

# Steering Wheel Torque Transducer

## Model SW-TEL

- Accurately measures steer effort torque
- 100 lbf · ft (135 N · m) torque capacity
- 1,000 lbf (4.4 kN) load capacity
- Easy installation
- Mounts to steering wheel or steering shaft
- Maintains normal steering function\*
- Wireless system
- Analog outputs for torque



## Description

The *SW-TEL Steering Wheel Torque Transducer* is capable of measuring the steering wheel torque on any vehicle and uses the same bolt patterns as common racing steering wheels.

The telemetry package is battery powered, creating a compact, low-profile assembly to measure torque. This transducer is made from high grade stainless steel material and it is temperature compensated, ensuring stable output throughout a wide temperature range. The SW-TEL is easy to mount and install since it does not have any position restraint. It is the ideal instrument for in-vehicle testing.

\*The airbag should be disabled when using the SW-TEL. Also note that the mounting bracket may block some buttons on the steering wheel.

## Specifications

Rated Torque Capacity	100 lbf · ft (135 N · m) (300 % overload)
Safe Axial Load at Wheel Center	1,000 lbf (4.4 kN)
Safe Axial Load at Wheel Edge	100 lbf (440 N)
Torque Output format	Analog $\pm 10$ V
Torque Sensor Type	Strain gauge
Torque Nonlinearity	< 0.5 % of full scale output
Torque Hysteresis	< 0.5 % of full scale output
Temperature Range, Compensated	70 °F to 185 °F (24 °C to 85 °C)
Operating	-40 °F to 257 °F (-40 °C to 125 °C)
Weight (Transducer & Slip Ring Electronics)	9.0 lb (4.0 kg)
Weatherproof Protection	IP 54
Steering Wheel Size	13 in to 15 in

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Rev. A

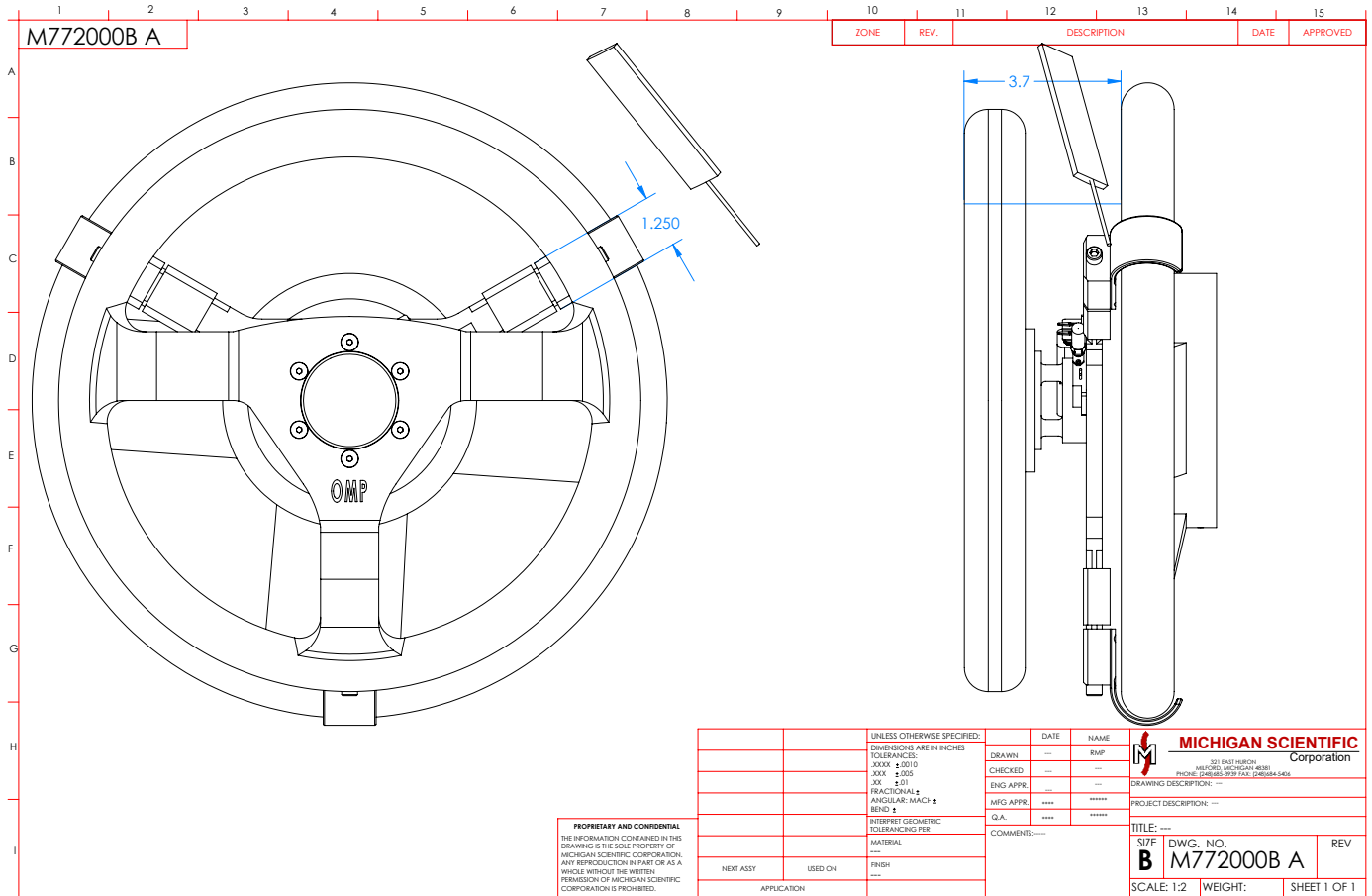
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# Steering Wheel Torque Transducer

## SW-TEL Mounting



## SW-SR Transducer Option

When steer angle is needed, a slip ring version of the transducer can be used. This transducer is powered by a Michigan Scientific PS-DC Control Unit and uses a high resolution encoder to measure the steer angle along with the torque output from the transducer.

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