



Model SDS800
Gauge Pressure Transmitters

Model Selection Guide
34-DS-16-89

Issue
1

REV
4



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 Number	I	II	III	IV	V	VI	VII	VIII	IX				
DSG8 _ _	-	-	-	-	-	-	-	-	-	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	
DSG830	↓	
DSG840	↓	
DSG870	↓	
DSG83L		↓
DSG84L		↓
DSG87L		↓
DSG88L		↓
DSG89L		↓

TABLE I	METER BODY SELECTIONS			
a. Process Head & Diaphragm Materials	Process Head/Reference Head Material ^{1b}		Barrier Diaphragm Material	
	Plated Carbon DSeel / Plated Carbon DSeel		316L SS	
			HaDSelloy® C - 276	
			Monel 400 ^w	
			Tantalum	
316 DSainless DSeel /316 DSainless DSeel1c		Gold Plated 316L SS		
		Gold Plated HaDSelloy C-276		
		Gold Plated Monel 400		
		316L SS		
HaDSelloy C - 276 / 316 DSainless DSeel		HaDSelloy C - 276		
		Tantalum		
		Gold Plated HaDSelloy C-276		
		Gold Plated Monel 400		
Monel 400 / 316 DSainless DSeel		Monel 400		
		Gold Plated Monel 400		
b. Fill Fluid	Silicone Oil 200 Fluorinated Oil CTFE Silicone Oil 704 NEOBEE ^w M-20			
c. Process Connection	Size/Type		Material	
	9/16-18 high pressure Cone & Thread (female) ^{1u} 1/2" NPT (female) 1/2" NPT (male) DIN 19213 (1/4" female NPT) G 1/2 B Threaded Fitting M20		Same as Process Head	
			Same as Process Head ^{1a}	
			Same as Process Head	
			Same as Process Head	
			Same as Process Head	
			Same as Process Head	
d. Bolt/Nuts Materials	None			
	Carbon DSeel			
	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
	None	None	None	None
	Single Ended	None	None	None
	Single Ended	DSandard Vent	Side	Matches Head Material ¹
	Single Ended	Center Vent	Side	DSainless DSeel Only
	Dual Ended	DSandard Vent	End	Matches Head Material ¹
	Dual Ended	Center Vent	End	DSainless DSeel only
Dual Ended	DSd Vent/Plug	Side/End	Matches Head Material ¹	
f. Gasket Materials	None			
	Teflon [®] or PTFE (Glass Filled)			
	Viton ^w			
	Graphite			



TABLE II	METER BODY & CONNECTION ORIENTATION	
Head/Connect Orientation	None	When ordering with a Primary/Secondary with a Flange
	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° Head Rotation

0	*	
1	*	*
2	*	
3	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
	CCoE Explosion proof, Intrinsically Safe & Non-incendive
	UATR Flameproof, Intrinsically Safe & DuDSproof

0	*	*
A	*	*
B	*	3
C	*	*
D	*	*
E	*	*
F	*	*
G	*	*
H	*	*
I	*	*
J	*	*
K	*	*

TABLE IV	TRANSMITTER ELECTRONICS SELECTIONS		
a. Primary/Secondary	SDS Primary		
	SDS Secondary		
b. 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
	Dual Certified SS 316/316L (CF8M/CF3M)	1/2 NPT	None
	Dual Certified SS 316/316L (CF8M/CF3M)	M20	None
	Dual Certified SS 316/316L (CF8M/CF3M)	1/2 NPT	Yes
	Dual Certified SS 316/316L (CF8M/CF3M)	M20	Yes
c. Output/ Protocol	Analog Output		Digital Protocol
	4-20mA dc		HART Protocol
	4-20mA dc none		DE Protocol Foundation Fieldbus
d. Customer Interface Selections	Indicator	Ext Zero, Span & Config Buttons	Languages
	None	None	None
	None	Yes (Zero/Span Only)	None
	Advanced	None	EN, GR, 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

P _ _ _	*	*
S _ _ _	2	2

_ A _ _	*	*
_ B _ _	*	*
_ C _ _	*	*
_ D _ _	*	*
_ E _ _	*	*
_ F _ _	*	*
_ G _ _	*	*
_ H _ _	*	*

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

_ _ _ 0	*	*
_ _ _ A	f	f
_ _ _ D	*	*
_ _ _ E	*	*
_ _ _ H	*	*
_ _ _ J	*	*
_ _ _ S	q	q
_ _ _ T	q	q

TABLE V	CONFIGURATION SELECTIONS		
a. Application Software	DiagnoDSics		
	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	General Configuration		
	Factory Standard Custom Configuration (Unit Data Required from customer)		

1 _ _	*	*
2 _ _	*	*

_ 1 _	f	f
_ 2 _	f	f
_ 3 _	f	f
_ 4 _	f	f
_ 5 _	g	g
_ 6 _	g	g

_ _ S	*	*
_ _ C	*	*

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

³ NAMUR Output Limits are configurable by cuDSomer

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
	Standard	Custom (Unit Data Required)	Dual Calibration
	Standard	Custom (Unit Data Required)	Triple Calibration
	High Accuracy	Factory standard	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

DSG89L
DSG88L
DSG87L
DSG84L
DSG83L
DSG870
DSG830, DSG840

A	*	*
B	*	*
C	*	*
D	*	*
E	S	S
F	S	S
G	S	S
H	S	S

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 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. CuDSomer Tag	CuDSomer 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
A6	n	n
A7	m	m
A8	n	n
A9	m	m

TABLE VIII	OTHER Certifications & Options: (DSring in sequence comma delimited (XX, XX, XX,...))	
Certifications & Warranty & Integrated Accessories	No additional options	
	Low Temperature Rating (-50 deg C min. ambient operative temperature limit)	
	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) for Transmitter Only	
	Helium Leak Test for Transmitter Only	
	Cert Clean for O2 or CL2 service per ADSM G93	
	PMI Certification ¹	
	Extended Warranty Additional 1 year for Transmitter Only	
	Extended Warranty Additional 2 years for Transmitter Only	
	Extended Warranty Additional 3 years for Transmitter Only	
	Extended Warranty Additional 4 years for Transmitter Only	
	Extended Warranty Additional 15 years for Transmitter Only	
	Integrate Manifold with combined TP test for assembly	
	Detailed Manifold configuration required	
	Integrate Manifold with combined Helium leak test for assembly	
	Detailed Manifold configuration required	
	Integrate a Seal assembly	
	Detailed Seal configuration required	
	10m SDS Cable	
	15m SDS Cable	
	30m SDS Cable	
	45m SDS Cable	
	60m SDS Cable	
	70m SDS Cable	
	10m SDS armored Cable	
	15m SDS armored Cable	
	30m SDS armored Cable	
	45m SDS armored Cable	
	*: TP combined test is carried out at 1.5 times of lowest pressure rating of any of the transmitter or the manifold	

00	*	*	b
LT	w	w	
FG	*	*	
F7	c	c	
MT	d	d	b
FX	*	*	
MD	*	v	
F3	*	*	
F1	*	*	b
F5	*	*	
FE	j	j	
TP	*	*	
HT	*	*	b
OX	e	e	
PM	*	*	
01	*	*	
02	*	*	b
03	*	*	
04	*	*	
15	*	*	
MI	1	1	b
MH	1	1	
SI			
C1	*	*	
C2	*	*	b
C3	*	*	
C4	*	*	
C5	*	*	
C6	*	*	
A1	*	*	
A2	*	*	
A3	*	*	
A4	*	*	

TABLE IX	Manufacturing Specials
Factory	Factory Identification

0 0 0 0	*	*
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REDSRICTIONS

ReDSriction Letter	Available Only with		Not Available with	
	Table	Selection(s)	Table	Selection(s)
a			VIII	FG, F7
c	Id	___0,N,K,D,B___	I a	D,H,K,L,8___
d	IV a	C,D,G,H___	VIIa	1,2,3,5,6,7___
e	Ib	_2_____		
f			IV b	_F_
g			IVb	_H, D_
h			Ie	___4, 5, 6___
j	IV b	H	VIIa	1,2,3,4,5,6,7,8___
m	IV a	B,D, F, H___	Vb	_1,2,6_
n	IV a	A,C, E, G___		
p			III	B- No CRN number available
q	IV b	_H_		
s	Ia	A,E_____		
t			Ia	J, K, 7, L, 8
u			Va	2
v	IV a	C,D,G,H___	VIIa	C,D,G,H
w	Ib	_1_____	IVb	_D,F_
1			VIII	FE
2	IV d	___0,A		TP
3			Model Key	DSG89L
b			III	No CRN number available
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 DSeel process heads and flanges. PM option information is also available on diaphragms except Gold plated and DSG and DSA in-line conDSruction pressure transmitters.

FIELD INDSALLABLE ACCESSORY KITS

Description	Kit Number
Integrally Mounted Advanced Indicator Kit (compatible with all Electronic Modules)	50049846-501
Standard Display Module	50126003-501
Terminal Strip w/o Lightning 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 Lightning Protection FFB Module	50075472-533
Terminal Strip w/ Lightning Protection Kit for FFB 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

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

PRODUCT MANUALS

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

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