The TorqueTrak Revolution system is a torque and/or power (HP or kW) monitoring and control system that features inductive (non-contact) power and data transfer for continuous operation. Designed for applications that require ongoing measurements of torque and/or horsepower, the TorqueTrak Revolution system is custom-machined to install on existing shafting up to 40 inches (1016 mm) in diameter. Machine disassembly is not required. The microprocessor-based system features 14-bit signal processing to provide precise, reliable data in real time during actual machine operation.

Four independent output signals are standard:
1. Torque: 4-20 mA (12 ± 8 mA), scalable
2. Power: 4-20 mA (12 ± 8 mA), scalable
3. Shaft Speed/RPM: Frequency-based pulse indicator, mA
4. Shaft Direction: Binary indicator, mA

**Features**

- **Easy Installation**
  Rotating Collar and stationary Power Coil are split and bolt together around the shaft. Shaft modification is not required.

- **Convenient Calibration**
  Use at factory settings or utilize easy scaling and adjustment tools. No tuning required.

- **Reliable Operation**
  Inductive power and data transfer with generous clearance between stationary and rotating parts. No wear surfaces.

- **Digital Data Transmission**
  Delivers a clean, noise-free data signal with 14-bit resolution.

- **Robust Construction**
  Sturdy hardware and electronics, built for demanding environmental conditions.

- **Onboard Intelligence**
  System status indicators confirm proper operation and aid in troubleshooting.

- **Product Support**
  Backed by BEI's outstanding customer service, before and after the sale.
Full Bridge strain gage (4 active arms, 350 Ω standard; up to 1000 Ω acceptable)

2.5 VDC, regulated

± 500 microstrain (Full Bridge, 4 active arms – Torque or Bending)
± 769 microstrain (Full Bridge, 2.6 active arms – Tension or Compression)

Other microstrain ranges are available

≤0.005% FS/°C (50 ppm/°C) 20° to 70°C
≤0.010% FS/°C (100 ppm/°C) -40° to 85°C

Linearity: ≤0.05% FS
G-force Rating: 3000 g’s (steady state), for example, 5700 RPM on a 4 inch (102 mm) diameter shaft

Four independent current output signals:
1. Torque 4-20 mA (12 ± 8 mA), scalable
2. Power 4-20 mA (12 ± 8 mA), scalable
3. Shaft speed/RPM: Pulse Indicator, 5-19 mA
4. Shaft Direction: Binary Indicator, 5 or 19 mA

11-16 VDC standard; 2 A max, 0.5 A nominal
(115 VAC or 230 VAC option available)

Screw terminals
Mounting flanges on Master Control Unit

6 in x 6 in x 4 in
(152 mm x 152 mm x 102 mm)

14 bits (16384 points of resolution)
≤0.10% RMS FS

Switch selectable: 1000 Hz, 12 Hz, 1.5 Hz, or 0.1 Hz
(3dB frequency, typical)

1 msec, typical (at 1000 Hz setting)

4800 Hz

Specifications subject to change without notice.

TorqueTrak Revolution

For shaft diameters larger than 12 inches (300 mm) contact Binsfeld Engineering or visit binsfeld.com.

 Shaft Dia. | A | B | C | D | E
--- | --- | --- | --- | --- | ---
0–1 in | 2.75 | 5.00 | 5.50 | 12.88 | –
0–25 mm | 69.90 | 127.00 | 139.70 | 327.2 | –
1–2 in | 3.25 | 5.50 | 6.50 | 13.88 | –
25–50 mm | 82.60 | 139.70 | 165.10 | 352.6 | –
2–4 in | 4.25 | 6.50 | 8.50 | 15.88 | –
50–100 mm | 108.00 | 165.10 | 215.90 | 403.4 | –
4–6 in | 5.00 | 7.25 | 10.00 | 17.38 | –
100–150 mm | 127.00 | 184.20 | 254.00 | 441.5 | –
6–8 in | 6.00 | 8.25 | 12.00 | 19.38 | 7.90
150–200 mm | 152.04 | 209.60 | 304.80 | 492.3 | 200.70
8–10 in | 7.00 | 9.38 | 14.00 | 21.38 | 8.90
200–250 mm | 177.80 | 235.00 | 355.60 | 543.1 | 226.10
10–12 in | 8.00 | 10.25 | 16.00 | 23.38 | 9.90
250–300 mm | 203.20 | 260.40 | 406.40 | 593.9 | 251.50

For system dimensions visit binsfeld.com | 1.231.334.4383 | Maple City, MI, USA