



- 1.5" wide sensor body
- Withstands environments up to 400 °F
- Centerline offset correction (optional)
- Weighs 14 lbs
- SAE 4340 alloy steel - satin nickel finish
- Special versions available

The T312 Universal Mount Automotive Wheel Torque Sensor is installed between the vehicle's wheel hub and brake drum with the wheel's tracking centerline offset 1.5 inch. The universal sensor can be mounted on most vehicles with 4 or 5 wheel bolt patterns. The included adapter set facilitates the attachment of the T312 to the user-specified drum and wheel-bolting pattern. A special wheel can be provided that will return the wheel's tracking centerline to its original position. A slip ring assembly interconnects the wheel torque sensor and the vehicle's on-board instruments. Contact SensorData Technologies to discuss a T312 configured to meet your special needs for a wheel torque sensor. Also refer to SensorData's T212 for a transformer coupled wheel torque sensor similar to the T312.

Specifications

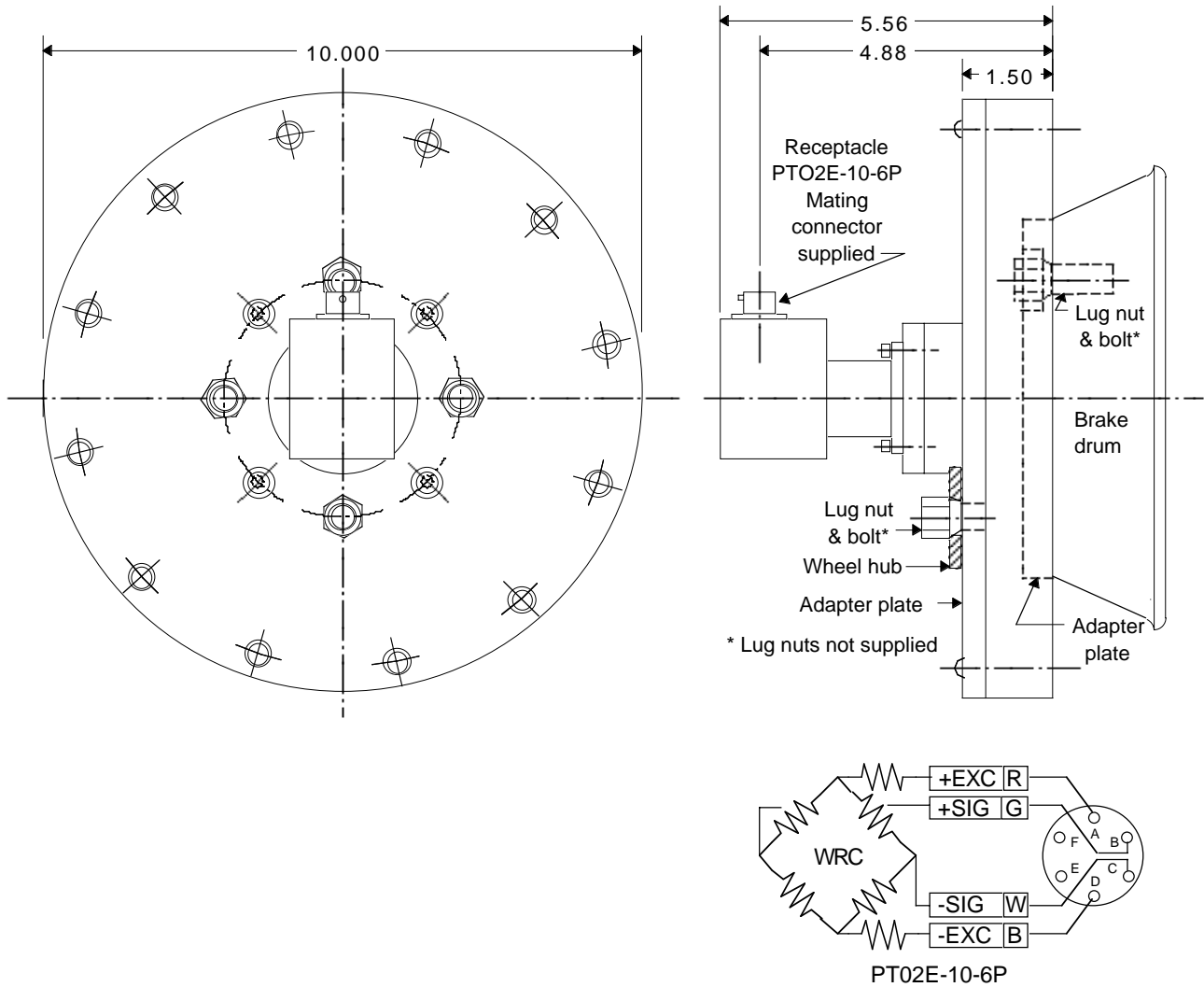
(Subject to change without notice)

Rated Capacity	8K, 15K, 20K, 30K, 50K lb-in
Rated Speed	3,500 rpm
Nonlinearity	0.25% of rated output
Hysteresis	0.25% of rated output
Nonrepeatability	0.10% of rated output
Rated Output, typical	1.5 mV/V
Zero Balance	+/-1% of rated output
Temperature Range, operating	-65 to +400 F
Temperature Range, compensated	+70 to +170 F
Temperature Effect on Output	0.002% of load/F
Temperature Effect on Zero	0.002% of rated output/F
Bridge Resistance, typical	700 ohms
Excitation Voltage, bridge, typical	10 VDC or VAC rms
Excitation Voltage, bridge, maximum ⁽¹⁾	40 VDC or VAC rms
Insulation Resistance, bridge to case	>5000 megohms at 50 VDC
Maximum Load, safe ⁽²⁾	150% of rated capacity
Maximum Load, ultimate ⁽³⁾	300% of rated capacity
Number of Bridges	1
Weight	14 lbs
Construction	SAE 4340 alloy steel with satin nickel finish

⁽¹⁾ Temperature gradients caused by higher excitation voltages may effect performance.

⁽²⁾ With load centered, maximum torque that can be applied without producing a permanent shift in performance characteristics.

⁽³⁾ With load centered, maximum torque that can be applied without physical damage.



The T312 sensor can be used for almost any conceivable wheel torque measurement requirement. The adapter set that is supplied with the T312 allows the user to install the T312 on a specified vehicle. Additional adapter sets can be ordered for other applications without having to order a new sensor. The T312 can be configured for use on almost any vehicle with a four or five wheel bolt pattern and with bolt sizes ranging from 0.375 to 0.500 inch or their metric equivalents. The T312 can be supplied with a speed sensor and/or shaft encoder and with a rotary transformer coupled sensor in place of the slip ring coupled sensor (refer to T212 data sheet). If your requirement for the T312 requires a design that varies from that shown above, please consult the factory to discuss a T312 package that is ideally suited to your special needs.

ORDERING INFORMATION

- T312-STD-Capacity Standard, with receptacle and mating connector.
- Cable Assembly Optional; 10 ft., color coded, shielded, mating connector sensor end, customer specified connector instrument end.
- Cable Assembly Optional; 10 ft., color coded, shielded, mating connector sensor end, leads stripped and tinned instrument end.
- Note: Mounting hardware is optional and not included unless specified at time of order.

IMPORTANT NOTICE

Dimensions above are in inches unless otherwise noted. Manufacturer not responsible for any modification to product, fixtures, or accessories made by user or third party. User should request certified drawings before designing mountings or fixtures. Manufacturer reserves right to modify or change design, dimensions, specifications, and features of this product without prior written notice. Changes to NOTICE must be in writing and accepted by manufacturer.