WFT, User Interface Electronics

Model CT3

- Next Generation Wheel Force Transducer User Interface
- Analog, CAN-FD, CAN 2.0, Ethernet, and EtherCAT outputs
- Synchronization through ieee1588
- Works with both Slip Ring and Telemetry based systems
- Simple Zero, Shunt Calibration Check, and Zero Angle set-up functions
- Transforms data to Spinning Coordinates
- Front Screen for Set-up and Troubleshooting
- Field upgradable by user
- Stacking with internal communication and power transferred between CT3s
- Embedded webpage access through Ethernet and USB
- Wide range 9 to 36 volt DC input power
- Rugged construction

Description

The CT3 is Michigan Scientifics's next generation of Wheel Force Transducer (WFT) User Interface. The CT3 communicates and receives signals from either Michigan Scientific (MSC) amplifiers or Telemetry Stator. The amplifier is used in Slip Ring based systems and Non-spinning systems. The Telemetry Stator is used for both inboard and output Telemetry. In real-time the CT3 performs coordinate transformation, cross-talk correction, off-set correction, and polarity correction. The CT3 also has easy to initiate Zero, Shunt Calibration, and Zero Angle features which makes WFT set-up simple and quick.

The CT3 has several options for signal outputs including; CANFD, CAN 2.0, EthernetCAT, Ethernet with ieee1588 synchronization, & Analog.

Setup options, .dbc file creation, firmware updates, and more can be done via the CT3 embedded webpage which can be access via USB or Ethernet connection to computer.

When multiple WFTs are used on one vehicle, the *CT3* units are stacked together, and communication is shared between electronics. Power requirements are approximately 10 watts per WFT system.

A display on the front of the CT3 displays WFT connected to CT3, current selected setting, and any error messages they arise arise.

8500 Ance Road
Charlevoix, MI 49720
Tel: 231-547-5511
Fax: 231-547-7070

MICHIGAN SCIENTIFIC corporation

http://www.michsci.com
Email: mscinfo@michsci.com

321 East Huron Street
Milford, MI 48381
Tel: 248-685-3939
Fax: 248-685-5406

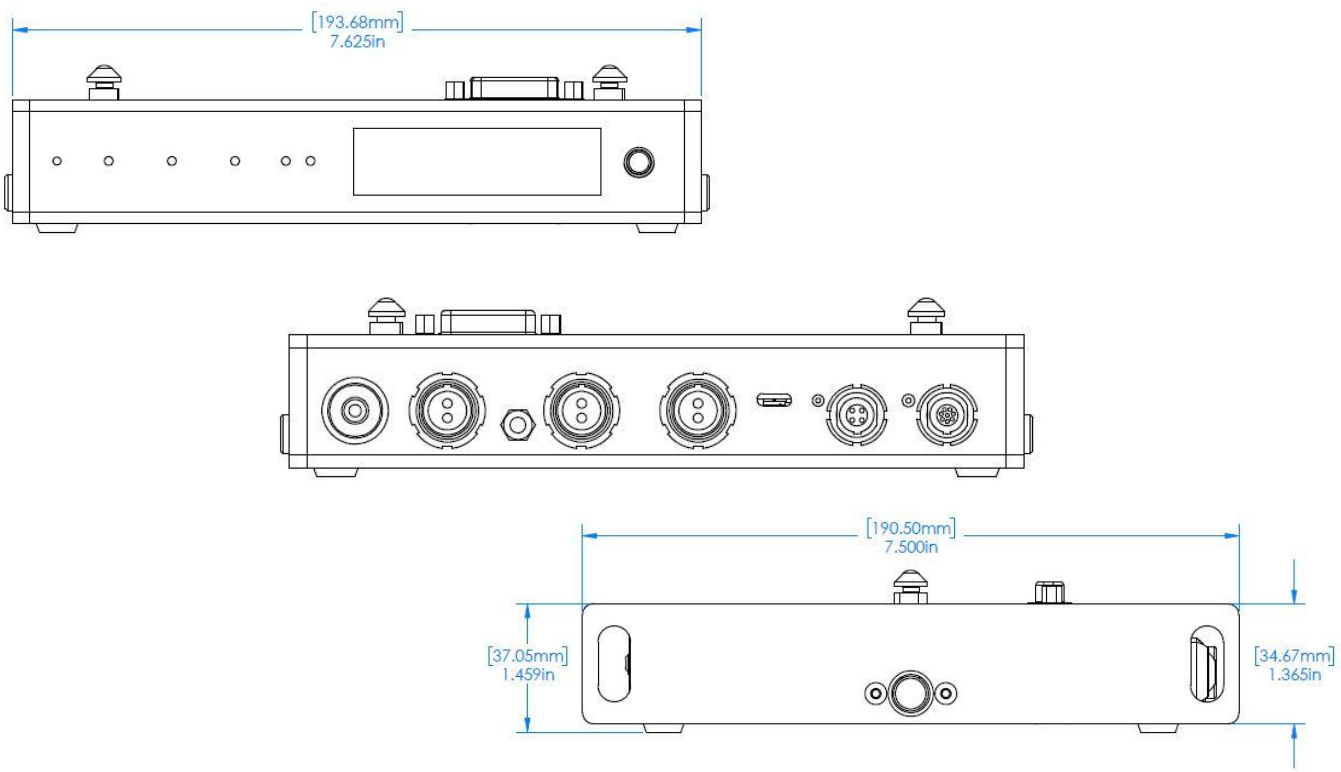
Rev: 8/28/21

WFT, User Interface Electronics

Specifications

PARAMETER	SPECIFICATION
Data Output formats	CAN 2.0
	CAN FD
	Ethernet with ieee 1588 synchronization
	EtherCAT*
	Analog: ±10, ±5, ±2.5, and 0-5 Volt
Anti Alias Filter Cutoff Frequency	5,000 Hz (-3 dB) Typical
Input Power Requirements	9-36 Volts
Firmware Upgrades	By user via Embedded webpage
Digital to Analog Converter (DAC Resolution	16 bit
Sample Rate of ADC	53,333 Hz Simultaneous
Operating Temperature Range	-25 to +75°C (-13 to +167°F)
Size (L x W x H)	19.4 cm x 19 cm x 3.5 cm

*Requires add-on Michigan Scientific EtherCAT module



8500 Ance Road
Charlevoix, MI 49720
Tel: 231-547-5511
Fax: 231-547-7070
Rev: 8/28/21

MICHIGAN SCIENTIFIC corporation
http://www.michsci.com
Email: mscinfo@michsci.com

321 East Huron Street
Milford, MI 48381
Tel: 248-685-3939
Fax: 248-685-5406