CHECKLIST
5 Steps for Ordering Remanufactured Rosemount Pressure Transmitters

☐ **Transmitter type**

- Absolute (CA), Differential (CD), Gauge (CG), Fill System or Remote Seals (L)

☐ **Communication Protocol**

- HART – check available Device Descriptions (DD) and any required revision levels
  - 3051 & 3051S option A, 1151 option S (Smart)
- Some legacy transmitters are available in Analog Mode (such as 1151 option E)

☐ **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: 3051CD2*
> Range = 0-250 in. H2O
>
> Span: URV-LRV=SPAN,
> min span = 0-8.3 in. H2O
> max span = 0-250 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 – 3051 option M5; 3051S option M5; 1151 option M4 (LCD linear)
- Flanges (Coplanar or Traditional per orientation), Process Adaptors (per connection size), etc.
  Process Wetted Parts
- Manifolds (Direct, Conventional, Coplanar, Traditional)
  Process Wetted Parts
- Mounting Hardware – Pipe, Panel, Direct, etc.

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- 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 *(Process Wetted Parts)*
  - ☐ 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 2 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

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CHECKLIST
10 Steps for Configuration & Installation of Rosemount Pressure Transmitters

☐ **Attach and Apply appropriate Supply Voltage to Loop Terminals**
- min 10.5 VDC to max 42.4 VDC

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

☐ **Connect HART communicator *in parallel to voltage loop***
- Appropriate DD (Device Description) required
- Some legacy transmitters available in analog mode.

☐ **Determine Zero & Span adjustment method for Input**
- Communication Protocol during configuration
    - 3051 & 3051S...A (HART)
    - 1151...S (Smart)
- Local options are available per series:
    - 3051 – pushbuttons under classification tag
    - 1151...E (analog) – zero and span screws are under the data tag on the side
    - 1151...S (Smart) – pushbuttons are inside electrical compartment on the smart board
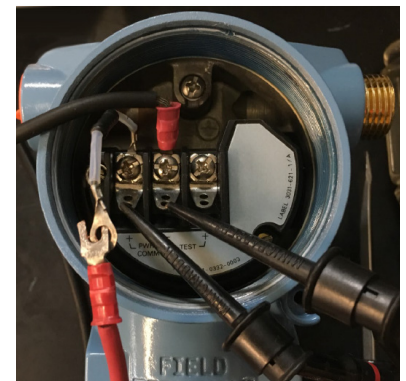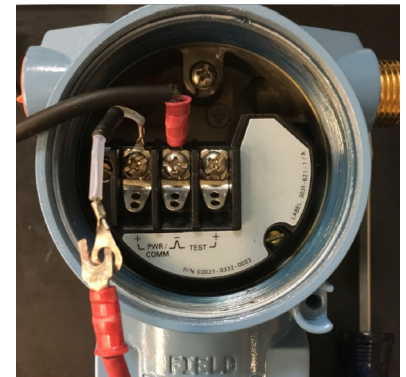
☐ **Input Measurement Range values – Lower Range Values (LRV) to Upper Range Values (URV)**
- In an example with 0-100 PSI Calibration, 0 PSI =LRV, and 100 PSI = URV
    - 0 PSI =LRV, and 100 PSI = URV
- Different Range sensors are capable of varying min and max Span limits

☐ **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 Rosemount 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.
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- 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, Conventional, Coplanar, or Traditional), Process Adaptors, Process Connection Size, 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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