Interface provides instrumentation including signal conditioners, high speed data loggers, portable load cell indicators, weight indicators and junction boxes.

Many instruments are used in force measurement applications. We provide full data acquisition and wireless telemetry systems for load cell and torque transducers. Our multi-channel bridge amplifier has a 4-channel capability, while the INF-USB2 universal serial has a sensor to USB output converter.

**Excitation**

- A Wheatstone bridge-based sensor, such as a load cell, requires excitation voltage to operate. The excitation voltage is typically 10V; however, many instruments supply lower voltage, an 2.5V, 5V, and others. Since these sensors are ratiometric, our instrumentation is a great match for these types of products.

**Signal**

- The output signal from a load cell is expressed in terms of mV output per V of excitation, at capacity. For example, a 100 lb capacity load cell rated for 2 mV/V output will have 20mV output at 100 lb, when excited with 10V. Because the output signal is directly affected by input voltage, it’s important to maintain a stable excitation voltage, which our instrumentation does.

**Signal Conditioner**

- Provides stable excitation voltage to the sensor and amplifies the low-level sensor signal to a high-level output such as +/-5V, +/-10V, 0-20mA, 4-20mA, 0-5V, or 0-10V.
- Many of our products include filtering, which can help reduce noise in the output signal.
- Many data acquisition systems require high-level inputs such as +/-10V and don’t work very well with low level mV signals but ours do.
- The DAQ doesn’t necessarily supply a stable excitation voltage to the sensor but ours do.
- When selecting, some things to consider are power supply requirements, amount of filtering, fixed or adjustable filtering, input range, scalability and zero adjustment range. Our instrumentation can accommodate these requirements.

**PC Interface Modules**

- Converts the low-level mV/V sensor signal to a digital format that can be transmitted to a PC.
- Popular interface modules provide USB, wireless USB, or Bluetooth data transmission.
- Software is normally provided and allows data display, logging and/or graphing.
- Commonly used when data needs to be logged to a PC and a the customer doesn’t already have an existing data acquisition system.
- Advantages over standard data acquisition is ease of use and they are normally plug-n-play.
- Considerations include bit resolution, number of channels, sample rate, software features and type of output.

**Indicators**

- Provides stable excitation voltage and converts the sensor signal to a digital display.
- Commonly available features include analog or digital output, selectable digital filtering, peak and valley monitoring and set point outputs.
- Things to consider when selecting an indicator are internal sample rate and update rate of analog output.
WTS-AM-1E Wireless Strain Bridge Transmitter Module
For Strain Bridge Input

WTS-AM-1F Wireless Strain Bridge Transmitter Module
For Fast Measurements

WTS-AM-2 Wireless Voltage Sensor Transmitter Module
For Voltage Input

WTS-AM-3 Wireless 4-20 mA Transmitter Module
For mA Input

WTS-BS-1 Wireless Handheld Display For Unlimited Transmitters
Roams Between Transmitters in Range

WTS-BS-1-HA Wireless Handheld Display for Multiple Transmitters
Provides Summation of Up To 12 Transmitters

WTS-BS-1-HS Wireless Handheld Display for Single Transmitters
Simple Operation

WTS-BS-3E Wireless Base Station with USB Interface
Comes with WTS Toolkit Software and Log 100 Software

WTS-BS-4 Wireless Base Station with USB Interface in Industrial Enclosure
Includes WTS Toolkit Software and Log 100 Software

WTS-BS-5/DT Wireless Analog Output Receiver Module
Provides Analog Output for WTS Acquisition Modules

WTS-BS-6 Wireless Telemetry Dongle Base Station
Includes WTS Toolkit Software and Log 100 Software

WTS-LD1 Wireless Large LED Display
Large Screen with 4-digit 4 in (100 mm) LED display

WTS-GW1 Wireless Gateway with Modbus and ASCII Serial Output
Capable of Gathering Data from Up to 100 Acquisition Modules

WTS-PR1 Wireless Telemetry Printer
Prints Screen from the Handheld WTS-BS-1-HA

WTS-RDC Wireless Remote Data Collection
Wireless Input Range of Up to 2,625 ft (800 m)

WTS-RM1 Wireless Relay Output Receiver Module
Accepts Up to 16 Devices

WTS-SO Wireless Interface with ASCII Serial Output
Serial Output to Printer, Display, PC or PLC

WTS-WSS Wireless Wind Speed Transmitter Module
Constantly Monitors Average Wind Speed

WTS-AR Wireless Repeater Module
Extends and Enhances Range of WTS Devices

WTS-ANTA/ANTB/ANTC/ANTD/ANTE Telemetry Antenna Options
Compatible WTS Products Only
**Interface Instruments**

- Digital Indicators
- Signal Conditioners
- Digital Output Indicators
- Analog Output Indicators
- USB Interface Modules
- Data Acquisition
- Junction Boxes
- Acquisition Modules
- Wireless
- Repeater Modules
- Modbus
- LED Displays
- Remote Data Collection

**Interface force measurement instruments are available in many design configurations for project designs requiring the highest performance.**

To learn more about the Interface products or force measurement solutions call 480-948-5555.

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**Wireless Telemetry System (WTS)**
- Easy-to-use wireless data communication between a load sensor and a receiving indicator.
- Capable of receiving multiple inputs.
- Fully compatible with all Interface force sensors.
- Comes calibrated, tested and ready-to-run.
- Lasts up to 3 months using AA batteries.

**Interface Instrumentation Software**
- BlueDAQ
- Model 9850
- DIG-USB Toolkit
- DIG-USB-F Toolkit
- INF-USB2-VS
- SI-USB-VS
- MeterView Pro
- T-Software
- Log 100
- WTS Toolkit

**Instrumentation Definitions**

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Interface is the world’s trusted leader in technology, design and manufacturing of force measurement solutions. Our clients include a “who’s who” of the aerospace, automotive and vehicle, medical device, energy, industrial manufacturing, test and measurement industries.

Interface engineers around the world are empowered to create high-level tools and solutions that deliver consistent, high quality performance. These products include load cells, torque transducers, multi-axis sensors, wireless telemetry, instrumentation and calibration equipment.

Interface, Inc., was founded in 1968 and is a US-based, woman-owned technology manufacturing company headquartered in Scottsdale, Arizona.