

## Technical Information

# STG700 SmartLine Gauge Pressure Specification 34-ST-03-102, March 2024



### Introduction

Part of the SmartLine® family of products, the STG700 and STG70L are suitable for monitoring, control and data acquisition featuring piezoresistive sensor technology combining pressure sensing with on chip temperature compensation capabilities providing high accuracy, stability and performance over a wide range of application pressures and temperatures. 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.

### Best in Class Features:

- Accuracies up to 0.055% of span standard & 0.04% of span optional.
- Stability up to 0.02% of URL per year for 10 years.
- Automatic temperature compensation.
- Rangeability up to 100:1.
- Response times as fast as 100ms.
- Multiple local display capabilities.
- External zero, span, & configuration capability.
- Polarity insensitive electrical connections.
- Comprehensive on-board diagnostic capabilities.
- Integral Dual Seal design for safety based on ANSI/NFPA 70-202 and ANSI/ISA 12.27.0.
- Full compliance to SIL 2/3 requirements as a standard.
- Modular design characteristics.
- Available additional with 4-year warranty.



**Figure 1 – STG700 Gauge Pressure Transmitters feature field-proven piezoresistive sensor technology**

### Communications/Output Options:

- Honeywell Digitally Enhanced (DE)
- HART® (version 7.0)

All transmitters are available with the above listed communications protocols.

### Span & Range Limits:

Model	URL psi (bar)	LRL psi (bar)	Min Span psi (bar)
STG730/STG73L	50 (3.5)	-14.7 (-1.0)	0.5 (0.035)
STG740/STG74L	500 (35)	-14.7 (-1.0)	5 (.35)
STG770/STG77L	3000 (210)	-14.7 (-1.0)	30 (2.1)
STG78L	6000 (420)	-14.7 (-1.0)	60 (2.06)
STG79L	10000 (690)	-14.7 (-1.0)	100 (6.9)

## 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. This level of performance allows the ST 700 to replace most competitive transmitters available today.

## Unique Indication/Display Option

The ST 700 modular design accommodates a standard alphanumeric LCD display or a unique advanced graphics LCD display with many unparalleled features.

### 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).

### Advanced Graphics LCD Display Features

- Modular (may be added or removed in the field).
- 0, 90, 180, & 270-degree position adjustments.
- Standard and custom measurement units available.
- Up to eight display screens with 3 formats are possible.
- Large PV with Bar Graph or PV with Trend Graph.
- Configurable screen rotation timing (1 to 30 sec).
- Display Square Root capabilities may be set separately from the 4-20mA output signal.
- Unique “Health Watch” indication provides instant visibility of diagnostics.
- Multiple language capability (EN, DE, FR, IT, ES, RU, TR, CN & JP).

## 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/DE.
- Integration with Honeywell’s Experion PKS offers the following unique advantages:
  - Tamper reporting.
  - FDM Plant Area Views with Health summaries.
  - 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 offer 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 the 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 configuration.

## 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, add indicators or change electronic modules without affecting overall performance or approval body certifications. Each meter body is uniquely characterized to provide in-tolerance performance over a wide range of application variations in temperature and pressure and due to the Honeywell advanced interface, electronic modules may be swapped with any electronics module without losing in-tolerance performance characteristics.

**Modular Features**

- Meter body replacement
- Exchange/replace electronics/comms modules\*
- Add or remove integral indicator\*
- Add or remove lightning protection (terminal connection)\*

\* Field replaceable in all electrical environments (including IS) except flameproof without violating agency approvals.

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	Stability (% URL/Year for 10 years)	Reference Accuracy <sup>1,2</sup> (% Span) Standard/option
Standard Accuracy	STG730	50 psi (3.5 bar)	-14.7 psi (-1.0 bar)	0.5 psi (0.035 bar)	100:1	0.02	0.055 / 0.040
	STG73L	50 psi (3.5 bar)	-14.7 psi (-1.0 bar)	0.5 psi (0.035 bar)			
	STG740	500 psi (35 bar)	-14.7 psi (-1.0 bar)	5 psi (0.35 bar)			
	STG74L	500 psi (35 bar)	-14.7 psi (-1.0 bar)	5 psi (0.35 bar)		0.015	
	STG770	3000 psi (210 bar)	-14.7 psi (-1.0 bar)	30 psi (2.1 bar)		0.02	
	STG77L	3000 psi (210 bar)	-14.7 psi (-1.0 bar)	30 psi (2.1 bar)			
	STG78L	6000 psi (420 bar)	-14.7 psi (-1.0 bar)	60 psi (4.2 bar)			
	STG79L	10000 psi (690 bar)	-14.7 psi (-1.0 bar)	100 (6.9 bar)			

Zero and span may be set anywhere within the listed (URL/LRL) range limits

Accuracy, Span and Temperature Effect: (Conformance to +/-3 Sigma)

**Table 2**

			Accuracy <sup>1,2</sup> (% of Span)			Combined Zero & Span temperature Effect (% Span/28°C (50°F))		
	Model	URL	Reference Turndown	A	B	C (see URL units)	D	E
Standard Accuracy	STG730	50 psi (3.5 bar)	25:1	0.005	0.050	2 (0.14)	0.060	0.005
	STG73L	50 psi (3.5 bar)	12.5:1			4 (0.28)		0.010
	STG740	500 psi (35 bar)	35:1			14.5 (1.0)	0.050	0.007
	STG74L	500 psi (35 bar)	35:1			14.5 (1.0)		0.010
	STG770	3000 psi (210 bar)	10:1	300 (21)	0.010			
	STG77L	3000 psi (210 bar)	8.5:1	350 (24.7)	0.015			
	STG78L	6000 psi (420 bar)	12:1	500 (35)	0.050			
	STG79L	10000 psi (690 bar)	10:1	0.025	0.040	1000 (69)	0.150	0.100
High Accuracy Option	STG730	50 psi (3.5 bar)	25:1	0.005	0.035	2 (0.14)	0.060	0.005
	STG73L	50 psi (3.5 bar)	12.5:1			4 (0.28)		0.010
	STG740	500 psi (35 bar)	35:1			14.5 (1.0)	0.050	0.007
	STG74L	500 psi (35 bar)	35:1			14.5 (1.0)		0.010
	STG770	3000 psi (210 bar)	10:1			300 (21)		0.010
	STG77L	3000 psi (210 bar)	8.5:1			350 (24.7)		0.015
	STG78L	6000 psi (420 bar)	12:1			500 (35)		0.050
<b>Turn Down Effect</b>							<b>Temp Effect</b>	
$\pm [A + B] \text{ if Span} \geq C$ $\pm \left[ A + B \left( \frac{C}{\text{Span}} \right) \right] \text{ if Span} < C$							$\pm \left[ D + E \left( \frac{\text{URL}}{\text{Span}} \right) \right]$	

**Total Performance (% of Span):**

$$\text{Total Performance Calculation: } = \pm \sqrt{(\text{Accuracy})^2 + (\text{Temperature Effect})^2}$$

**Total Performance Examples (for comparison):** standard accuracy 5:1 Turndown, +/-50°F (28°C) shift

**STG730 @ 100 psi:** 0.101% of span

**STG73L @ 100 psi:** 0.123% of span

**STG740 @ 100 psi:** 0.101% of span

**STG74L @ 100 psi:** 0.114% of span

**STG770 @ 600 psi:** 0.074% of span

**STG77L @ 600 psi:** 0.137% of span

**STG78L @ 1200 psi:** 0.305% of span

**STG79L @ 2000 psi:** 0.653% of span

**Typical Calibration Frequency:**

Calibration verification is recommended every two (2) years

**Notes:**

1. Terminal Based Accuracy - Includes combined effects of linearity, hysteresis, and repeatability. Analog output adds 0 .005% of span.
2. For zero based spans and reference conditions of: 25°C (77°F) for LRV > = 0 psia, 10 to 55% RH, and 316 Stainless Steel barrier diaphragm.

**Operating Conditions – All Models**

Parameter	Reference Condition		Rated Condition		Operative Limits		Transportation and Storage	
	°C	°F	°C	°F	°C	°F	°C	°F
<b>Ambient Temperature</b> <sup>1</sup>	25±1	77±2	-40 to 85	-40 to 185	-40 to 85	-40 to 185	-55 to 120	-67 to 248
<b>Meter Body Temperature</b> <sup>2</sup>	25±1	77±2	-40 to 110	-40 to 230	-40 to 125	-40 to 257	-55 to 120	-67 to 248
<b>Humidity</b> %RH	10 to 55		0 to 100		0 to 100		0 to 100	
<b>Vac. Region – Min. Pressure</b> <b>mmHg absolute</b> <b>inH<sub>2</sub>O absolute</b>	Atmospheric Atmospheric		25 13		2 (short term) <sup>3</sup> 1 (short term) <sup>3</sup>			
<b>Supply Voltage</b> <b>Load Resistance</b>	HART: 10.8 to 42.4 VDC at terminals (IS versions limited to 30 VDC), 0 to 1,440 ohms DE: 15 to 49.3VDC at terminals (IS versions limited to 30VDC), 0 to 1,200 ohms (as shown in Figure 2)							
<b>Maximum Allowable Working Pressure (MAWP)</b> <sup>4, 5</sup> <small>(ST700 products are rated to Maximum Allowable Working Pressure. MAWP depends on Approval Agency and transmitter materials of construction.)</small>	STG730: 50 psi (3.5 bar)		STG73L: 50 psi (3.5 bar)		STG740: 500 psi (35 bar)		STG74L: 500 psi (35 bar)	
	STG770: 3000 psi (210 bar)		STG77L: 3000 psi (210 bar)		STG78L: 6000 psi (420 bar)		STG79L: 10000 psi (690 bar)	

<sup>1</sup> LCD Display operating temperature -20°C to +70°C Storage temperature -30°C to 80°C.

<sup>2</sup> Silicone 704 minimum temperature rating is 0°C (32°F). CTFE minimum temperature rating is -40°C (-40°F).

NEOBEE® M-20 minimum temperature rating is -15°C (5°F). NEOBEE® is a registered trademark of Stepan Company.

<sup>3</sup> Short term equals 2 hours at 70°C (158°F).

<sup>4</sup> Units can withstand overpressure of 1.5 x MAWP without damage.

<sup>5</sup> Consult the factory for MAWP of ST 700 transmitters with CRN approval.

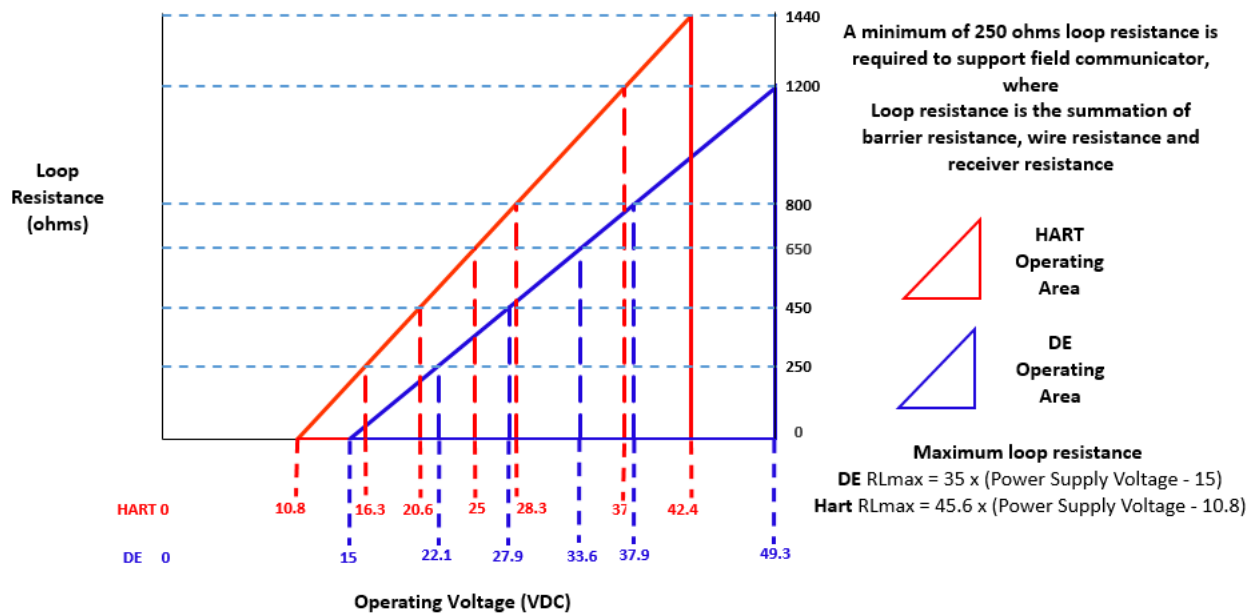


Figure 2 - Supply voltage and loop resistance chart & calculations

**Performance Under Rated Conditions – All Models**

Parameter	Description									
<b>Analog Output</b> <b>Digital Communications:</b>	Two-wire, 4 to 20 mA (HART & DE Transmitters only) Honeywell DE, HART 7 protocol All transmitters, irrespective of protocol have polarity insensitive connection.									
<b>HART &amp; DE Output Failure Modes</b> (NAMUR for DE Units requires selecting display and configuration buttons or factory configuration)	<table border="0"> <tr> <td></td> <td style="text-align: center;"><b>Honeywell Standard</b></td> <td style="text-align: center;"><b>NAMUR NE 43 Compliance</b></td> </tr> <tr> <td><b>Normal Limits:</b></td> <td style="text-align: center;">3.8 – 20.8 mA</td> <td style="text-align: center;">3.8 – 20.5 mA</td> </tr> <tr> <td><b>Failure Mode:</b></td> <td style="text-align: center;">≤ 3.6 mA and ≥ 21.0 mA</td> <td style="text-align: center;">≤ 3.6 mA and ≥ 21.0 mA</td> </tr> </table>		<b>Honeywell Standard</b>	<b>NAMUR NE 43 Compliance</b>	<b>Normal Limits:</b>	3.8 – 20.8 mA	3.8 – 20.5 mA	<b>Failure Mode:</b>	≤ 3.6 mA and ≥ 21.0 mA	≤ 3.6 mA and ≥ 21.0 mA
	<b>Honeywell Standard</b>	<b>NAMUR NE 43 Compliance</b>								
<b>Normal Limits:</b>	3.8 – 20.8 mA	3.8 – 20.5 mA								
<b>Failure Mode:</b>	≤ 3.6 mA and ≥ 21.0 mA	≤ 3.6 mA and ≥ 21.0 mA								
<b>Supply Voltage Effect</b>	0.005% span per volt.									
<b>Transmitter Turn on Time (includes power up &amp; test algorithms)</b>	HART or DE: 2.5 seconds									
<b>Response Time (delay + time constant)</b>	<u>DE/HART Protocol</u> 100ms									
<b>Damping Time Constant</b>	<b>HART:</b> Adjustable from 0 to 32 seconds in 0.1 increments. <b>Default Value:</b> 0.5 seconds <b>DE:</b> Discrete values 0, 0.16, 0.32, 0.48, 1, 2, 4, 8, 16, 32 seconds. <b>Default Value:</b> 0.48 seconds									
<b>Vibration Effect:</b>	Less than +/- 0.1% of URL w/o damping Per IEC60770-1 field or pipeline, high vibration level (10-2000Hz: 0.21 displacement/3g max acceleration)									
<b>Electromagnetic Compatibility</b>	IEC 61326-3-1									
<b>Lightning Protection Option</b>	<b>Leakage Current:</b> 10uA max @ 42.4VDC 93C <b>Impulse rating:</b> <table border="0"> <tr> <td>8/20us</td> <td>5000A (&gt;10 strikes)</td> <td>10000A (1 strike min.)</td> </tr> <tr> <td>10/1000us</td> <td>200A (&gt; 300 strikes)</td> <td></td> </tr> </table>	8/20us	5000A (>10 strikes)	10000A (1 strike min.)	10/1000us	200A (> 300 strikes)				
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
<b>Barrier Diaphragms Material</b>	<b>STG700:</b> 316L SS, Hastelloy® C-276 <sup>2</sup> , Monel® 400 <sup>3</sup> , Tantalum <b>STG70L:</b> 316L SS, Hastelloy C-276
<b>Process Head Material</b>	<b>STG700:</b> Carbon Steel (Zinc Plated) <sup>5</sup> , 316 SS <sup>4</sup> , Hastelloy® C-276 <sup>6</sup> , Monel® 400 <sup>7</sup> <b>STG70L:</b> 316L SS, Hastelloy® C-276 <sup>6</sup>
<b>Vent/Drain Valves &amp; Plugs</b> <sup>1</sup>	<b>STG700:</b> 316 SS <sup>4</sup> , Hastelloy C-276 <sup>2</sup> , Monel 400 <sup>7</sup> <b>STG70L:</b> N/A
<b>Head Gaskets</b>	<b>STG700:</b> Glass-filled PTFE standard. Viton® and graphite are optional. <b>STG70L:</b> N/A
<b>Meter Body Bolting</b>	<b>STG700:</b> Carbon Steel (Zinc plated) standard. Options include 316 SS, NACE A286 SS bolts and nuts or NACE A286 SS bolts and 304 SS nuts <b>STG70L:</b> N/A
<b>Mounting Bracket</b>	Carbon Steel (Zinc-plated) or 304 Stainless Steel or 316 Stainless Steel. See <a href="#">Figure 3</a> and <a href="#">Figure 5</a>
<b>Fill Fluid</b>	Silicone, CTFE, NEOBEE M-20, Silicone 704.
<b>Electronic Housing</b>	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.
<b>Process Connections</b>	<b>STG700:</b> ½ -inch NPT(female), DIN 19213 (standard) <b>STG70L:</b> ½ -inch NPT(female), ½ -inch NPT male, 9/16 Aminco, DIN19213 (except STG79L), G½ -B Male Thread
<b>Wiring</b>	Accepts up to 16 AWG (1.5 mm diameter).
<b>Dimensions</b>	See <a href="#">Figure 4</a> and <a href="#">Figure 6</a>
<b>Net Weight</b>	<b>STG700:</b> 8.3 pounds (3.8 Kg). <b>STG70L:</b> 3.6 pounds (1.6 Kg) with Aluminum Housing

<sup>1</sup> Vent/Drains are sealed with Teflon®<sup>2</sup> Hastelloy® C-276 or UNS N10276.<sup>3</sup> Monel® 400 or UNS N04400.<sup>4</sup> Supplied as 316 SS or as Grade CF8M, the casting equivalent of 316 SS.<sup>5</sup> Carbon Steel heads are zinc-plated and not recommended for water service due to hydrogen migration. For that service, use 316 stainless steel wetted Process Heads.<sup>6</sup> Hastelloy® C-276 or UNS N10276. Supplied as indicated or as Grade CW12MW, the casting equivalent of Hastelloy® C-276.<sup>7</sup> Monel® 400 or UNS N04400. Supplied as indicated or as Grade M30C, the casting equivalent of Monel® 400.

---

## Communications Protocols & Diagnostics

### HART Protocol

**Version:** HART 7

### Honeywell Digitally Enhanced (DE)

DE is a Honeywell proprietary protocol which provides digital communications between Honeywell DE enabled field devices and Hosts.

### Standard Diagnostics

ST 700 top level diagnostics are reported as either critical or non-critical and are readable via the DD/DTM/FDI tools or integral display. All critical diagnostics will appear on the Advanced and Standard integral displays, and some non-critical diagnostics will also appear on the Advanced 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.
- Tamper Attempt Alarm.









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	<b>Explosionproof:</b> 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
		<b>Intrinsically Safe:</b> Class I, II, III, Division 1, Groups A, B, C, D, E, F, G: T4 Class I, Zone 0, AEx ia IIC T4 Ga FISCO Field Device (Only for FF Option) Ex ia IIC T4 Ga; Ex ic IIC T4 Gc	4-20 mA / DE/ HART	Note 2a	-50 °C to 70°C
			Foundation Fieldbus	Note 2b	-50 °C to 70°C
		<b>Nonincendive:</b> Class I, Division 2, Groups A, B, C, D locations, T4 Class I, Zone 2, AEx nA IIC T4 Gc	4-20 mA / DE/ HART/ Foundation Fieldbus	Note 1	-50 °C to 85°C
		<b>Enclosure:</b> Type 4X/ IP66/ IP67	All	All	-
		<b>STANDARDS:</b> 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	<b>Explosion Proof:</b> 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
		<b>Intrinsically Safe:</b> 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 FISCO Field Device (Only for FF Option) Ex ia IIC T4 Ga; Ex ic IIC T4 Gc	4-20 mA / DE/ HART	Note 2	-50°C TO 70°C
			Foundation Fieldbus	Note 2	-50°C TO 70°C
		<b>Nonincendive:</b> 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 mA / DE/ HART/ Foundation Fieldbus	Note 1	-50°C to 85°C
		<b>Enclosure:</b> Type 4X/ IP66/ IP67	All	All	-



MSG CODE	AGENCY	TYPE OF PROTECTION	COMM. OPTION	ELECTRICAL PARAMETERS	AMBIENT TEMP (Ta)	
		<b>STANDARDS:</b> 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 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	<b>Flameproof: SIRA 12ATEX2233X</b>  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	
		<b>Intrinsically Safe: SIRA 12ATEX2233X</b>  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	
		FISCO Field Device (Only for FF Option) II 1 G Ex ia IIC T4 Ga	Foundation Fieldbus	Note 2	-50°C TO 70°C	
		<b>Zone 2, Increase Safety: SIRA 12ATEX4234X</b>  II 3 G Ex ec IIC T4 Gc	4-20 mA / DE/ HART/	Note 1	-50°C TO 85°C	
		<b>Zone 2, Intrinsically Safe: SIRA 12ATEX4234X</b>  II 3 G Ex ic IIC T4 Gc FISCO Field Device (Only for FF Option) II 3 G Ex ic IIC T4 Gc	4-20 mA / DE/ HART/ Foundation Fieldbus	Note 2	-50°C TO 85°C	
		<b>Enclosure:</b> IP66/ IP67	All	All	-	
		<b>STANDARDS:</b> 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	<b>Flameproof: CSAE 22UKEX1021X</b>  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
			<b>Intrinsically Safe: CSAE 22UKEX1021X</b>  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
			FISCO Field Device (Only for FF Option) II 1 G Ex ia IIC T4 Ga	Foundation Fieldbus	Note 2	-50°C TO 70°C
<b>Zone 2, Increase Safety: CSAE 22UKEX1008X</b>  II 3 G Ex ec IIC T4 Gc	4-20 mA / DE/ HART/		Note 1	-50°C TO 85°C		
<b>Zone 2, Intrinsically Safe: CSAE 22UKEX1008X</b>  II 3 G Ex ic IIC T4 Gc FISCO Field Device (Only for FF Option)	4-20 mA / DE/ HART/ Foundation Fieldbus		Note 2	-50°C TO 85°C		

MSG CODE	AGENCY	TYPE OF PROTECTION	COMM. OPTION	ELECTRICAL PARAMETERS	AMBIENT TEMP (Ta)
		II 3 G Ex ic IIC T4 Gc			
		<b>Enclosure:</b> IP66/ IP67	All	All	-
		<b>STANDARDS:</b> 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	<b>Flameproof: IECEx SIR 12.0100X</b> 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
		<b>Intrinsically Safe: IECEx SIR 12.0100X</b> Ex ia IIC T4 Ga Ex ia IIIC T125°C Db FISCO Field Device (Only for FF Option) Ex ia IIC T4 Ga; Ex ic IIC T4 Gc	4-20 mA / DE/ HART	Note 2	-50°C TO 70°C
			Foundation Fieldbus	Note 2	-50°C TO 70°C
		<b>Zone 2, Increase Safety: IECEx SIR 12.0100X</b> Ex ec IIC T4 Gc	4-20 mA / DE/ HART/ Foundation Fieldbus	Note 1	-50°C TO 85°C
		<b>Zone 2, Intrinsically Safe: IECEx SIR 12.0100X</b> Ex ic IIC T4 Gc FISCO Field Device (Only for FF Option) Ex ic IIC T4 Gc	4-20 mA / DE/ HART/ Foundation Fieldbus	Note 2	-50°C TO 85°C
		<b>Enclosure:</b> IP66/ IP67	All	All	-
		<b>STANDARDS:</b> 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	<b>Flameproof :</b> 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
		<b>Intrinsically Safe:</b> Ex ia IIC Ga T4 FISCO Field Device (Only for FF Option) Ex ia IIC T4 Ga; Ex ic IIC T4 Gc	4-20 mA / DE/ HART	Note 2	-50°C TO 70°C
			Foundation Fieldbus	Note 2	-50°C TO 70°C
		<b>Zone 2, Increase Safety:</b> II 3 G Ex ec IIC T4 Gc	4-20 mA / DE/ HART/ Foundation Fieldbus	Note 1	-50°C TO 85°C
		<b>Zone 2, Intrinsically Safe:</b> Ex ic IIC T4 Gc FISCO Field Device (Only for FF Option) Ex ic IIC T4 Gc	4-20 mA / DE/ HART/ Foundation Fieldbus	Note 2	-50°C TO 85°C
<b>Enclosure:</b> IP66/ IP67	All	All	-		
F	INMETRO Brazil	<b>Flameproof:</b> 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
		<b>Intrinsically Safe:</b> Ex ia IIC T4 Ga  FISCO Field Device (Only for FF Option) Ex ia IIC T4 Ga; Ex ic IIC T4 Gc	4-20 mA / DE/ HART	Note 2a	-50°C TO 70°C
			Foundation Fieldbus	Note 2b	-50°C TO 70°C
		<b>Zone 2, Increase Safety:</b> II 3 G Ex ec IIC T4 Gc	4-20 mA / DE/ HART/ Foundation Fieldbus	Note 1	-50°C TO 85°C
		<b>Zone 2, Intrinsically Safe:</b> Ex ic IIC T4 Gc FISCO Field Device (Only for FF Option) Ex ic IIC T4 Gc	4-20 mA / DE/ HART/ Foundation Fieldbus	Note 2	-50°C TO 85°C
		<b>Enclosure :</b> IP 66/67	All	All	-
G	NEPSI CHINA	<b>Flameproof:</b> 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
		<b>Intrinsically Safe:</b> Ex ia IIC T4 Ga FISCO Field Device (Only for FF Option) Ex ia IIC T4 Ga; Ex ic IIC T4 Gc	4-20 mA / DE/ HART	Note 2	-50°C TO 70°C
			Foundation Fieldbus	Note 2	-50°C TO 70°C
		<b>Zone 2, Increase Safety:</b> II 3 G Ex ec IIC T4 Gc	4-20 mA / DE/ HART/ Foundation Fieldbus	Note 1	-50°C TO 85°C
		<b>Zone 2, Intrinsically Safe:</b> Ex ic IIC T4 Gc FISCO Field Device (Only for FF Option) Ex ic IIC T4 Gc	4-20 mA / DE/ HART/ Foundation Fieldbus	Note 2	-50°C TO 85°C
<b>Enclosure :</b> IP 66/67	All	All	-		

H	KOSHA Korea	<b>Flameproof :</b> Ex d IIC T4, T5, T6 Ex tD A21 IP66/IP67 T95°C...T120 °C	All	Note 1	T4: -50°C TO 85°C T5: -50°C TO 85°C T6: -50°C TO 65°C
		<b>Intrinsically Safe:</b> Ex ia IIC T4	4-20 mA / DE/ HART	Note 2	Ta= -50 °C to 70°C
			Foundation Fieldbus	Note 2	Ta= -50 °C to 70°C
<b>Enclosure:</b> IP66/ IP67	All	All	-		
I	EAC Russia, Belarus and Kazakhstan	<b>Flameproof:</b> 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
		<b>Intrinsically Safe:</b> Ga Ex ia IIC T4 X FISCO Field Device (Only for FF Option) Ga Ex ia IIC T4 X	4-20 mA / DE/ HART	Note 2	-50°C TO 70°C
			Foundation Fieldbus	Note 2	-50°C TO 70°C
		<b>Zone 2, Non Sparking:</b> 2 Ex nA IIC T4 Gc X	4-20 mA / DE/ HART/ Foundation Fieldbus	Note 1	-50°C TO 85°C
		<b>Zone 2, Intrinsically Safe:</b> Ga Ex ic IIC T4 X FISCO Field Device (Only for FF Option) 2 Ex ic IIC T4 Gc X	4-20 mA / DE/ HART/ Foundation Fieldbus	Note 2	-50°C TO 85°C
<b>Enclosure :</b> IP 66/67	All	All			
J	CCoE INDIA	<b>Flameproof:</b> Ex d IIC T6..T5 Ga/Gb	All	Note 1	T5: -50°C TO 85°C T6: -50°C TO 65°C
		<b>Intrinsically Safe:</b> Ex ia IIC T4 Ga FISCO Field Device (Only for FF Option) Ex ia IIC T4 Ga; Ex ic IIC T4 Gc	4-20 mA / DE/ HART	Note 2	-50°C TO 70°C
			Foundation Fieldbus	Note 2	-50°C TO 70°C
		<b>Non Sparking</b> Ex nA IIC T4 Gc	4-20 mA / DE/ HART/ Foundation Fieldbus	Note 1	-50°C TO 85°C
<b>Enclosure:</b> IP66/ IP67	All	All	-		
K	UATR UKRAINE	<b>Flameproof:</b> 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
		<b>Intrinsically Safe:</b> II 1 G Ex ia IIC T4 Ga FISCO Field Device (Only for FF Option) II 1 G Ex ia IIC T4 Ga	4-20 mA / DE/ HART	Note 2	-50°C TO 70°C
			Foundation Fieldbus	Note 2	-50°C TO 70°C
<b>Enclosure:</b> IP66/ IP67	All	All	-		

Notes:

1. Operating Parameters:

Voltage = 11 to 42 VDC                      Current = 4-20 mA Normal  
 = 9 to 32 V (FF)                              = 30 mA (FF)

2. Intrinsically Safe Entity Parameters

a. Analog/ DE/ HART Entity Values

Vmax = Ui = 30V                      I<sub>max</sub>= I<sub>i</sub> = 105mA                      Ci = 4.2nF                      Li = 984 uH                      Pi = 0.9W

Transmitter with Terminal Block Revision E or Later

Vmax = Ui = 30V                      I<sub>max</sub>= I<sub>i</sub> = 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-EXXXX, THE "X" is production related, THE POSITION of the "E" IS THE REVISION.

b. Foundation Fieldbus Entity Values

Vmax = Ui = 30V                      I<sub>max</sub> = I<sub>i</sub> = 180mA                      Ci = 0nF                      Li = 984 uH                      Pi = 1W

Transmitter with Terminal Block Revision F or Later

Vmax = Ui = 30V                      I<sub>max</sub> = I<sub>i</sub> = 225mA                      Ci = 0nF                      Li = 0                      Pi = 1 W

FISCO Field Device

Vmax = Ui = 17.5V                      I<sub>max</sub> = I<sub>i</sub> = 380 mA                      Ci = 0nF                      Li = 0                      Pi = 5.32 W

Note: Transmitter with Terminal Block Revision F 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 #: 50049839-003 or 50049839-004
- Second line has the supplier information, along with the REVISION:

XXXXXX-EXXXX, THE "X" is production related, THE POSITION of the "E" IS THE REVISION.

**Approval Certifications**

<b>Marine Certificates</b>	This certificate defines the certifications covered for the ST 800 Pressure Transmitter family of products, including the SMV 800 Smart Multivariable Transmitter. It represents the compilation of the five certificates Honeywell currently has covering the certification of these products into marine applications. For SmartLine Pressure Transmitter and SMV800 Smart Multivariable Transmitter
	<b>American Bureau of Shipping (ABS)</b> - 2009 Steel Vessel Rules 1-1-4/3.7, 4-6-2/5.15, 4-8-3/13 & 13.5, 4-8-4/27.5.1, 4-9-7/13. Certificate number: 04-HS417416-PDA
	<b>Bureau Veritas (BV)</b> - Product Code: 389:1H. Certificate number: 12660/B0 BV
	<b>Det Norske Veritas (DNV)</b> - Location Classes: Temperature D, Humidity B, Vibration A, EMC B, Enclosure C. For salt spray exposure; enclosure of 316 SST or 2-part epoxy protection with 316 SST bolts to be applied. Certificate number: A-11476
	<b>Korean Register of Shipping (KR)</b> - Certificate number: LOX17743-AE001
	<b>Lloyd's Register (LR)</b> - Certificate number: 02/60001(E1) & (E2)
<b>SIL 2/3 Certification</b>	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.

**Other Certification Options**

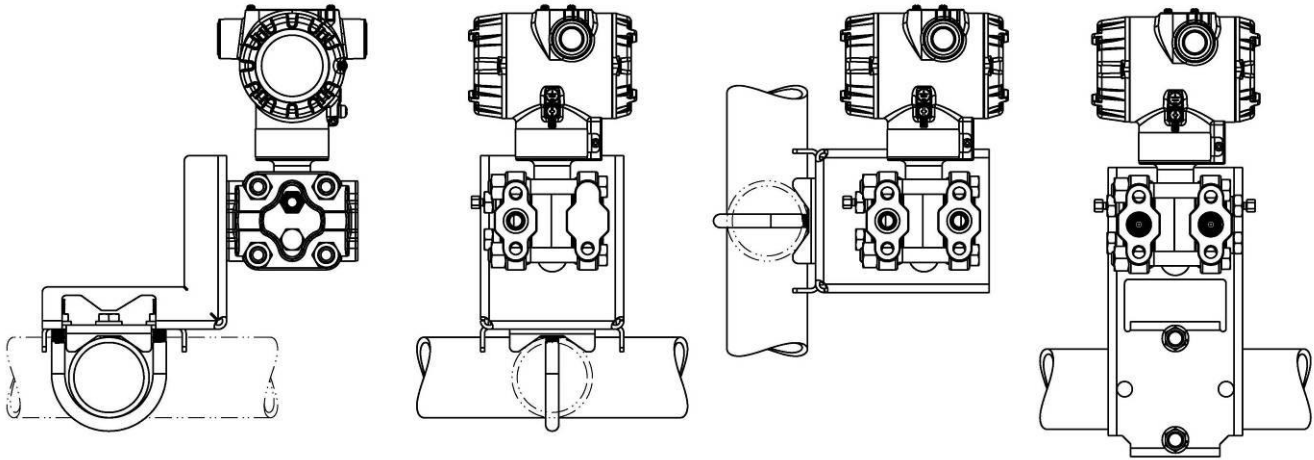
**Materials**

- NACE MRO175, MRO103, ISO15156

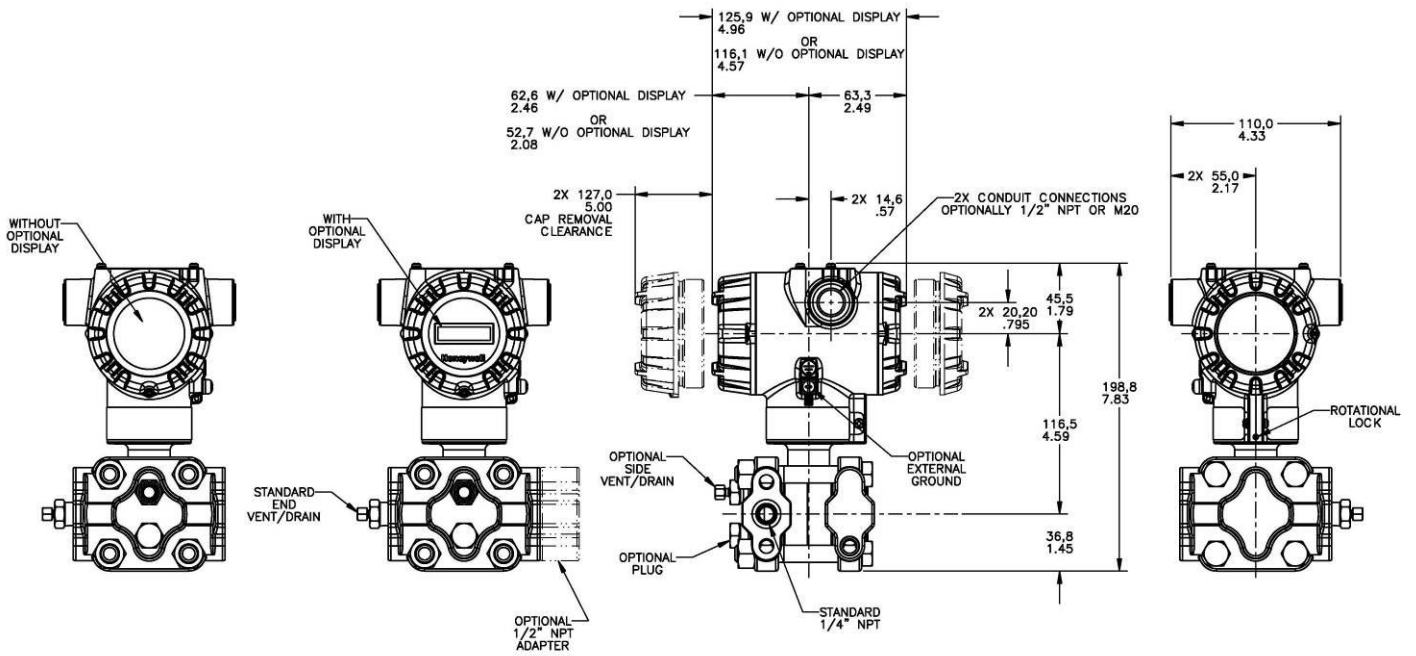
**Mounting & Dimensional Drawings)**

Reference Dimensions:  $\frac{\text{millimeters}}{\text{inches}}$

**Mounting Configurations: (Dual head design)**



**Figure 3 – Mounting options: (Dual head design)**



**Figure 4 – Typical dimensions of STG740 & STG770 for reference**

Reference Dimensions:  $\frac{\text{millimeters}}{\text{inches}}$

Mounting Configurations (Inline Designs)

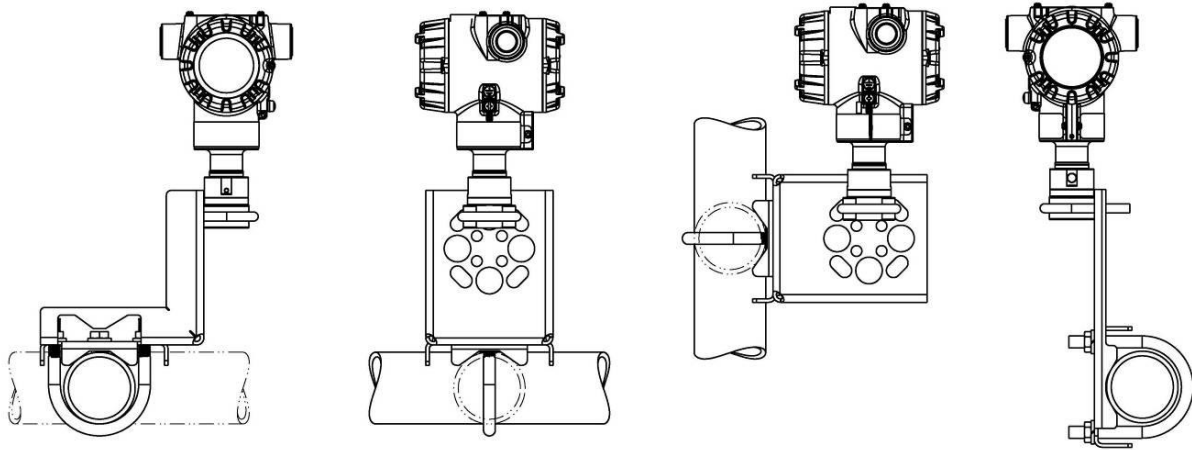


Figure 5 – Mounting Options (Inline Design)

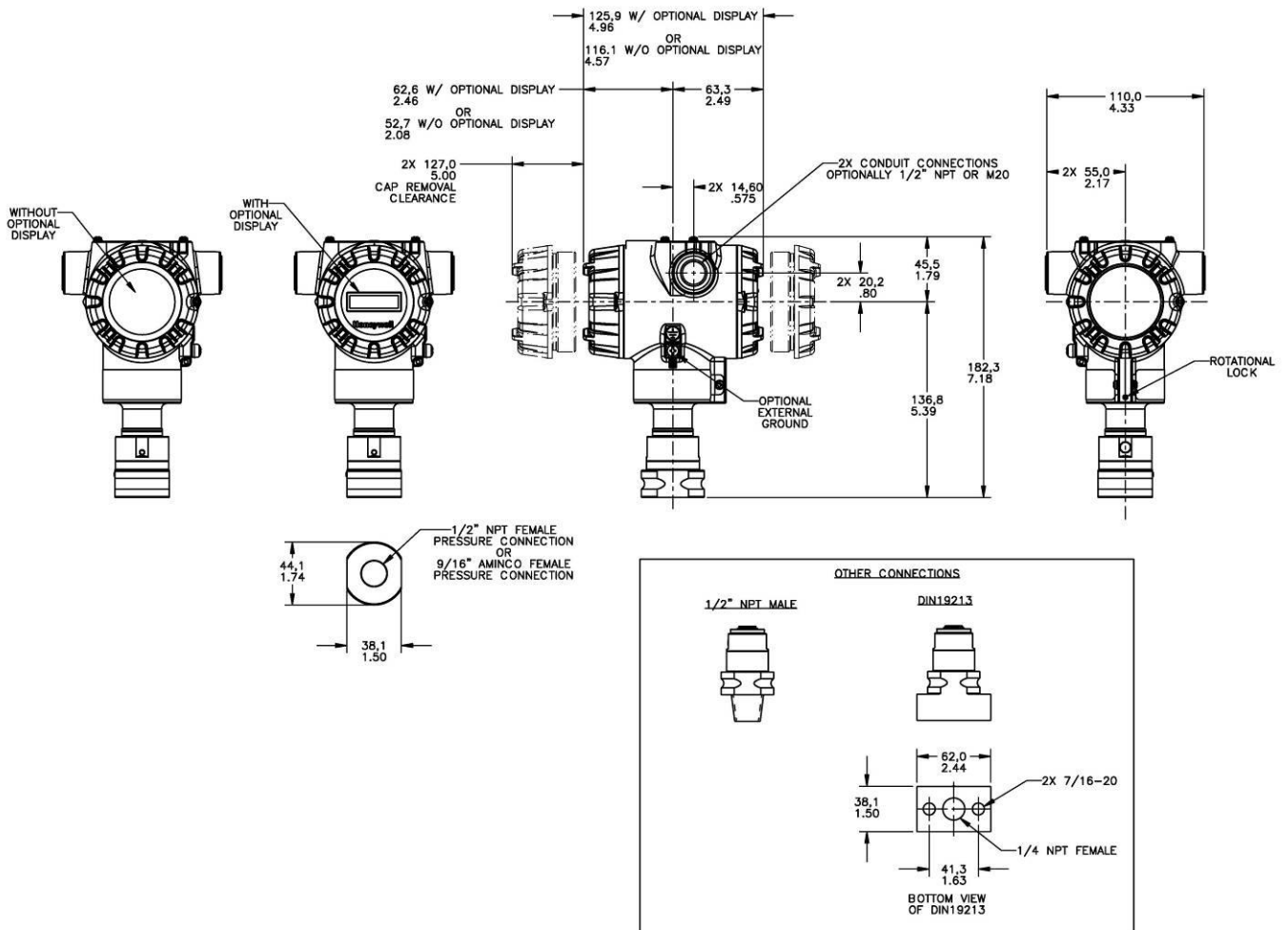


Figure 6 – Typical dimensions of STG74L, STG77L, STG78L, & STG79L for reference

**Model Selection Guide**

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

**Model STG700  
Gauge Pressure Transmitters**

Model Selection Guide  
34-ST-16-102 Issue 33

**Instructions:** Make selections from all Tables using column below the proper arrow. Asterisk indicates availability. Letter (a) refers to restrictions highlighted in the restrictions table. Tables delimited with dashes.  
**List Price:** Price equals the sum of prices for all selections made.

Key                    I                    II                    III                    IV                    V                    VI                    VII                    VIII                    IX  
 [STG \_\_\_] - [\_\_\_\_\_] - [ ] - [ ] - [ ] - [ ] - [ ] - [ ] - [ ] - [ ] - [0 0 0 0]

KEY NUMBER	URL/Max Span	LRL	Min Span	Units
Gauge Dual Head	50 (3.5)	-14.7 (-1.0)	0.5 (.035)	psi (bar)
	500 (35)	-14.7 (-1.0)	5 (.35)	psi (bar)
	3000 (210)	-14.7 (-1.0)	30 (2.1)	psi (bar)
Gauge In-Line	50 (3.5)	-14.7 (-1.0)	0.5 (.035)	psi (bar)
	500 (35)	-14.7 (-1.0)	5 (.35)	psi (bar)
	3000 (210)	-14.7 (-1.0)	30 (2.1)	psi (bar)
	6000 (420)	-14.7 (-1.0)	60 (4.2)	psi (bar)
	10000 (690)	-14.7 (-1.0)	100 (6.9)	psi (bar)

Selection	Availability			
STG730	↓			
STG740	↓			
STG770		↓		
STG73L			↓	
STG74L			↓	
STG77L				↓
STG78L				↓
STG79L				↓

TABLE I	METER BODY SELECTIONS				
a. Process Head & Diaphragm Materials	Process Head/Reference Head Material <sup>1b</sup>		Barrier Diaphragm Material		
	Plated Carbon Steel / Plated Carbon Steel		316L SS Hastelloy <sup>®</sup> C - 276 Monel 400 <sup>®</sup> Tantalum		
	316 Stainless Steel / 316 Stainless Steel <sup>1c</sup>		316L SS Hastelloy C - 276 Monel 400 Tantalum		
	Hastelloy C - 276 / 316 Stainless Steel		Hastelloy C - 276 Tantalum		
	Monel 400 / 316 Stainless Steel		Monel 400		
b. Fill Fluid	Silicone Oil 200 Fluorinated Oil CTFE Silicone Oil 704 NEOBEE <sup>®</sup> M-20				
c. Process Connection	Size/Type		Material		
	9/16" Aminco		Same as Process Head		
	1/2" NPT (female)		Same as Process Head <sup>1a</sup>		
	1/2" NPT (male)		Same as Process Head		
	DIN 19213 (1/4" female NPT)		Same as Process Head		
	G 1/2 B Threaded Fitting M20 (male)		Same as Process Head Same as Process Head		
d. Bolt/Nuts Materials	None Carbon Steel 316 SS Grade 660 (NACE A286) with NACE 304 SS Nuts Grade 660 (NACE A286) Bolts & Nuts Monel K500 Super Duplex B7M				
	Head Type		Vent Type	Location	Vent Material
	None		None	None	None
	Single Ended		None	None	None
	Single Ended		Standard Vent	Side	Matches Head Material <sup>1</sup>
	Single Ended		Center Vent	Side	Stainless Steel Only
	Dual Ended		Standard Vent	End	Matches Head Material <sup>1</sup>
Dual Ended		Center Vent	End	Stainless Steel only	
Dual Ended		Std Vent/Plug	Side/End	Matches Head Material <sup>1</sup>	
f. Gasket Materials	None Teflon <sup>®</sup> or PTFE (Glass Filled) Viton <sup>®</sup> Graphite				

A _____	*	*			
B _____	*	*			
C _____	*	*			
D _____	a	a			
E _____	*	*	*	*	*
F _____	*	*	*	*	*
G _____	*	*	*	*	*
H _____	a	a			
J _____	*	*	*	*	*
K _____	a	a			
L _____	a	a			
_1_____	*	*	*	*	*
_2_____	*	*	*	*	*
_3_____	*	*	*	*	*
_4_____	*	*	*	*	*

_A_____	*	*	*	*	*
_G_____	*	*	*	*	*
_H_____	*	*	*	*	*
_D_____	*	*	*	*	*
_B_____	*	*	*	*	*
_N_____	*	*	*	*	*
_0_____	*	*	*	*	*
_C_____	*	*			
_S_____	*	*			
_N_____	*	*			
_K_____	p	p			
_M_____	p	p			
_D_____	p	p			
_B_____	*	*			

____0_	*	*	*	*	*
____1_	*	*			
____2_	*	*			
____3_	t	t			
____4_	*	*			
____5_	t	t			
____6_	*	*			
____0	*	*	*	*	*
____A	*	*			
____B	*	*			
____C	*	*			

<sup>1</sup> Except Carbon Steel Heads shall use 316SS Vent/Drain & Plugs and or 1/2" adapters  
<sup>1a</sup> STG730,740,770 supplied via 1/2" flange adapter same material as process head except carbon steel shall use 316 SS  
<sup>1b</sup> Reference head available with Dual Head Gage models only. In-Line Gage models are supplied with Process Head only.  
<sup>1c</sup> When selected for In-Line Gage models the Process Head / Bonnet is supplied in Dual Certified SS316/316L



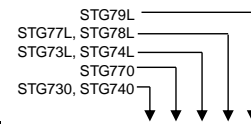


TABLE II		Meter Body & Connection Orientation	
Head/Connect Orientation	Standard	High Side Left, Low Side Right <sup>2</sup> / Std Head Orientation	
	Reversed	Low Side Left, High Side Right <sup>2</sup> / Std Head Orientation	
	90/Standard	High Side Left, Low Side Right <sup>2</sup> / 90° Head Rotation	

1	*	*	*	*	*
2	*	*			
3	h	h			

TABLE III		AGENCY APPROVALS	
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		
	KOSHA Explosion proof, Intrinsically Safe & Non-incendive		
	EAC Customs Union (Russia,Belarus,Kazakhstan)Ex Approval Flame proof, Intrinsically Safe		
	ATEX/IECEX Explosion proof, Intrinsically Safe & Non-incendive		
	CCoE Explosion proof, Intrinsically Safe & Non-incendive		
	UATR Flameproof, Intrinsically Safe & Dustproof		

0	*	*	*	*	*
A	*	*	*	*	*
B	*	*	*	*	p
C	*	*	*	*	*
D	*	*	*	*	*
E	*	*	*	*	*
F	*	*	*	*	*
G	*	*	*	*	*
H	*	*	*	*	*
I	*	*	*	*	*
J	*	*	*	*	*
K	*	*	*	*	*

TABLE IV		TRANSMITTER ELECTRONICS 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	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	
	Advanced	None	EN, GE, FR, IT, SP, RU, TU	
	Advanced	Yes	EN, GR, FR, IT, SP, RU, TU	
	Advanced	None	EN, CH, JP	
	Advanced	Yes	EN, CH, JP	
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 _	*	*	*	*	*
_ D _	*	*	*	*	*

__ 0	*	*	*	*	*
__ A	*	*	*	*	*
__ D	*	*	*	*	*
__ E	*	*	*	*	*
__ H	*	*	*	*	*
__ J	*	*	*	*	*
__ S	u	u	u	u	u
__ T	u	u	u	u	u

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 <sup>3</sup>	
	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)	
c. General Configuration	General Configuration			
	Factory Standard			
Custom Configuration (Unit Data Required from customer)				

1 __	*	*	*	*	*
------	---	---	---	---	---

_ 1 _	*	*	*	*	*
_ 2 _	*	*	*	*	*
_ 3 _	*	*	*	*	*
_ 4 _	*	*	*	*	*

__ S	*	*	*	*	*
__ C	*	*	*	*	*

<sup>2</sup> Left side/Right side as viewed from the customer connection perspective

<sup>3</sup> NAMUR Output Limits are configurable by customer

TABLE VI CALIBRATION & ACCURACY SELECTIONS			
Accuracy and Calibration	Accuracy	Calibrated Range	Calibration Qty
	Standard	Factory Standard	Single Calibration
	Standard	Custom (Unit Data Required)	Single Calibration
	High Accuracy	Factory Standard	Single Calibration
	High Accuracy	Custom (Unit Data Required)	Single Calibration

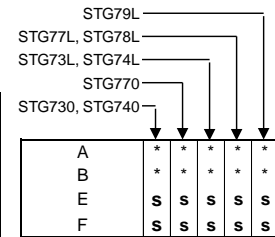


TABLE VII ACCESSORY SELECTIONS		
	Bracket Type	Material
a. Mounting Bracket	None	None
	Angle Bracket	Carbon Steel
	Angle Bracket	304 SS
	Angle Bracket	316 SS
	Marine Approved Bracket	Carbon Steel
	Marine Approved Bracket (In-Line)	Carbon Steel
	Marine Approved Bracket	304 SS
	Marine Approved Bracket (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)	
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	
	Minifast® 4 pin (1/2 NPT) (not suitable for X-Proof applications)	
	Minifast® 4 pin (M20) (not suitable for X-Proof applications)	

0	---	*	*	*	*	*
1	---	*	*	*	*	*
2	---	*	*	*	*	*
3	---	*	*	*	*	*
8	---	*	*	*	*	*
9	---	*	*	*	*	*
4	---	*	*	*	*	*
A	---	*	*	*	*	*
5	---	*	*	*	*	*
6	---	*	*	*	*	*
7	---	*	*	*	*	*

_	0	_	*	*	*	*	*
_	1	_	*	*	*	*	*
_	2	_	*	*	*	*	*

_	A0	*	*	*	*	*
_	A2	n	n	n	n	n
_	A6	n	n	n	n	n
_	A7	m	m	m	m	m
_	A8	n	n	n	n	n
_	A9	m	m	m	m	m

TABLE VIII OTHER Certifications & Options: (String in sequence comma delimited (XX, XX, XX,...))	
Certifications & Warranty	No additional options
	NACE MR0175; MR0103; ISO15156 (FC33338) Process wetted parts only
	NACE MR0175; MR0103; ISO15156 (FC33339) Process wetted and non-wetted parts
	Marine (DNV, ABS, BV, KR, LR)
	EN10204 Type 3.1 Material Traceability (FC33341)
	Certificate of Conformance (F3391)
	Calibration Test Report & Certificate of Conformance (F3399)
	Certificate of Origin (F0195)
	FMEDA (SIL 2/3) Certification (FC33337)
	Over-Pressure Leak Test Certificate (1.5X MAWP) (F3392)
	Cert Clean for O <sub>2</sub> or CL <sub>2</sub> service per ASTM G93
	PMI Certification <sup>1</sup>
	Extended Warranty Additional 1 year
	Extended Warranty Additional 2 years
	Extended Warranty Additional 3 years
Extended Warranty Additional 4 years	

00	*	*	*	*	*	
FG	*	*	*	*	*	
F7	c	c	c	c	c	b
MT	d	d	d	d	d	
FX	*	*	*	*	*	
F3	*	*	*	*	*	
F1	*	*	*	*	*	b
F5	*	*	*	*	*	
FE	j	j	j	j	j	
TP	*	*	*	*	*	
OX	e	e	e	e	e	
PM	*	*	*	*	*	
01	*	*	*	*	*	
02	*	*	*	*	*	
03	*	*	*	*	*	b
04	*	*	*	*	*	

TABLE IX Manufacturing Specials	
Factory	Factory Identification

0	0	0	0	*	*	*	*	*
---	---	---	---	---	---	---	---	---

**RESTRICTIONS**

Restriction Letter	Available Only with		Not Available with	
	Table	Selection(s)	Table	Selection(s)
a			VIII	FG, F7
b	Select Only one option from this group			
c	Id	__ 0,N,K,D,B __	I a	D,H,K,L __
d	IV a	C,D,G,H __	VIIa	1,2,3,5,6,7 __
e	Ib	_ 2 _		
h			Ie	4, 5, 6
			VIIa	1,2,3,4,5,6,7,8 __
j	IV b	_ H _	Vb	_ 1,2 _
m	IV a	B,D,F,H __		
n	IV a	A,C,E,G __		
p			III	B- No CRN number available
s	I a	A, E _ _ _ _ _		
t			Ia	J, K, L _ _ _ _ _
u	IVb	_ H _		

<sup>1</sup>The PM option is available on all Smartline Pressure Transmitter process wetted parts such as process heads, flanges, bushings and vent plugs except plated carbon steel process heads and flanges. PM option information is also available on diaphragms except STG and STA in-line construction pressure transmitters.

**FIELD INSTALLABLE ACCESSORY KITS**

Description
Integrally Mounted Basic Indicator Kit (Compatible with all Electronic Modules)
Terminal Strip w/Lightning Protection Kit for HART or DE Modules
Terminal Strip w/Lightning Protection Kit for FFB Module
Terminal Strip w/o Lightning Protection for HART or DE Modules
Terminal Strip w/o Lightening Protection FFB-Module
HART Electronics Module
HART Electronics Module w/connection for external configuration buttons
DE Electronics Module
DE Electronics Module w/connection for external configuration buttons
FFB Electronics Module Kit
FFB Electronics Module w/connection for external configuration buttons
Standard Display Module

Kit Number
50049911-501
50075472-532
50075472-534
50075472-531
50075472-533
50049849-501
50049849-502
50049849-503
50049849-504
50049849-509
50049849-510
50126003-501

Price
Note P
Note P
Note P
Note P
Note P
Note P
Note P
Note P
Note P
Note P
Note P

Note P - For part number pricing please refer to WEB Channel

**PRODUCT MANUALS**

Description
ST 700 Smart Transmitter User Manual - English
ST 700 Smart Transmitter HART/DE Communications Manual - English
sT 700 Smart Transmitter Safety Manual - English
ST700 Smart Transmitter Foundation Fieldbus Manual - English
ST 700 Smart Transmitter Function Block Manual - English

Part Number
34-ST-25-44
34-ST-25-47
34-ST-25-37
34-ST-25-48
34-ST-25-49

All product documentation is available at [www.process.honeywell.com](http://www.process.honeywell.com).

## 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](mailto: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](mailto:FP-Sales-Apps@Honeywell.com)  
or  
(TAC)  
[hfs-tac-support@honeywell.com](mailto: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](mailto:FP-Sales-Apps@Honeywell.com)  
or  
(TAC)  
[hfs-tac-support@honeywell.com](mailto: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 Pressure  
Transmitters visit  
[www.process.honeywell.com](http://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](http://www.process.honeywell.com)

# Honeywell

34-ST-03-102  
March 2024

©2024 Honeywell International Inc.