

Model Selection Guides are subject to change and are inserted into the specifications as guidance only. Prior to specifying or ordering a model check for the latest revision Model Selection Guides which are published at: <http://hpsweb.honeywell.com/Cultures/en-US/Products/Instrumentation/ProductModelSelectionGuides/default.htm>

Model Selection Guide

ST 3000 Smart Transmitter Differential Pressure (DP) Series 900 Model Selection Guide



34-ST-16U-24
Issue 55
Page 1 of 5

Instructions

- Select the desired Key Number. The arrow to the right marks the selection available.
- Make one selection from each Table (I, II and IV), using the column below the proper arrow.
- Select as many Table III options as desired plus a communications option selection.
- A (●) denotes unrestricted availability. A letter denotes restricted availability.
- Restrictions follow Table IV.

Key Number - I - II (0000) - III (Optional) + IV (XXXX)

KEY NUMBER

Span	Selection	Availability
0-4" to 0-400" H ₂ O / 0-10 to 0-1,000 mbar Body Rating: 4,500 psi (310 bar)	STD924	↓
0-1 to 0-100 psi / 0-0.07 to 0-7 bar Body Rating: 4,500 psi (310 bar)	STD930	↓
0-30 to 0-3,000 psi / 0-2.1 to 0-210 bar Body Rating: 4,500 psi (310 bar)	STD974	↓

Important Note: Base STD models no longer include a default communications option. All units now require the selection of a communication option from Table III (AN, DE, HC, H6 or FF).

TABLE I - METER BODY

	Process Wetted Heads	Vent/Drain Valves and Plugs ²	Barrier Diaphragms	Selection			
Materials of Construction	Carbon Steel ¹	316 SS	316L SS	A __	●	●	●
	Carbon Steel ¹	316 SS	Hastelloy® C-276 ³	B __	●	●	●
	Carbon Steel ¹	316 SS	Monel 400 ⁴	C __	19	19	19
	Carbon Steel ¹	316 SS	Tantalum	D __	●	●	●
	316 SS ⁵	316 SS	316L SS	E __	●	●	●
	316 SS ⁵	316 SS	Hastelloy® C-276 ³	F __	●	●	●
	316 SS ⁵	316 SS	Monel 400 ⁴	G __	19	19	19
	316 SS ⁵	316 SS	Tantalum	H __	●	●	●
	Hastelloy® C ^{3,6}	Hastelloy® C-276 ³	Hastelloy® C-276 ³	J __	●	●	●
	Hastelloy® C ^{3,6}	Hastelloy® C-276 ³	Tantalum	K __	●	●	●
Monel 400 ^{4,7}	Monel 400 ⁹	Monel 400 ⁴	L __	19	19	19	
Fill Fluid	DC® 200 Silicone			_ 1 _	●	●	●
	CTFE			_ 2 _	●	●	●
Process Head Configuration	1/4 NPT			_ _ A	●	●	●
	1/2 NPT with Adapter (on 1/4 NPT Head)			_ _ H	t	t	t

TABLE II

	Selection			
No Selection	00000	●	●	●

¹ 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.

² Vent/Drains are sealed with Teflon® or PTFE.

³ Hastelloy® C-276 or UNS N10276

⁴ Monel 400® or UNS N04400

⁵ Supplied as 316 SS or as Grade CF8M, the casting equivalent of 316 SS.

⁶ Supplied as indicated or as Grade CW12MW, the casting equivalent of Hastelloy® C-276

⁷ Supplied as indicated or as Grade M30C the casting equivalent of Monel 400®

⁹ Monel 400® or UNS N04400 or UNS N04405



TABLE III - OPTIONS

	Selection	Availability			
		24	30	74	
Communication Options (Must choose a communications option)					
Analog only (can be configured using appropriate Honeywell DE tool)	AN	•	•	•	b
DE Protocol communications	DE	•	•	•	
HART® 6.x Protocol Compatible Electronics	H6	•	•	•	
FOUNDATION™ Fieldbus Communications	FF	r	r	r	
Indicating Meter Options					
Analog Meter (0-100 Even 0-10 Square Root)	ME	•	•	•	b
Smart Meter	SM	•	•	•	
Custom Configuration of Smart Meter	CI	e	e	e	b
Local Zero	LZ	x	x	x	
Local Zero and Span	ZS	m	m	m	
Transmitter Housing & Electronics Options					
No housing conduit plugs or adaptors come standard with the ST 3000.					
For certain approval codes, you must select a certified conduit plug from below and it will come packaged in the box with your transmitter.					
316 SS ⁵ Electronics Housing - (with M20 conduit connections)	SH	n	n	n	b
316 SS ⁵ Electronics Housing - (with M20 to 1/2 NPT 316 SS conduit adaptor for use with FM and CSA Approval codes)	A3	i	i	i	
1/2 NPT Male to M20 Female 316 SS Certified Conduit Adapter (ATEX, CSA & IECEx)	A1	•	•	•	b
1/2 NPT Male to 3/4 NPT Female 316 SS Certified Conduit Adapter (ATEX, CSA & IECEx)	A2	•	•	•	
M20 Male to 1/2 NPT Female 316 SS Certified Conduit Adaptor (ATEX, CSA & IECEx)	A4	•	•	•	b
1/2 NPT Zinc-plated Certified Conduit Plug (ATEX, CSA & IECEx)	A5	•	•	•	
1/2 NPT 316 SS Certified Conduit Plug (ATEX, CSA & IECEx)	A6	•	•	•	b
M20 316 SS Certified Conduit Plug (ATEX, CSA & IECEx)	A7	•	•	•	
1/2 NPT Non-certified Conduit plug (Zinc-plated carbon steel, general use)	A8	•	•	•	b
NAMUR Failsafe Software	NE	15	15	15	
SIL 2 - TÜV Certified transmitter (requires HC/H6 and WP options)	SL	p	p	p	b
Lightning Protection	LP	•	•	•	
Custom Calibration and I.D. in Memory	CC	•	•	•	b
Transmitter Configuration - (non-Fieldbus)	TC	15	15	15	
Transmitter Configuration - (Fieldbus)	FC	21	21	21	b
Write Protection (Delivered in the "enabled" position)	WP	•	•	•	
Write Protection (Delivered in the "disabled" position)	WX	•	•	•	b
Stainless Steel Customer Wired-On Tag (4 lines, 26 characters per line, customer supplied information)	TG	•	•	•	
Stainless Steel Customer Wired-On Tag (blank)	TB	•	•	•	b
Low Temperature (-50° C Ambient Limit)	LT	18			
Meter Body Options (Seal bolt material depends on Transmitter bolt material)					
316 SS Bolts and 316 SS Nuts for Process Heads	SS	•	•	•	b
B7M Bolts and Nuts for Process Heads	B7	•	•	•	
NACE A286 SS Bolts and NACE 304 SS Nuts for Process Heads	CR	•	•	•	b
316 SS ⁵ Adapter Flange - 1/2 NPT with CS Bolts	S2	c	c	c	
316 SS ⁵ Adapter Flange - 1/2 NPT with 316 SS Bolts	S3	c	c	c	b
316 SS ⁵ Adapter Flange - 1/2 NPT with NACE A286 SS Bolts	S4	c	c	c	
316 SS ⁵ Adapter Flange - 1/2 NPT with B7M Bolts	S5	c	c	c	b
Hastelloy® C-276 ^{3,6} Adapter Flange - 1/2 NPT with CS Bolts	T2	c	c	c	
Hastelloy® C-276 ^{3,6} Adapter Flange - 1/2 NPT with 316 SS Bolts	T3	c	c	c	b
Monel 400® ^{4,7} Adapter Flange - 1/2 NPT with CS Bolts	V2	c	c	c	
Monel 400® ^{4,7} Adapter Flange - 1/2 NPT with 316 SS Bolts	V3	c	c	c	b
316 SS ⁵ Blind Adapter Flange with CS Bolts	B3	•	•	•	
316 SS ⁵ Blind Adapter Flange with 316 SS Bolts	B4	•	•	•	b
316 SS ⁵ Blind Adapter Flange with NACE A286 SS Bolts	B5	•	•	•	
316 SS ⁵ Blind Adapter Flange with B7M Bolts	B6	•	•	•	b
Side Vent/Drain (End Vent Drain is standard)	SV	•	•	•	
316 SS Center Vent Drain and Bushing	CV	•	•	•	b
Viton® ⁸ Process Head Gaskets (adapter gaskets ordered separately)	VT	•	•	•	
Graphite Process Head & Adapter Flange Gaskets	GF	•	•	•	b
Viton® ⁸ Adapter Flange Gaskets	VF	17	17	17	

³ Hastelloy® C-276 or UNS N10276

⁴ Monel 400® or UNS N04400

⁵ Supplied as 316 SS or as Grade CF8M, the casting equivalent of 316 SS.

⁶ Supplied as indicated or as Grade CW12MW, the casting equivalent of Hastelloy® C-276

⁷ Supplied as indicated or as Grade M30C, the casting equivalent of Monel 400®

⁸ Viton® or Fluorocarbon Elastomer



TABLE III - OPTIONS (continued)	Selection	Availability				
		24	30	74		
Transmitter Mounting Bracket Options						
Angle Mounting Bracket - Carbon Steel	MB	•	•	•	b	
Marine Approved Angle Mounting Bracket - Carbon Steel	MX	•	•	•		
Angle Mounting Bracket - 304 SS	SB	•	•	•		
Marine Approved Angle Mounting Bracket - 304 SS	SX	•	•	•		
Flat Mounting Bracket (<i>pipe mounting</i>) - Carbon Steel	FB	•	•	•		
Diaphragm Options						
Gold plated diaphragm(s) on 316 SS	G1	•	•	•	b	
Gold plated diaphragm(s) on Monel 400 ⁴ or Hastelloy ³ C-276 ONLY	G2	•	•	•		
Services/Certificates/Marine Type Approvals Options						
User's Manual Paper Copy (<i>Standard, HC, H6 or FF ships accordingly</i>)	UM	•	•	•	b	
Clean Transmitter for Oxygen or Chlorine Service with Certificate (50039190)	0X	j	j	j		
Over-Pressure Leak Test with Certificate (F3392)	TP	•	•	•		
Calibration Test Report and Certificate of Conformance (F3399)	F1	•	•	•		
Certificate of Conformance (F3391)	F3	•	•	•		
Certificate of Origin (F0195)	F5	•	•	•		
SIL Certificate (<i>SIL 2/3</i>) (FC33337)	FE	22	22	22		
NACE Certificate (<i>Process-Wetted & Non-Process Wetted</i>) (FC33339)	F7	0	0	0		
NACE Certificate (<i>Process-Wetted</i>) (FC33338)	FG	•	•	•		
Material Traceability Certification per EN 10204 3.1 (FC33341)	FX	•	•	•		
Marine Type Approvals (<i>DNV, ABS, BV, KR & LR</i>) (FC33340)	MT	2	2	2		
Warranty Options						
Additional Warranty - 1 year	W1	•	•	•		b
Additional Warranty - 2 years	W2	•	•	•		
Additional Warranty - 3 years	W3	•	•	•		
Additional Warranty - 4 years	W4	•	•	•		

Approval Body	Approval Type	Location or Classification	Selection	Availability				
				24	30	74		
No hazardous location approvals				9X	•	•	•	b
FM Approvals SM	Explosion Proof	Class I, Div. 1, Groups A,B,C,D	1C	•	•	•		
	Dust-Ignitionproof	Class II, III Div. 1, Groups E,F,G						
	Non-Incendive	Class I, Div. 2, Groups A,B,C,D						
	Intrinsically Safe	Class I, II, III, Div. 1, Groups A,B,C,D,E,F,G						
Canadian Standards Association (CSA)	Explosion Proof	Class I, Div. 1, Groups B,C,D	2J	24	24	f		
	Dust-Ignitionproof	Class II, III, Div. 1, Groups E,F,G						
	Intrinsically Safe	Class I, II, III, Div. 1, Groups A,B,C,D,E,F,G						
IECEX	Flameproof, Zone 1	Ex d IIC T5 (Ta = -40 to +93°C), T6 (Ta = -40 to +78°C)	CA	24	24	24		
	Intrinsically Safe, Zone 0/1	Ex ia IIC ; T3, T4, T5, T6 See Spec for detailed temperature codes by Communications option						
CERTUSP INMETRO (Brazil)	Flameproof, Zone 1	BR- Ex d IIC ; T5, T6	6D	•	•	•		
	Intrinsically Safe, Zone 0/1	BR- Ex ia IIC ; T4, T5, T6 (See CERTUSP certificate for detailed temperature codes by Communications option)						

Table III Approvals continued next page

³ Hastelloy[®] C-276 or UNS N10276

⁴ Monel 400[®] or UNS N04400



TABLE III - OPTIONS (continued)

Approval Body	Approval Type	Location or Classification	Selection	24	30	74
ATEX ¹⁰ (LCIE)	Intrinsically Safe, Zone 0	Ex ia IIC T4 (Ta = -50°C to +93°C); T5 (Ta = -50°C to +85°C); T6 (Ta = -50°C to +70°C) Enclosure IP 66/67	3S	•	•	•
	Intrinsically Safe, Zone 1	Ex ia IIC T4 (Ta = -50°C to +93°C); T5 (Ta = -50°C to +85°C); T6 (Ta = -50°C to +70°C) Enclosure IP 66/67				
	Dust-tight Enclosure, Zone 0	Ex tD A20 IP6X T95°C (at Ta = 93°C) or T80°C (at Ta = 78°C) Enclosure IP 66/67	33	24	24	24
	Flameproof and Dust-tight Enclosure, Zone 1	Ex d IIC T5 (Ta = -40°C to +93°C), T6 (Ta = -40°C to +78°C) Supply 11- 42Vdc Ex tD A21 IP6X T95°C (at Ta = 93°C) or T80°C (at Ta = 78°C) Enclosure IP 66/67				
	Non-Sparking, Zone 2	Ex nA, IIC T5 (Ta = -40°C to +93°C), T6 (Ta = -40°C to +78°C); Zone 2 Supply < 42Vdc, 23mA Ex tD A22 IP6X T95°C (at Ta = 93°C) or T80°C (at Ta = 78°C) (Honeywell). Enclosure IP 66/67	3N	•	•	•
	Multiple Marking ¹¹ Int. Safe, Zone 0/1 and Dust-tight Enclosure, or Flameproof, Zone 1 and Dust-tight Enclosure, or Non-Sparking, Zone 2	Ex ia IIC T4 (Ta = -50°C to +93°C); T5 (Ta = -50°C to +85°C); T6 (Ta = -50°C to +70°C); U _i = 30V; I _i = 100mA Ex tD A20 IP6X T95°C (at Ta = 93°C) or T80°C (at Ta = 78°C)	3C	24	24	24
Ex d IIC T5 (Ta = -40°C to +93°C), T6 (Ta = -40°C to +78°C) Supply 11- 42Vdc Ex tD A21 IP6X T95°C (at Ta = 93°C) or T80°C (at Ta = 78°C)						
Ex nA, IIC T5 (Ta = -40°C to +93°C), T6 (Ta = -40°C to +78°C); Zone 2 Supply < 42Vdc, 23mA Ex tD A22 IP6X T95°C (at Ta = 93°C) or T80°C (at Ta = 78°C) (Honeywell) Enclosure IP 66/67						
SAEx (South Africa)	Intrinsically Safe, Zone 0/1	Ex ia IIC T4, T5, T6	Z2	•	•	•
	Flameproof, Zone 1	Ex d IIC T5, T6 Enclosure IP 66/67	ZD	•	•	•
	Multiple Marking ¹¹ Int. Safe, Zone 0/1, or Flameproof, Zone 1	Ex ia IIC T4, T5, T6 Ex d IIC T5, T6 Enclosure IP 66/67	ZA	•	•	•

³ Hastelloy® C-276 or UNS N10276

⁴ Monel 400® or UNS N04400

¹⁰ See ATEX installation requirements in the ST 3000 User's Manual

¹¹ The user must determine the type of protection required for installation of the equipment. The user shall then check the box [N] adjacent to the type of protection used on the equipment certification nameplate. Once a type of protection has been checked on the nameplate, subsequently the equipment shall not be reinstalled using any of the other certification types.



34-ST-16U-24
 Issue 55
 Page 5 of 5

STD9xx			
	↓	↓	↓
Selection	24	30	74
Factory Identification	X X X X	•	•

TABLE IV

Factory Identification	X X X X	•	•	•
------------------------	---------	---	---	---

RESTRICTIONS

Restriction Letter	Available Only With		Not Available With	
	Table	Selection	Table	Selection
b	Select only one option from this group			
c	I	_ _ H		
e	III	SM		
f	III	This approval code <u>requires</u> the selection of a certified conduit plug: A5, A6 or A7	I	L _ _
i	III	1C or 2J		
j	I	_ 2 _		
m			III	ME, FF
n			III	1C, 2J
o	III	CR, S4, B5		
p	III	HC or H6 <u>and</u> WP	III	FF, 00
r	III	FISCO/FNICO compliance available only with 1C	III	TC, ME or FISCO/FNICO compliance not available with 3C, 3N, 33, 3S, 2J, CA, Z2, ZD, ZA, 6D & 6S
t	III	S2, S3, S4, S5, T2, T3, V2, V3		
x	III	FF, SM		
2	III	MX, SX	III	FB, MB, SB
15			III	FF
17	III	VT		
18	I	_ 1 _		
19			III	F7, FG
21	III	FF		
22	III	SL		
24	III	This approval code <u>requires</u> the selection of a certified conduit plug: A5, A6 or A7		

Ordering Example: STD924-A1A-0000-HC,WP,1C+XXXX

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.
 FOUNDATION™ Fieldbus is a trademark of Fieldbus Foundation.
 Viton® is a registered trademark of DuPont Performance Elastomers.
 Teflon® is a registered trademark of DuPont.
 FM ApprovalsSM is a service mark of FM Global
 DC® 200 is a registered trademark of Dow Corning



support.help@bennypass.com

www.bennypass.com

For More Information

Learn more about how Honeywell's ST 3000 Smart Pressure Transmitters can increase performance, reduce downtime and decrease configuration costs, visit our website www.honeywellprocess.com/pressure-transmitters or contact your Honeywell account manager.

Honeywell Process Solutions

1860 West Rose Garden Lane
Phoenix, AZ 85027
Tel: 1-800-423-9883 or 1-800-343-0228

www.honeywellprocess.com

34-ST-03-65
January 2013
© 2013 Honeywell International Inc.

Honeywell