

Spectre Sensors

Model 9510U USB Enabled Pressure Transducer



- Direct USB 2.0 connection to data acquisition and test systems
- Transducer is custom configured to your specific temperature and pressure conditions
- ASCII data output to interface with virtually DAQ or control system
- Pressure ranges 0-10" WC to 0-30,000 PSI
- Gauge, sealed and absolute ranges
- Accuracies to 0.03% BFSL
- Unparalleled long-term stability
- Cable lengths to 300 feet (consult factory)
- Pressure and temperature data supplied from one device.
- Maximum RFI/EMI protection on every transducer
- Temperature compensation at the sensor element.
- Custom designs available (contact factory)

CE

Spectre's 9510U USB Pressure/Temperature Transducers offer the first precision USB 2.0 enabled sensors on the market that are designed and calibrated to each customer's specific operating conditions. **Each transducer is digitally mapped to correct for any non-linearity or inaccuracies in the sensor.** This digital correction provides the most accurate and flexible transducer in the industry.

Performance @ 25°C (77°F)

Accuracy: $<\pm 0.05\%$ BFSL (0.03% optional)
Stability (2 year): $<\pm 0.05\%$ FS, typical
Over pressure protection: 2X Rated Pressure
Burst Pressure: 3X minimum
Pressure Cycles: >50 Million

Environmental Data

Operating temp: -40 to +85°C (-40 to +185°F)
(Optional to +250°F, consult factory)
Storage temp: -50 to +125°C (-60 to +250°F)
Compensated range: 0 to 50°C (+32 to +125°F)
Temperature Accuracy: $\pm 1^\circ\text{F}$ ($\pm 0.5^\circ\text{C}$)

Electrical Data

Excitation:
5 Vdc through USB 2.0 port on computer or powered hub
Output: ASCII over USB 2.0
Baud rate: 9600

Physical data

Sensor wetted material: 17-4 PH stainless (optional:
316ss, Inconel)

Pressure connection: 1/4 male NPT, SAE-4
(others on application)

Electrical Connection: USB 2.0 "A" connector (male)

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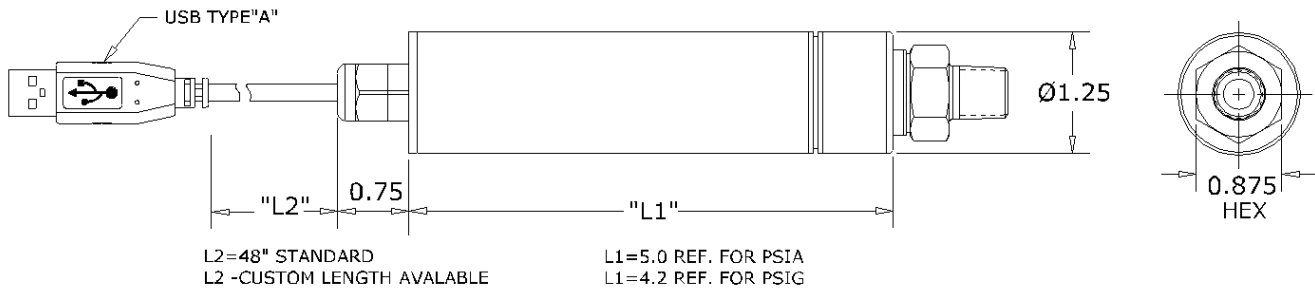
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Ordering guide – Example: 9510U-A-(0-500PSI)-2-05-UC

A	(0-500)	2	05	UC
Pressure Port	Range	Units	Accuracy	Connector
A=1/4" MNPT B=SAE-4 male (w/o-ring) C=Other D=1/8" MNPT E=Autoclave F250C	Specify Pressure Range in PSI, BAR, kPa or inches WC	1=Absolute 2=Gauge 3=Vacuum 4=Sealed 5=Compound 6=Other	05=0.05% BFSL* 03=0.03% BFSL*	UC=USB "A" male connector with 4 feet of cable

*BFSL = Best Full Scale Line

Dimensions



OPTIONS MAY CHANGE OVERALL DIMENSIONS,
CONSULT FACTORY

Notes:

- The Spectre Model 9510U pressure transducer is suitable for use with any system that can accept ASCII data input over a USB 2.0 connection.
- Every Model 9510U is shipped with the required drivers to interface the unit with PC based systems.
- Orders for 9510U transducers must include expected operating temperature of the process to insure maximum accuracy and linearity on your system. If not specified, the default calibration of 0°-50°C will be applied.
- Calibration data and system readings can be accessed via standard terminal emulation programs.

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