

Model STD800 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 I II III IV V VI VII VIII IX

STD - - - - - I - - - - - II - - - - - III - - - - - IV - - - - - V - - - - - VI - - - - - VII - - - - - VIII - - - - - IX

KEY NUMBER	URL	LRL	Max Span	Min Span	Units
Measurement Range	10 (25.0)	-10 (-25.0)	10 (25)	0.1 (0.25)	" H ₂ O (mbar)
	400/(1000)	-400/(-1000)	400/(1000)	1.0 (2.5)	" H ₂ 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	Availability			
STD810	↓	↓	↓	↓
STD820	↓	↓	↓	↓
STD830	↓	↓	↓	↓
STD870	↓	↓	↓	↓

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	Gold Plated Stainless Steel				
	Gold Plated Hastelloy C-276				
	Gold Plated Monel 400				
	316L Stainless Steel				
Hastelloy C-276	Hastelloy C-276				
	Tantalum				
	Gold Plated Stainless Steel				
	Gold Plated Hastelloy C-276				
Monel 400	Monel 400				
	Gold Plated Monel 400				
b. Fill Fluid	Silicone Oil 200 Fluorinated Oil CTFE Silicone Oil 704 NEOBEE™ M-20				
c. Process Connection	None 1/2" NPT female	None (1/4" NPTF female thread Std) Materials to Match Head & Head Bolt Materials Selections ¹			
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 ¹	
	Single Ended	Center Vent	Side	Stainless Steel Only	
	Dual Ended	Standard Vent	End	Matches Head Material ¹	
	Dual Ended	Center Vent	End	Stainless Steel Only	
Dual Ended	Std Vent/Plug	Side/End	Matches Head Material ¹		
f. Gasket Material	Teflon® or PTFE (Glass Filled) Viton® or Fluorocarbon Elastomer Graphite				
g. Static Pressure	Standard Static Pressure - 4500 psig (315 bar) except STD810: 50 psi (3.5 bar) High Pressure 6000 psi				

A	*	*	*	*	√
B	*	*	*	*	
C	a	a	a	a	
D	a	a	a	a	
1	*	*	*	*	
2	*	*	*	*	
3	a	a	a	a	
E	*	*	*	*	√
F	*	*	*	*	
G	a	a	a	a	
H	a	a	a	a	
4	*	*	*	*	
5	*	*	*	*	
6	a	a	a	a	
J	*	*	*	*	
K	a	a	a	a	
7	*	*	*	*	
L	a	a	a	a	
8	a	a	a	a	
_1	*	*	*	*	√
_2	*	*	*	*	
_3	*	*	*	*	
_4	*	*	*	*	
_A	*	*	*	*	√
_H	*	*	*	*	√
_C	*	*	*	*	√
_S	*	*	*	*	√
_N	*	*	*	*	√
_K	p	p	p	p	√
_M	p	p	p	p	
_D	p	p	p	p	
_B	*	*	*	*	

_1	*	*	*	*	
_2	*	*	*	*	
_3	t	t	t	t	
_4	*	*	*	*	√
_5	t	t	t	t	
_6	*	*	*	*	
_A	*	*	*	*	√
_B	*	*	*	*	
_C	*	*	*	*	
_S	*	*	*	*	√
_H	k	k	k	k	

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

Indicates Models with best delivery

√

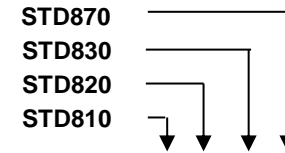
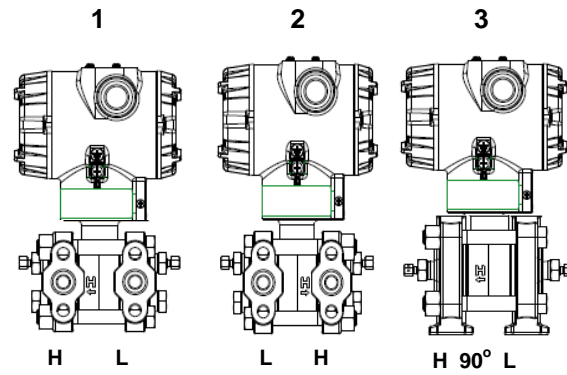


TABLE II		Meter Body & Connection Orientation	
Head/Connect Orientation	Standard	High Side Left, Low Side Right ² / Std Head Orientation	
	Reversed	Low Side Left, High Side Right ² / Std Head Orientation	
	90/Standard	High Side Left, Low Side Right ² / 90 ^o Head Rotation	

1	*	*	*	*	√
2	*	*	*	*	√
3	h	h	h	h	

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 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	English	
	Basic	Yes	English	
	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		

A __	*	*	*	*	√
B __	*	*	*	*	√
C __	*	*	*	*	√
D __	*	*	*	*	√
E __	*	*	*	*	
F __	*	*	*	*	
G __	*	*	*	*	
H __	*	*	*	*	

_ H _	*	*	*	*	√
_ D _	u	u	u	u	√
_ F _	*	*	*	*	

__ 0	*	*	*	*	√
__ A	f	f	f	f	√
__ B	*	*	*	*	√
__ C	*	*	*	*	√
__ D	*	*	*	*	√
__ E	*	*	*	*	√
__ H	*	*	*	*	
__ J	*	*	*	*	

TABLE V		CONFIGURATION SELECTIONS		
a. Application Software	Diagnostics			
	Standard Diagnostics			
	Advanced Diagnostics (Above with Plugged Impulse Detection PILD)			
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 or Profibus
Disabled	N/A	N/A	Fieldbus or Profibus	
c. General Configuration	Factory Standard			
	Custom Configuration (Unit Data Required from customer)			

1 __	*	*	*	*	√
2 __	*	*	*	*	√

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

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

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

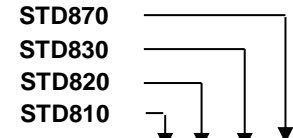


TABLE VI CALIBRATION & ACCURACY SELECTIONS			
	Accuracy	Calibrated Range	Calibration Qty
a. Accuracy and Calibration	Standard	Factory Std	Single Calibration
	Standard	Custom (Unit Data Required)	Single Calibration
	Standard	Custom (Unit Data Required)	Dual Calibration
	Standard	Custom (Unit Data Required)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

A	*	*	*	*	√
B	*	*	*	*	√
C	*	*	*	*	
D	*	*	*	*	
E		s	s	s	√
F		s	s	s	√
G		s	s	s	
H		s	s	s	

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	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	---	*	*	*	*	
8	---	*	*	*	*	√
4	---	*	*	*	*	√
5	---	*	*	*	*	√
6	---	*	*	*	*	√
7	---	*	*	*	*	

_0	---	*	*	*	*	√
_1	---	*	*	*	*	√
_2	---	*	*	*	*	√

_A0	*	*	*	*	√
_A2	n	n	n	n	√
_A6	n	n	n	n	√
_A7	m	m	m	m	√
_A8	n	n	n	n	
_A9	m	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
	Marine (DNV, ABS, BV, KR, LR)
	EN10204 Type 3.1 Material Traceability (FC33341)
	MID Approved Transmitter - Contact Tech Support for specific MID approved ranges
	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 ₂ or CL ₂ service per ASTM G93
	Extended Warranty Additional 1 year
	Extended Warranty Additional 2 years
	Extended Warranty Additional 3 years
Extended Warranty Additional 4 years	
Extended Warranty Additional 15 years	

00	*	*	*	*	√
FG	*	*	*	*	√
F7	c	c	c	c	√
MT	d	d	d	d	√
FX	*	*	*	*	√
MD		v	v	v	
F3	*	*	*	*	√
F1	*	*	*	*	√
F5	*	*	*	*	√
FE	j	j	j	j	√
TP	*	*	*	*	
OX	e	e	e	e	
01	*	*	*	*	√
02	*	*	*	*	√
03	*	*	*	*	√
04	*	*	*	*	√
15	*	*	*	*	√

TABLE IX Manufacturing Specials	
Factory	Factory Identification

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MODEL RESTRICTIONS

Restriction Letter	Available Only with		Not Available with	
	Table	Selection(s)	Table	Selection(s)
a			VIII	F7, FG
k	-----	-----	la	J,K,7,L,8
	-----	-----	lc	H
	-----	-----	ld	B,D,M,N,S
	-----	-----	le	1, 2, 3, 5, 6
	-----	-----	III	B- No CRN number available
c	1d	___N,K,D,B___	la	C,D,3,G,H,6,K,L,8
d	IV a	C, D, G, H ___	VIIa	1,2,3,5,6,7 ___
e	lb	_ 2 _ _ _ _ _		
f			IVb	_ F _
g			IVb	_ H, D _
h	-----	-----	le	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			la	J, K, 7, L, 8
s	la	A,E _ _ _ _ _		
u	-----	-----	Va	2 _ _
	-----	-----	Vla	C,D,G,H
v	IV a	C, D, G, H ___	IVb	_ D, F _
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
Integrally Mounted Advanced Indicator Kit (compatible with all Electronic Modules)	50049846-501
Terminal Strip w/o Lightening Protection for HART or DE Modules	50075472-531
Terminal Strip w/Lightning Protection Kit for HART or DE Modules	50075472-532
Terminal Strip w/o Lightening Protection FFB/ <i>Profibus</i> Module	50075472-533
Terminal Strip w/Lightning Protection Kit for FFB/ <i>Profibus</i> Module	50075472-534
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	50049849-507
FFB Electronics Module w/connection for external configuration buttons	50049849-508

PAPER MANUALS

Description	Part Number
Paper Manual ST 800 Smart Transmitter User Manual - English	34-ST-25-35
Paper Manual ST 800 Smart Transmitter HART/DE Communications Manual - English	34-ST-25-38
Paper Manual ST 800 Smart Transmitter Safety Manual - English	34-ST-25-37
Paper Manual ST 800 Smart Transmitter Foundation Fieldbus Manual - English	34-ST-25-39
Paper Manual ST 800 Smart Transmitter Function Block Manual - English	34-ST-25-42