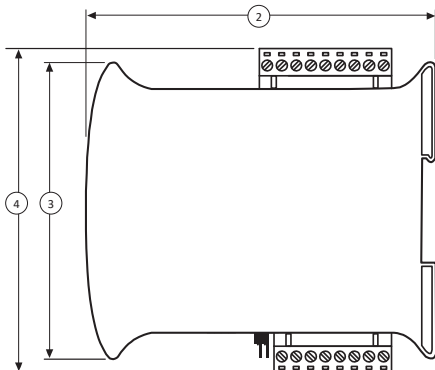
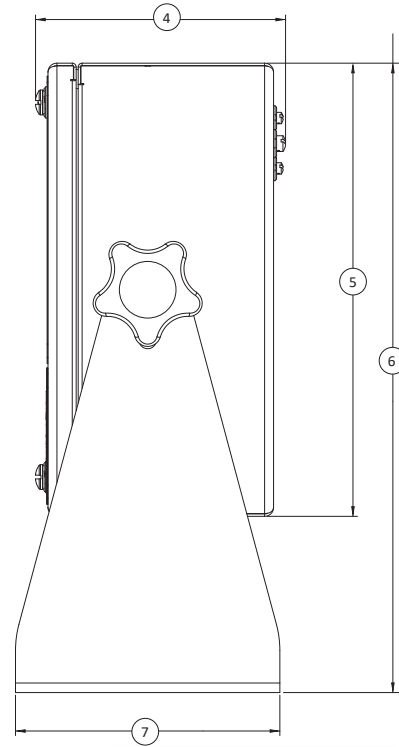
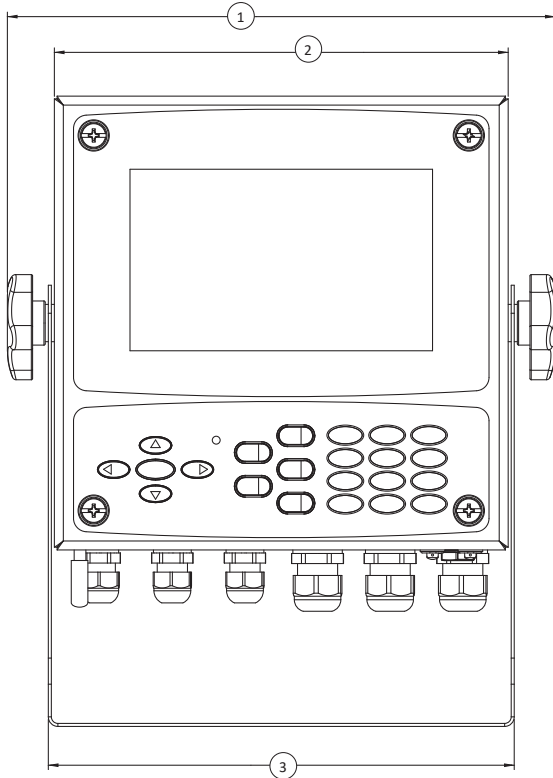


# Interface

## Digital Instrumentation



Digital Instrumentation v1.0 02-14-2020

**interface**  
FORCE MEASUREMENT SOLUTIONS.

The World Leader in Force Measurement Solutions™

# Interface provides a wide range of digital instruments that transform load cell and strain bridge input into digital data output in a variety of protocols and bus formats, within most industry standards.

Digital instrumentation allows our customers to take their test measurement programs and force measurement applications into the digital age. These instruments provide faster data input and output, and more robust analytics.

In addition to improved efficiency, accuracy, and speed, digital instrumentation and more specifically, digital signals, provide a plethora of benefits for test and measurement engineers.

## These benefits include:

- Digital signals are less susceptible to noise
- Digital signals are more secure
- Digital signals can travel a long distance
- Digital signals allow multi-directional transmission simultaneously
- Digital instrumentation can integrate with other devices and networks more easily
- Digital instrumentation can communicate with protocols that are already being used in a facility

Another key reason our customers are demanding digital instrumentation is because of the push for Industry 4.0 facilities. Industry 4.0 involves the process of connecting various machines, smart and conventional, to the cloud with sensors to create a powerful sensor network.

The Industry 4.0 network will be fast and stable enough to relay data to people or other machines in real-time, which is critical for 21st century test and measurement programs. This data needs to be rapidly turned into insight and the information ultimately allowing engineers and manufacturers to automate more processes to create a more efficient factory. The digital instrumentation devices that Interface provides play a significant role in helping our customers create Industry 4.0 manufacturing for OEM products and compete in the fourth industrial revolution using digital technologies.

## Connections

- RS232
- RS485
- RS422
- Wi-Fi
- Wi-Fi Direct
- USB
- Bluetooth®
- Ethernet

## Protocols

- Continuous Fast Weight Transmission Protocol
- ASCII
- Modbus® RTU
- CANopen®
- DeviceNet™
- CC-Link®
- Profibus® DP
- Modbus®/TCP
- Ethernet TCP/IP
- Ethernet/IP
- PROFINet® IO
- EtherCAT®
- PowerLink™
- Sercos® III
- Allen Bradley® Remote IO
- ControlNet™



**INF1-RS485 Weight Transmitter and Indicator**  
Single Channel RS485 Protocol



**INF1-Modbus/TCP Weight Transmitter and Indicator**  
Single Channel Modbus/TCP Protocol



**INF1-Ethernet TCP/IP Weight Transmitter and Indicator**  
Single Channel Ethernet TCP/IP Protocol



**INF1-Ethernet/IP Weight Transmitter and Indicator**  
Single Channel Ethernet/IP Protocol



**INF4-RS485 Weight Transmitter and Indicator**  
Four Channel RS485 Protocol



**INF4-Modbus/TCP Weight Transmitter and Indicator**  
Four Channel Modbus/TCP Protocol



**INF4-Ethernet TCP/IP Weight Transmitter and Indicator**  
Four Channel Ethernet TCP/IP Protocol



**INF4-Ethernet/IP Weight Transmitter and Indicator**  
Four Channel Ethernet/IP Protocol



**BSC4 Multi-Channel Bridge Amplifier and PC Interface Module**  
4-Channel Capability



**BX8 8-Channel Data Acquisition System and Amplifier**  
Software Available for Setup, Logging, Graphing, and Matrix Calculations



**480 Bidirectional Weight Indicator**  
Environmentally Protected



**482 Battery Powered Bidirectional Weight Indicator**  
Battery Powered



**920i Universal Programmable Weight Indicator/Controller**  
LCD Display



**920i Deep Universal Programmable Weight Indicator/Controller**  
Deep Case



**920i Panel Mount Programmable Weight Indicator/Controller**  
Panel Mount



**920i Wall Mount Programmable Weight Indicator/Controller**  
Wall Mount



**1280 Universal Programmable Weight Indicator/Controller**  
Graphical Color Display



**1280 Panel Mount Programmable Weight Indicator/Controller**  
with Keypad



**1280 Wall Mount Programmable Weight Indicator/Controller**  
Wall Mount



**1280 7" Touch-Only Programmable Weight Indicator/Controller**  
Panel Mount



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

## Wireless Telemetry System Modbus Gateway

The WTS-GW1 is a wireless Modbus gateway that provides a simple interface for users to gather data from up to 100 transmitters in a WTS network. The WTS-GW1 uses either the standard Modbus interface RTU protocol or a simple ASCII protocol.

The data sent by transmitter modules can be utilized by multiple receivers such as displays, handheld readers, analog outputs, relay modules, and PC interfaces. Receivers support common industrial power supplies and are available in robust IP rated enclosures with internal antennas optimized to give outstanding coverage.

The wireless telemetry Modbus gateway offers some simple commands available to wake, sleep, and keep awake WTS transmitters.

The license free 2.4 GHz direct sequence spread spectrum (DSSS) radio telemetry technology offers high integrity and error free communications which can co-exist with other wireless technologies such as Wi-Fi and Bluetooth.

The WTS Toolkit software offers a fast and simple way to configure the gateway module.



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



**9320 Battery Powered Portable Load Cell Indicator**  
Hand Held, Battery Powered, TEDS Ready



**WTS-BS-3E Wireless Base Station with USB Interface**  
Includes 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



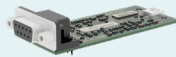
**WTS-BS-6 Wireless Telemetry Dongle Base Station**  
Includes WTS Toolkit Software and Log 100 Software



**CSD Digital Load Cell Converter**  
OEM PC Interface Module



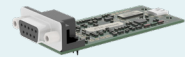
**DIG-USB USB Output Module**  
PC Interface Module



**DIG-USB-OEM OEM USB Output Module**  
OEM PC Interface Module



**DIG-USB-F Fast USB Output Module**  
Fast PC Interface Module



**DIG-USB-F-OEM OEM Fast USB Output Module**  
OEM Fast PC Interface Module



**1280 12" Touch-Only Programmable Weight Indicator/Controller**  
Panel Mount



**INF-USB3 USB Single Channel PC Interface Module**  
Single Channel



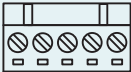


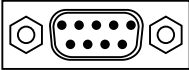


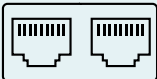
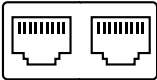
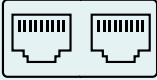
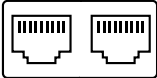
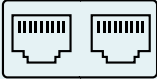


**SI-USB USB Dual Channel PC Interface Module**  
Two Channel



**SI-USB3 Four Channel USB Sensor PC Interface**  
Four Channel

## INF1 and INF4 Fieldbus Options

Port	Model	Description
	INF1-RS485	<b>RS485</b> serial port. Baud rate: 2400, 4800, 9600, 19200, 38400, 115200 (bit/s).
	INF1-Analog	Optoisolated 16 bit <b>analog output</b> . Current: 0÷20 mA; 4÷20 mA (up to 300 Ω). Voltage: 0÷10 V; 0÷5 V; ±10 V; ±5 V (min 10 kΩ). Equipped with RS485 serial port.
	INF1-CANopen	<b>CANopen</b> port. Baud rate: 10, 20, 25, 50, 100, 125, 250, 500, 800, 1000 (kbit/s). The instrument works as slave in a synchronous CANopen network. Equipped with RS485 serial port.
	INF1-DeviceNet	<b>DeviceNet</b> port. Baud rate: 125, 250, 500 (kbit/s). The instrument works as slave in a DeviceNet network. Equipped with RS485 serial port.
	INF1-CC-Link	<b>CC-Link</b> port. Baud rate: 156, 625, 2500, 5000, 10000 (kbit/s). The instrument works as Remote Device Station in a CC-Link network and occupies 3 stations. Equipped with RS485 serial port.
	INF1-PROFIBUS DP	<b>PROFIBUS DP</b> port. Baud rate: up to 12 Mbit/s. The instrument works as slave in a Profibus DP network. Equipped with RS485 serial port.
	INF1-Modbus/TCP	<b>Modbus/TCP</b> port. Type: RJ45 10Base-T or 100Base-TX (auto-sensing). The instrument works as slave in a Modbus/TCP network. Equipped with RS485 serial port.
	INF1-Ethernet TCP/IP	<b>Ethernet TCP/IP</b> port. Type: RJ45 10Base-T or 100Base-TX (auto-sensing). The instrument works in an Ethernet TCP/IP network and it is accessible via web browser. Equipped with RS485 serial port.
	INF1-Ethernet/IP	<b>2x Ethernet/IP</b> ports. Type: RJ45 10Base-T or 100Base-TX (auto-sensing). The instrument works as adapter in an Ethernet/IP network. Equipped with RS485 serial port.
	INF1-PROFINET IO	<b>2x PROFINET IO</b> ports. Type: RJ45 100Base-TX. The instrument works as device in a Profinet IO network. Equipped with RS485 serial port.
	INF1-EtherCAT	<b>2x EtherCAT</b> ports. Type: RJ45 10Base-T or 100Base-TX (auto-sensing). The instrument works as slave in an EtherCAT network. Equipped with RS485 serial port.
	INF1-POWERLINK	<b>2x POWERLINK</b> ports. Type: RJ45 10Base-T or 100Base-TX (auto-sensing). The instrument works as slave in a Powerlink network. Equipped with RS485 serial port.
	INF1-SERCOS III	<b>2x SERCOS III</b> ports. Type: RJ45 10Base-T or 100Base-TX (auto-sensing). The instrument works as slave in a Sercos III network. Equipped with RS485 serial port.

# Interface Digital Instruments

- Indicators
- Bidirectional Indicators
- Portable Indicators
- Programmable Indicators
- Battery Powered Indicators
- Battery Powered Bidirectional Indicators
- Transmitters
- Four Channel Transmitters
- Controllers
- Programmable Controllers
- USB Output Module
- PC Interface Module
- Sensor to USB Output Converter
- Data Acquisition Systems
- Wireless

*Interface force measurement digital 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.**

**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.