

Precision Torque Sensor

For non-rotating applications

Model 8625

Code:	8625 EN
Delivery:	ex stock / 4 weeks
Warranty:	24 months

CAD data 2D/3D for this sensor:
Download directly at www.traceparts.com
Info: refer to data sheet 80-CAD-EN



- Measurement ranges from 0 ... 0.005 Nm to 0 ... 5000 Nm
- High accuracy measurement ≤ 0.1 % F.S.
- Standardized output signal
- Extremely compact design
- Manufacturer calibration for right- and/or left-handed torque (optional)

Application

This torque sensor is designed for both static and dynamic measurements on non-rotating applications. It is particularly suitable for torque measurements on, for instance, extremely small electrical actuating drives and micro mechanical actuator elements, but also for large reaction torques such as those occurring with extruders.

The high accuracy of measurement also makes this sensor ideal for use as a reference in many fields of industrial manufacture, or in laboratory research and development projects. Not containing any rotating parts, it requires no maintenance if properly used.

Other possible applications:

- ▶ Test setup for precision mechanics
- ▶ Measuring the frictional torque of bearings
- ▶ Measuring the torques applied to vehicle control elements
- ▶ Acquisition of breakage moments on screw caps

Description

The length, weight and volume of the unit have been optimized in such a way that axial forces and bending moments in the measuring range have a minimal effect on the sensor element. Shear strains in the torsion shaft are measured accurately by means of metal foil strain gauges connected as a Wheatstone Bridge on the sensor element. Applying a supply voltage generates an electrical output signal that is directly proportional to the applied mechanical torque.

The standardization of the sensor output signals means that it is easy to exchange the sensor without having to recalibrate the measuring chain. By means of an amplifier the sensor output signal can be converted, for instance, to a standard signal (0 ... 10 V, 0/4 ... 20 mA), or can be sent directly to a PC through a USB interface. Accurate display and evaluation units complement the range of possible applications.

The sensors, particularly those with small measuring ranges, must be mounted carefully. It is important that the drive and measuring ends are not reversed during assembly. The measuring shaft should always be cleaned prior to assembly, to ensure that no foreign objects are sticking to it. It is recommended that the sensor is electrically connected and that the output signal is observed at the time of assembling. Vibrations originating in the equipment should be kept away from the sensor. The sensor should only be mounted on the coupling after the parts have been accurately aligned. This should be done without backlash or lateral forces.

