

STR700 SmartLine Remote Diaphragm Seals Specification 34-ST-03-124, March 2024



Introduction

Part of the SmartLine® family of products, the STR700 is a series of pressure transmitters hydraulically matched and optimized with a complete set of remote diaphragm seals. Utilizing the same high performance sensor technology of the ST 800 product line Honeywell has optimized the mechanical and hydraulic designs to minimize the typical effects of temperature on remote seal systems.

The SmartLine family is also fully tested and compliant with Experion® PKS providing the highest level of compatibility assurance and integration capabilities. SmartLine easily meets the most demanding application needs for pressure measurement applications.

- Accuracies up to 0.075% of span.
- Automatic static pressure & temperature compensation.
- Rangeability up to 100:1.
- Easy to use and intuitive display capabilities .
- Intuitive External zero, span, & configuration capability.
- Comprehensive on-board diagnostic capabilities.
- Integral Dual Seal design for highest safety based on ANSI/NFPA 70-202 and ANSI/ISA 12.27.0.
- World class overpressure protection.
- Full compliance to SIL 2/3 requirements.
- Modular design characteristics.

Span & Range Limits:

| Model | URL psid (bar) | LRL psid (bar) | Min Span psid (bar) |
|---------|-------------------|-------------------|------------------------|
| STR735D | 100 (7.0) | -100 (-7.0) | 0.9 (0.062) |
| Model | psig (bar) | psig (bar) | psig (bar) |
| STR745G | 500 (35.0) | -14.7 (-1.0) | 5 (0.35) |



Figure 1 – STR700 Remote Diaphragm Seal Unit with feature field-proven piezoresistive sensor technology

Typical Diaphragm Seal applications

- High Process Temperatures
- Viscous or Suspended Solids
- Highly Corrosive Process Materials
- Sanitary Applications
- Applications with Hydrogen Permeation Possibilities
- Level Applications with Maintenance Intensive Wet Legs
- Applications requiring remote Transmitter Mounting
- Tank Applications with Density or Interface Measurements

Communications/Output Options:

- HART® (version 7.0)

Description

The SmartLine family pressure transmitters are designed around a high performance piezo-resistive sensor. This one sensor actually integrates multiple sensors linking process pressure measurement with on-board static pressure (DP Models) and temperature compensation measurements.

Unique Indication/Display Option

Standard LCD Display Features

- Modular (may be added or removed in the field).
- Supports HART protocol variant.
- 0, 90, 180, & 270 degree position adjustments.
- Four configurable screens.
- Standard and custom measurement units available.
- Display calculated flow (square root) value in addition to analog output signal.
- 2 Lines 6 digits PV (9.95H x 4.20W mm) 8 Characters.
- Write protect Indication.
- Built-in Basic Device Configuration through Internal or External Buttons – Range/Engineering Unit/Loop Test /Loop Calibration/Zero /Span Setting.
- Multiple language capabilities (EN, RU).

Diagnostics

SmartLine transmitters all offer digitally accessible diagnostics which aid in providing advanced warning of possible failure events minimizing unplanned shutdowns, providing lower overall operational costs.

System Integration

- SmartLine communications protocols all meet the most current published standards for HART.
- All ST 700 units are Experion tested to provide the highest level of compatibility assurance

Configuration Tools

Integral Three Button Configuration Option

Suitable for all electrical and environmental requirements, SmartLine offers the ability to configure the transmitter and display via three externally accessible buttons when either display option is selected. Zero/span capabilities are also optionally available via these buttons with or without selection of a display option.

Handheld Configuration

SmartLine transmitters feature two-way communication and configuration capability between the operator and the transmitter. All Honeywell transmitters are designed and tested for compliance with the offered communication protocols and are designed to operate with any standards compliant handheld configuration device, such as Honeywell Versatilis Configurator.

Personal Computer Configuration

On a personal computer or laptop, Honeywell Field Device Manager (FDM) Software and FDM Express can be used for managing HART device configurations.

Modular Design

To help contain maintenance & inventory costs, all ST 700 transmitters are modular in design supporting the user's ability to replace meter bodies, standard displays or electronic modules without affecting overall performance. Each meter body is uniquely characterized to provide in-tolerance performance over a wide range of application variations in temperature and pressure.

Modular Features

- Meter body replacement
- Add or remove standard displays
- Add or remove lightning protection (terminal connection)

With no performance effects, *Honeywell's unique modularity results in lower inventory needs and lower overall operating costs.*

Performance Specifications

Reference Accuracy (conformance to +/-3 Sigma)

Table 1

| Model | URL | LRL | Min Span | Maximum Turndown Ratio | Reference Accuracy ^{1,2} (% Span) Standard |
|---------|-------------------|----------------------|--------------------|------------------------|---|
| STR735D | 100 psi (7.0 bar) | -100 psi (-7.0bar) | 0.9 psi (0.062bar) | 111:1 | 0.075 |
| STR745G | 500 psi (35 bar) | -14.7 psi (-1.0 bar) | 5 psi (0.035 bar) | 100:1 | 0.075/0.040 |

Table 2

| | | Accuracy ^{1,2} (% of Span) | | | | Combined Zero & Span temperature Effect (% Span / 28°C (50°F)) | | | |
|---|---------|-------------------------------------|--------------------|-------|-------|--|-------|-------|-----------|
| | Model | URL | Reference Turndown | A | B | C (see URL units) | D | E | F |
| Standard Accuracy | STR735D | 100 psi (7.0 bar) | 22:1 | 0.005 | 0.060 | 4.52 (0.311) | 0.275 | 1.200 | 9 (0.622) |
| | STR745G | 500 psi (35 bar) | 20:1 | | | 25 (1.75) | | | |
| High Accuracy Option | STR745G | 500 psi (35 bar) | 20:1 | 0.005 | 0.035 | 25 (1.75) | | | |
| Turn Down Effect | | | | | | Temperature Effect | | | |
| $\pm [A + B] \text{ if Span} \geq C$ $\pm \left[A + B \left(\frac{C}{Span} \right) \right] \text{ if Span} < C$ | | | | | | $\pm \left[D + E \left(\frac{F}{Span} \right) \right]$ | | | |
| | | | | | | $\pm \left[A + B \left(\frac{F}{Span} \right) \right] \text{ if Span} < F$ | | | |

Accuracy at Specified Span, Temperature and Static Pressure: (conformance to +/-3 Sigma)

Total Performance (% of Span):

Total Performance = _____ **+/- $\sqrt{(\text{Accuracy})^2 + (\text{Temp Effect})^2}$**

Total Performance Examples (for comparison): (standard accuracy, 5:1 Turndown, up to 50 °F (28°C) shift)
STR735D @ 20 psid: 1.476% of span

Typical Calibration Frequency:

Calibration verification is recommended every four (4) years

Notes:

1. Terminal Based Accuracy – Includes combined effects of linearity, hysteresis, and repeatability. Analog output adds 0.006% of span.
2. For zero based spans and reference conditions of 25°C (77°F), 0 psi static pressure for DP, >= 0 psia for GP, 10 to 55% R.H, and 316 Stainless Steel barrier diaphragms

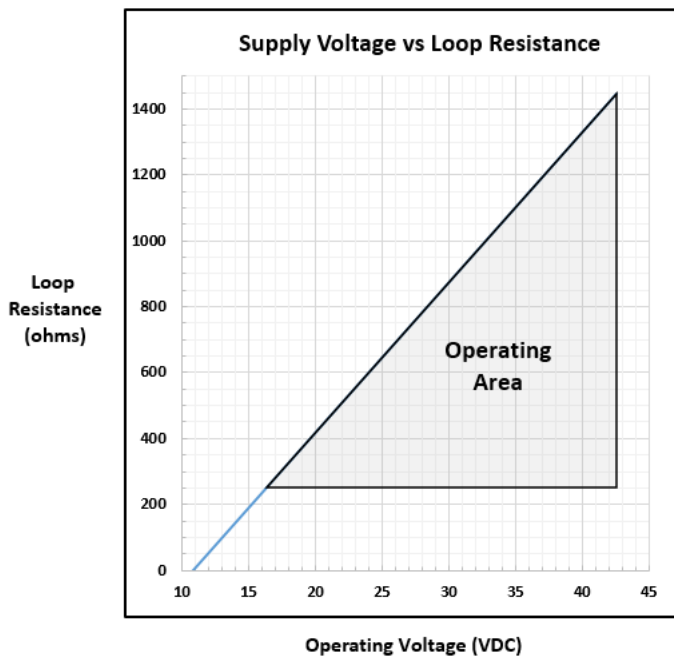
Operating Conditions – All Models

| Parameter | Reference Condition (at zero static) | | Rated Condition | | Operative Limits | | Transportation and Storage | | | | | | | | | | |
|---|---|----------------------|-----------------|----|------------------|----|----------------------------|------------|-------------|-------------|--|---------|---------------------|----------------------|---------|-------------------|--|
| | °C | °F | °C | °F | °C | °F | °C | °F | | | | | | | | | |
| Ambient Temperature ¹ | 25±1 | 77±2 | - | - | - | - | -55 to 90 | -67 to 194 | | | | | | | | | |
| Humidity %RH | 10 to 55 | | 0 to 100 | | 0 to 100 | | 0 to 100 | | | | | | | | | | |
| Vacuum Region, Minimum Pressure mmHg absolute | Atmospheric (See Figure 4 for vacuum limitation) | | | | | | | | | | | | | | | | |
| Supply Voltage, Current, and Load Resistance | 10.8 to 42.4 V DC at terminals (IS versions limited to 30 VDC) 0 to 1,440 ohms (as shown in Figure 2) | | | | | | | | | | | | | | | | |
| Maximum Allowable Working Pressure (MAWP) ² (ST 700 products are rated to Maximum Allowable Working Pressure. MAWP depends on Approval Agency and transmitter materials of construction.) | MAWP is minimum of Body Rating or Seal Rating (See Model Selection Guide for Seal MAWP) <table border="0"> <tr> <td>Body</td> <td>MAWP</td> <td></td> </tr> <tr> <td>STR735D</td> <td>750 psig (51.7 bar)</td> <td>Bolted Process Heads</td> </tr> <tr> <td>STR745G</td> <td>500 psig (35 bar)</td> <td></td> </tr> </table> | | | | | | | | Body | MAWP | | STR735D | 750 psig (51.7 bar) | Bolted Process Heads | STR745G | 500 psig (35 bar) | |
| Body | MAWP | | | | | | | | | | | | | | | | |
| STR735D | 750 psig (51.7 bar) | Bolted Process Heads | | | | | | | | | | | | | | | |
| STR745G | 500 psig (35 bar) | | | | | | | | | | | | | | | | |

¹ Ambient Temperature Limit is a function of Process Interface Temperature. (See Figures 3 & 4)

LCD Display operating temperature -20°C to +70°C . Storage temperature -30°C to 80°C

² Consult factory for MAWP of ST 700 transmitters with CRN approval.



A minimum of 250 ohms loop resistance is required to support field communicator, where Loop resistance is the summation of barrier resistance, wire resistance and receiver resistance

Maximum loop resistance
 $RL_{max} = 45.6 \times (\text{Power Supply Voltage} - 10.8)$

Figure 2 – Supply voltage and loop resistance

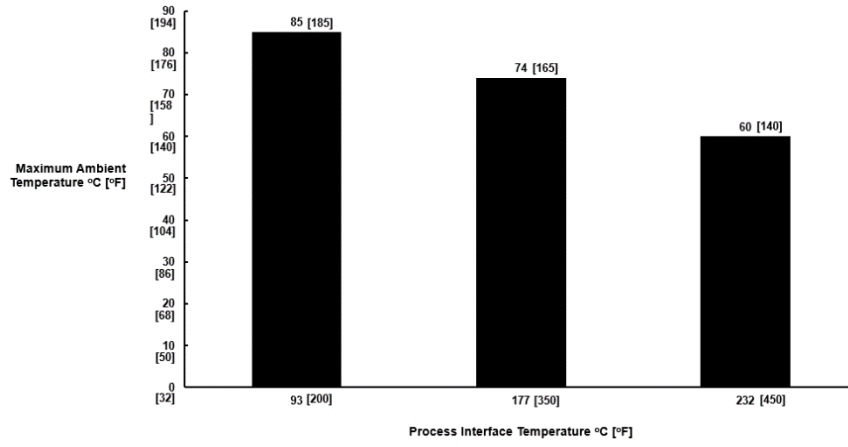


Figure 3- Ambient Temperature Limits

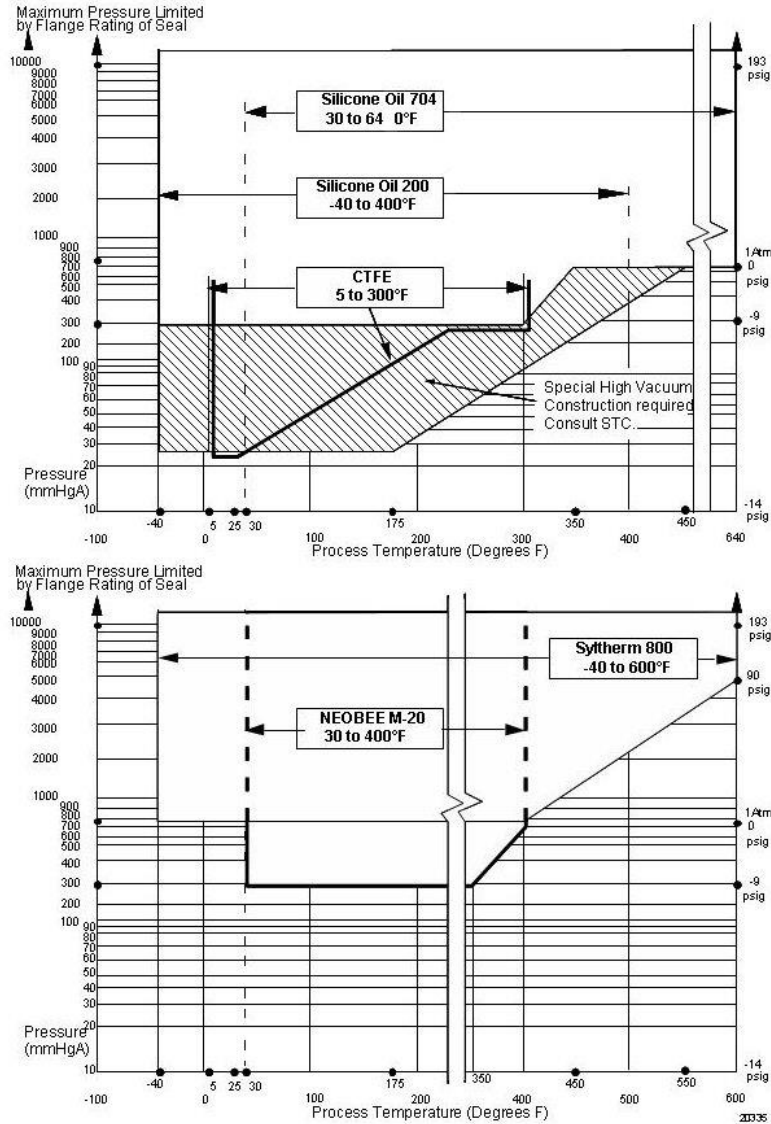


Figure 4 - STR700 Remote Seals operable limits for pressure vs. temperature

Performance Under Rated Conditions – All Models

| Parameter | Description | | | | | | | | | |
|---|---|------------------------|--------------------|------------------------|-----------------------|---------------|---------------|----------------------|------------------------|------------------------|
| Analog Output Digital Communications: | Two-wire, 4 to 20 mA HART protocol | | | | | | | | | |
| HART Output Failure Modes | <table border="0"> <thead> <tr> <th></th> <th>Honeywell Standard</th> <th>NAMUR NE 43 Compliance</th> </tr> </thead> <tbody> <tr> <td>Normal Limits:</td> <td>3.8 – 20.8 mA</td> <td>3.8 – 20.5 mA</td> </tr> <tr> <td>Failure Mode:</td> <td>≤ 3.6 mA and ≥ 21.0 mA</td> <td>≤ 3.6 mA and ≥ 21.0 mA</td> </tr> </tbody> </table> | | Honeywell Standard | NAMUR NE 43 Compliance | Normal Limits: | 3.8 – 20.8 mA | 3.8 – 20.5 mA | Failure Mode: | ≤ 3.6 mA and ≥ 21.0 mA | ≤ 3.6 mA and ≥ 21.0 mA |
| | Honeywell Standard | NAMUR NE 43 Compliance | | | | | | | | |
| Normal Limits: | 3.8 – 20.8 mA | 3.8 – 20.5 mA | | | | | | | | |
| Failure Mode: | ≤ 3.6 mA and ≥ 21.0 mA | ≤ 3.6 mA and ≥ 21.0 mA | | | | | | | | |
| Supply Voltage Effect | 0.005% span per volt | | | | | | | | | |
| Transmitter Turn on Time (includes power up & test algorithms) | 2.5 seconds | | | | | | | | | |
| Damping Time Constant | Adjustable from 0 to 32 seconds in 0.1 increments. Default: 0.50 seconds | | | | | | | | | |
| Electromagnetic Compatibility | IEC 61326-3-1 | | | | | | | | | |
| Lightning Protection Option | Leakage Current: 10uA max @ 42.4VDC 93C Impulse rating: 8/20us 5000A (>10 strikes) 10000A (1 strike min.) 10/1000us 200A (> 300 strikes) | | | | | | | | | |

Materials Specifications (see model selection guide for availability/restrictions with various models)

| Parameter | Description |
|--------------------------------|--|
| Process Interface | See Model Selection Guide for Material Options for desired seal type. |
| Seal Barrier Diaphragm | 316L Stainless Steel, Monel®, Hastelloy® C, Tantalum |
| Seal Gasket Materials | Klinger C-4401 (non-asbestos) Grafoil®, Teflon®, Gylon 3510® |
| Mounting Bracket | Carbon Steel (Zinc-Chromate plated) or 304 Stainless Steel or 316 Stainless Steel. |
| Fill Fluid (Meter Body) | Silicone 200 S.G. @ 25°C = 0.94 CTFE (Chlorotrifluoroethylene) S.G. @ 25°C = 1.89 |
| Fill Fluid (Secondary) | Silicone 200 S.G. @ 25°C = 0.94 CTFE (Chlorotrifluoroethylene) S.G. @ 25°C = 1.89 Silicone 704 S.G. @ 25°C = 1.07 Syltherm 800® S.G. @ 25°C = 0.90 NEOBEE M-20® S.G. @ 25°C = 0.93 |
| Electronic Housing | Pure Polyester Powder Coated Low Copper (<0.4%) – Aluminum. Meets Type 4X / IP66 / IP67. All stainless-steel housing is optional. Cover O ring material: Silicone. |
| Capillary Tubing | Material: Armored Stainless Steel or PVC Coated Armored Stainless Steel. Length: 5, 10, 15, 20, 25, and 35 feet (1.5, 3, 4.6, 6.1, 7.5, and 10.7 meters). A 2 inch (51 millimeter) S.S. close-coupled nipple is also available. See Model Selection Guide. Refer to Table 3 for guide to maximum capillary length vs. diaphragm diameter. Note: The minimum span is the higher of the higher of the value from the table above or the value defined under the Performance Conditions for the range transmitter. |
| Wiring | Accepts up to 16 AWG (1.5 mm diameter) |
| Mounting | See Figure 5 |
| Dimensions | Transmitter: Figure 6 and Figure 7 Seal: Figure 8 through to Figure 13 |
| Net Weight | Transmitter: 8.3 pounds (3.8 Kg). With Aluminum Housing. Total weight is dependent on seal |

NOTE: Pressure transmitters that are part of safety equipment for the protection of piping (systems) or vessel(s) from exceeding allowable pressure limits, (equipment with safety functions in accordance with Pressure Equipment Directive 97/23/EC article 1, 2.1.3), require separate examination.

MINIMUM RECOMMENDED SPAN FOR STR735D TRANSMITTER WITH TWO SEALS

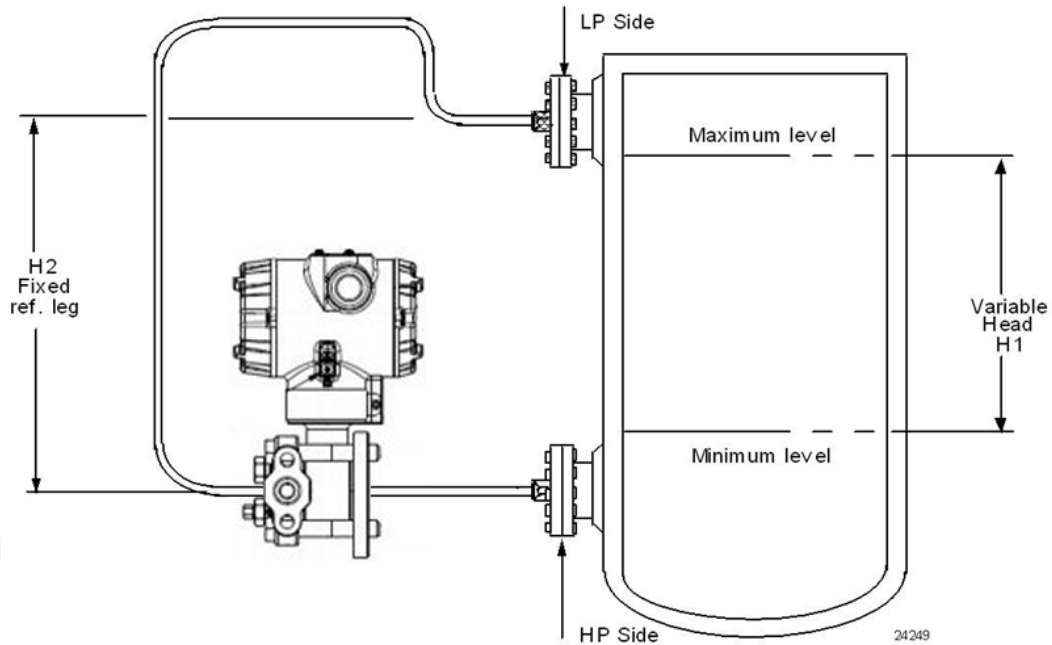
| Diaphragm Size (Inch) | Capillary Length (Feet) | | | | | | Maximum Capillary Length (Feet) |
|-----------------------|-------------------------|---------|---------|----------|----------|----------|---------------------------------|
| | 5 | 10 | 15 | 20 | 25 | 35 | |
| 1.9 | 15 psi | 20 psi | 25 psi | - | - | - | 15 |
| 2.4 | 5.4 psi | 7.2 psi | 9.0 psi | 10.8 psi | 12.6 psi | 14.4 psi | 35 |
| 2.9 | 1.8 psi | 2.7 psi | 3.6 psi | 4.5 psi | 5.4 psi | 7.2 psi | 35 |
| 3.5 | 0.9 psi | 0.9 psi | 0.9 psi | 1.0 psi | 1.2 psi | 1.4 psi | 35 |
| 4.1 | 0.9 psi | 0.9 psi | 0.9 psi | 0.9 psi | 0.9 psi | 1.1 psi | 35 |

MINIMUM RECOMMENDED SPAN FOR STR745G AND STR735D TRANSMITTER WITH ONE REMOTE SEAL

| Diaphragm Size (Inch) | Direct Mount | Capillary Length (Feet) | | | | | | Maximum Capillary Length (Feet) |
|-----------------------|--------------|-------------------------|--------|--------|--------|---------|--------|---------------------------------|
| | | 5 | 10 | 15 | 20 | 25 | 35 | |
| 1.9 | 25 psi | 30 psi | 40 psi | 50 psi | - | - | - | 15 |
| 2.4 | 10 psi | 15 psi | 20 psi | 25 psi | 30 psi | 35 psi | 50 psi | 35 |
| 2.9 | 8 psi | 9 psi | 10 psi | 11 psi | 12 psi | 13 psi | 15 psi | 35 |
| 3.5 | 2 psi | 2 psi | 3 psi | 4 psi | 5 psi | 6 psi | 8 psi | 35 |
| 4.1 | 0.9 psi | 0.9 psi | 1 psi | 2 psi | 3 psi | 3.5 psi | 5 psi | 35 |

Note: The minimum span is the higher of the higher of the value from the table above or the value defined under the Performance Conditions for the range transmitter.

Table 3 – Typical Maximum capillary length and diaphragm size chart

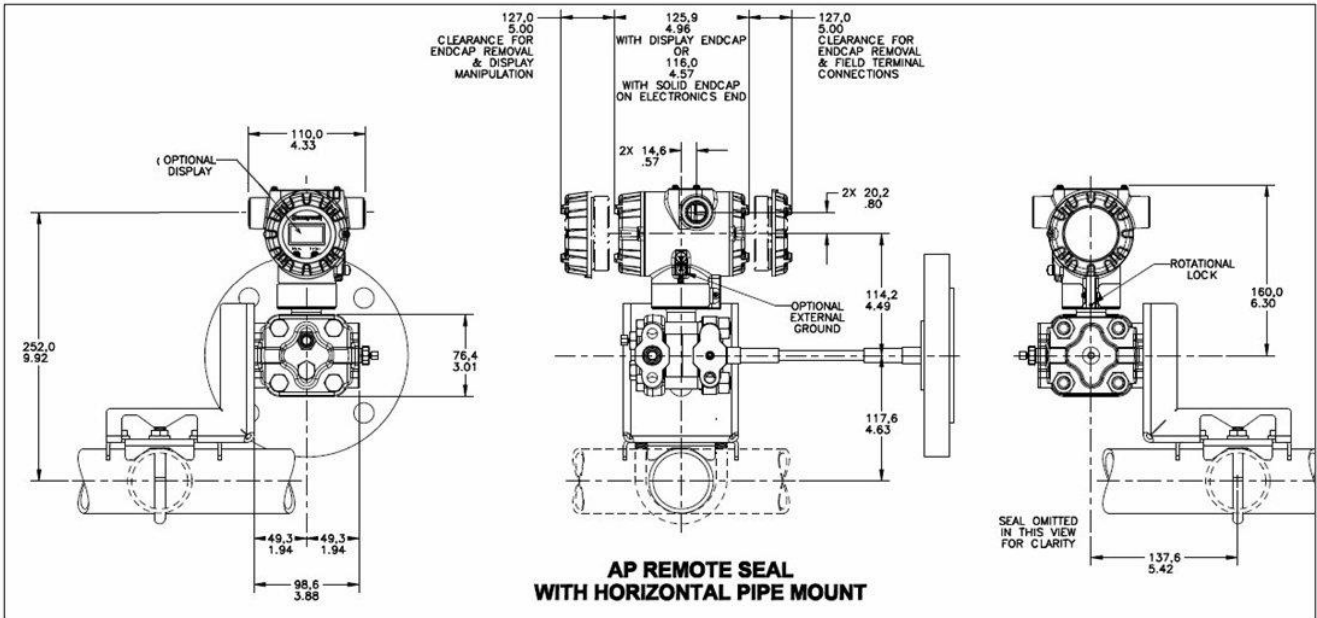
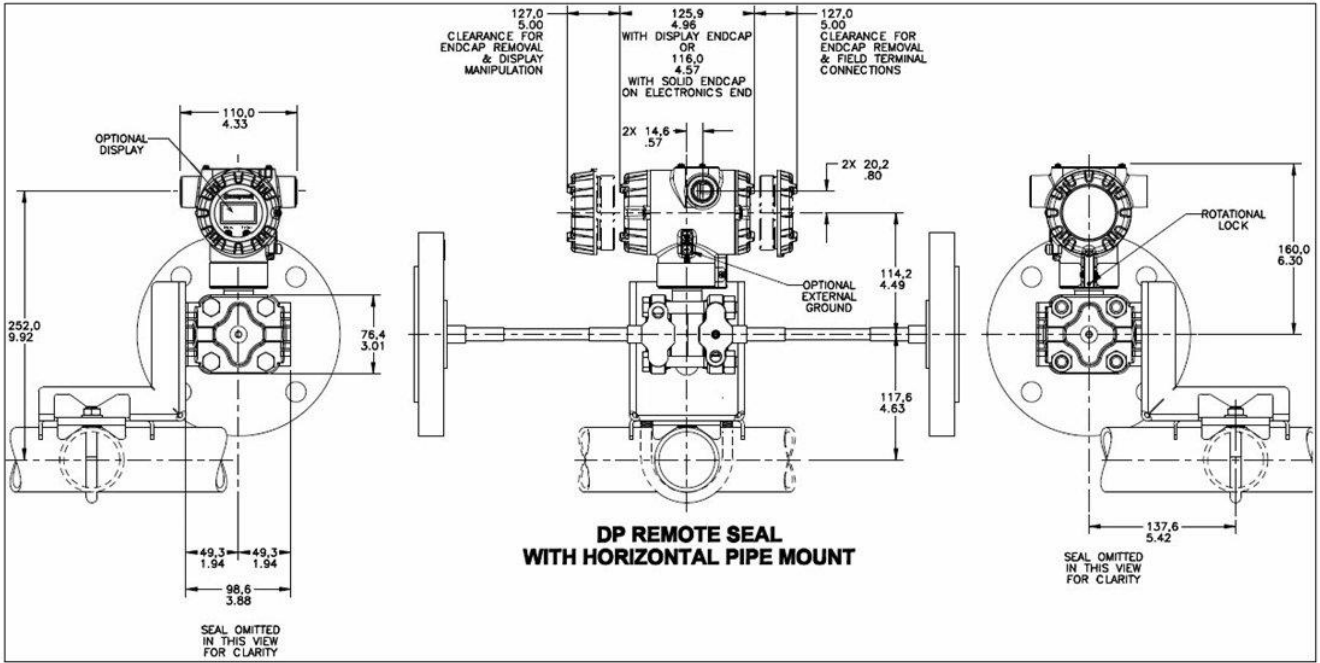


NOTE: Lower flange seal should not be mounted over 22 feet below or above the transmitter for silicone fill fluid (11 feet for CTFE fill fluid) with tank at one atmosphere. The combination of tank vacuum and high pressure capillary head effect should not exceed 9 psi vacuum (300 mmHg absolute).

Consult Honeywell for installation of STR735D

Figure 5 - STR700 transmitter with remote diaphragm seals shown mounted on a tank

Reference Dimensions Horizontal Mounting



Reference Dimensions Horizontal Mounting (cont'd)

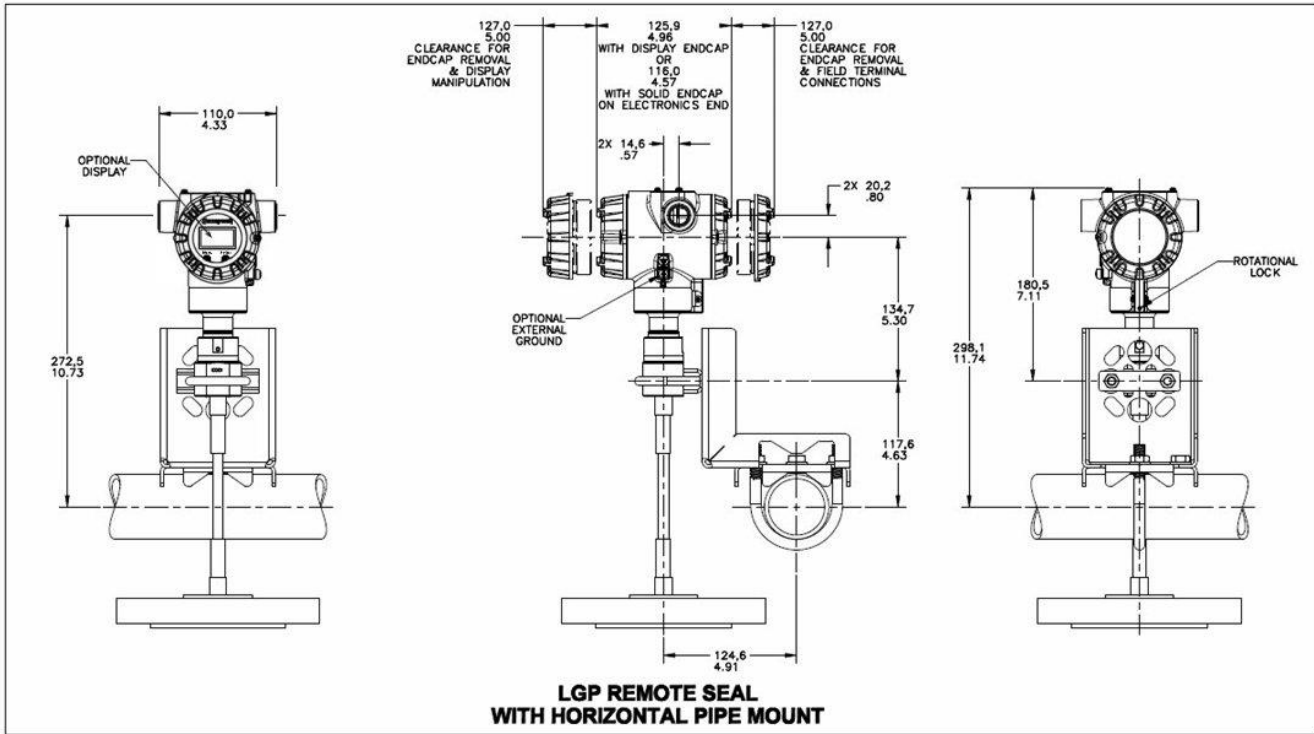
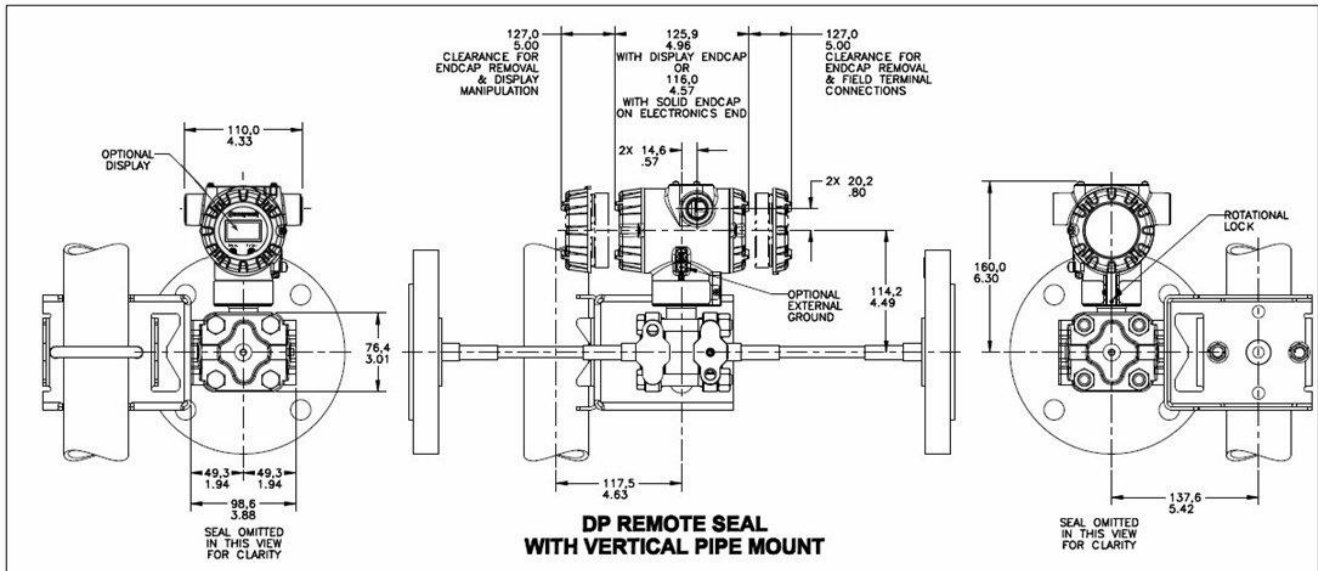


Figure 6 - Approximate Horizontal Mounting Dimensions for Remote Seal Transmitter

Reference Dimensions Vertical Mounting



Reference Dimensions Vertical Mounting (cont'd)

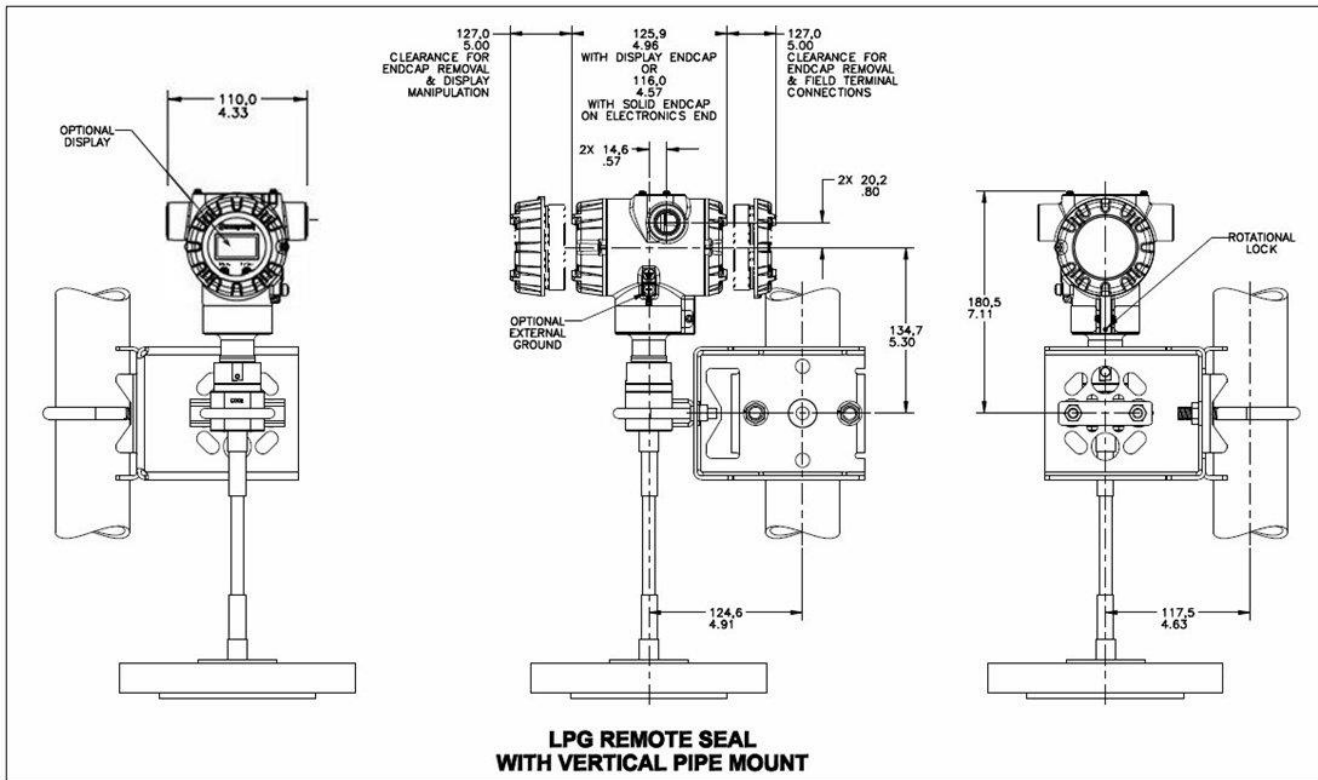
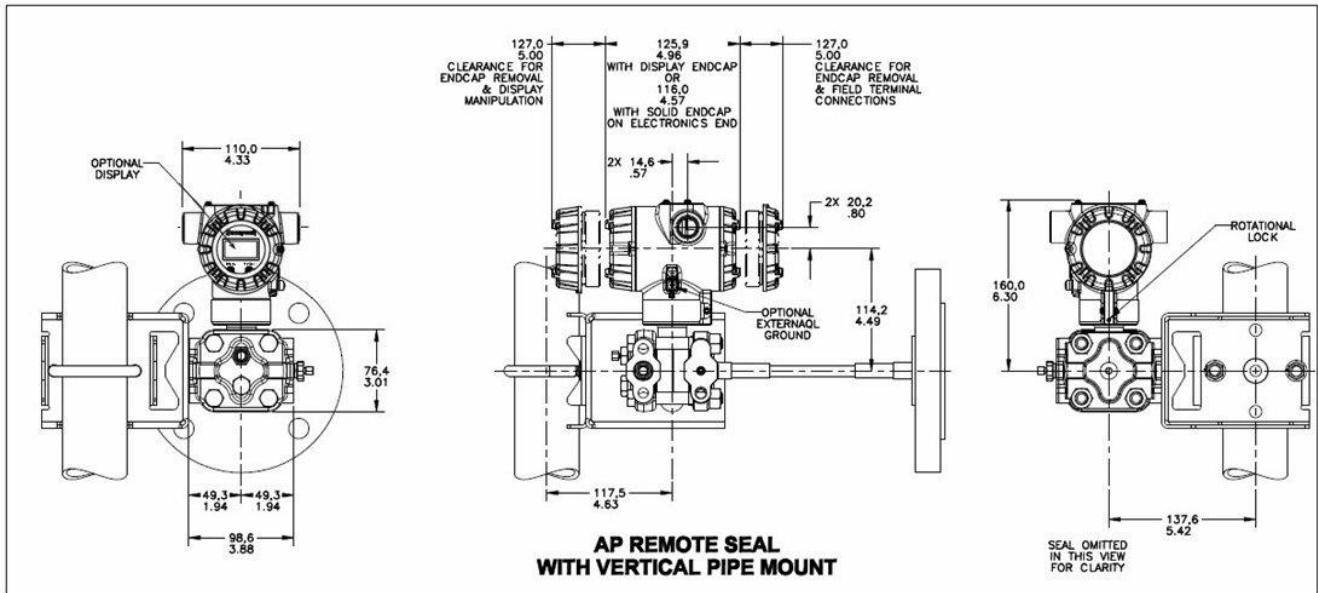
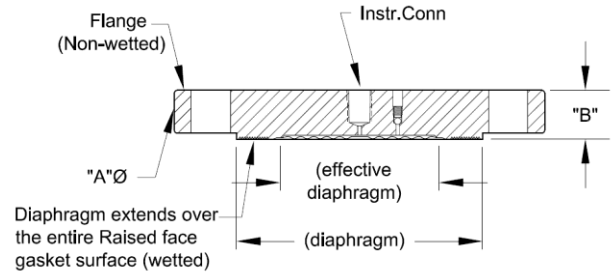


Figure 7 — Approximate vertical mounting dimensions for Remote Seal Transmitter

Reference Dimensions (cont'd)

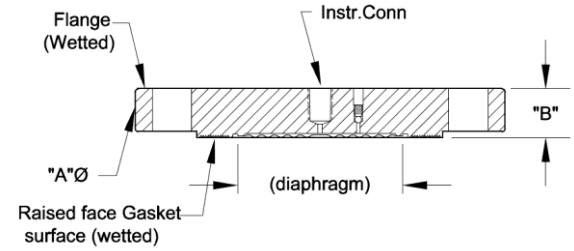
Flush Flanged Seal Dimensions

| Type | ANSI/DIN Rating | Flange Material | Wetted Materials | | Construction See figure | Dimensions | |
|--------------------|-----------------|-----------------|------------------|-------------|-------------------------|------------|------|
| | | | Diaphragm | Body | | A | B |
| Flush Flanged Seal | 3" Class 150# | CS | SS | SS | D | 7.5 | 1.37 |
| | | | Hastelloy C | SS | C | | |
| | | | Hastelloy C | Hastelloy C | D | | |
| | | Monel | Monel | D | | | |
| | | Tantalum | SS | C | | | |
| | | SS | SS | N/A | B | | 7.50 |
| | Hastelloy C | | SS | A | | | |
| | Hastelloy C | | Hastelloy C | D | | | |
| | Monel | Monel | D | | | | |
| | Tantalum | SS | C | | | | |
| | 3" Class 300# | CS | SS | SS | D | 8.25 | |
| | | | Hastelloy C | SS | C | | |
| | | | Hastelloy C | Hastelloy C | D | | |
| | | Monel | Monel | D | | | |
| | | Tantalum | SS | C | | | |
| | | SS | SS | N/A | B | | 8.25 |
| | Hastelloy C | | SS | A | | | |
| | Hastelloy C | | Hastelloy C | D | | | |
| | Monel | Monel | D | | | | |
| | Tantalum | SS | C | | | | |
| | 3" Class 600# | CS | SS | SS | D | 8.25 | |
| | | | Hastelloy C | SS | C | | |
| | | | Hastelloy C | Hastelloy C | D | | |
| | | Monel | Monel | D | | | |
| Tantalum | | SS | C | | | | |
| SS | | SS | N/A | B | 8.25 | | 1.5 |
| | Hastelloy C | SS | A | | | | |
| | Hastelloy C | Hastelloy C | D | | | | |
| Monel | Monel | D | | | | | |
| Tantalum | SS | C | | | | | |
| DN80-PN40 | CS | SS | SS | D | | 7.87 | 1.32 |
| | | Hastelloy C | SS | C | | | |
| | | Hastelloy C | Hastelloy C | D | | | |
| | Monel | Monel | D | | | | |
| | Tantalum | SS | C | | | | |
| | SS | SS | N/A | B | 7.87 | | 0.94 |
| Hastelloy C | | SS | A | | | | |
| Hastelloy C | | Hastelloy C | D | | | | |
| Monel | Monel | D | | | | | |
| Tantalum | SS | C | | | | | |



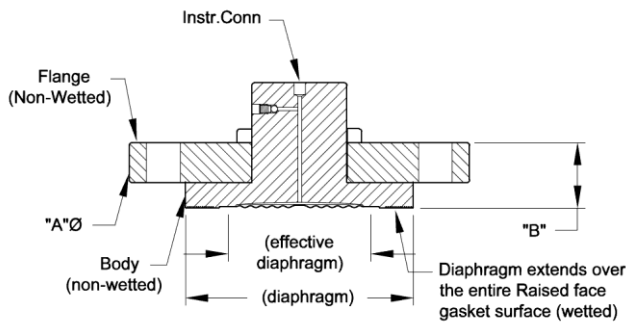
Configuration "HS"

Figure A



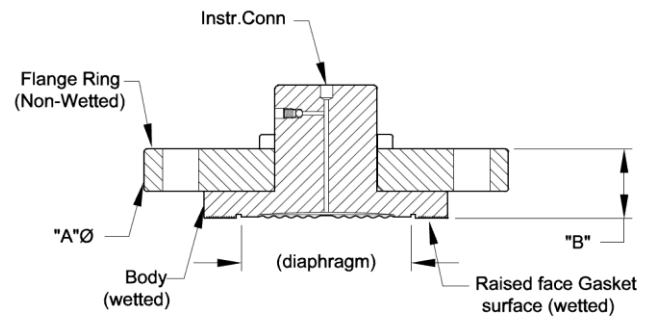
Configuration "HT"

Figure B



Configuration "IS"

Figure C



Configuration "IT"

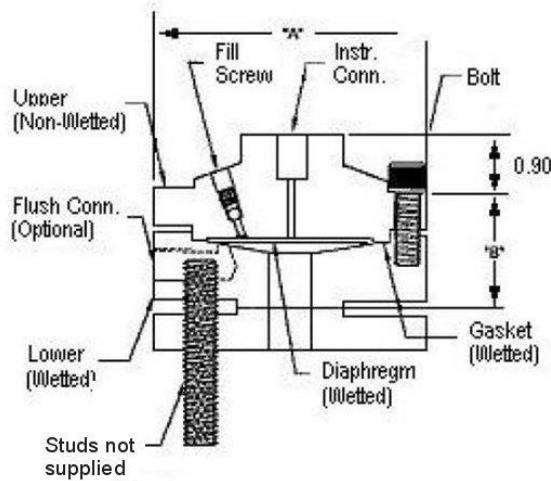
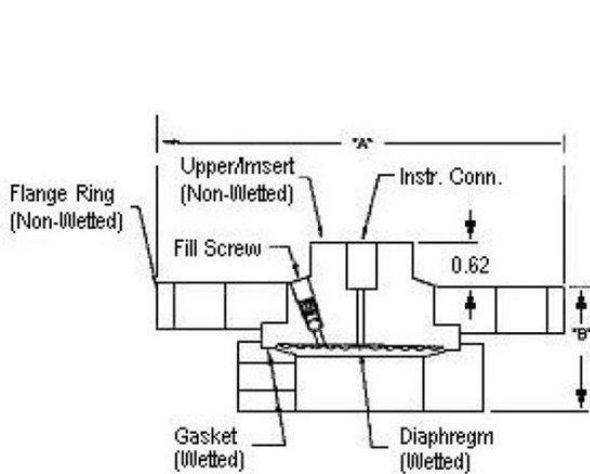
Figure D

Figure 8 - Seal Dimensions (Flush Flanged)

Reference Dimensions (cont'd) Flush Flanged Seal with Lower

| Type | ANSI/DIN Rating | Size | Dimension | 2.4" Diaph. Dia. (in.) | 2.9" Diaph. Dia. (in.) | 4.1" Diaph. Dia. (in.) |
|-------------------------------|-----------------|--------|-----------|------------------------|------------------------|------------------------|
| Flush Flanged Seal with Lower | Class 150# | 1/2" | A | 3.50 | 4.00 | 5.25 |
| | | | B0 | 1.72 | 1.72 | 1.84 |
| | | | B1 | 1.72 | 1.72 | 1.84 |
| | | | B2 | 2.22 | 2.22 | 2.34 |
| | | 1" | A | 4.25 | 4.00 | 5.25 |
| | | | B0 | 1.12 | 1.72 | 1.84 |
| | | | B1 | 1.62 | 1.72 | 1.84 |
| | | | B2 | 1.98 | 1.72 | 2.34 |
| | | 1-1/2" | A | 5.00 | 5.00 | 5.25 |
| | | | B0 | 2.50 | 2.50 | 1.78 |
| | | | B1 | 3.00 | 3.00 | 2.12 |
| | | | B2 | 3.50 | 3.40 | 2.12 |
| | 2" | A | 6.00 | 6.00 | 6.00 | |
| | | B0 | 2.50 | 2.50 | 2.12 | |
| | | B1 | 3.00 | 3.00 | 2.12 | |
| | | B2 | 3.50 | 3.40 | 2.12 | |
| | 3" | A | 7.50 | 7.50 | 7.50 | |
| | | B0 | 2.58 | 2.88 | 2.80 | |
| | | B1 | 2.88 | 2.88 | 3.00 | |
| | | B2 | 3.50 | 3.40 | 3.40 | |
| | Class 300# | 1" | A | 4.88 | 4.00 | 5.25 |
| | | | B0 | 2.50 | 1.72 | 1.88 |
| | | | B1 | 3.00 | 1.72 | 2.12 |
| | | | B2 | 3.50 | 2.22 | 2.12 |
| 1-1/2" | | A | 6.12 | 6.12 | 5.25 | |
| | | B0 | 2.50 | 2.50 | 2.12 | |
| | | B1 | 3.00 | 3.00 | 2.12 | |
| | | B2 | 3.50 | 3.40 | 2.12 | |
| 2" | | A | 6.50 | 6.50 | 6.50 | |
| | | B0 | 2.50 | 2.50 | 2.70 | |
| | | B1 | 3.00 | 3.00 | 3.00 | |
| | | B2 | 3.50 | 3.40 | 3.50 | |
| 3" | A | 8.25 | 8.25 | 8.25 | | |
| | B0 | 3.48 | 3.48 | 3.20 | | |
| | B1 | 3.48 | 3.48 | 3.60 | | |
| | B2 | 4.10 | 4.00 | 4.00 | | |
| Class 600# | 1" | A | 4.88 | 4.50 | 5.25 | |
| | | B0 | 2.50 | 2.15 | 2.26 | |
| | | B1 | 3.00 | 2.15 | 2.26 | |
| | | B2 | 3.50 | 2.40 | 2.50 | |
| | 1-1/2" | A | 6.12 | 6.12 | 5.25 | |
| | | B0 | 2.50 | 1.53 | 2.50 | |
| | | B1 | 3.00 | 2.09 | 3.00 | |
| | | B2 | 3.50 | 2.49 | 3.50 | |
| | 2" | A | 6.50 | 6.50 | 6.50 | |
| | | B0 | 3.10 | 3.10 | 3.30 | |
| | | B1 | 3.60 | 3.60 | 3.60 | |
| | | B2 | 4.10 | 4.00 | 4.10 | |
| 3" | A | 8.25 | 8.25 | 8.25 | | |
| | B0 | 3.48 | 3.48 | 3.20 | | |
| | B1 | 3.48 | 3.48 | 3.60 | | |
| | B2 | 4.10 | 4.00 | 4.00 | | |

B0 Without Flush
 B1 B Dimension with 1/4 NPT Flushing Connection
 B2 B dimension with 1/2 NPT Flushing Connection



Flush Flanged Seal with Lower

Flush Flanged Seal with Lower

Note: 0.90 dimension is 0.70 for 4.1" Dia Diaphragm

Figure 9 - Seal Dimension (Flush Flanged)

Reference Dimensions (cont'd)

Flanged Seal with Extended Diaphragm

| Type | ANSI/DIN Rating | Dimension | 2.8" Diaphragm Dia. (in.) | 3.5" Diaphragm Dia. (in.) |
|--------------------------------------|-----------------|-----------|---------------------------|---------------------------|
| Flanged Seal with Extended Diaphragm | 3" Class 150# | A | 7.50 | - |
| | | B | 0.94 | - |
| | | C | 2.80 | - |
| | 3" Class 300# | A | 8.25 | - |
| | | B | 1.12 | - |
| | | C | 2.80 | - |
| | DIN DN80-PN40 | A | 7.87 | - |
| | | B | 0.94 | - |
| | | C | 2.80 | - |
| | 4" Class 150# | A | - | 9.00 |
| | | B | - | 0.94 |
| | | C | - | 3.70 |
| 4" Class 300# | A | - | 10.00 | |
| | B | - | 1.25 | |
| | C | - | 3.70 | |
| DIN DN100-PN40 | A | - | 9.25 | |
| | B | - | 0.94 | |
| | C | - | 3.70 | |

Designed to meet with schedule 40 pipe

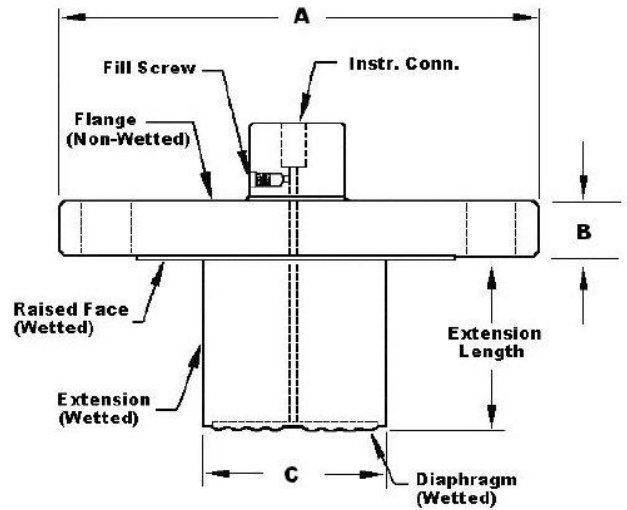


Figure 10 — Seal Dimensions (Extended Diaphragms)

Pancake Seal

| Type | ANSI/DIN | Dimension | 3.5" Diaph. (in.) |
|--------------|-------------------------------------|-----------|-------------------|
| Pancake Seal | Class 150#, 300#, 600# DN80-PN40 | A | 5.00 |
| | | B | 1.08 |

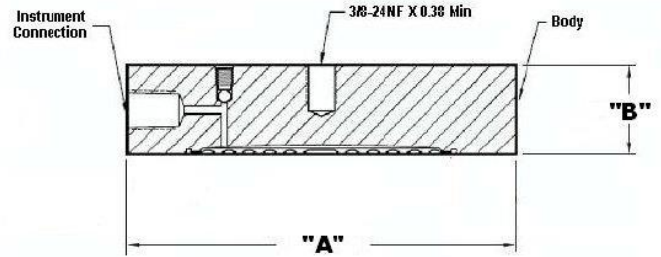


Figure 11 — Seal Dimensions (Pancake)

Seal with Threaded Process Connection

| Type | Size | Dimension | 2.4" Diaphragm Dia. (in.) | 2.9" Diaphragm Dia. (in.) | 4.1" Diaphragm Dia. (in.) |
|-----------------------------------|--------------|-----------|---------------------------------|---------------------------------|---------------------------------|
| Threaded Process Conn. Seal | 1/4" or 1/2" | A | 3.50 | 4.00 | 5.25 |
| | | B0 | 1.66 | 1.66 | 1.79 |
| | | B1 | 1.66 | 1.66 | 1.79 |
| | | B2 | 2.18 | 2.18 | 2.14 |
| | 3/4" or 1" | A | 3.50 | 4.00 | 5.25 |
| | | B0 | 1.66 | 1.66 | 1.79 |
| | | B1 | 1.66 | 1.66 | 1.79 |
| | | B2 | 8.25 | 2.18 | 2.14 |

- B0 Without Flush
- B1 B Dimension with 1/4 NPT Flushing Connection
- B2 B dimension with 1/2 NPT Flushing Connection

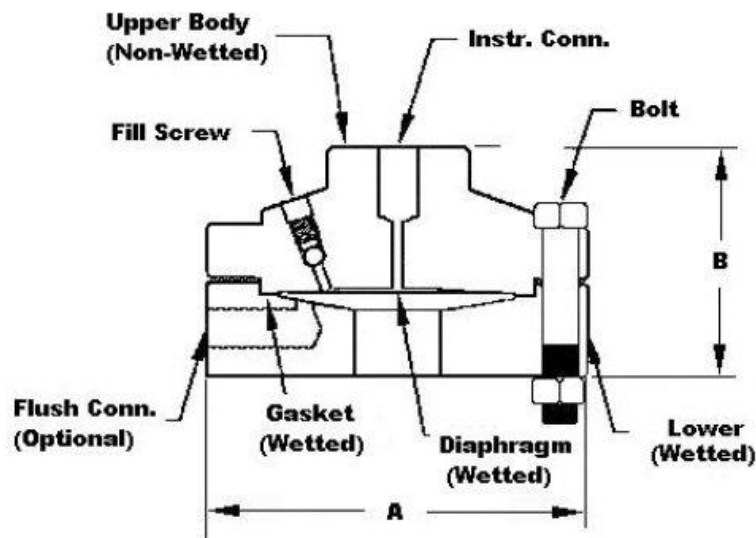


Figure 12— Seal Dimensions (Threaded Process Connection Seals)

Calibration Ring

| Type | Size | Rating | Dimension | 1/4 NPT | 1/2 NPT |
|---------------------|------|-------------|-----------|---------|---------|
| Calibration Ring | 3" | 150# / 600# | A | 5.00 | 5.00 |
| | | | B | 1.00 | 1.50 |
| | | | C | 3.00 | 3.00 |

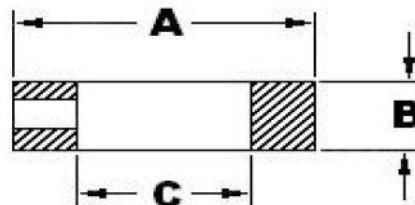


Figure 13— Calibration Ring

Communications Protocols & Diagnostics

HART Protocol

Version:

HART 7

Standard Diagnostics

ST 700 top level diagnostics are reported as either critical or non-critical and readable via the DD/DTM/FDI tools or Standard integral display. Some of the diagnostics are listed below:

Critical Diagnostics

- Electronics Module Fault.
- Meter body Memory Corruption.
- Config Data Corruption.
- Electronics Module Diagnostics Failure.
- Meter body Critical Failure.
- Sensor Communication Timeout.









Non-Critical Diagnostics

- Display Failure.
- Electronics Module Comm Failure.
- Meter body Excess Correct.
- Sensor Over Temperature.
- Fixed Current Mode.
- PV Out of Range.
- No DAC Compensation.

Refer to the product user manual for comprehensive list of diagnostics and details.

Hazardous Area Certifications:

| MSG CODE | AGENCY | TYPE OF PROTECTION | COMM. OPTION | ELECTRICAL PARAMETERS | AMBIENT TEMP (Ta) |
|----------|---|---|----------------|-----------------------|--|
| A | FM Approvals™ USA | Explosionproof: Class I, Division 1, Groups A, B, C, D; Dust Ignition Proof: Class II, III, Division 1, Groups E, F, G; T6..T5 Class I, Zone 0/1, AEx db IIC T6..T5 Ga/Gb Class II, Zone 21, AEx tb IIIC T95° Db | All | Note 1 | T5: -50 °C to 85°C T6: -50 °C to 65°C |
| | | Intrinsically Safe: Class I, II, III, Division 1, Groups A, B, C, D, E, F, G: T4 Class I, Zone 0, AEx ia IIC T4 Ga | 4-20 mA / HART | Note 2 | -50 °C to 70°C |
| | | Nonincendive: Class I, Division 2, Groups A, B, C, D locations, T4 Class I, Zone 2, AEx nA IIC T4 Gc | 4-20 mA HART | Note 1 | -50 °C to 85°C |
| | | Enclosure: Type 4X/ IP66/ IP67 | All | All | - |
| | | STANDARDS: FM Class 3600:2011; FM Class 3610: 2010; FM Class 3611: 2004; FM Class 3615: 2006; FM Class 3616: 2011; FM Class 3810: 2005; ANSI/ISA 60079-0: 2013; ANSI/UL 60079-1: 2015; ANSI/UL 60079-11: 2014; ANSI/ISA 60079-15: 2012; ANSI/UL 60079-26: 2017; ANSI/UL 60079-31: 2015; ANSI/NEMA 250: 2003; ANSI/ IEC 60529: 2004 | | | |
| B | Canadian Standards Association (CSA) USA and Canada | Explosion Proof: Class I, Division 1, Groups A, B, C, D; Class II, Division 1, Groups E, F, G; Class III, Division 1, T6..T5 Class I Zone 1 AEx db IIC T6..T5 Ga/Gb Ex db IIC T6..T5 Ga/Gb Zone 22 AEx tb IIIC T95° Db Ex tb IIIC T95° Db | All | Note 1 | T5: -50°C TO 85°C T6: -50°C TO 65°C |
| | | Intrinsically Safe: Class I, II, III, Division 1, Groups A, B, C, D; Class II, Division 1, Groups E, F, G; Class III, Division 1, T4 Class I Zone 0, AEx ia IIC T4 Ga Class I Zone 2, AEx ic IIC T4 Gc Ex ia IIC T4 Ga Ex ic IIC T4 Gc | 4-20 mA HART | Note 2 | -50°C TO 70°C |
| | | Nonincendive: Class I, Division 2, Groups A, B, C, D; Class II, Division 2, Groups F, G; Class III, Division 2, T4 Class I Zone 2 AEx nA IIC T4 Gc Ex nA IIC T4 Gc | 4-20 HART | Note 1 | -50°C to 85°C |
| | | Enclosure: Type 4X/ IP66/ IP67 | All | All | - |
| | | STANDARDS: CSA C22.2 No. 0-10; CSA C22.2 No. 94-M91; CSA C22.2 No. 25-1966; CSA C22.2 No. 30-M1986; CSA C22.2 No. 142-M1987; CSA C22.2 No. 157-92; CSA C22.2 No. 213-M1987; CSA-C22.2 No. 60529:05; CSA-C22.2 No. 60079-0:11; CSA-C22.2 No. 60079-1:11; CSA-C22.2 | | | |

| MSG CODE | AGENCY | TYPE OF PROTECTION | COMM. OPTION | ELECTRICAL PARAMETERS | AMBIENT TEMP (Ta) | |
|---|--------|---|---|-----------------------|--|--|
| | | No. 60079-11:11; CSA-C22.2 No. 60079-15:12; CSA-C22.2 No. 60079-31:12; ISA 12.12.01-2010; ISA 60079-0: 2009; ISA 60079-11: 2011; ISA 60079-15: 2009; ISA 60079-26: 2008; ISA-60079-27:2007 (12.02.04)-2006 (R2011); UL 913 Ed. 6; UL 916:1998; ANSI/ISA-12.27.01-2011 | | | | |
| C | ATEX | Flameproof: SIRA 12ATEX2233X  II 1/2 G Ex db IIC T6..T5 Ga/Gb II 2 D Ex tb IIIC T95°C...T120°C Db | All | Note 1 | T5: -50°C TO 85°C T6: -50°C TO 65°C | |
| | | Intrinsically Safe: SIRA 12ATEX2233X  II 1 G Ex ia IIC T4 Ga II 2 D Ex ia IIIC T125°C Db | 4-20 mA / DE/ HART | Note 2 | -50°C TO 70°C | |
| | | Zone 2, Increase Safety: SIRA 12ATEX4234X  II 3 G Ex ec IIC T4 Gc | 4-20 mA HART | Note 1 | -50°C TO 85°C | |
| | | Zone 2, Intrinsically Safe: SIRA 12ATEX4234X  II 3 G Ex ic IIC T4 Gc | 4-20 mA HART | Note 2 | -50°C TO 85°C | |
| | | Enclosure: IP66/ IP67 | All | All | - | |
| | | STANDARDS: EN 60079-0: 2018; EN 60079-1: 2014; EN 60079-7: 2015+A1: 2018; EN 60079-11: 2012; EN 60079-26: 2015; EN 60079-31: 2014 | | | | |
| | UKEX | Flameproof: CSAE 22UKEX1021X  II 1/2 G Ex db IIC T6..T5 Ga/Gb II 2 D Ex tb IIIC T95°C...T120°C Db | All | Note 1 | T5: -50°C TO 85°C T6: -50°C TO 65°C | |
| | | Intrinsically Safe: CSAE 22UKEX1021X  II 1 G Ex ia IIC T4 Ga II 2 D Ex ia IIIC T125°C Db | 4-20 mA/ HART | Note 2 | -50°C TO 70°C | |
| | | Zone 2, Increase Safety: SIRA 12ATEX4234X  II 3 G Ex ec IIC T4 Gc | 4-20 mA/ HART | Note 1 | -50°C TO 85°C | |
| | | Zone 2, Intrinsically Safe: SIRA 12ATEX4234X  II 3 G Ex ic IIC T4 Gc | 4-20 mA/ HART | Note 2 | -50°C TO 85°C | |
| | | Enclosure: IP66/ IP67 | All | All | - | |
| | | STANDARDS: EN 60079-0: 2018; EN 60079-1: 2014; EN 60079-7: 2015+A1: 2018; EN 60079-11: 2012; EN 60079-26: 2015; EN 60079-31: 2014 | | | | |
| | D | IECEX World | Flameproof: IECEX SIR 12.0100X Ex db IIC T6..T5 Ga/Gb Ex tb IIIC T95°C...T120°C Db | All | Note 1 | T5: -50°C TO 85°C T6: -50°C TO 65°C |
| | | | Intrinsically Safe: IECEX SIR 12.0100X Ex ia IIC T4 Ga Ex ia IIIC T125oC Db | 4-20 mA / HART | Note 2 | -50°C TO 70°C |
| Zone 2, Increase Safety: IECEX SIR 12.0100X Ex ec IIC T4 Gc | | | 4-20 mA / HART | | | |

| MSG CODE | AGENCY | TYPE OF PROTECTION | COMM. OPTION | ELECTRICAL PARAMETERS | AMBIENT TEMP (Ta) |
|----------|--------|---|----------------|-----------------------|-------------------|
| | | Zone 2, Intrinsically Safe: IECEX SIR 12.0100X Ex ic IIC T4 Gc | 4-20 mA / HART | Note 2 | -50°C TO 85°C |
| | | Enclosure: IP66/ IP67 | All | All | - |
| | | STANDARDS: IEC 60079-0: 2017; IEC 60079-1: 2014; IEC 60079-7: 2017; IEC 60079-11: 2011; IEC 60079-26: 2014; IEC 60079-31: 2013 | | | |

| | | | | | |
|---|----------------------|---|----------------|---------|--|
| E | SAEx South Africa | Flameproof : Ex d IIC T6...T5 Ga/Gb Ex tb IIIC T95°C...T120°C Db | All | Note 1 | T5: -50°C TO 85°C T6: -50°C TO 65°C |
| | | Intrinsically Safe: Ex ia IIC Ga T4 | 4-20 mA / HART | Note 2 | -50°C TO 70°C |
| | | Zone 2, Increase Safety: II 3 G Ex ec IIC T4 Gc | 4-20 mA / HART | Note 1 | -50°C TO 85°C |
| | | Zone 2, Intrinsically Safe: Ex ic IIC T4 Gc | 4-20 mA / HART | Note 2 | -50°C TO 85°C |
| | | Enclosure: IP66/ IP67 | All | All | - |
| F | INMETRO Brazil | Flameproof: Ex db IIC T6..T5 Ga/Gb Ex tb IIIC T95°C...T120°C Db | All | Note 1 | T5: -50°C TO 85°C T6: -50°C TO 65°C |
| | | Intrinsically Safe: Ex ia IIC T4 Ga | 4-20 mA / HART | Note 2a | -50°C TO 70°C |
| | | Zone 2, Increase Safety: II 3 G Ex ec IIC T4 Gc | 4-20 mA / HART | Note 1 | -50°C TO 85°C |
| | | Zone 2, Intrinsically Safe: Ex ic IIC T4 Gc | 4-20 mA / HART | Note 2 | -50°C TO 85°C |
| | | Enclosure : IP 66/67 | All | All | - |
| G | NEPSI CHINA | Flameproof: Ex db IIC T6..T5 Ga/Gb Ex tb IIIC T 95°C Db | All | Note 1 | T5: -50°C TO 85°C T6: -50°C TO 65°C |
| | | Intrinsically Safe: Ex ia IIC T4 Ga | 4-20 mA / HART | Note 2 | -50°C TO 70°C |
| | | Zone 2, Increase Safety: II 3 G Ex ec IIC T4 Gc | 4-20 mA / HART | Note 1 | -50°C TO 85°C |
| | | Zone 2, Intrinsically Safe: Ex ic IIC T4 Gc | 4-20 mA / HART | Note 2 | -50°C TO 85°C |
| | | Enclosure : IP 66/67 | All | All | - |

| | | | | | |
|---|---|--|-------------------|--------|--|
| I | EAC Russia, Belarus and Kazakhstan | Flameproof: Ga/Gb Ex d IIC T6..T5 Ex tb IIIC Db T 85°C | All | Note 1 | T5: -50°C TO 85°C T6: -50°C TO 65°C |
| | | Intrinsically Safe: Ga Ex ia IIC T4 X | 4-20 mA / HART | Note 2 | -50°C TO 70°C |
| | | Zone 2, Non Sparking: 2 Ex nA IIC T4 Gc X | 4-20 mA / HART | Note 1 | -50°C TO 85°C |
| | | Zone 2, Intrinsically Safe: Ga Ex ic IIC T4 X | 4-20 mA / HART | Note 2 | -50°C TO 85°C |
| | | Enclosure : IP 66/67 | All | All | |
| J | CCoE INDIA | Flameproof: Ex d IIC T6..T5 Ga/Gb | All | Note 1 | T5: -50°C TO 85°C T6: -50°C TO 65°C |
| | | Intrinsically Safe: Ex ia IIC T4 Ga | 4-20 mA / HART | Note 2 | -50°C TO 70°C |
| | | Non Sparking Ex nA IIC T4 Gc | 4-20 mA / HART | Note 1 | -50°C TO 85°C |
| | | Enclosure: IP66/ IP67 | All | All | - |
| K | UATR UKRAINE | Flameproof: II 1/2 G Ex db IIC T6..T5 Ga/Gb II 2 D Ex tb IIIC T95°C...T120°C Db | All | Note 1 | T5: -50°C TO 85°C T6: -50°C TO 65°C |
| | | Intrinsically Safe: II 1 G Ex ia IIC T4 Ga | 4-20 mA / HART | Note 2 | -50°C TO 70°C |
| | | Enclosure: IP66/ IP67 | All | All | - |

Notes:

1. Operating Parameters:

Voltage = 11 to 42 V DC

Current = 4-20 mA Normal

2. Intrinsically Safe Entity Parameters

a. Analog/ HART Entity Values:

Vmax = Ui = 30V

Imax= li= 105mA

Ci = 4.2nF

Li = 984 uH

Pi = 0.9W

Transmitter with Terminal Block Revision E or Later

Vmax = Ui = 30V

Imax = li = 225mA

Ci = 4.2nF

Li = 0

Pi = 0.9W

Note : Transmitter with Terminal Block Revision E or later

The revision is on the label that is on the module. There will be two lines of text on the label:

- First is the Module Part #: 50049839-001 or 50049839-002
- Second line has the supplier information, along with the REVISION:
XXXXXX-XXXX, THE "X" is production related, THE POSITION of the "E" IS THE REVISION.

Other Certification Options

SIL

| | |
|------------------------------|---|
| SIL 2/3 Certification | IEC 61508 SIL 2 for non-redundant use and SIL 3 for redundant use according to EXIDA and TÜV Nord Sys Tec GmbH & Co. KG under the following standards: IEC61508-1: 2010; IEC 61508-2: 2010; IEC61508-3: 2010. |
|------------------------------|---|

Materials

- NACE MR0175, MR0103, ISO15156

Application Data

Liquid Level: Closed Tank

Determine the minimum and maximum pressure differentials to be measured (Figure 14)

$$\begin{aligned} P_{\text{Min}} &= (SG_p \times a) - (SG_f \times d) \\ &= \text{LRV when HP at bottom of tank} \\ &= -\text{URV when LP at bottom of tank} \end{aligned}$$

$$\begin{aligned} P_{\text{Max}} &= (SG_p \times b) - (SG_f \times d) \\ &= \text{URV when HP at bottom of tank} \\ &= -\text{LRV when LP at bottom of tank} \end{aligned}$$

Where:

minimum level at 4mA
maximum level at 20 mA

a = distance between bottom tap and minimum level

b = distance between bottom tap and maximum level

d = distance between taps

SG_f = Specific Gravity of capillary fill fluid (See page 6 "Material Spec" for values.)

SG_p = Specific Gravity of process fluid

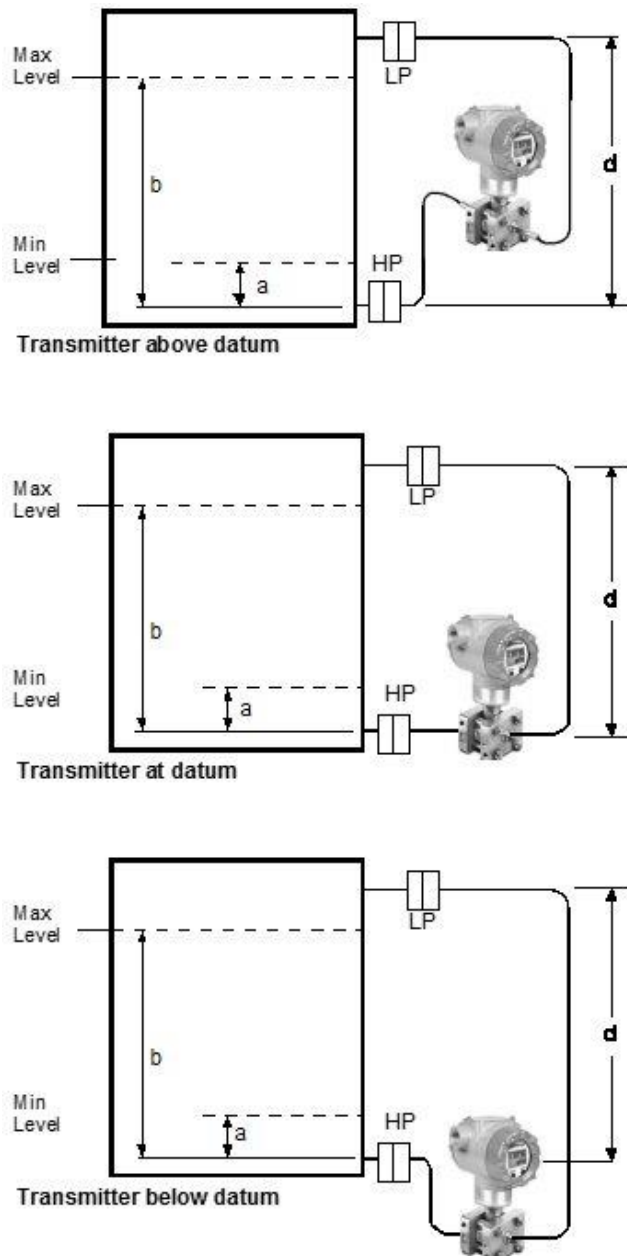


Figure 14—Closed tank liquid level measurement distance

Application Data (Cont'd)

Density or Interface*

Calculate the minimum and maximum pressure differentials to be measured. (Figure 15)

$P_{\min} = (SG_{\min} - SG_f) \times (d)$;
minimum density, 4mA output

$P_{\max} = (SG_{\max} - SG_f) \times (d)$;
maximum density, 20mA output

Where:

d = distance between the taps

SG_{\max} = maximum Specific Gravity

SG_{\min} = minimum Specific Gravity

SG_f = Specific Gravity of capillary fill fluid (See page 6 "Material Specifications" for values.)

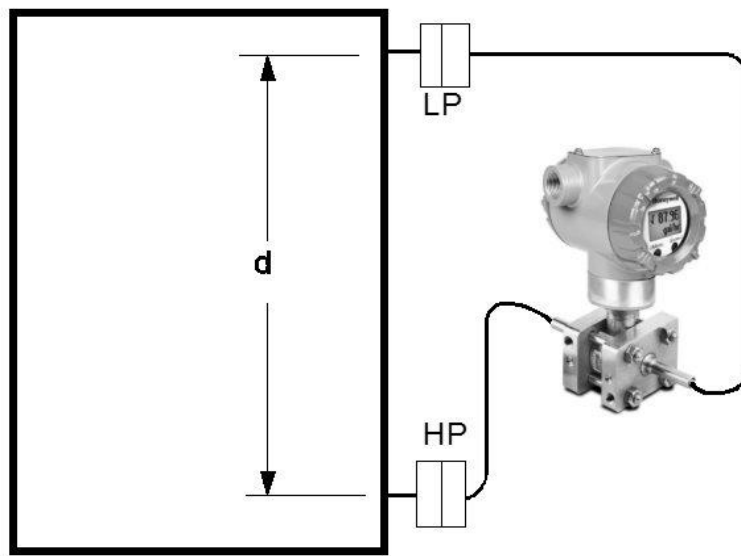


Figure 15- Density, direct acting transmitter configuration

Seal Configurations



Figure 16—Flush Flange Seals and with Left Lower

Flush Flange Seals can be used with differential, gauge and absolute pressure transmitters and are available with 3" ANSI Class 150, ANSI Class 300 and DIN DN80-PN40 process connections. Flush flange seals can also be provided with Lowers. Lowers are essentially calibration rings, which allow flushing connections if needed.



Figure 17—Pancake Seals

Pancake Seals can be used with differential, gauge and absolute pressure transmitters and are available with 3" ANSI Class 150, 300 and 600 process connections

Seal Configurations (cont'd)



Figure 18 — Flange Seal with Extended Diaphragm

Flange Seal with Extended Diaphragm can be used with differential, gauge and absolute pressure transmitters and are available with 3" and 4" ANSI Class 150, ANSI Class 300, DIN DN80-PN40 and DIN DN100-PN40 process connections. 2", 4" and 6" extension lengths are available



Figure 19— Seals with Threaded Process Connections

Seals with Threaded Process Connections can be used with differential, gauge and absolute pressure transmitters and are available with 1/2", 3/4" and 1" NPT Female process connections.



Figure 20 — Calibration Rings

Calibration Rings are available with Flush Flange Seals and Pancake Seals. Flushing ports (1/4" or 1/2") are available with calibration rings.



Figure 21 — Stainless Steel Armor and PVC Coated Stainless Steel Armor Capillaries

Stainless Steel Armor and PVC Coated Stainless Steel Armor Capillaries are available with Honeywell Remote Seal Solutions.



Figure 22 — 2" Stainless Steel Nipples

2" Stainless Steel Nipples are available for Close-Coupled remote seal solutions



Figure 23 — Welded Meter Body for All-Welded Remote Seal Solution

Welded Meter Body for All-Welded Remote Seal Solution. The welded ST 700 meter body is an important part of an All-Welded Remote Seal Solution, which is commonly used in Vacuum applications.

Model Selection Guide

Model Selection Guides are subject to change and are inserted into the specifications as guidance only.

**Model STR700
(DP, GP) Remote Seals**

Model Selection Guide
34-ST-16-124, Issue 17


Instructions

- Select the desired Key Number. The arrow to the right marks the selection available.
- Make selections from each Table (I, II and IX) using the column below the proper arrow.
- A (•) denotes unrestricted availability. A letter denotes restricted availability.
- Restrictions follow Table IX.

Key Number STR7 ____ - I _____ - II _____ - III - IV - V - VI - VII - VIII _____ + IX 0000

| KEY NUMBER | URL | LRL | Max Span | Min Span | Units | Selection | Availability |
|-----------------------|----------|--------------|----------|-------------|-----------|-----------|--------------|
| Measurement Range Std | 100 (7) | -100 (-7) | 100 (7) | 0.9 (0.062) | psi (bar) | STR735D | ↓ |
| Accuracy | 500 (35) | -14.7 (-1.0) | 500 (35) | 5 (0.35) | psi (bar) | STR745G | ↓ |

Note: Remote seal system pressure rating is body rating or seal rating, whichever is less.

| TABLE I | Description | Selection | Availability | |
|--------------------------|--|--|--|---|
| Meter Body & Capillaries | a. Number of Seals 1 Remote Seal (High Side) 2 Remote Seals 1 Remote Seal (Low Side) | 1 _____ 2 _____ 3 _____ | • • • | |
| | b. Primary Fill Fluid (Meter body) Silicone Oil 200 Fluorinated Oil CTFE | _ 1 _____ _ 2 _____ | • • • 2 2 | |
| | c. Construction Non-Wetted Adapter Head Materials | | | |
| | In-Line Gauge 316 SS Bonnet 316 SS Bonnet for Close-Couple | __ A _____ __ B _____ | • • • 3 | |
| | Dual Head DP 316 SS (bolt-on heads) 316 SS for Close-Couple 316 SS with all-welded meter body | __ C _____ __ D _____ __ E _____ | • • • 3 4 | |
| | d. Bolts and Nuts for Transmitter Heads None Carbon Steel Bolts and Nuts 316 SS Bolts and Nuts A286 SS (NACE) Bolts and 304 SS (NACE) Nuts | __ 0 _____ __ C _____ __ S _____ __ N _____ | • • • • • • • • • | |
| | e. Secondary Fill Fluid (capillary & seal)** No Fill Fluid Silicone Oil 200 Fluorinated Oil CTFE Silicone Oil 704 Neobee® M20 ¹¹ Syltherm® 800 ¹² | __ 0 _____ __ 1 _____ __ 2 _____ __ 3 _____ __ 4 _____ __ 5 _____ | 5 5 • • • • • • • • • • • • • • • | |
| | f. Connection of Remote Seal to Meter Body**  | No Capillary, No Nipple (Specify for VAM Unit Only) 5 feet 1.5 m 10 feet 3.0 m 15 feet 4.5 m 20 feet 6.1 m 25 feet 7.5 m 35 feet 10.7 m 5 feet 1.5 m 10 feet 3.0 m 15 feet 4.5 m 20 feet 6.1 m 25 feet 7.5 m 35 feet 10.7 m 2 inch long SS nipple close-coupled | __ 0 _____ __ A _____ __ B _____ __ C _____ __ D _____ __ E _____ __ F _____ __ G _____ __ H _____ __ J _____ __ K _____ __ L _____ __ M _____ __ 2 _____ | 5 5 • 6 6 |
| | g. Seal Option** None Teflon Coated Seal Diaphragm - only for anti-sticking | __ 0 _____ __ 4 _____ | • • • 7 7 | |

** Refer to 34-ST-00-128 for additional options, consult factory

¹¹ Limited vacuum availability.

¹² Minimum static pressure requirement. No vacuum allowed. See Specifications 34-ST-03-88 Figure 15



In-Line Gauge



Dual Head DP



All welded

Note: When selecting required seal, you must specify only the 9 selections within the required seal type.


| TABLE II | | Description | | | | Selection | | | | | |
|--|---|-----------------------------|---------------------------|--------------------|-------------------------------------|-----------------|----------------------------------|----|---------------|---|---|
| Seals | No Seal Attached to Core Transmitter (Specify for VAM Unit Only) | | | | 0 0 0 0 0 0 0 0 | | 21 | 21 | | | |
| |  Flush Flanged Seal** | Seal Type | Diaphragm Diameter | Flange Size | Flange Pressure Rating ¹ | | Selection | | | | |
| | | | | | 3.5" | 3" | ANSI Class 150 ANSI Class 300 | | AFA _ _ _ _ _ | • | • |
| | | | | | | 80mm | DIN DN80-PN40 | | AFC _ _ _ _ _ | • | • |
| | | Wetted Material | Diaphragm | Upper Insert | Selection | | | | | | |
| | | | | | 316L SS | 316L SS | _ _ _ AA _ _ _ _ | • | • | | |
| | | Non-Wetted Material (upper) | Seal-Capillary Connection | CS (Nickel Plated) | | Selection | | | | | |
| | | | | 316L SS | | _ _ _ _ 1 _ _ _ | • | • | | | |
| | | | | Center Seal | | _ _ _ _ 2 _ _ _ | • | • | | | |
| | | | | Side Seal | | _ _ _ _ 1 _ _ | • | • | | | |
| Calibration Rings | | Flushing | None | | Selection | | | | | | |
| | 316L SS | | _ _ _ _ A _ | • | • | | | | | | |
| | Hastelloy® C-276 | | _ _ _ _ B _ | 10 | 10 | | | | | | |
| | Monel 400® | | _ _ _ _ C _ | 10 | 10 | | | | | | |
| Connections and Plugs ⁴ (Metal plug material will be the same as Cal. ring material if metal plug is chosen) | Seal Type | None | | Selection | | | | | | | |
| | | One 1/4" with plastic plug | | _ _ _ _ D _ | 10 | 10 | | | | | |
| | | One 1/4" with metal plug | | _ _ _ _ 0 | • | • | | | | | |
| | | Two 1/4" with plastic plugs | | _ _ _ _ H | 11 | 11 | | | | | |
| | | Two 1/4" with metal plugs | | _ _ _ _ J | 11 | 11 | | | | | |
| | | One 1/2" with plastic plug | | _ _ _ _ M | 11 | 11 | | | | | |
| One 1/2" with metal plug | | _ _ _ _ N | 11 | 11 | | | | | | | |
| Two 1/2" with plastic plugs | | _ _ _ _ P | 11 | 11 | | | | | | | |
| Two 1/2" with metal plugs | | _ _ _ _ Q | 11 | 11 | | | | | | | |
| Two 1/2" with metal plugs | | _ _ _ _ R | 11 | 11 | | | | | | | |
| Two 1/2" with metal plugs | | _ _ _ _ S | 11 | 11 | | | | | | | |

Table II continued next page

⁰ Refer to 34-ST-00-128 for additional options, consult factory

¹ Standard facing 125-250 AARH RF (raised face) serrated surface finish.

⁴ Plastic Plugs are TEMPORARY ONLY to protect threads and MUST be REMOVED before installation

⁵ Tantalum Upper insert has Tantalum wetted parts and 316 SS or CS non-wetted parts

Note: Remote seal system pressure rating is body rating or seal rating, whichever is less.

STR745G
STR735D


| TABLE II | | Description | | | | Selection | | |
|---|---|--------------|-------------------------------------|--|--|------------------|----|----|
| Seal Type | Diaphragm Diameter | Flange Size | Flange Pressure Rating ¹ | Const. - See Spec. Figure 34-ST-03-104 | Construction - See Spec. Figure 34-ST-03-104 | | | |
| Seals (continued)  Flush Flanged Seal with Lower** | 2.4" | 1" | ANSI 150 | 22 | BCA | • | • | |
| | | | ANSI 300 | 22 | BCC | • | • | |
| | | 1-1/2" | ANSI 150 | 22 | BGA | • | • | |
| | | | ANSI 300 | 22 | BGC | • | • | |
| | | 2" | ANSI 150 | 22 | BDA | • | • | |
| | | | ANSI 300 | 22 | BDC | • | • | |
| | | 3" | ANSI 150 | 22 | BFA | • | • | |
| | | | ANSI 300 | 22 | BFC | • | • | |
| | | 2.9" | 1/2" | ANSI 150 | 23 | CAA | • | • |
| | | | | ANSI 300 | 23 | CCA | • | • |
| | | | 1" | ANSI 150 | 23 | CCA | • | • |
| | | | | ANSI 300 | 23 | CCC | • | • |
| | 1-1/2" | | ANSI 150 | 22 | CGA | • | • | |
| | | | ANSI 300 | 22 | CGC | • | • | |
| | 2" | ANSI 150 | 22 | CDA | • | • | | |
| | | ANSI 300 | 22 | CDC | • | • | | |
| | 4.1" | 1/2" | ANSI 150 | 22 | DAA | • | • | |
| | | | ANSI 300 | 23 | DCA | • | • | |
| | | 1" | ANSI 150 | 23 | DCC | • | • | |
| | | | ANSI 300 | 23 | DCC | • | • | |
| | | 1-1/2" | ANSI 150 | 23 | DGA | • | • | |
| | | | ANSI 300 | 23 | DGC | • | • | |
| | 2" | ANSI 150 | 23 | DDA | • | • | | |
| | | ANSI 300 | 22 | DDC | • | • | | |
| | 3" | ANSI 150 | 22 | DFA | • | • | | |
| | | ANSI 300 | 22 | DFC | • | • | | |
| | Wetted Material | | | Diaphragm | Lower | Selection | | |
| | | | | 316L SS | 316L SS | BA | • | • |
| | | | | Hastelloy® C-276 | 316L SS | BB | • | • |
| | | | | Hastelloy® C-276 | Hastelloy® C-276 | BC | • | • |
| | | | | Monel 400® | Monel 400® | BE | 8 | 8 |
| | | | | Tantalum | 316L SS | BF | 8 | 8 |
| | | | | Tantalum | Hastelloy® C-276 | BG | 8 | 8 |
| | | | | Tantalum | Tantalum Clad | BH | 13 | 13 |
| | Non-Wetted Material (upper, upper insert) | | | Upper | Upper Insert | Selection | | |
| | | | | 316L SS | 316L SS | 4 | • | • |
| | | Carbon Steel | 316L SS | 5 | • | • | | |
| Bolts ⁶ | | No Selection | | 0 | • | • | | |
| Flushing | | None | | 0 | • | • | | |
| Connections and Plugs ⁴ (Metal plug material will be the same as Lower material, if metal plug is chosen - (SS Plug for CS Lower and Tantalum Clad) | | | One 1/4" with plastic plug | | H | • | • | |
| | | | One 1/4" with metal plug | | J | • | • | |
| | | | Two 1/4" with plastic plugs | | M | • | • | |
| | | | Two 1/4" with metal plugs | | N | • | • | |
| | | | One 1/2" with plastic plug | | P | • | • | |
| | | | One 1/2" with metal plug | | Q | • | • | |
| | | | Two 1/2" with plastic plugs | | R | • | • | |
| | | | Two 1/2" with metal plugs | | S | • | • | |
| Gasket | | | Klinger® C-4401 (non-asbestos) | | K | • | • | |
| | | | Grafoil® | | G | • | • | |
| | | | Teflon® | | T | • | • | |
| | | | Gylon® 3510 | | L | 15 | 15 | |

Table II continued next page

^{**} Refer to 34-ST-00-128 for additional options. consult factory

¹ Standard facing 125-250 AARH RF (raised face) serrated surface finish.

⁶ Bolt material will be same as Upper Material. However, if Table I bolts/nuts material is NACE, seal bolt material will be 304 SS NACE.

⁴ Plastic Plugs are TEMPORARY ONLY to protect threads and MUST be REMOVED before installation

Note: Remote seal system pressure rating is body rating or seal rating, whichever is less.

STR745G
STR735D


| TABLE II | Description | | | | | | | |
|--|--------------------|---------------------------|-------------------------------------|------------------|------------|------------|---|---|
| Seal Type | Diaphragm Diameter | Flange Size | Flange Pressure Rating ¹ | | Selection | | | |
|  Flange Seal with Extended Diaphragm** | 2.8" | 3" (2.8" OD extension) | ANSI Class 150 | | EFA _____ | • | • | |
| | | | ANSI Class 300 | | EFC _____ | • | • | |
| | | | DIN DN80-PN40 | | EFM _____ | • | • | |
| | 3.5" | (3.70" OD extension) | ANSI Class 150 | | FGA _____ | • | • | |
| | | | ANSI Class 300 | | FGC _____ | • | • | |
| | | | DIN DN100-PN40 | | FGP _____ | • | • | |
| | Wetted Material | | | Diaphragm | Ext. Tube | Selection | | |
| | | | | 316L SS | 316L SS | ___ EA ___ | • | • |
| | | | Hastelloy® C-276 | 316L SS | ___ EB ___ | • | • | |
| | | | Hastelloy® C-276 | Hastelloy® C-276 | ___ EC ___ | • | • | |
| Non-Wetted Material (flange) | | | CS (Nickel Plated) | | ___ 7 ___ | • | • | |
| | | | 316L SS | | ___ 8 ___ | • | • | |
| Bolts | | | No Selection | | ___ 0 ___ | • | • | |
| Extension Length | | | 2" | | ___ 2 ___ | • | • | |
| | | | 4" | | ___ 4 ___ | • | • | |
| | | | 6" | | ___ 6 ___ | • | • | |
| No Selection | No Selection | No Selection | No Selection | No Selection | ___ 0 ___ | • | • | |

Table II continued below

STR745G
STR735D



| TABLE II | Description | | | | | | | |
|--|---|-----------------------------|--|-----------------------|------------------|------------|----|---|
| Seal Type | Diaphragm Diameter | Flange Size | Flange Pressure Rating Dependent on Customer Flange ¹ | | Selection | | | |
|  Pancake Seal | 3.5" | 3" | ANSI Class 150/300/600 | | GFA _____ | • | • | |
| | | | | | | | | |
| | Wetted Material | | | Diaphragm | Body | Selection | | |
| | | | | 316L SS | 316L SS | ___ GA ___ | • | • |
| | | | | Hastelloy® C-276 | 316L SS | ___ GB ___ | • | • |
| | | | | Hastelloy® C-276 | Hastelloy® C-276 | ___ GC ___ | • | • |
| | | | Monel 400® | Monel 400® | ___ GE ___ | 8 | 8 | |
| | | | Tantalum | Tantalum ⁷ | ___ GG ___ | 8 | 8 | |
| | Non-Wetted Material | | | No Selection | | ___ 0 ___ | • | • |
| | Bolts | | | No Selection | | ___ 0 ___ | • | • |
| Calibration Rings |  | | None | | ___ A ___ | • | • | |
| | | | 316L SS | | ___ B ___ | 10 | 10 | |
| | | | Hastelloy® C-276 | | ___ C ___ | 10 | 10 | |
| | | | Monel 400® | | ___ D ___ | 10 | 10 | |
| Flushing Connections and Plugs ⁴ (Metal plug material will be the same as Cal. Ring material, if metal plug is chosen) | | | None | | ___ 0 ___ | • | • | |
| | | One 1/4" with plastic plug | | ___ H ___ | 11 | 11 | | |
| | | One 1/4" with metal plug | | ___ J ___ | 11 | 11 | | |
| | | Two 1/4" with plastic plugs | | ___ M ___ | 11 | 11 | | |
| | | Two 1/4" with metal plugs | | ___ N ___ | 11 | 11 | | |
| | | One 1/2" with plastic plug | | ___ P ___ | 11 | 11 | | |
| | | One 1/2" with metal plug | | ___ Q ___ | 11 | 11 | | |
| | | Two 1/2" with plastic plugs | | ___ R ___ | 11 | 11 | | |
| | | Two 1/2" with metal plugs | | ___ S ___ | 11 | 11 | | |

Table II continued next page


** Refer to 34-ST-00-128 for additional options, consult factory

¹ Standard facing 125-250 AARH RF (raised face) serrated surface finish.

⁴ Plastic Plugs are TEMPORARY ONLY to protect threads and MUST be REMOVED before installation

⁷ Tantalum Body has Tantalum wetted parts and 316 SS non-wetted parts

Note: Remote seal system pressure rating is body rating or seal rating, whichever is less.

| TABLE II | Description | | | | | | STR745G | | STR735D | | |
|--|--|-----------------------------|---|-----------------|--------------|-----------|---------|------------|-----------|---|---|
| | Seal Type | Diaphragm Diameter | Threaded Process Connection Size (NPT Female) | Pressure Rating | | Selection | | | | | |
| | | | | CS Bolts | 304 SS Bolts | | | | | | |
| Seals (continued)  Seal with Threaded Process Connection | 2.4" | 1/2 NPT 3/4 NPT 1 NPT | 2,500 psi | 1,250 psi | JJG _____ | • | • | JJKG _____ | • | • | |
| | | | | | JLJG _____ | • | • | | | | |
| | | | | | KJG _____ | • | • | | | | |
| | | 2.9" | 1/2 NPT 3/4 NPT 1 NPT | 2,500 psi | 1,250 psi | KKG _____ | • | • | KLG _____ | • | • |
| | | | | | | LJG _____ | • | • | | | |
| | | | | | | LKG _____ | • | • | | | |
| | | 4.1" | 1/2 NPT 3/4 NPT 1 NPT | 1,500 psi | 750 psi | LJG _____ | • | • | LKG _____ | • | • |
| | | | | | | LLG _____ | • | • | | | |
| | | | | | | | • | • | | | |
| | Wetted Material Non-Wetted Material (upper) Bolts ⁸ Flushing Connections and Plugs ⁴ (Metal plug material will be the same as Lower material, if metal plug is chosen - (SS Plug for CS Lower and Tantalum Clad) Gasket | Diaphragm | | Lower | | Selection | | | | | |
| | | 316L SS | Carbon Steel | _____ JA _____ | • | • | | | | | |
| | | 316L SS | 316L SS | _____ JB _____ | • | • | | | | | |
| | | Hastelloy® C-276 | 316L SS | _____ JC _____ | • | • | | | | | |
| | | Hastelloy® C-276 | Hastelloy® C-276 | _____ JD _____ | • | • | | | | | |
| | | Monel 400® | Monel 400® | _____ JE _____ | 8 | 8 | | | | | |
| Tantalum | | 316L SS | _____ JF _____ | 8 | 8 | | | | | | |
| Tantalum | | Hastelloy® C-276 | _____ JG _____ | 8 | 8 | | | | | | |
| CS (Nickel Plated) | | _____ A _____ | • | • | | | | | | | |
| 316 Stainless Steel | | _____ C _____ | 17 | 17 | | | | | | | |
| Carbon Steel | | _____ C _____ | • | • | | | | | | | |
| 304 SS | | _____ D _____ | • | • | | | | | | | |
| None | | _____ 0 _____ | • | • | | | | | | | |
| One 1/4" with plastic plug | | _____ H _____ | • | • | | | | | | | |
| One 1/4" with metal plug | | _____ J _____ | • | • | | | | | | | |
| Two 1/4" with plastic plugs | | _____ M _____ | • | • | | | | | | | |
| Two 1/4" with metal plugs | | _____ N _____ | • | • | | | | | | | |
| One 1/2" with plastic plug | | _____ P _____ | 18 | 18 | | | | | | | |
| One 1/2" with metal plug | | _____ Q _____ | 18 | 18 | | | | | | | |
| Two 1/2" with plastic plugs | | _____ R _____ | 18 | 18 | | | | | | | |
| Two 1/2" with metal plugs | | _____ S _____ | 18 | 18 | | | | | | | |
| Klinger® C-4401 (non-asbestos) | | _____ K _____ | • | • | | | | | | | |
| Grafoil® | | _____ G _____ | • | • | | | | | | | |
| Teflon® | | _____ T _____ | • | • | | | | | | | |
| Gylon® 3510 | | _____ L _____ | 15 | 15 | | | | | | | |

⁴ Plastic Plugs are TEMPORARY ONLY to protect threads and MUST be REMOVED before installation

⁸ If Table I Bolts and Nuts material option is NACE, Bolts and Nuts will ship with Alloy Steel NACE and MAWP may change.

Note: Remote seal system pressure rating is body rating or seal rating, whichever is less.

STR745G
STR735D

| TABLE III | Agency Approvals (see data sheet for Approval Code Details) |
|-----------|---|
| Approvals | No Approvals Required FM Explosion proof, Intrinsically Safe, Non-incendive, & Dustproof CSA Explosion proof, Intrinsically Safe, Non-incendive, & Dustproof ATEX Explosion proof, Intrinsically Safe & Non-incendive IECEX Explosion proof, Intrinsically Safe & Non-incendive SAEx Explosion proof, Intrinsically Safe & Non-incendive INMETRO Explosion proof, Intrinsically Safe & Non-incendive NEPSI Explosion proof, Intrinsically Safe & Non-incendive EAC-Customs Union(Russia,Belarus and Kazakhstan)EX Approval Flameproof,Intrinsically Safe CCoE Explosion proof, Intrinsically Safe & Non-incendive UATR Flameproof, Intrinsically Safe & Dustproof |

| | | |
|---|---|---|
| 0 | • | • |
| A | • | • |
| B | • | • |
| C | • | • |
| D | • | • |
| E | • | • |
| F | • | • |
| G | • | • |
| I | • | • |
| J | • | • |
| K | • | • |

| TABLE IV | TRANSMITTER ELECTRONIC SELECTIONS | | |
|--|---|---------------------------------|----------------------|
| a. Electronic Housing Material & Connection Type | Material | Connection | Lightning Protection |
| | Polyester Powder Coated Aluminum | 1/2 NPT | None |
| | Polyester Powder Coated Aluminum | M20 | None |
| | Polyester Powder Coated Aluminum | 1/2 NPT | Yes |
| | Polyester Powder Coated Aluminum | M20 | Yes |
| | 316 Stainless Steel (Grade CF8M) | 1/2 NPT | None |
| | 316 Stainless Steel (Grade CF8M) | M20 | None |
| | 316 Stainless Steel (Grade CF8M) | 1/2 NPT | Yes |
| 316 Stainless Steel (Grade CF8M) | M20 | Yes | |
| b. Output/ Protocol | Analog Output | | Digital Protocol |
| | 4-20mA dc | | HART Protocol |
| c. Customer Interface Selections | Indicator | Ext Zero, Span & Config Buttons | Languages |
| | None | None | None |
| | None | Yes (Zero/Span Only) | None |
| | Standard (w/internal Zero, Span & Conf Buttons) | None | EN, RU |
| Standard (w/internal Zero, Span & Conf Buttons) | Yes | EN, RU | |

| | | |
|------|---|---|
| A __ | • | • |
| B __ | • | • |
| C __ | • | • |
| D __ | • | • |
| E __ | • | • |
| F __ | • | • |
| G __ | • | • |
| H __ | • | • |

| | | |
|-------|---|---|
| _ H _ | • | • |
|-------|---|---|

| | | |
|-------|---|---|
| _ _ 0 | • | • |
| _ _ A | • | • |

| | | |
|-------|---|---|
| _ _ S | • | • |
|-------|---|---|

| | | |
|-------|---|---|
| _ _ T | • | • |
|-------|---|---|

| TABLE V | CONFIGURATION SELECTIONS | | |
|--|---|---------------------------------|---------------------------------------|
| a. Application Software | Diagnostics | | |
| | Standard Diagnostics | | |
| b. Output Limit, Failsafe & Write Protect Settings | Write Protect | Fail Mode | High & Low Output Limits ³ |
| | Disabled | High> 21.0mAdc | Honeywell Std (3.8 - 20.8 mAdc) |
| | Disabled | Low< 3.6mAdc | Honeywell Std (3.8 - 20.8 mAdc) |
| | Enabled | High> 21.0mAdc | Honeywell Std (3.8 - 20.8 mAdc) |
| Enabled | Low< 3.6mAdc | Honeywell Std (3.8 - 20.8 mAdc) | |
| c. General Configuration | Factory Standard | | |
| | Custom Configuration (Unit Data Required from customer) | | |

| | | |
|-------|---|---|
| 1 _ _ | • | • |
|-------|---|---|

| | | |
|-------|---|---|
| _ 1 _ | • | • |
| _ 2 _ | • | • |

| | | |
|-------|---|---|
| _ 3 _ | • | • |
| _ 4 _ | • | • |

| | | |
|-------|---|---|
| _ _ S | • | • |
| _ _ C | • | • |

| TABLE VI | CALIBRATION & ACCURACY SELECTIONS | | |
|--------------------------|-----------------------------------|-----------------------------|--------------------|
| Accuracy and Calibration | Accuracy | Calibrated Range | Calibration Qty |
| | NA | None | None |
| | Standard | Factory Std | Single Calibration |
| | Standard | Custom (Unit Data Required) | Single Calibration |

| | | |
|---|----|----|
| 0 | 21 | 21 |
| A | 23 | 23 |
| B | 23 | 23 |

³ NAMUR Output Limits 3.8 - 20.5mAdc can be configured by the customer or select custom configuration Table Vc

STR745G
STR735D

| TABLE VII | | ACCESSORY SELECTIONS | |
|---|--|----------------------|--|
| | Bracket Type | Material | |
| a. Mounting Bracket | None | None | |
| | Angle Bracket | Carbon Steel | |
| | Angle Bracket | 304 SS | |
| | Angle Bracket | 316 SS | |
| | Marine Approved Bracket | Carbon Steel | |
| | Marine Approved Bracket (In - Line) | Carbon Steel | |
| | Marine Approved Bracket | 304 SS | |
| | Marine Approved Bracket (In - Line) | 304 SS | |
| | Flat Bracket | Carbon Steel | |
| | Flat Bracket | 304 SS | |
| | Flat Bracket | 316 SS | |
| b. Customer Tag | Customer Tag Type | | |
| | No customer tag | | |
| | One Wired Stainless Steel Tag (Up to 4 lines 26 char/line) Two Wired Stainless Steel Tag (Up to 4 lines 26 char/line) | | |
| c. Unassembled Conduit Plugs & Adapters | Unassembled Conduit Plugs & Adapters | | |
| | No Conduit Plugs or Adapters Required | | |
| | 1/2 NPT Male to 3/4 NPT Female 316 SS Certified Conduit Adapter | | |
| | 1/2 NPT 316 SS Certified Conduit Plug M20 316 SS Certified Conduit Plug | | |

| | | |
|-------|---|---|
| 0 ___ | • | • |
| 1 ___ | • | • |
| 2 ___ | • | • |
| 3 ___ | • | • |
| 8 ___ | y | • |
| 9 ___ | • | • |
| 4 ___ | y | • |
| A ___ | • | • |
| 5 ___ | • | • |
| 6 ___ | • | • |
| 7 ___ | • | • |

| | | |
|-------|---|---|
| _ 0 _ | • | • |
| _ 1 _ | • | • |
| _ 2 _ | • | • |

| | | |
|--------|---|---|
| _ _ A0 | • | • |
| _ _ A2 | n | n |
| _ _ A6 | n | n |
| _ _ A7 | m | m |

| TABLE VIII | | OTHER Certifications & Options : (String in sequence comma delimited (XX, XX, XX,...)) | |
|---|---|--|--|
| Certifications & Warranty | None - No other options | | |
| | NACE MR0175; MR0103; ISO15156 Process wetted parts only | | |
| | NACE MR0175; MR0103; ISO15156 wetted and non-wetted parts | | |
| | Marine (DNV,ABS,BV,KR,LR) | | |
| | EN10204 Type 3.1 Material Traceability | | |
| | Certificate of Conformance | | |
| | Calibration Test Report & Certificate of Conformance | | |
| | Certificate of Origin | | |
| | FMEDA (SIL 2/3) Certification | | |
| | Over-Pressure Leak Test Certificate (1.5X MAWP) | | |
| Cert Clean for O ₂ or CL ₂ service per ASTM G93 | | | |

| | | | |
|----|---|---|---|
| 00 | * | * | |
| FG | • | • | b |
| F7 | c | c | |
| MT | d | d | b |
| FX | • | • | |
| F3 | • | • | |
| F1 | • | • | |
| F5 | • | • | |
| FE | j | j | |
| TP | • | • | |
| OX | e | e | |

| TABLE IX | | Manufacturing Specials | |
|----------|------------------------|------------------------|--|
| Factory | Factory Identification | | |

| | | |
|---------|---|---|
| 0 0 0 0 | • | • |
|---------|---|---|

MODEL RESTRICTIONS

| Restriction Letter | Available Only With | | Not Available With | |
|--------------------|---------------------|--|--------------------|--|
| | Table | Selection(s) | Table | Selection(s) |
| b | | Select only one option from this group | | |
| c | ld | ___ 0, N, ___ | | |
| d | Iva | C, D, G, H __ | VIIa | 1, 2, 3, 5, 6, 7 ___ |
| e | I | _ 2 _ 2 _ | | |
| j | IVb | | Vb | _ 1,2 _ |
| m | IVa | B, D, F, H __ | | |
| n | IVa | A, C, E, G __ | | |
| y | | | lc | _ E _ |
| 2 | le | ___ 0 ___ 2 ___ 4 | | |
| 3 | If | ___ 2 _ | la | 2 _ _ _ _ |
| 4 | I | 2 _ 0 _ | | |
| 5 | II | 00000000 | VIII | FG, F7, FX, OX, TP, F1 |
| 6 | I | _ B, D _ | la | 2 _ _ _ _ |
| 7 | | | II | ___ AF ___ ___ BF ___ ___ BG ___ ___ BH ___ ___ GG ___ ___ JF ___ ___ JG ___ |
| 8 | | | VIII | FG, F7 |
| 9 | II | ___ AA2 ___ AB2 | | |
| 10 | | | II | ___ 0 |
| 11 | | | II | ___ A _ |
| 13 | II | ___ 0 _ | II VIII | ___ T FG, F7 |
| 15 | II | ___ BF ___ ___ BG ___ ___ BH ___ ___ JF ___ ___ JG ___ | | |
| 17 | | | II | ___ JA _ |
| 18 | | | II | ___ JYG ___ ___ JKG ___ ___ JLG ___ |
| 21 | I | ___ 000 | | |
| 22 | Ic | _ E _ | | |
| 23 | | | II | 00000000 |

FM ApprovalsSM is a service mark of FM Global
 Hastelloy[®] is a registered trademark of Haynes International
 Monel 400[®] is a registered trademark of Special Metals Corporation.
 HART[®] is a registered trademark of HART Communication Foundation.
 Teflon[®] is a registered trademark of DuPont.
 Neobee[®] is a registered trademark of Stepan Company.
 Syltherm[®] 800 is a Trademark of Dow Corning Corporation
 Klinger[®] C-4401 is a registered trademark of THERMOSEAL, INC
 GRAFOIL[®] is a registered trademarks of GrafTech International Holdings Inc
 Gylon[®] 3510 is registered trademark of Garlock Sealing Technologies

FIELD INSTALLABLE REPLACEMENT PARTS

| Description |
|---|
| Terminal Strip w/o Lightning Protection Kit for HART Modules |
| Terminal Strip w/Lightning Protection for HART Modules |
| HART Electronics Module |
| HART Electronics Module w/connection for external configuration buttons |
| Standard Display Module |
| Note P - For part number pricing please refer to WEB Channel. |

| Kit Number | Price |
|--------------|--------|
| 50129832-501 | Note P |
| 50129832-502 | Note P |
| 50129828-501 | Note P |
| 50129828-502 | Note P |
| 50126003-501 | Note P |

PRODUCT MANUALS

| Description |
|--|
| ST 700 Smart Transmitter User Manual - English |
| ST 700 Smart Transmitter HART Communications Manual - English |
| ST 700 Smart Transmitter Safety Manual - English |
| All product documentation is available at www.process.honeywell.com . |

| Part Number |
|-------------|
| 34-ST-25-44 |
| 34-ST-25-47 |
| 34-ST-25-37 |

Sales and Service

For application assistance, current specifications, ordering, pricing, and name of the nearest Authorized Distributor, contact one of the offices below.

ASIA PACIFIC

Honeywell Process Solutions,
Phone: + 800 12026455 or
+44 (0) 1202645583
(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) 6237-2826

Singapore

Honeywell Pte Ltd.
Phone: +(65) 6580 3278
Fax: +(65) 6445-3033

South Korea

Honeywell Korea Co Ltd
Phone: +(822) 799 6114
Fax: +(822) 792 9015

EMEA

Honeywell Process Solutions,
Phone: + 800 12026455 or
+44 (0) 1202645583

Email: (Sales)

FP-Sales-Apps@Honeywell.com

or

(TAC)

hfs-tac-support@honeywell.com

Web

Knowledge Base search
engine <http://bit.ly/2N5Vldi>

AMERICAS

Honeywell Process Solutions,
Phone: (TAC) (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

Web

Knowledge Base search
engine <http://bit.ly/2N5Vldi>

Specifications are subject to change without notice.

For more information

To learn more about SmartLine Transmitters,
visit www.process.honeywell.com
Or contact your Honeywell Account Manager

Process Solutions

Honeywell
1250 W Sam Houston Pkwy S
Houston, TX 77042

Honeywell Control Systems Ltd
Honeywell House, Skimped Hill Lane
Bracknell, England, RG12 1EB

Shanghai City Centre, 100 Jungi Road
Shanghai, China 20061

www.process.honeywell.com

Authorized Distributor:



INSTRUMENTATION & FILTRATION

De Gidts & Feldman B.V.
Almere – The Netherlands
E-mail sales@dgfg.nl
Website www.dgfg.nl

Honeywell

34-ST-03-124

March 2024

©2024 Honeywell International Inc.