



# DIGITAL TRUE PRESSURE SERIES WITH TEMPERATURE

Introducing Paine Electronics new **Digital True Pressure Series** transducer. Microprocessor based **pressure** and **temperature measurement**, the **Digital True Pressure Series** incorporates Paine's proprietary sensor technology with innovative sensor design to produce the next generation of high pressure and high temperature transducers. **True - Digital - Pressure and Temperature Output!**

The **Digital True Pressure Series** is designed for pressure ranges of **0-5,000** to **0-30,000 PSIA** and temperature measurement from **-40°F** to **+300°F** (-40°C to +149°C). With the added benefit of its small size, true pressure and temperature measurements and the ability to perform in highly corrosive environments, the new **Digital True Pressure Series** is just what Design Engineers have needed for years!

- **Digital True Pressure Output:** Regardless of temperature.
- **Memory Based User Access:** (Instantaneous Temperature Values, Manufacturer, Serial Number, Model Number, Full Scale Pressure, Calibrated Units, Original Calibration Date, Last Calibration Date)
- **Programmable Temperature Output:** °K, °F or °C.
- **Digital Pressure & Temperature Output:** With end user requests or programmed timing. Request digital formats in TEXT, ASCII or HEX.
- All welded Inconel®™ Construction.

### Specifications:

**Typical Performance:** The following parameters are established from production units.  
**Calibration Data:** Calibration Certificates are supplied with each unit.

### Performance: \*

**Pressure Output In PSI:** Fully corrected for temperature, non-linearity, zero offset and full scale output.

**Total Error of Digital Pressure Output:** <0.1% full scale over calibrated temperature range.

**Pressure Resolution:** 16 Bits minimum. 0.31 - 0.46 PSI (depending on part option).

**Operating Temperature Range:** -40°F to +300°F (-40°C to +149°C).

**Calibrated Temperature Range:** -0°F to +300°F (-17°C to +149°C).

**Digital Output:** RS-485 & CANBus. Custom protocols and outputs available upon request.

**Temperature Output:** °K, °F or °C.

**Temperature Measurement:** -0°F to +300°F (-17°C to +148°C).

**Temperature Resolution:** 10 Bits minimum. Better than 0.5°F.

### Mechanical: \*

**Pressure Range:** 0-5,000 to 0-30,000 PSIA.

**Pressure Media:** Any compatible with alloy UNS N07718 solution annealed and aged to a maximum hardness of 40 HRC.

**Pressure Fitting:** AS4395-E04.

**Electrical Connection:** 6 Pin bayonet locking electrical connector.

### Electrical: \*

**Excitation:** 5.00 VDC ± 0.25 VDC or 7.00 to 12 VDC.

**Input Current:** 25 mA maximum @ 5 VDC.

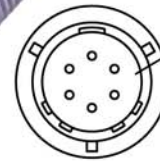
**Insulation Resistance:** All conductors together to case, 10GΩ minimum at 50 VDC.

**Electrical Connections:** A=PWR IN, B= TxD (data to PC), C=RxD (data from PC),

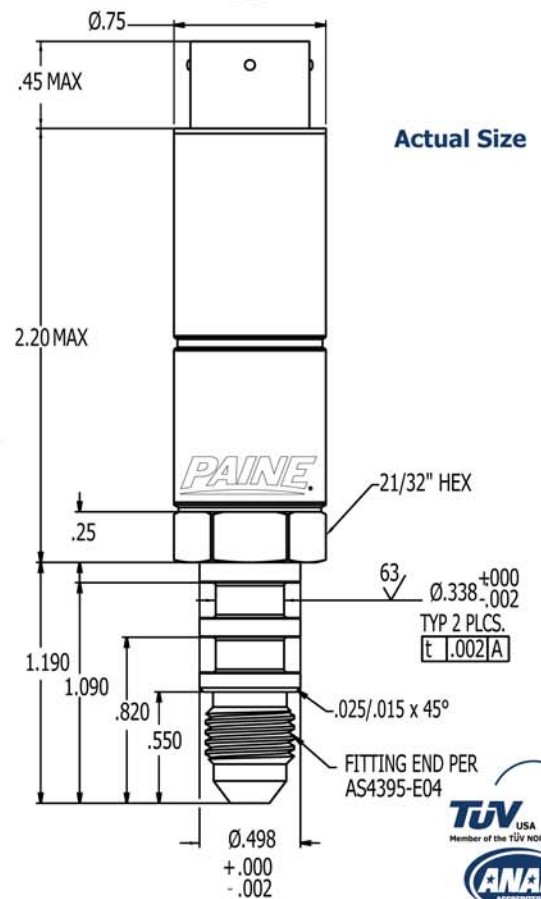
D=PWR RETURN, E=SIGNAL RETURN, F=NC



**220-10-010-XX**  
0-5,000 to 0-30,000 PSIA



6 BAYONET LOCK ELECTRICAL RECEPTACLE MATES WITH MS3116-10-6S



Actual Size



Paine Electronics, LLC is a ISO-9001:2000/AS9100 Registered Company

Datasheet P/N: 220-10-010-DS\_REV-A

\* Contact us or your authorized Paine Electronics representative for many more standard and/or custom configurations or options.

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