

## Model STD700 Differential Pressure Transmitter

## Model Selection Guide



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

Key: [ STD ] - [ I ] - [ II ] - [ III ] - [ IV ] - [ V ] - [ VI ] - [ VII ] - [ VIII ] - [ IX ]

KEY NUMBER	URL	LRL	Max Span	Min Span	Units
a. Measurement Range	400/(1000)	-400/(-1000)	400/(1000)	4.0 (10)	" H <sub>2</sub> O (mbar)
	100 (7.0)	-100 (-7.0)	100 (7.0)	1 (0.07)	psi (bar)
	3000 (210)	-100 (-7.0)	3000 (210)	30 (2.1)	psi (bar)

Selection			
STD720	↓	↓	↓
STD730		↓	↓
STD770			↓

TABLE I		METER BODY SELECTIONS			
a. Process Wetted Heads & Diaphragm Materials	Process Head Material		Diaphragm Material		
	Plated Carbon Steel		316L Stainless Steel Hastelloy® C-276 Monel® 400 Tantalum		
	316 Stainless Steel		316L Stainless Steel Hastelloy C-276 Monel 400 Tantalum		
	Hastelloy C-276 Monel 400		Hastelloy C-276 Tantalum Monel® 400		
b. Fill Fluid	Silicone Oil 200 Fluorinated Oil CTFE				
c. Process Connection	None 1/2" NPT female	None (1/4" NPTF female thread Std) Materials to Match Head & Head Bolt Materials Selections <sup>1</sup>			
d. Bolt/Nut Materials	Carbon Steel 316 SS Grade 660 (NACE A286) with NACE 304 SS Nuts Grade 660 (NACE A286) Bolts & Nuts Monel K500 Super Duplex B7M				
e. Vent/Drain Type/Location	Head Type	Vent Type	Location	Vent Material	
	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 Material	Teflon® or PTFE (Glass Filled) Viton® or Fluorocarbon Elastomer Graphite				
g. Static Pressure	Standard Static Pressure - 4500 psig (315 bar)				

A	*	*	*	√
B	*	*	*	
C	a	a	a	
D	a	a	a	
E	*	*	*	√
F	*	*	*	
G	a	a	a	
H	a	a	a	
J	*	*	*	
K	a	a	a	
L	a	a	a	
1	*	*	*	√
2	*	*	*	
A	*	*	*	√
H	*	*	*	√
C	*	*	*	√
S	*	*	*	√
N	*	*	*	√
K	p	p	p	√
M	p	p	p	
D	p	p	p	
B	*	*	*	

1	*	*	*	
2	*	*	*	
3	t	t	t	
4	*	*	*	√
5	t	t	t	
6	*	*	*	
A	*	*	*	√
B	*	*	*	
C	*	*	*	
S	*	*	*	√

<sup>1</sup>Except Carbon Steel Heads shall use 316SS Vent/Drain, Plugs & Adapters when required

**Table A**

Table 1a Selection	List Price
A,B,C,D	\$47
E,F,G	\$47
J,K,L	\$166

Indicates options with best standard delivery

√

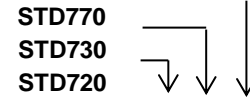
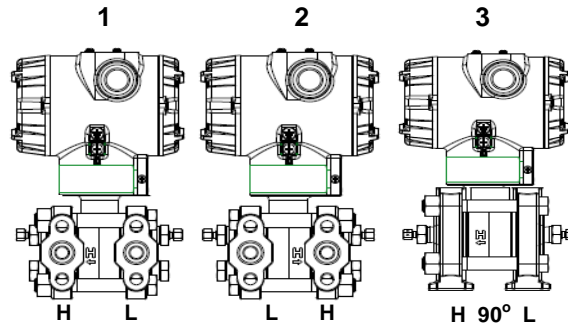


TABLE II		Meter Body & Connection Orientation	
Head/Connect Orientation	Standard	High Side Left, Low Side Right <sup>2</sup> / Std Head Orientation	
	Reversed	Low Side Left, High Side Right <sup>2</sup> / Std Head Orientation	
	90/Standard	High Side Left, Low Side Right <sup>2</sup> / 90° Head Rotation	

1	*	*	*	✓
2	*	*	*	✓
3	<b>h</b>	<b>h</b>	<b>h</b>	

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/CCoE Explosion proof, Intrinsically Safe & Non-incendive			
	INMETRO Explosion proof, Intrinsically Safe & Non-incendive			
	NEPSI Explosion proof, Intrinsically Safe & Non-incendive			

0	*	*	*	✓
A	*	*	*	✓
B	*	*	*	✓
C	*	*	*	✓
D	*	*	*	✓
E	*	*	*	✓
F	*	*	*	✓
G	*	*	*	✓

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 n/a		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	English	
Basic	Yes	English		

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

_H_	*	*	*	✓
_D_	*	*	*	
_F_	*	*	*	

__0	*	*	*	✓
__A	<b>f</b>	<b>f</b>	<b>f</b>	✓
__B	*	*	*	✓
__C	*	*	*	✓

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)	
	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	Factory Standard			
	Custom Configuration (Unit Data Required from customer)			

1__	*	*	*	
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_1_	<b>f</b>	<b>f</b>	<b>f</b>	✓
_2_	<b>f</b>	<b>f</b>	<b>f</b>	✓
_3_	<b>f</b>	<b>f</b>	<b>f</b>	✓
_4_	<b>f</b>	<b>f</b>	<b>f</b>	✓
_5_	<b>g</b>	<b>g</b>	<b>g</b>	✓
_6_	<b>g</b>	<b>g</b>	<b>g</b>	✓

__S	*	*	*	✓
__C	*	*	*	

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

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

Indicates options with best standard delivery ✓

STD770  
STD730  
STD720

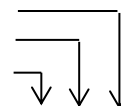


TABLE VI CALIBRATION & ACCURACY SELECTIONS			
a. Accuracy and Calibration	Accuracy	Calibrated Range	Calibration Qty
	Standard	Factory Std	Single Calibration
Standard	Custom (Unit Data Required)	Single Calibration	

A	*	*	*
B	*	*	*

✓  
✓

TABLE VII ACCESSORY SELECTIONS		
a. Mounting Bracket	Bracket Type	Material
	None	None
Angle Bracket	Carbon Steel	
Angle Bracket	304 SS	
Angle Bracket	316 SS	
Marine Approved Angle Bracket	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		
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	*	*	*
4	*	*	*
5	*	*	*
6	*	*	*
7	*	*	*

✓  
✓  
✓  
✓  
✓  
✓  
✓  
✓

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

✓  
✓  
✓

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

✓  
✓  
✓  
✓  
✓  
✓

TABLE VIII OTHER Certifications & Options: (String in sequence comma delimited (XX, XX, XX,...))	
Certifications & Warranty	None - No additional options
	NACE MR0175; MR0103; ISO15156 (FC33338) Process wetted parts only
	NACE MR0175; MR0103; ISO15156 (FC33339) Process wetted and non-wetted parts
	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

00	*	*	*
FG	*	*	*
F7	c	c	c
FX	*	*	*
F3	*	*	*
F1	*	*	*
F5	*	*	*
FE	j	j	j
TP	*	*	*
OX	e	e	e

✓  
✓  
b  
✓  
b  
✓  
✓  
✓  
✓  
✓

TABLE IX Manufacturing Specials	
Factory	Factory Identification

0000	*	*	*
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Indicates options with best standard delivery ✓

MODEL RESTRICTIONS

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

**FIELD INSTALLABLE REPLACEMENT PARTS**

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 Lightening Protection for HART or DE Modules	50075472-533
Terminal Strip w/o Lightening Protection FFB Module	50075472-531
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

**PAPER MANUALS**

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