
Model 3411 Torque Display

FEATURES

- For use with all Magtrol TM / TMHS / TMB In-Line Torque Transducers and TF Torque Flange Sensors
- High Quality, Easy-to-Read Vacuum Fluorescent Readout: Displays torque, speed and power
- Addition of high resolution quadrature encoder enables low RPM applications or position measurements
- Selectable English, Metric and SI Torque Units
- Isolated USB Interface
- Ethernet connectivity
- Torque: Analog, raw sensor output
- Speed output; analog or digital, user selectable
- BITE: Built-In Test Equipment
- Overload Indication
- Tare Function
- Includes Magtrol Torque 7 Software
- High Speed Data Acquisition: Up to 500 torque and speed points per second with time stamp
- Rack mount or handle versions available

DESCRIPTION

Magtrol's Model 3411 Torque Display is designed for use with all Magtrol TM, TMHS, TMB and TF Torque Transducers. This easy-to-use device powers the transducer and utilizes high speed processing to display torque, speed and mechanical power. It includes a tare function to help offset any slight residuals caused by couplings or suspended loads. The 3411 may also be used with any torque sensors requiring 24 VDC power (500 mA max.) with ± 5 VDC torque output (± 10 VDC max.) and open collector, TTL or CMOS output for the speed signal.

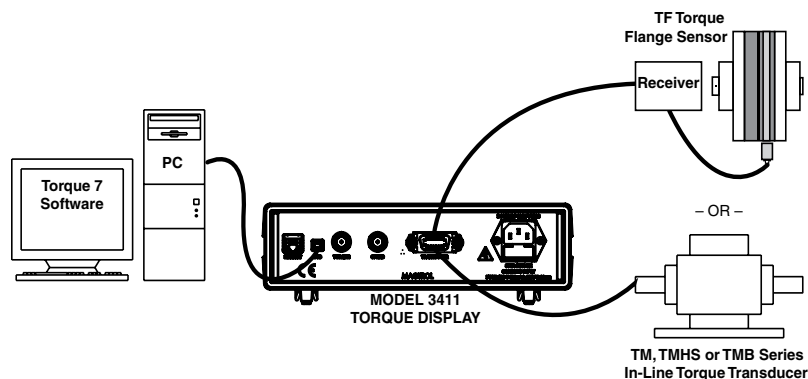


TORQUE 7 SOFTWARE

Magtrol's Torque 7 Software is a user-friendly LabView[®] executable program, used to automatically collect torque, speed and mechanical power data. The data can be printed, displayed graphically or quickly saved as a Microsoft[®] Excel spreadsheet. Standard features of Torque 7 include:

- Measured Parameter vs. Time
- Adjustable Sampling Rates
- Polynomial Curve Fitting
- Peak Torque Capture
- Direction of Rotation
- Multi-Axes Graphing
- Optional USB Interface: for reading up to 4 thermocouples

SYSTEM CONFIGURATION



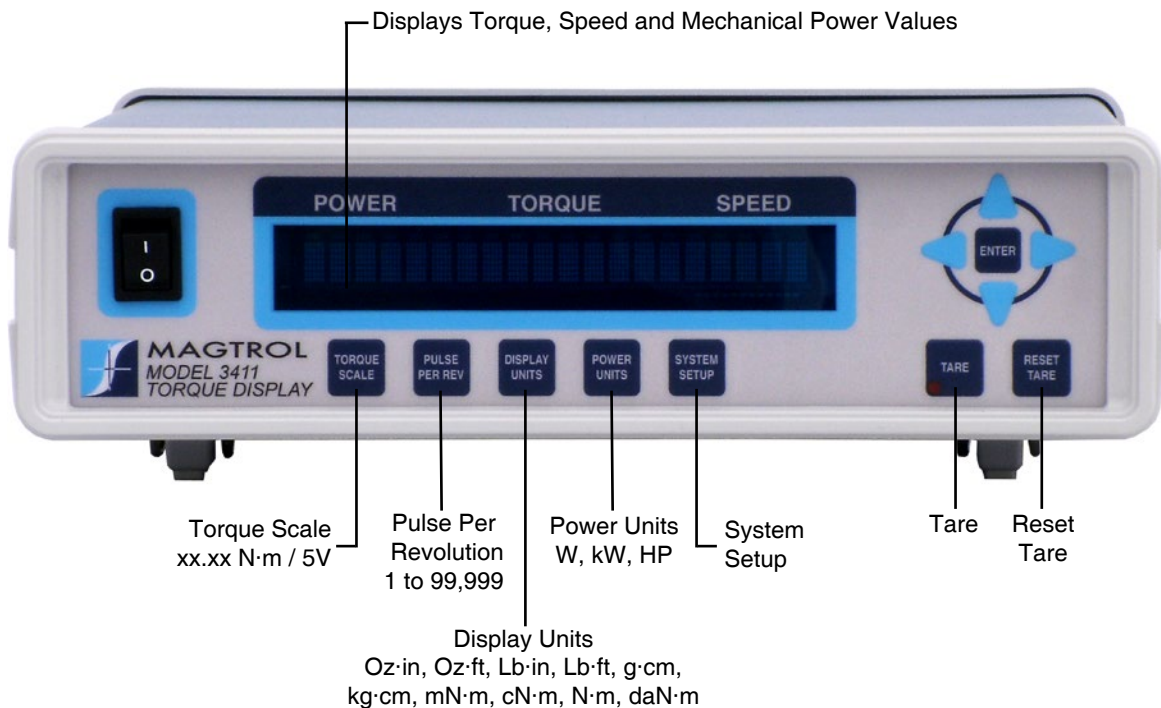
MEASUREMENT CHARACTERISTICS	
Maximum Speed / Input Frequency	199,999 rpm / 199,999 Hz
Accuracy	Speed: 0.01% of reading from 5 rpm to 199,999 rpm Torque: 0.02% of range (± 10 V)
ELECTRICAL CHARACTERISTICS	
Fuses (5 x 20 mm)	IEC 500 mA 250 V T
Power Requirements	36 VA
Voltage Requirements	120/240 V 60/50 Hz**
INPUTS AND OUTPUTS	
Transducer Inputs	Speed/Angle: Open Collector, 5 V HC, TTL, CMOS Torque: ± 10 V DC max
Torque Output BNC	± 10 VDC (direct from transducer)
Speed Output BNC	5 VHC pulse (buffered from transducer) or ± 10 VDC analog

ENVIRONMENT	
Operating Temperature	5 °C to 50 °C
Relative Humidity	< 80%
Temperature Coefficient	0.001% (5 °C to 50 °C) of FS/°C
DIMENSIONS	
Width	10.14 in 257.5 mm
Height	4.05 in 103 mm
Depth	10.80 in 274.3 mm
Weight	5.11 lb 2.32 kg

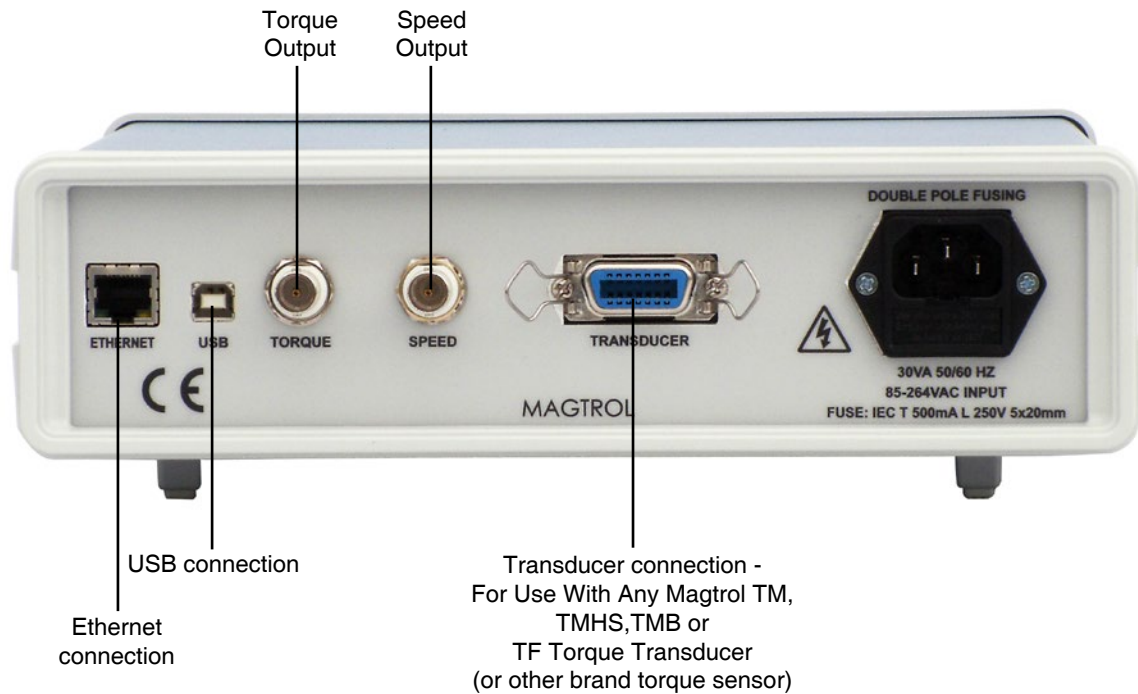
* Sensor power available at 14 pin connector:
5 VDC 200 ma, fused internally at 500 ma
24 VDC 500 ma, short circuit protected

** The 3411 has built-in Over Voltage protection on the AC power entry in order to comply to CE requirements. Do not perform insulation tests at a voltage higher than 250 VDC.

FRONT PANEL



REAR PANEL



ACCESSORIES

Description	Model #
TM / TMHS / TMB In-Line Torque Transducer Connector Cable, 5 m	ER 113/01
TM / TMHS / TMB In-Line Torque Transducer Connector Cable, 10 m	ER 113/02
TM / TMHS / TMB In-Line Torque Transducer Connector Cable, 20m	ER 113/03
TF Flange Torque Transducer Connector Cable, 5 m	ER 116/01
TF Flange Torque Transducer Connector Cable, 10 m	ER 116/02
TF Flange Torque Transducer Connector Cable, 20m	ER 116/03
SBB-14 for optional high resolution encoder attachment	SBB-14

ORDERING INFORMATION

Description	Model/Part #	Stock Code
Torque Display	3411	006862
Torque Display with Handle	3411-HDL	007017
Torque Display with Rack Mount	3411-RMK	007015

Due to the continual development of our products, we reserve the right to modify specifications without forewarning.



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