ST 800/ST 700 SmartLine Pressure Transmitter
Quick Start Installation Guide
34-ST-25-36, Revision 10, June 2020

This document provides descriptions and procedures for the Quick installation of Honeywell’s family of SmartLine Pressure Transmitters. The SmartLine Pressure Transmitter is available in a variety of models for measuring Differential Pressure (DP), Gauge Pressure (GP), and Absolute Pressure (AP). For full details refer to the manuals listed below for protocols, human interface (HMI), Operation, Installation, Configuration, Calibration, Maintenance, Parts, Safety and Approvals etc. including options.

Documentation
To access complete documentation, including language variants, scan the QR code below using your smart phone/device or QR code scanner.

Go to the APP store for your free Smartphone QR scanner
Or you can follow the URL to access the online SmartLine HUB page.
The HUB page will contain direct links to open SmartLine product documentation.

URL https://hwi.co/SmartLineHUB
QR Code

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Installation
Evaluate the site selected for the Transmitter installation with respect to the process system design specifications and Honeywell’s published performance characteristics for your particular model.
Temperature extremes can affect display quality. The display can become unreadable at temperature extremes; however, this is only a temporary condition. The display will again be readable when temperatures return to within operable limits.

Mounting the Transmitter
Transmitter models, except flush mounts and those with integral flanges, can be attached to a two-inch (50 millimeter) vertical or horizontal pipe using Honeywell’s optional angle or flat mounting bracket; alternately you can use your own bracket. Flush-mount models are attached directly to a process pipe or tank by a one-inch weld nipple. Models with integral flanges are supported by the flange connection. Typical Bracket mounted and Flange Mounted Installations

Bracket Mounting
- Optional mounting bracket, see Figure 2
- Existing mounting bracket, see Figure 3
- Rotate the transmitter housing, see Figure 4

Level a transmitter with small absolute or differential pressure spans, see Figure 5

Optional Mounting Bracket
Position the bracket on a 2-inch (50.8mm) and install “U” bolt around pipe and through holes in bracket. Secure with nuts and lock washers provided.

Figure 2 Example - Angle mounting bracket secured to horizontal or vertical pipe.

Figure 2: Angle Mounting Bracket

Quick Start Installation Guide 1
Existing Mounting Bracket
Align appropriate mounting holes in transmitter with holes in bracket and secure with bolts and washers provided.

Note: If the meter body is hexagonal, you must use the additional bracket supplied. If meter body is round, discard the bracket.

Example – LGP model transmitter mounted to optional angle mounting bracket.

<table>
<thead>
<tr>
<th>If Transmitter is</th>
<th>Then...</th>
</tr>
</thead>
<tbody>
<tr>
<td>DP, Dual Head GP, Dual Head AP and DP Remote Seals.</td>
<td>Use alternate mounting holes in end of heads.</td>
</tr>
<tr>
<td>In-line GP and AP (LGP model) or GPaP Remote Seal</td>
<td>Use smaller “U” bolt provided to attach meter body to bracket. See Figure 3.</td>
</tr>
</tbody>
</table>

Figure 3: LGP and LAP models

Rotating Transmitter Housing
Loosen set screw on outside neck of transmitter one full turn. Rotate Transmitter housing in maximum of 180 degree increment in left or right direction from center to position you require and tighten set screw (1.46 to 1.68Nm/13 to 15lb-in).

Figure 4: Rotating Transmitter Housing

Leveling Transmitters with Small Absolute or Differential Pressure Spans
Mounting position of these transmitters is critical due to the smaller transmitter spans. To minimize these positional effects on calibration (zero shift), take the appropriate mounting precautions that follow for the given transmitter model.
See Figure 5 for suggestions on how to level the transmitter using a spirit balance.
To perform a Zero Trim after leveling, refer to Trim the Transmitter on page 4.

Figure 5: Using level to mount transmitter

Flange Mounting
To mount a flange mounted transmitter model, bolt the transmitter’s flange to the flange pipe on the wall of the tank.
On insulated tanks, remove enough insulation to accommodate the flange extension. It is the End User’s responsibility to provide a flange gasket and mounting hardware that are suitable for the transmitter’s service condition.
To prevent degradation of performance in Flush-Mounted Flanged Transmitters, exercise care to ensure that the internal diameter of the flange gasket does not obstruct the sensing diaphragm.
To prevent degradation of performance in Extended Mount Flanged Transmitters, ensure that there is sufficient clearance in front of the sensing diaphragm body.

Figure 6: Flange mounting
Flush Mounting
To mount a flush mounted transmitter model, cut a hole for a 1-inch standard pipe in the tank or pipe where the transmitter is to be mounted. See Figure 7.

Weld the 1-inch mounting sleeve to the wall of the tank or to the hole cut on the pipe. Insert the meter body of the transmitter into the mounting sleeve and secure with the locking bolt. Tighten the bolt to a torque of 6.4Nm ±0.30Nm (4.7ft.-lbs. ±0.2ft.-lbs.)

Once the transmitter is mounted, the transmitter housing can be rotated to the desired position. See Figure 7.

Remote Seal Mounting
Mount the transmitter at a remote distance determined by length of capillary tubing.

Note: The combination of tank vacuum and high pressure capillary head effect should not exceed 9psi (300mm Hg) absolute.

On insulated tanks, remove enough insulation to accommodate the mounting sleeve. See Figure 8 Example – Typical Remote Seal Transmitter installation.

Note: For Sanitary 3-A installations, only mount the transmitter outside of the Non-Product Contact area where incidental contact with the process material is unlikely, use a minimum capillary length of 1.5m (5ft.)

Conduit Entry Plugs and Adapters
Procedures
It is the User/Installer’s responsibility to install the Transmitters in accordance with national and local code requirements. Conduit entry plugs and adapters shall be suitable for the environment, shall be certified for the hazardous location when required and acceptable to the authority having jurisdiction for the plant.

CONDUIT ENTRY PRECAUTIONARY NOTICE
THE CONDUIT/CABLE GLAND ENTRIES OF THIS PRODUCT ARE SUPPLIED WITH PLASTIC DUST CAPS WHICH ARE NOT TO BE USED IN SERVICE. IT IS THE USER'S RESPONSIBILITY TO REPLACE THE DUST CAPS WITH CABLE GLANDS, ADAPTORS AND/OR BLANKING PLUGS WHICH ARE SUITABLE FOR THE ENVIRONMENT INTO WHICH THIS PRODUCT WILL BE INSTALLED. THIS INCLUDES ENSURING COMPLIANCE WITH HAZARDOUS LOCATION REQUIREMENTS AND REQUIREMENTS OF OTHER GOVERNING AUTHORITIES AS APPLICABLE.

Use the following procedures for installation:

Table 1 - Conduit Entry Plugs

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Remove the protective plastic cap from the threaded conduit entry.</td>
</tr>
<tr>
<td>2</td>
<td>To ensure the environmental ingress protection rating on tapered threads (NPT), a non-hardening thread sealant may be used.</td>
</tr>
<tr>
<td>3</td>
<td>Thread the appropriate size conduit plug (M20 or ½ NPT) into the conduit entry opening. Do not install conduit entry plugs in conduit entry openings if adapters or reducers will be used.</td>
</tr>
<tr>
<td>4</td>
<td>Tighten adapters according to the following table.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>Tool</th>
<th>Torque</th>
</tr>
</thead>
<tbody>
<tr>
<td>M20 Conduit Entry</td>
<td>10mm Hex Wrench</td>
<td>32Nm 24Lb-ft</td>
</tr>
<tr>
<td>½ NPT Conduit Entry</td>
<td>10mm Hex Wrench</td>
<td>32Nm 24Lb-ft</td>
</tr>
</tbody>
</table>

Table 2 - Conduit Adapters

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Remove the protective plastic cap from the threaded conduit entry.</td>
</tr>
<tr>
<td>2</td>
<td>To ensure the environmental ingress rating on tapered threads (NPT), a non-hardening thread sealant may be used.</td>
</tr>
<tr>
<td>3</td>
<td>Thread the appropriate size adapter (M20 or ½ NPT) into the conduit entry opening.</td>
</tr>
<tr>
<td>4</td>
<td>Tighten adapters according to the following table.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>Tool</th>
<th>Torque</th>
</tr>
</thead>
<tbody>
<tr>
<td>½ to ¾ NPT Adapter</td>
<td>1 ¼” Wrench</td>
<td>32Nm 24Lb-ft</td>
</tr>
</tbody>
</table>

Note: No plugs come installed in the housings. All housings come with temporary plastic dust protectors (red) installed and are not certified for use in any installation.
Wiring Connections and Power Up

Summary
The transmitter is designed to operate in a two-wire power/current loop with loop resistance and power supply voltage within the operating range shown in Figure 10.

Loop wiring is connected to the transmitter by simply attaching the positive (+) and negative (–) loop wires to the positive (+) and negative (–) SIGNAL screw terminals on the terminal block in the transmitter’s electronics housing shown in Figure 11. Each transmitter includes an internal terminal to connect it to earth ground. Also, a ground terminal can be optionally added to the outside of the electronics housing. While it is not necessary to ground the transmitter for proper operation, doing so tends to minimize the possible effects of noise on the output signal and affords protection against lightning and static discharge.

An optional lighting terminal block can be installed in place of the non-lightning terminal block for Transmitters that will be installed in an area that is highly susceptible to lightning strikes.

Explosion-Proof Conduit Seal

When installed as explosion proof in a Division 1 Hazardous Location, keep covers tight while the Transmitter is energized. Disconnect power to the Transmitter in the non-hazardous area prior to removing end caps for service.

When installed as non-incendive equipment in a Division 2 hazardous location, disconnect power to the Transmitter in the non-hazardous area, or determine that the location is non-hazardous before disconnecting or connecting the Transmitter wires.

Transmitters installed in for protection explosion proof in Class I, Division 1 do not need an explosion proof seal in accordance with ANSI/NFPA 70, the US National Electrical Code. A LISTED explosion proof seal to be installed in the conduit, within 18 inches (457.2mm) of the Transmitter when 3/4” conduit is used. LISTED explosion proof seals that meet this requirement. Transmitters installed as explosion proof in Class I, Group B, C or D hazardous (classified) locations do not require that an explosion proof seal be installed in the conduit.

Electrical connections are made to the terminal block on the transmitter electronics housing. A conduit must be installed in accordance with ANSI/NFPA 70, the US National Electrical Code. A LISTED explosion proof seal to be installed in the conduit, within 18 inches (457.2mm) of the Transmitter when 3/4” conduit is used. A LISTED explosion proof seal to be installed in the conduit, within 18 inches (457.2mm) of the Transmitter when 3/4” conduit is used.

Trim the Transmitter

Procedure to Trim the Transmitter
For a transmitter with a small differential pressure span, you must ensure that the transmitter is vertical when mounting it. You do this by leveling the transmitter side-to-side and front-to-back. See Figure 5 for suggestions on how to level the transmitter using a spirit balance. You must also zero the transmitter by following the steps in this table.

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Attach the transmitter to the mounting bracket but do not completely tighten the mounting bolts.</td>
</tr>
<tr>
<td>2</td>
<td>Connect a tube between the input connections in the high pressure (HP) and low pressure (LP) heads to eliminate the effects of any surrounding air currents.</td>
</tr>
</tbody>
</table>
| 3    | Connect 24Vdc power to the transmitter. For HART/DE connect a digital voltmeter to monitor the PV output.
| 4    | Use applicable communicator to establish communications with the transmitter. For DE transmitter use SFC, SCT, or MCT. For Hart, use MCT or other Hart Communicator with applicable Honeywell DD’s. |
| 5    | While reading the transmitter’s output on a communication tool or a voltmeter, position the transmitter so the output reading is at or near zero, and then completely tighten the mounting bolts. |
| 6    | The Local Display or applicable communicator can be used to perform the Zero Corrects. This corrects the transmitter for any minor error that may occur after the mounting bolts are tightened. |
| 7    | Remove the tube from between the input connections, the power, and the digital voltmeter or communication tool. |

Figure 11: Terminal Block and Grounding Screw location

Note: The right hand terminal is for loop test and is not applicable for the Fieldbus option.

Wiring Variations

The above procedures are used to connect power to a Transmitter. For loop wiring and external wiring, detailed drawings are provided for Transmitter installation in non-intrinsically safe areas and for intrinsically safe loops in hazardous area locations. This procedure shows the steps for connecting power to the transmitter.

Wiring must comply with local codes, regulations and ordinances. Grounding may be required to meet various approval body certification, for example CE conformity. Refer to the SmartLine Transmitter User’s Manual, Documents # 34-ST-25-35 (ST 800) or 34-ST-25-44 (ST 700) for details.

Figure 10: Two-wire power/current loop

Supply Voltage vs Loop Resistance

Note: A minimum of 250 ohms of loop resistance is required to support communications. Loop resistance = barrier resistance + wire resistance + receiver resistance.

Figure 10: Two-wire power/current loop

Operating Voltage (Volts)

RLmax = 45.8 x (Power Supply Voltage - 10.8)

Figure 10: Two-wire power/current loop

Trim the Transmitter

Procedure to Trim the Transmitter
For a transmitter with a small differential pressure span, you must ensure that the transmitter is vertical when mounting it. You do this by leveling the transmitter side-to-side and front-to-back. See Figure 5 for suggestions on how to level the transmitter using a spirit balance. You must also zero the transmitter by following the steps in this table.
Set the Jumpers For HART/DE

Setting Failsafe Direction and Write Protect Jumpers

The SmartLine Pressure Transmitter (DE or HART) provides two jumpers to set the desired failsafe action and Write Protect option. See the top jumper on the electronics module sets the Failsafe direction. The default setting is up-scale failsafe.

Up Scale drives the loop to a value greater than 21mA while Down Scale drives the loop to a value less than 3.8mA.

You can change the failsafe direction by moving the Failsafe Jumper (top jumper) to the desired position (UP or DOWN).

If your transmitter is operating in DE mode, the upscale failsafe action will cause the transmitter to generate a "+ infinity" digital signal, while a downscale failsafe will cause the transmitter to generate a "- infinity" digital signal.

The bottom jumper sets the Write Protect. The default setting is OFF (Unprotected).

When set to the ON (Protected) position, Changed configuration parameters cannot be written to the transmitter.

When set to the OFF (Unprotected) position, Changed configuration parameters can be written to the transmitter.

<table>
<thead>
<tr>
<th>Jumper Settings</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAILSAFE = UP (High)</td>
<td>OFF (Not Protected)</td>
</tr>
<tr>
<td>FAILSAFE = DOWN (Low)</td>
<td>OFF (Not Protected)</td>
</tr>
<tr>
<td>FAILSAFE = UP (High)</td>
<td>ON (Protected)</td>
</tr>
<tr>
<td>FAILSAFE = DOWN (Low)</td>
<td>ON (Protected)</td>
</tr>
</tbody>
</table>

ATTENTION: Electrostatic Discharge (ESD) hazards. Observe precautions for handling electrostatic sensitive devices.

WARNING! PERSONAL INJURY: Risk of electrical shock. Disconnect power before proceeding. HAZARDOUS LIVE voltages greater than 30Vrms, 42.4 V peak, or 60VDC may be accessible. Failure to comply with these instructions could result in death or serious injury.

Write Protect Jumper on Foundation Fieldbus (FF)

On Foundation Fieldbus transmitters there is no Failsafe jumper selection but there is a Write Protect jumper.

The bottom jumper sets the Write Protect. The default setting is OFF (Unprotected).

When set to the ON (Protected) position, changes to configuration parameters cannot be written to the transmitter.

When set to the OFF (Unprotected) position, changes to configuration parameters can be written to the transmitter.

<table>
<thead>
<tr>
<th>Jumper Settings</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fieldbus SIM Mode = OFF</td>
<td>Write Protect = OFF (Not Protected)</td>
</tr>
<tr>
<td>Fieldbus SIM Mode = OFF</td>
<td>Write Protect = ON (Protected)</td>
</tr>
<tr>
<td>Fieldbus SIM Mode = ON</td>
<td>Write Protect = OFF (Not Protected)</td>
</tr>
<tr>
<td>Fieldbus SIM Mode = ON</td>
<td>Write Protect = ON (Protected)</td>
</tr>
</tbody>
</table>

ATTENTION: Electrostatic Discharge (ESD) hazards. Observe precautions for handling electrostatic sensitive devices.

Configuration Guide

This transmitter comes with a standard factory configuration. Consult the nameplate for basic information. Reconfiguration for your particular application can be accomplished by following instructions in the Transmitter User’s manual. This can be found by following the website URL or QR code on page 1 of this document.
PRODUCT CERTIFICATIONS

For Safety, Certified Installations, please refer to ST 800 & ST 700 Safety Manual 34-ST-25-37 for installation procedure and system requirements.

A2. European Directive Information (CE Mark)
### Hazardous Locations Certifications

<table>
<thead>
<tr>
<th>AGENCY</th>
<th>TYPE OF PROTECTION</th>
<th>COMM.</th>
<th>FIELD PARAMETERS</th>
<th>AMBIENT TEMP (°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FM Approvals &quot;USA&quot;</td>
<td>Explosionproof: Class I, Division 1, Groups A, B, C, D; Dust Ignition Proof: Class II, III, Division 1, Groups E, F, G, T6, T5</td>
<td>All</td>
<td>All</td>
<td>T5: -50°C to 85°C; T6: -50°C to 65°C</td>
</tr>
<tr>
<td></td>
<td>Intrinsically Safe: Class II, III, Division 1, Groups A, B, C, D, E, F, G, T4</td>
<td>4-20 mA / DE/HART</td>
<td>Note 2a</td>
<td>-50°C to 70°C</td>
</tr>
<tr>
<td></td>
<td>Nonincendive: Class I, Division 2, Groups A, B, C, D, Locations 4, T4</td>
<td>4-20 mA / DE/HART</td>
<td>Foundation Fieldbus</td>
<td>-50°C to 85°C</td>
</tr>
<tr>
<td></td>
<td>Enclosure: Type 4X/IP66/IP67</td>
<td>All</td>
<td>All</td>
<td>-</td>
</tr>
</tbody>
</table>

| | Explosionproof: Class I, Division 1, Groups A, B, C, D; Dust Ignition Proof: Class II, III, Division 1, Groups E, F, G, T6, T5 | All | All | T5: -50°C to 85°C; T6: -50°C to 65°C |
| | Intrinsically Safe: Class I, Division 1, Groups A, B, C, D, E, F, G, T4 | 4-20 mA / DE/HART | Note 2a | -50°C to 70°C |
| | Nonincendive: Class I, Division 2, Groups A, B, C, D, Locations 4, T4 | 4-20 mA / DE/HART | Foundation Fieldbus | -50°C to 85°C |
| | Enclosure: Type 4X/IP66/IP67 | All | All | - |

| | Explosionproof: Class II, III, Division 1, Groups A, B, C, D, E, F, G, T6, T5 | All | All | T5: -50°C to 85°C; T6: -50°C to 65°C |
| | Intrinsically Safe: Class I, Division 1, Groups A, B, C, D, E, F, G, T4 | 4-20 mA / DE/HART | Note 2a | -50°C to 70°C |
| | Nonincendive: Class I, Division 2, Groups A, B, C, D, Locations 4, T4 | 4-20 mA / DE/HART | Foundation Fieldbus | -50°C to 85°C |
| | Enclosure: Type 4X/IP66/IP67 | All | All | - |

| | Explosionproof: Class II, III, Division 1, Groups A, B, C, D, E, F, G, T6, T5 | All | All | T5: -50°C to 85°C; T6: -50°C to 65°C |
| | Intrinsically Safe: Class I, Division 1, Groups A, B, C, D, E, F, G, T4 | 4-20 mA / DE/HART | Note 2a | -50°C to 70°C |
| | Nonincendive: Class I, Division 2, Groups A, B, C, D, Locations 4, T4 | 4-20 mA / DE/HART | Foundation Fieldbus | -50°C to 85°C |
| | Enclosure: Type 4X/IP66/IP67 | All | All | - |

| | Explosionproof: Class II, III, Division 1, Groups A, B, C, D, E, F, G, T6, T5 | All | All | T5: -50°C to 85°C; T6: -50°C to 65°C |
| | Intrinsically Safe: Class I, Division 1, Groups A, B, C, D, E, F, G, T4 | 4-20 mA / DE/HART | Note 2a | -50°C to 70°C |
| | Nonincendive: Class I, Division 2, Groups A, B, C, D, Locations 4, T4 | 4-20 mA / DE/HART | Foundation Fieldbus | -50°C to 85°C |
| | Enclosure: Type 4X/IP66/IP67 | All | All | - |
3. Certification nameplate. Once a type of protection has been checked on the nameplate, the user shall then check the box [ ] adjacent to the type of protection used on the equipment.

5. Conditions of Use for Ex Equipment, “Hazardous Location Equipment” or “Schedule of Limitations”:
Painted surface of the ST700/ST800 may store electrostatic charge and become a source of ignition in applications with a low relative humidity less than approximately 30% relative humidity where the painted surface is relatively free of surface contamination such as dirt, dust or oil. Cleaning of the painted surface should only be done with a damp cloth.

5. continued

### Notes

3. continued

**Apparatus Marked with Multiple Types of Protection**
The user must determine the type of protection required for installation the equipment. The user shall then check the box [ ] adjacent to the type of protection used on the equipment certification nameplate. Once a type of protection has been checked on the nameplate, the equipment shall not then be reinstalled using any of the other certification types.

4. **WARNINGS and Caution:**
- **Intrinsically Safe and Non-Incendive Equipment:**
  - **WARNING:** SUBSTITUTION OF COMPONENTS MAY IMPAIR SUITABILITY FOR USE IN HAZARDOUS LOCATIONS.
  - **Explosion-Proof/ Flameproof:**
  - **WARNING:** DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE MAY BE PRESENT
  - **Non-Incendive Equipment:**
  - **WARNING:** DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE MAY BE PRESENT
  - **WARNING:** FOR CONNECTION IN AMBIENTS ABOVE 60°C USE WIRE RATED 1050°C.

5. **Conditions of Use for Ex Equipment.** "Hazardous Location Equipment” or “Schedule of Limitations”: Painted surface of the ST700/ST800 may store electrostatic charge and become a source of ignition in applications with a low relative humidity less than approximately 30% relative humidity where the painted surface is relatively free of surface contamination such as dirt, dust or oil. Cleaning of the painted surface should only be done with a damp cloth.

**Flame-proof Installations:**
The transmitter can be installed in the boundary wall between an area of EPL Ga/ Class I Zone 0/ Category 1 and the less hazardous area, EPL Gb/ Class I Zone 1/ Category 2. This configuration, the process connection is installed in EPL Ga/ Class I Zone 1/ Category 1, while the transmitter housing is located in EPL Gb/ Class I Zone 1/ Category 2.

The applicable temperature class, ambient temperature range and maximum process temperature of the equipment is as follows:

**Notes**

1. Operating Parameters:

   **Voltage:** 11 to 42 V
   **Current:** 4 to 20 mA Normal (3.8 – 23 mA Faults)

2. **Intrinsically Safe Entity Parameters**
   For details see Control Drawing below.

3. **Marking ATEX Directive**
   General:
   The following information is provided as part of the labeling of the transmitter:
   - Name and Address of the manufacturer
   - Notified Body Identification: DEKRA Quality B.V., Amnhem, the Netherlands
   - For complete model number, see the Model Selection Guide for the particular model of pressure transmitter
   - The serial number of the transmitter is located in the Foundation Field Device data plate. The first two digits of the serial number identify the year (02) and the second two digits identify the week of the year (23); for example, 0223xxxxxxxx indicates that the product was manufactured in 2002, in the 23rd week.

4. **PROCESS TEMPERATURE VS AMBIENT TEMPERATURE**
<table>
<thead>
<tr>
<th>Temperature Class</th>
<th>T6</th>
<th>TS</th>
<th>T4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Process Temperature</td>
<td>-50°C to +65°C</td>
<td>80°C</td>
<td>120°C</td>
</tr>
<tr>
<td>Maximum Process Temperature</td>
<td>-50°C to +70°C</td>
<td>---</td>
<td>120°C</td>
</tr>
<tr>
<td></td>
<td>-50°C to +85°C</td>
<td>---</td>
<td>110°C</td>
</tr>
</tbody>
</table>

5. **Intrinsically Safe:**
   Must be installed per drawing 50049892

**Division 2:** This equipment is suitable for use in a Class I, Division 2, Groups A, B, C, D; T4 or Non-Hazardous Locations Only.

The enclosure is manufactured from low copper aluminum alloy. In rare cases, ignition sources due to impact and friction sparks could occur. This shall be considered during installation, particularly if equipment is installed in a Zone 0 location. If a charge-generating mechanism is present, the exposed metallic part on the enclosure is capable of storing a level of electrostatic that could become incendive for IIC gases. Therefore, the user/installer shall implement precautions to prevent the buildup of electrostatic charge, e.g. earth the metallic part. This is particularly important if equipment is installed in a Zone 0 location.
Marine Certificates

This certificate defines the certifications covered for the ST 800 Pressure Transmitter family of products. It represents the compilation of the five certificates Honeywell currently has covering the certification of these products into marine applications.

American Bureau of Shipping (ABS) - 2009 Steel Vessel Rules 1-4/3.7, 4-6/8.10, 4-8/3.13 & 13.5, 4-8/27.5, 4-8/7.13. Certificate number: 04-HS417416-PDA

Bureau Veritas (BV) - Product Code: 388-1H. Certificate number: 1266000 BV

Det Norske Veritas (DNV) - Location Classes: Temperature D, Humidity B, Vibration A, EMC B, Enclosure C. For salt spray exposure; enclosure of 316 SST or 3-part epoxy protection with 316 SST bolts to be applied. Certificate number: A11476

Korean Register of Shipping (KR) - Certificate number: LOX17743-AB001

Lloyd's Register (LR) - Certificate number: 02900016(E1) & (E2)

SIL 2/3 Certification


MEASUREMENT INSTRUMENTS DIRECTIVE (MID) 2004/22/EC

ST800 only

Certificate Issued by NMI Certin B.V. Certificate number: LOX17743-AB001

Measurement Instrumets Directive (MID) 2004/22/EC


STA84L 0 to 35 Bar A
STG84L 0 to 35 Bar
STA87L 0 to 100 Bar A
STG87L 0 to 100 Bar

Output Protocol: H1/HART or DI/D2E

Honeywell A1/Ad 50049892
For application assistance, current specifications, pricing, or name of the nearest Authorized Distributor, contact one of the offices below.

ASIA PACIFIC (TAC) hfs-tac-support@honeywell.com
Australia Honeywell Limited, Phone: +(61) 7-3846 1255, FAX: +(61) 7-3840 6481 Toll Free 1300-36-39-36, Toll Free Fax: 1300-36-04-70 China – PRC – Shanghai, Honeywell China Inc. Phone: (86-21) 5257-4568, Fax: (86-21) 6237-2828 Singapore, Honeywell Pte Ltd. Phone: +(65) 6850 3278. Fax: +(65) 6445-3033 South Korea, Honeywell Korea Co Ltd. Phone:+(822)799 6114. Fax:+(822) 792 9015

EMEA, Phone: + 80012026455 or +44 (0)1202645583. FAX: +44 (0) 1344 655554
Email: (Sales) sc-cp-apps-salespa62@honeywell.com or (TAC) hfs-tac-support@honeywell.com

AMERICAS, Honeywell Process Solutions, Phone: (TAC) 1-800-423-9883 or 215/641-3610. (Sales) 1-800-343-0228.
Email: (Sales) FP-Sales-Apps@Honeywell.com or (TAC) hfs-tac-support@honeywell.com

While we provide application assistance personally, through our literature and the Honeywell web site, it is up to the customer to determine the suitability of the product in the application.