

Series 420 PTO System

Needles Building, Trinity Wharf, East Cowes, Isle of Wight, PO32 6RF

T: +44 (0) 1983 28 28 34 F: +44 (0) 1983 28 28 35 E: web@datum-electronics.co.uk W: datum-electronics.co.uk

PTO Shaft Torque & Power System

DESCRIPTION

Datum Electronics new Series 420 PTO Shaft Torque and Power Monitoring System will monitor and log the torque, shaft speed and transmitted power accurately when testing new systems driven from all standard PTO Shafts.

SYSTEM

The tractor's PTO or stub shaft, transfers power from the tractor to the PTO-driven machine or implement. Power transfer is accomplished by connecting a drive shaft from the machinery to the tractor's PTO stub shaft. Common examples include elevators, grain augers and silage blowers. The PTO and drive shaft rotates at 540 rpm (9 times/sec.) or 1,000 rpm (16.6 times/sec.) when operating at full recommended speed. At all speeds, they rotate in proportion to the speed of the tractor engine.

SHAFT CONFIGURATIONS

Male / Female 1" 3/8 x 6 spline
 Male / Female 1" 3/8 x 21 spline
 Male / Female 1" 3/4 x 6 spline

CLOCKWISE / ANTI-CLOCKWISE MEASUREMENT

Measuring torque in both directions, clockwise and anti-clockwise the system provides accurate readings of Power, Torque and Speed logged to a T310TSP Handheld indicator. If required, the system can also be adapted to record and analyse the data onto a PC or laptop with our TorqueLog software.

CAPABILITIES

The Series 420 PTO System has a non-contact transmissions system that provides a digital output directly proportional to Torque in this variant it is supplied as a complete transducer with bearings to support the stator unit on the rotating shaft. It is suitable for most power take off applications.

The PTO system has a female coupling on one end and a male fitting on the opposite end. The female end is coupled to the male end of the application. The PTO system acts like an extension adaptor, with the male end replicating the male end of the application. The torque and speed signals are transmitted from the shaft to a static cover assembly.

The Series 420 PTO System will provide a reading of torque speed and power to an accuracy of 0.1% of full scale with the signals displayed via RS232 digital output. Measuring torque in both directions, clockwise and anti-clockwise the system provides accurate readings of Power, Torque and Speed that can be logged to either a handheld device or into a PC or laptop with our TorqueLog software.



SPECIFICATIONS

OPERATING SPEED:

540 / 1,000 rpm as standard
 (up to 3,000rpm if required)

TORQUE RATING:

Measures Torque up to a maximum of 1,800Nm on all standard 1"3/8 shafts

Measures Torque up to a maximum of 2,500Nm on all standard 1"3/4 shafts

POWER RATING:

Standard 1"3/8 shaft configurations
 Measures Power 135HP or 101kW at 540rpm
 Measures Power 253HP or 188kW at 1000rpm

Standard 1"3/4 shaft configurations
 Measures Power: 190HP or 141kW at 540rpm
 Measures Power: 350HP or 261kW at 1000rpm

MEASUREMENT & MONITORING

Efficient measurement and monitoring of this power can be a useful tool in research and analysis into the performance of a tractor transmission system highlighting efficiency savings measurement and control.

- Power Monitoring
- Robust Design for use in field applications
- IP 65
- Easy Installation
- Accurate Results (0.5% Accuracy)
- Direct USB Interface into PC or laptop