

# TRIO® 10-inch Controller



## TRIO C10



- ✓ RUGGED
- ✓ POWERFUL
- ✓ 3-year WARRANTY

## TRIO® C10 gives versatility to the field analyst.

The TRIO 10-inch controller provides field analysts with a powerful user-interface that is easy to navigate, simple to use, and robust in harsh industrial environments.

1000 nits of brightness make the 10.1" FHD capacitive-touchscreen readable even in bright sunlight, while its digitizer-stylus, rain, and glove touch capability makes visibility and productivity possible in extreme conditions.

With **Windows® 10 Professional** installed, you are ready to connect the TRIO Controller to your network or operate as a stand-alone device, supporting your productivity applications and multiple language options.

TRIO is **PredictivePortal™**-enabled and ready to connect to the Symphony Industrial AI hosted, Eureka AI Platform for simplified database synchronization infrastructure and unparalleled program visibility.

### FEATURES INCLUDE

- ✓ 10.1" FHD Capacitive Touchscreen with digitizer stylus pen, rain-mode or glove-mode operation
- ✓ 8+ hour standard battery, high-capacity optional
- ✓ Powerful Intel® Core™ i5 Processor, 8GB RAM and 256 GB solid-state drive (SSD)
- ✓ Bluetooth® integration with TRIO DP-2 / DP-2H acquisition hardware for safe in-field collection
- ✓ 3-year inclusive warranty on TRIO Controller
- ✓ **Optional Class 1, Division 2 HAZLOC** approval when paired TRIO DP-2H acquisition hardware
- ✓ **Optional Total TRIO®** database hosting, cloud application, web portal reporting, business-level metrics and analytical second opinions

# TRIO® 10-inch Controller

## TRIO C8

### SYSTEM OVERVIEW

- Triaxial vibration data collector
- Industrial Windows 10 Professional 64-bit (CBB) tablet PC controller
- Wireless, modular-designed data acquisition unit (DP-2/DP-2H)
- Optional handheld laser tachometer
- Safe, flexible carrying options
- ALERT™ Data Collection Application
- Optional embedded Expert Automated Diagnostic System
- Survey File Transfer Exchange or optional ALERT replication or WATCHMAN Sync Utility for synchronization over multiple devices or ALERT systems
- Optional 4-plane machine in-place balancing and advanced analysis options

### USER INTERFACE / DURABLE TABLET CONTROLLER

#### Physical / Environmental / Durability

- Size: 10.82" x 7.51" x 0.88" (275mm x 191mm x 22.4mm)
- Weight: 2.68 lbs (1.22 kg)
- Operating: -29C to +63C; Storage: -51C to +71C
- Humidity: 95% RH, non-condensing
- Rugged per MIL-STD-810G
- IP65, IEC 60529 rated; water, sand, and dust protection
- Class 1, Division 2, Group A, B, C, D, T6 per UL/ANSI/ISA 12.12.01

#### Processor/Operating System

- Intel® Core i5-8265U 1.6 GHz Processor
- 8 GB DDR4 system memory, 256 GB Solid State Drive (SSD)
- Genuine Windows 10 Professional CBB (64-bit)
- TPM v2.0 data security; NIST BIOS compliant

#### Battery

- Lithium-ion battery: 11.1V, 4200 mAh capacity
- Optional high capacity battery: 10.8V, 9420 mAh

#### Communication

- Intel dual-band wireless-AC 9260 (802.11ac)
- Integrated Bluetooth v5.0
- 10/100/1000 base-T ethernet

#### Inputs / Outputs

- 10.1" Capacitive touchscreen, 1920x1200 resolution
  - IPS TFT FHD LCD, 1000 NITS, LumiBond® 2.0 sunlight readable
  - Digitizer Pen, Rain Mode, Glove Mode
- USB 3.1 port
- HDMI
- DC power input port
- Speaker, audio / microphone combo-jack
- 6 button keypad (power, volume up, volume down, home, P1, P2)
- Rear-facing 8.0 MP built-in camera with autofocus
- Front-facing FHD webcam
- On-screen QWERTY soft keyboard

#### Carry Options

- Shoulder strap and palm-strap with kickstand
- Optional 4-point harness

### TRIO DATA ACQUISITION / PROCESSOR (DP-2/DP-2H)

#### Data Acquisition Inputs

4 simultaneous sampled, fully phase matched, ICP programmable  
Other Coupling: AC (for proximity probe connection)  
AC Input Voltage Range:  $\pm 10V$   
AC Bandwidth: 0.5Hz to 40kHz  
DC Bias/Gap Measurement:  $\pm 25V$  range for ICP bias voltage check and proximity probe gap measurement  
Measurements: Acceleration, velocity (by hw integration), bearing demodulation (accelerometers), and displacement (proximity probes)  
Gain Ranges: Gain steps 1, 2, 5, 10, 20 and 50  
Digital trigger input: External trigger, tachometer speed, ordered data (by phase-lock-loop)

#### Processing

##### AC Measurements

ADC: 24-bit sigma-delta, simultaneous on four AC channel inputs, better than 104 dB dynamic range  
Sampling Rates: 64Hz to 102.4kHz  
Bandwidth Ranges: 0.5–25Hz, 0.5–40 kHz, protected by anti-alias filters  
Data Block Lengths: 64 to 400,000 samples  
Spectral lines: Up to 25,600  
Noise Floor: Less than 0.2  $\mu$ -volts per root Hz from 0.5-1000 kHz

##### DC Measurements

ADC: 16-bit multiplexed for bias voltage, process, and probe gap measurements, 0-10 kHz Bandwidth

#### Analysis Capabilities

Dynamic Analysis: Overall, Spectra, Waveform, Phase and Speed  
Cross-Channel: Cross-power, Transfer Function, Coherence, Phase and Magnitude  
Demodulation Function: Digital amplitude demodulator and Impact Demodulation for low speed detection  
Averaging: RMS, Exponential, Peak Hold, Order Tracking, Synchronous Time and Negative Averaging  
Number of averages: 1-1000  
FFT Window Function: Hanning, Hamming, Rectangular, Flattop

#### Communications with Host Tablet PC/Controller

Wireless - Bluetooth v2.0 with EDR (1.5Mbps max)  
Wired: USB user port (includes data stream and remote power to DP)

#### Power

Charging rate: 0.5A from USB PC input (4 hrs.), 1.0A from USB wall adapter  
Battery Life: 8 hours between charges (continuous collection)

#### Physical / Environmental / Durability

Dimensions: 6.18" x 3.62" x 1.81" (157mm x 92mm x 46mm)  
Weight: 1.0 lb. (450 grams)  
Carrying options - Belt worn holster or shoulder worn soft pack  
Operating Temperature: -10C to +60C  
IP-65 rated; water, sand, and dust protection  
4' drop per MIL-STD-810G  
0 ~ 90% humidity per MIL-STD-810G  
Compliance: CE, ETL Listed, Optional: Class 1, Division 2, Group A, B, C, D, T6