CHECKLIST

5 Steps for Ordering Remanufactured Foxboro Pressure Transmitters

☐ Transmitter type

- Absolute (IAP), Differential (IDP), Gauge (IGP), Fill System or Remote Seals (PS options)

☐ Communication Protocol

- D – Foxcom option, specifically for Foxboro Communicators
- T – HART option, check available Device Descriptions (DD) and any required revision levels
- A – Analog Only may be available if no communication is required

☐ Sensor Range – Select appropriate *Range* based on *Span* needed for *Calibration*

- ***Range*** is the full capability of a selected sensor
- ***Span*** is the difference between upper and lower range values
- ***Calibration*** is the upper and lower range values needed
  - ☐ Request your Calibration when ordering
  - ☐ Full Range is the default if not supplied
- Best Practice
  - ☐ Select a ***Range*** that allows the ***Span*** to be somewhere mid-range, not at the extreme upper or lower end of its min and max values.
  - ☐ Span should not be "too small" – a percentage of a percentage will always be higher, so a large ***Range*** with a small ***Span*** can result in decreased accuracy.

Example: IDP10-T22B
Range = 0-200 in. H2O

Span: URV-LRV=SPAN,
min span = 0-3.5 in. H2O
max span = 0-200 in. H2O

Calibration:
0-100 in. H2O,
LRV = 0 in. H2O
URV = 100 in. H2O

☐ Options – Request when ordering per Model Code, including needed Materials for any *Process Wetted Parts*

- Sensor diaphragm (316, Hastelloy, Monel) and fill fluid (inert or silicone)
  Process Wetted Parts
- Meter – L1 Digital Indicators with pushbuttons for Zero & Span, or L2 on Analog transmitter
- Flanges, Process Adaptors (per connection size), etc.
  Process Wetted Parts
- Manifolds (Direct or Conventional)
  Process Wetted Parts

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- Mounting Hardware – Pipe, Panel, Direct, etc.
- Fill Systems or Remote Seals built to specifications – Technical help for selection available on request
    - ☐ Process connections, material selection, and other specific transmitter or fill system specifications determine appropriate configuration – minimum specifications required:
        - ☐ Fill Fluid – DC200 Silicone, Neobee, etc.
        - ☐ Connection type – flush or capillary
        - ☐ Capillary length – enough so not taut, but avoid too many coils as well
        - ☐ Process Connection style – type of seal
        - ☐ Process Connection size
        - ☐ ANSI Rating
        - ☐ Material of Flange, Diaphragm, and Upper Housing
        - ☐ Optional Lower housing if needed
    - ☐ Calibration requires specifications for Maximum Process Level, Distance between process connections and transmitter, Specific gravity of Process Fluid & Fill Fluid to calculate
    - ☐ Any pictures of existing Fill Systems or Remote Seals can help determine specification needed
    - ☐ Additional technical support is available for selection, or help calculating calibration, and required on any special process conditions or configurations (such as Vacuum applications, Limited low end span, Closed Tank, Use of wet or dry leg with direct connect seal, etc.)

☐ Optional configuration setups – Request when ordering or setup during commissioning of instrument

- Display – units, % of span, dual, etc.
  **factory default is set to Units
- Units – PSI, Inches H2O, mmHg, etc.
  **factory default is PSI, or units of any requested calibration
- Alerts/Alarms – set point deviation, over range, limits, cutoffs, etc.
  **factory default to no special settings
- Dampening – adjustable time values for measurement updates
  **factory default is 0 seconds
- Tagging – enter personalized Tag/Stock ID, Location, or other critical information
  **factory default includes tagging if supplied

Any Questions or Technical Support Needed Call our Main Line: 800-325-4808

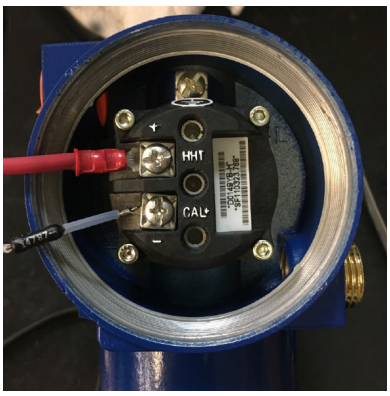
AS AUTOMATION SERVICE Since 1956

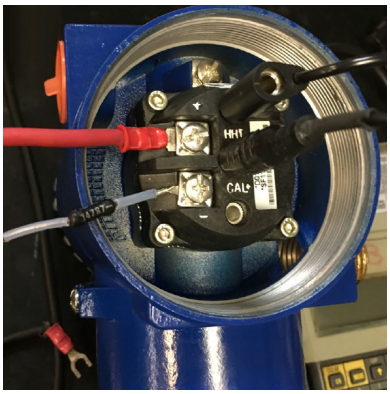
CHECKLIST

10 Steps for Configuration & Installation of Foxboro Pressure Transmitters

☐ Attach and Apply appropriate Supply Voltage to **Loop Terminals**

- min 11.5 VDC to max 42.0 VDC





☐ For proper communication attach 250 ohm resistor *in series with voltage loop*

☐ Connect preferred communication protocol *in parallel to voltage loop*

- D – Foxcom option, specifically for Foxboro Communicators
  - Plug directly into HHT, as shown
- T – HART option, appropriate DD (Device Description) required for full configuration
- A – Analog with LCD & Pushbuttons, no communication

☐ Zero & Span adjustment method for Input

- Communication Protocol during configuration
- Available with pushbuttons when used with A board (analog) or optional L1 meter

☐ Input Measurement Range values – Lower Range Values (LRV) to Upper Range Values (URV)

- In an example with 0-100 PSI Calibration,
  - 0 PSI =LRV, and 100 PSI = URV
- Different Range sensors are capable of varying min and max Span limits

☐ Apply appropriate input pressure to the process connection(s)

- Appropriate pressure will be within Measurement Range values
- If above URV, current output will be saturated, showing full output

10 Steps for Configuration & Installation of Foxboro Pressure Transmitters

☐ Verify output signal is correct for given input pressure

- Generally linear, may be square root, or custom
- In an example with 4-20 mA,
    - 4 mA = 0% input pressure, 20 mA = 100% input pressure

☐ Verify other optional configuration setups

- Display – units, % of span, dual, etc.
  **factory default is set to Units
- Units – PSI, Inches H2O, mmHg, etc.
  **factory default is PSI, or units of any requested calibration
- Alerts/Alarms – set point deviation, over range, limits, cutoffs, etc.
  **factory default to no special settings
- Dampening – adjustable time values for measurement updates
  **factory default is 0 seconds
- Tagging – enter personalized Tag/Stock ID, Location, or other critical information
  **factory default includes tagging if supplied

☐ Filled systems & remote seals require compensation for process conditions

- Specifications required include Maximum Process Level, Distance between process connections and transmitter, Specific gravity of Process Fluid & Fill Fluid
- Additional technical support required on special process conditions or configurations (such as Vacuum applications, Limited low end span, Closed Tank, Use of wet or dry leg with direct connect seal, etc.)

☐ Installation

- Determine proper orientation for Flanges, Manifolds (Direct or Conventional), Process Adaptors, etc.
- Mount transmitter using hardware supplied per model code – Pipe, Panel, Direct, etc.
- Install proper conduits for electrical wiring (not included)
- Filled Systems or Remote Seals – see our Level Calibration Instructions for further help!

Additional troubleshooting is available through technical support, please make sure to note any symptoms or issues as they occur, including process information, or communicator error readings.
Call our Main Line: 800-325-4808

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