

STG73P SmartLine Flush Mount Gauge Pressure Specification 34-ST-03-108, March 2020



Introduction

Part of the SmartLine® family of products, the STG73P is a gauge pressure transmitter with a flush mounted diaphragm. Installed using a 1" sleeve welded to the process piping the diaphragm face may be situated flush with the process piping wall. Typically applied to applications such as head boxes in pulp and paper mills, flush mounting eliminates the possibility of clogging. In addition the transmitter mounting facilitates rapid and trouble free replacement.

Best in Class Features:

- Flush mounting design.
- Accuracy up to 0.065 % of calibrated span
- Stability up to 0.020% of URL per year for 10 years
- Automatic temperature compensation
- Rangeability up to 100:1
- Response times as fast as 100ms
- Alphanumeric display capabilities
- External zero, span, & configuration capability
- Polarity insensitive electrical connections
- 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

Span & Range Limits:

Model	URL/Max Span psig (barg)	LRL psig (barg)	Min Span	Turn down
STG73P	100 (7.0)	-14.7 (-1.0)	1 (0.07)	100:1



Figure 1 – STG73P Flush Mount Gauge Pressure Transmitters feature field-proven piezoresistive sensor technology

Communications/Output Options:

- Honeywell Digitally Enhanced (DE)
- HART® (version 7.0)
- FOUNDATION™ Fieldbus

All transmitters are available with the above listed communications protocols.

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.

Indication/Display Option

The ST 700 modular design accommodates a basic alphanumeric LCD display.

Basic Alphanumeric LCD Display Features

- Modular (may be added or removed in the field)
- 0, 90,180, & 270 degree position adjustments
- Configurable and standard (Pa, KPa, MPa, KGcm², Torr, ATM, inH₂O, mH₂O, bar, mbar, inH₂O, inHG, FTH₂O, mmH₂O, mm HG, & psi) measurement units
- 2 Lines 16 Characters (4.13H x 1.83W mm)
- Square root output indication (√)

Simple LCD Display Features

- Modular (may be added or removed in the field)
- Supports HART protocol variant
- 0, 90,180, & 270 degree position adjustments
- Configurable (HART only) and standard (Pa, KPa, MPa, KGcm², Torr, ATM, inH₂O, mH₂O, bar, mbar, inH₂O, inHG, FTH₂O, mmH₂O, mm HG, & psi) measurement units.
- Supports Flow engineering units
- 2 Lines 6 digits PV (9.95H x 4.20W mm) 8 Characters
- Square root output indication (√) and Write protect Indication
- Built in Basic Device Configuration through Internal Buttons – Range/Engineering Unit/Loop Test /Loop Calibration/Zero /Span Setting

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/Fieldbus.
- 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

External 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 a display option is selected. Zero/span capabilities are also optionally available via these buttons with or without selection of the display option.

Internal Two Button Configuration Option

The Simple display has two buttons that can be used for Basic configuration such as re ranging, PV Engineering unit setting, Zero/Span settings and Loop testing and calibration functions.

Hand Held Configuration

SmartLine transmitters feature two-way communication and configuration capability between the operator and the transmitter. This is accomplished via Honeywell's field-rated Multiple Communication Configurator (MCT404). The MCT404 is capable of field configuring DE and HART Devices and can also be ordered for use in intrinsically safe environments. All Honeywell transmitters are designed and tested for compliance with the offered communication protocols and are designed to operate with any properly validated hand held configuration device.

Personal Computer Configuration

Honeywell's SCT 3000 Configuration Toolkit provides an easy way to configure Digitally Enhanced (DE) instruments using a personal computer as the configuration interface. Field Device Manager (FDM) Software and FDM Express are also available for managing HART & Fieldbus 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, 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)

Model	URL	LRL	Min Span	Maximum Turndown Ratio	Stability (% URL/Year for 10 years)	Reference Accuracy ^{1,2} (% Span)
STG73P	100 psi (7.0 bar)	-14.7 psi (-1.0 bar)	1.0 psi (0.07 bar)	100:1	0.020%	0.065%

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

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

Model	URL	Accuracy ^{1,2} (% of Span)				Combined Zero & Span Temperature Effect (% Span/50°F)	
		For Turndowns Greater Than	A	B	C psi (bar)	D	E
STG73P	100 psi (7.0 bar)	5:1	0.025	0.04	20 (1.4)	0.050	0.050
Turn Down Effect $\pm \left[A + B \left(\frac{C}{\text{Span}} \right) \right]$ % Span					Temp Effect $\pm \left[D + E \left(\frac{\text{URL}}{\text{Span}} \right) \right]$ % Span per 28°C (50°F)		

Total Performance (% of Span):

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

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

STG73P @20 psi: 0.307% 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.

Operating Conditions – All Models

Parameter	Reference Condition		Rated Condition		Operative Limits		Transportation and Storage	
	°C	°F	°C	°F	°C	°F	°C	°F
Ambient Temperature ¹	25±1	77±2	-15 to 65	5 to 149	-15 to 65	5 to 149	-55 to 75	-67 to 167
Process Interface Temperature	25±1	77±2	-15 to 65	5 to 149	-15 to 95 ²	5 to 203	N/A	N/A
Humidity %RH	10 to 55		0 to 100		0 to 100		0 to 100	
Vac. Region – Min. Pressure mmHg absolute inH ₂ O absolute	Atmospheric Atmospheric		300 150		2 (short term) ³ 1 (short term) ³			
Supply Voltage Load Resistance	10.8 to 42.4 Vdc at terminals 0 to 1,440 ohms (as shown in Figure 2)							
Maximum Allowable Working Pressure (MAWP) ^{4, 5} (ST700 products are rated to Maximum Allowable Working Pressure. MAWP depends on Approval Agency and transmitter materials of construction.)	STG73P: 100 psi (7.0 bar)							

¹ LCD Display Storage temperature lower limit is -30°C.

² Process temperatures above 65°C (149°F) require a 1:1 reduction in maximum ambient temperature.

³ Short term equals 2 hours at 70°C (158°F)

⁴ Units can withstand overpressure of 1.5 x MAWP without damage

⁵ Consult factory for MAWP of ST 700 transmitters with CRN approval

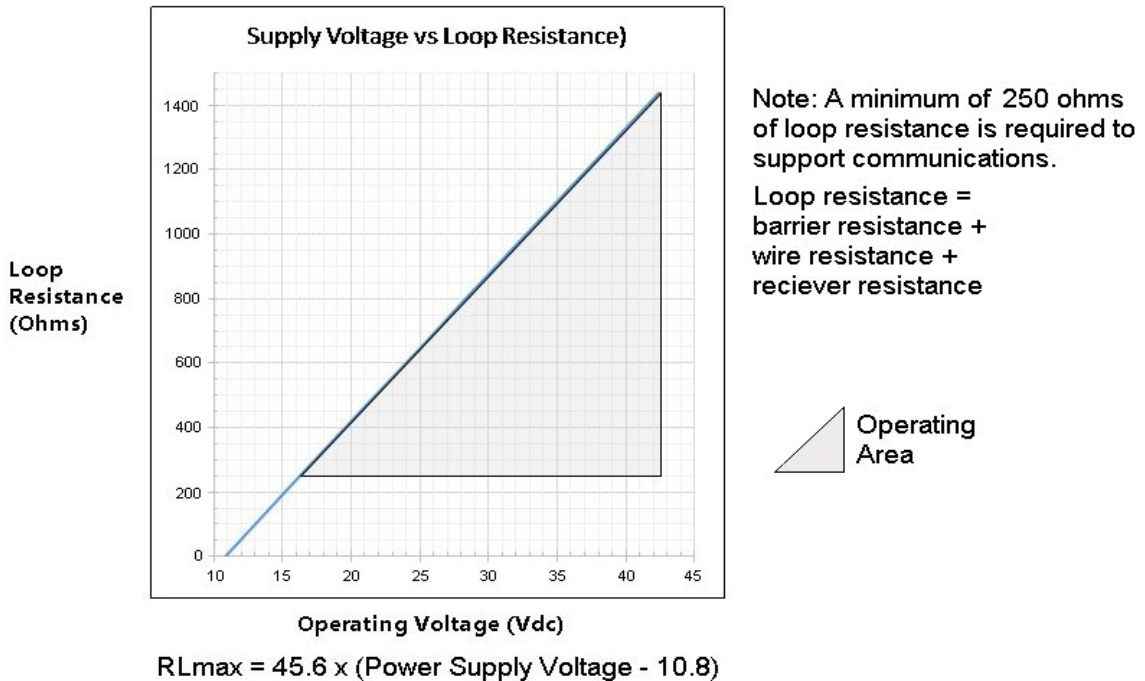


Figure 2 - Supply voltage and loop resistance chart & calculations

Performance Under Rated Conditions – All Models

Parameter	Description									
Analog Output Digital Communications:	Two-wire, 4 to 20 mA (HART & DE Transmitters only) Honeywell DE, HART 7 protocol or FOUNDATION Fieldbus ITK 6.0.1 compliant All transmitters, irrespective of protocol have polarity insensitive connection.									
Output Failure Modes (configurable)	<table style="width: 100%; border: none;"> <tr> <td style="width: 33%;"></td> <td style="text-align: center;">Honeywell Standard:</td> <td style="text-align: center;">NAMUR NE 43 Compliance:</td> </tr> <tr> <td>Normal Limits:</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>Failure Mode:</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>		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)	HART or DE: 2.5 sec Foundation Fieldbus: Host dependant									
Response Time (delay + time constant)	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"><u>DE/HART Protocol</u></td> <td style="text-align: center;"><u>FOUNDATION Fieldbus</u></td> </tr> <tr> <td style="text-align: center;">100ms</td> <td style="text-align: center;">150ms (Host Dependant)</td> </tr> </table>	<u>DE/HART Protocol</u>	<u>FOUNDATION Fieldbus</u>	100ms	150ms (Host Dependant)					
<u>DE/HART Protocol</u>	<u>FOUNDATION Fieldbus</u>									
100ms	150ms (Host Dependant)									
Damping Time Constant	HART: Adjustable from 0 to 32 seconds in 0.1 increments. Default Value: 0.5 seconds DE: Discrete values 0, 0.16, 0.32, 0.48, 1, 2, 4, 8, 16, 32 seconds. Default Value: 0.48 seconds									
Vibration Effect:	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)									
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 Diaphragms (wetted)	Hastelloy [®] C-276 ²
Meter Body Materials (wetted)	316L Stainless Steel
Process Seal	Viton [®] O-ring
Fill Fluid	Silicone oil 200
Mounting Bracket	Carbon Steel (Zinc-Chromate plated) or 304 Stainless Steel or 316 Stainless Steel. See Figures 4 & 5
Electronic Housing	Pure Polyester Powder Coated Low Copper (<0.4%)-Aluminum. Meets NEMA 4X, IP66, IP67 and NEMA 7 (explosion proof). All stainless steel housing is optional.
Process Connection Type	STG73P: Flush mount in 1" sleeve with O-ring and locking bolt.
Wiring	Accepts up to 16 AWG (1.5 mm diameter).
Dimensions	See Figures 4
Net Weight	STG73P: 3.9 pounds (1.8 Kg) with Aluminum Housing

² Hastelloy[®] C-276 or UNS N10276

Communications Protocols & Diagnostics

HART Protocol

Version:

HART 7

Power Supply

Voltage: 10.8 to 42.4Vdc at terminals

Load: Maximum 1440 ohms See figure 2

Minimum Load: 0 ohms. (For handheld communications a minimum load of 250 ohms is required)

Foundation Fieldbus (FF)

Power Supply Requirements

Voltage: 9.0 to 32.0Vdc at terminals

Steady State Current: 17.6mAdc

Software Download Current: 27.4mAdc

Available Function Blocks

Block Type	Qty	Execution Time
Resource	1	n/a
Transducer	1	n/a
Diagnostic	1	n/a
Analog Input	1*	30 ms
PID w/Autotune	1	45 ms
Integrator	1	30 ms
Signal Char (SC)	1	30 ms
LCD Display	1	n/a
Flow Block	1	30 ms
Input Selector	1	30 ms
Arithmetic	1	30 ms

* AI block may have two (2) additional instantiations.

All available function blocks adhere to FOUNDATION Fieldbus standards. PID blocks support ideal & robust PID algorithms with full implementation of Auto-tuning.

Link Active Scheduler

Transmitters can perform as a backup Link Active Scheduler and take over when the host is disconnected.

Acting as a LAS, the device ensures scheduled data transfers typically used for the regular, cyclic transfer of control loop data between devices on the Fieldbus.

Number of Devices/Segment

Entity IS model: 6 devices/segment

Schedule Entries

18 maximum schedule entries

Number of VCR's: 24 max

Compliance Testing: Tested according to ITK 6.0.1

Software Download

Utilizes Class-3 of the Common Software Download procedure as per FF-883 which allows the field devices of any manufacturer to receive software upgrades from any host.

Honeywell Digitally Enhanced (DE)

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

Power Supply

Voltage: 10.8 to 42.4Vdc at terminals

Load: Maximum 1440 ohms See figure 2

Standard Diagnostics

ST 700 top level diagnostics are reported as either critical or non-critical and readable via the DD/DTM tools or integral display as shown

Critical Diagnostics

HART DD/DTM Tools	Basic Display	Simple Display
Electronic Module DAC Failure	Electronics module fault	Fault Comm EI
Meter Body NVM Corrupt	Meter Body fault	Fault Mtrbody
Config. Data Corrupt	Electronics module fault	Fault Comm EI
Electronic Module Diag Failure	Electronics module fault	Fault Comm EI
Meter Body Critical Failure	Meter Body fault	Fault Mtrbody
Sensor Comms Timeout	Meter Body Comm fault	Fault Mbd Com

Non-Critical Diagnostics

HART DD/DTM Tools
Display Failure
Electronic Module Comm Failure
Meter Body Excess Correct
Sensor Over Temperature
Fixed Current Mode
PV Out of Range
No Factory Calibration
No DAC Compensation
LRV Set Error – Zero Config. Button
URV Set Error – Zero Config. Button
AO Out of Range
Loop Current Noise
Meter Body Unreliable Comm
Tamper Alarm,
No DAC Calibration
Sensor Supply Voltage Low

Refer to ST 700 manuals for additional level diagnostic information.

Approval Certifications:

AGENCY	TYPE OF PROTECTION	COMM. OPTION	FIELD PARAMETERS	AMBIENT TEMP (Ta)
FM Approvals™	Explosionproof: Class I, Division 1, Groups A, B, C, D; Dust Ignition Proof: Class II, III, Division 1, Groups E, F, G; T4 Class I, Zone 0/1, AEx d IIC Ga/Gb Class II, Zone 21, AEx tb IIIC Db T 95°C	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 Ga T4 FISCO Field Device (Only for FF Option) Ex ia IIC T4	4-20 mA / DE/ HART	Note 2a	-50 °C to 70°C
	Nonincendive: Class I, Division 2, Groups A, B, C, D locations, Class I, Zone 2, AEx nA IIC Gc T4	Foundation Fieldbus	Note 2b	-50 °C to 70°C
	Enclosure: Type 4X/ IP66/ IP67	4-20 mA / DE/ HART/ Foundation Fieldbus	Note 1	-50 °C to 85°C
		All	All	-
Canadian Standards Association (CSA)	Explosion Proof: Class I, Division 1, Groups A, B, C, D; Dust Ignition Proof: Class II, III, Division 1, Groups E, F, G; Ex d IIC Ga Ex tb IIIC Db T 95°C	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 Ex ia IIC Ga T4 FISCO Field Device (Only for FF Option) Ex ia IIC T4	4-20 mA / DE/ HART	Note 2a	-50 °C to 70°C
	Nonincendive: Class I, Division 2, Groups A, B, C, D; T4 Ex nA IIC Gc T4	Foundation Fieldbus	Note 2b	-50 °C to 70°C
	Enclosure: Type 4X/ IP66/ IP67	4-20 mA / DE/ HART/ Foundation Fieldbus	Note 1	-50 °C to 85°C
		All	All	-

Approval Certifications: (Continued)

ATEX	Flameproof: II 1/2 G Ex d IIC Ga/Gb II 2 D Ex tb IIIC Db T 95°C	All	Note 1	T5: -50 °C to 85°C T6: -50 °C to 65°C
	Intrinsically Safe: II 1 G Ex ia IIC Ga T4	4-20 mA / DE/ HART	Note 2a	-50 °C to 70°C
	FISCO Field Device (Only for FF Option) Ex ia IIC T4	Foundation Fieldbus	Note 2b	-50 °C to 70°C
	Nonincendive: II 3 G Ex nA IIC Gc T4	4-20 mA / DE/ HART/ Foundation Fieldbus	Note 1	-50 °C to 85°C
	Enclosure: IP66/ IP67	All	All	-
IECEX (World)	Flameproof : Ex d IIC Ga/Gb T4 Ex tb IIIC Db T 95°C	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 / DE/ HART	Note 2a	-50 °C to 70°C
	FISCO Field Device (Only for FF Option) Ex ia IIC T4	Foundation Fieldbus	Note 2b	-50 °C to 70°C
	Nonincendive: Ex nA IIC Gc T4	4-20 mA / DE/ HART/ Foundation Fieldbus	Note 1	-50 °C to 85°C
	Enclosure: IP66/ IP67	All	All	-
SAEx (South Africa)	Flameproof : Ex d IIC Ga/Gb T4 Ex tb IIIC Db T 95°C	All	Note 1	-50 °C to 85°C
	Intrinsically Safe: Ex ia IIC Ga T4	4-20 mA / DE/ HART	Note 2a	-50 °C to 70°C
	FISCO Field Device (Only for FF Option) Ex ia IIC T4	Foundation Fieldbus	Note 2b	-50 °C to 70°C
	Nonincendive: Ex nA IIC Gc T4	4-20 mA / DE/ HART/ Foundation Fieldbus	Note 1	-50 °C to 85°C
	Enclosure: IP66/ IP67	All	All	-
INMETRO (Brazil)	Flameproof: Ex d IIC Ga/ Gb T4 Ex tb IIIC Db T 95°C	All	Note 1	-50 °C to 85°C
	Intrinsically Safe: Ex ia IIC Ga T4	4-20 mA / DE/ HART	Note 2a	-50 °C to 70°C
	FISCO Field Device (Only for FF Option) Ex ia IIC T4	Foundation Fieldbus	Note 2b	-50 °C to 70°C
	Nonincendive: Ex nA IIC Gc T4	4-20 mA / DE/ HART/ Foundation Fieldbus	Note 1	-50 °C to 85°C
	Enclosure : IP 66/67	All	All	-

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

Approval Certifications: (Continued)

Marine Certificates	<p>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.</p> <p>For SmartLine Pressure Transmitter and SMV800 Smart Multivariable Transmitter</p>
	<p>American Bureau of Shipping (ABS) - 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</p>
	<p>Bureau Veritas (BV) - Product Code: 389:1H. Certificate number: 12660/B0 BV</p>
	<p>Det Norske Veritas (DNV) - Location Classes: Temperature D, Humidity B, Vibration A, EMC B, Enclosure C. For salt spray exposure; enclosure of 316 SST or 2-part epoxy protection with 316 SST bolts to be applied. Certificate number: A-11476</p>
	<p>Korean Register of Shipping (KR) - Certificate number: LOX17743-AE001</p>
	<p>Lloyd's Register (LR) - Certificate number: 02/60001(E1) & (E2)</p>
SIL 2/3 Certification	<p>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.</p>

Other Certification Options

Materials

- NACE MRO175, MRO103, ISO15156

Model Selection Guide

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

**Model STG73P
Flush Mount Pressure Transmitter**

Model Selection Guide
34-ST-16-113 Issue 16

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.

Key	I	II	III	IV	V	VI	VII	VIII	IX
STG73P	-	-	-	-	-	-	-	-	0000

KEY NUMBER	URL/Max Span	LRL	Min Span	Units
Flush Mount	100 (7.0)	-14.7 (-1.0)	1.0 (0.7)	psi (bar)
TABLE I METER BODY SELECTIONS				
a. Process Interface & Diaphragm	Process Interface Material		Barrier Diaphragm Material	
	316L Stainless Steel		Hastelloy® C - 276 ¹	
b. Fill Fluid	Silicone 200			
c. Process Connection	1" Slip in with locking screw (sleeve optional see table VIII)			
d. Bolt/Nuts Materials	None			
e. Vent/Drain	None			
f. Gasket/Seal	Viton O-ring			

Selection	Availability
STG73P	↓

F_____	*
_1_____	*
__1____	*
___0__	*
____0_	*
_____B	*

¹ Hastelloy® C-276 or UNS N10276

TABLE II	Meter Body & Connection Orientation
Head/Connect Orientation	None

0	*
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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/CCoE 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, Intrinsical

0	*
A	*
B	*
C	*
D	*
E	*
F	*
G	*
H	*
I	*

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		HART Protocol
	4-20mA dc none		DE Protocol Foundation Fieldbus
c. Customer Interface Selections	Indicator	Ext Zero, Span & Config Buttons	Languages
	None	None	None
	None	Yes (Zero/Span Only)	None
	Basic	None	EN
	Basic	Yes	EN
Standard (w/internal Zero, Span & Conf Buttons)	None	EN	

A__	*
B__	*
C__	*
D__	*
E__	*
F__	*
G__	*
H__	*

H	*
D	*
F	*

__0	*
__A	f
__B	*
__C	*
__D	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 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)	
	Enabled	N/A	N/A	Fieldbus	
Disabled	N/A	N/A	Fieldbus		
c. General Configuration	General Configuration				
	Factory Standard Custom Configuration (Unit Data Required from customer)				

STG73P

1 _ _	*
_ 1 _	f
_ 2 _	f
_ 3 _	f
_ 4 _	f
_ 5 _	g
_ 6 _	g
_ _ S	*
_ _ C	*

³ NAMUR Output Limits are configurable by customer

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

A	*
B	*

TABLE VII		ACCESSORY SELECTIONS		
a. Mounting Bracket	None(Not required with Flush Mount Unit)			
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			
	Minifast [®] 4 pin (1/2 NPT) (not suitable for X-Proof applications) Minifast [®] 4 pin (M20) (not suitable for X-Proof applications)			

0 _ _ _	*
_ 0 _ _	*
_ 1 _ _	*
_ 2 _ _	*
_ _ A0	*
_ _ A2	n
_ _ A6	n
_ _ A7	m
_ _ A8	n
_ _ A9	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) (FC33340)			
	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)			
	Calibration Fixture (w/1/4" NPT port)			
	PMI Certification ¹			
	316L Stainless 1" Mounting Sleeve (requires customer installation to process piping)			
	Extended Warranty Additional 1 year			
	Extended Warranty Additional 2 years			
	Extended Warranty Additional 3 years			
Extended Warranty Additional 4 years				

00	*	
FG	*	
F7	*	b
MT	d	
FX	*	
F3	*	
F1	*	b
F5	*	
FE	j	
CF	*	
PM	*	
MS	*	
01	*	
02	*	
03	*	b
04	*	

TABLE IX		Manufacturing Specials	
Factory	Factory Identification		

0 0 0 0	*
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RESTRICTIONS

Restriction Letter	Available Only with		Not Available with	
	Table	Selection(s)	Table	Selection(s)
d	Iva	C,D,G,H _ _		
f			IV b	_ F _
g			IVb	_ H,D _
j	IV b	_ H _	Vb	_ 1,2,6 _
m	IV a	B,D,F,H _ _		
n	IV a	A,C,E,G _ _		
u	IV b	_ H _		
b	Select Only one option from this group			

¹The 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	Kit Number
Integrally Mounted Basic Indicator Kit (Compatible with all Electronic Modules)	50049911-501
Terminal Strip w/Lightning Protection Kit for HART or DE Modules	50075472-532
Terminal Strip w/Lightning Protection Kit for FFB Module	50075472-534
Terminal Strip w/o Lightning Protection for HART or DE Modules	50075472-531
Terminal Strip w/o Lightening Protection FFB-Module	50075472-533
HART Electronics Module	50049849-501
HART Electronics Module w/connection for external configuration buttons	50049849-502
DE Electronics Module	50049849-503
DE Electronics Module w/connection for external configuration buttons	50049849-504
FFB Electronics Module Kit	50049849-509
FFB Electronics Module w/connection for external configuration buttons	50049849-510
Standard Display Module	50126003-501

PRODUCT MANUALS

Description	Part Number
ST 700 SmartLine Transmitter User Manual - English	34-ST-25-44
ST 700 SmartLine Transmitter HART/DE Communications Manual - English	34-ST-25-47
ST 700 SmartLine Transmitter Safety Manual - English	34-ST-25-37
ST700 SmartLine Transmitter Foundation Fieldbus Manual - English	34-ST-25-48
ST 700 SmartLine Transmitter Function Block Manual - English	34-ST-25-49

All product documentation is available at www.honeywellprocess.com.

Sales and Service

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

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Toll Free 1300-36-39-36
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1300-36-04-70

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Phone: +(65) 6580 3278
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South Korea

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

EMEA

Honeywell Process Solutions,
Phone: + 80012026455 or
+44 (0)1344 656000

Email: (Sales)

FP-Sales-Apps@Honeywell.com

or

(TAC)

hfs-tac-support@honeywell.com

AMERICA'S

Honeywell Process Solutions,
Phone: (TAC) 1-800-423-9883 or
215/641-3610
(Sales) 1-800-343-0228

Email: (Sales)

FP-Sales-Apps@Honeywell.com

or

(TAC)

hfs-tac-support@honeywell.com

Specifications are subject to change without notice.

For more information

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

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34-ST-03-108
March 2020
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