **Ordering Options**

Michigan Scientific offers a fully weatherproof slip ring, encoder, and amplifier instrumentation assembly to be used with all *Wheel Torque Transducers*. Refer to the Instrumentation Assemblies section for more information.

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