PRSGTT Rotary Strain Gauge Torque Pulley



The NEW TSC/AWS series of torque pulley Transducers employ a unique mechanical architecture enabling strain gauges to measure the torque developed within the pulley without being affected by side loads caused by the drive belt tension.

The unit has been designed to replace standard sheaved pulleys on existing machines or as required for a new installation. The pulley fits directly onto the motor shaft with a drive key to transmit the torque into the unit, thus avoiding complicated coupling arrangements and facilitating easy servicing and maintenance.

The low level strain gauge signal is amplified and processed by a telemetry unit featuring novel non contacted strain gauge bridge and amplifier supply voltage techniques, avoiding any requirements for onboard batteries for signal transmission.

The output is an analogue voltage proportional to the applied torque and 60Hz per revolution for RPM or 1 degree pulses for angle.

The torque pulley can be operated in a stand alone mode with a simple power supply, the torque value being displayed on a digital voltmeter, or in conjunction with the TSC range of transducer display equipment for signal processing of torque and RPM, with options for memory functions, settable limits and outputs for data logging.

See our Instrumentation data sheets for Display and interface products.

Features

- * Strain gauge for High Accuracy
- * High Stiffness Pulley
- * Onboard processing
- * Non contact torque measurement
- * Directly fitted to drive source
- * Stand alone single supply option
- * Wide range of styles and torque sizes

Specifications

| Accuracy: | ±1% of FSD 1% of RDG from 10-110% FR0 |
|------------------------------|---------------------------------------|
| Linearity: | ±>0.1% of FSD |
| Hysteresis: | ±0.1% of FSD |
| Repeatability: | ±0.1% of FSD |
| Frequency Response: | Better than 2.5 Khz |
| Temperature Coefficient: | 0>1% of FSD per degree C |
| Overload Capacity: | In excess of 200% of rated capacity |
| Encoder output: | ±250mV or 5V logic |
| Operating temperature range: | -10°C to +50°C |
| Input Power Requirements: | ±15V or 14V to 18V DC |
| | stand alone option |
| Signal Output Bipolar: | $\pm 1V$ DC for rated Capacity |
| Torque Ranges: | 50Nm to 5,000Nm |

We reserve the right to change specifications as deemed necessary with continuous improvement

NAMAS Calibration Traceability on all Products and Services

Timesync Controls Ltd



Torque Systems

Calibration Services

Electronic Manufacture

Web Tension Control

Unit 6, Beaumont Business Centre, Beaumont Close, Banbury, Oxon OX16 1TN Telephone: 01295 273994 facsimile: 01295 269695 e-mail:ctimesync@aol.com www.timesynccontrols.co.uk