

# V SERIES SMART PRESSURE TRANSMITTERS



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**Product Overview**

The V Series Smart Pressure Transmitters from Sailsors Instruments Ltd., Beijing, is a moderately priced, full featured family of products that raise the performance and accuracy expectations of pressure transmitter users to new levels. The typical Instruments produced boast an uncertainty's better than +/- 0.075% (FS). This unparalleled accuracy and attractive price make the V series one of the most significant pressure measuring devices on the market today. The instruments are shipped calibrated and ready to install in the field.

The products can be re-ranged in the field or 'trimmed' to suit field installation condition to eliminate any field installation induced bias error.

**V Series Comparison**

MODEL	V-4	V-6	V-8	V-10
Accuracy	0.075% (FS)	0.075% (FS)	0.075% (FS)	0.075% (FS)
Temp Effect	+/- 0.1% (FS)	+/- 0.1% (FS)	+/- 0.1% (FS)	+/- 0.1% (FS)
Long term Stability	0.1% FS/yr.	0.1% FS/yr.	0.1% FS/yr.	0.1% FS/yr.
Operating Temp	-40 – 85 C	-20 – 70 C	-40 – 85 C	-20 – 70 C
Communication	RS232/485	RS232/485	HART	HART
Display	N/A	LCD	N/A	LCD
Operable Turn-down	100:1	100:1	100:1	100:1
Effective Turndown	30:1	30:1	30:1	30:1
Zero Elevation/ Suppression	No limit except minimum span from 0 to 100% URL	No limit except minimum span from 0 to 100% URL	No limit except minimum span from 0 to 100% URL	No limit except minimum span from 0 to 100% URL
Effect on accuracy of adjustment w/o a pressure source	0.1%	0.1%	0.1%	0.1%
Operator Interface	Internal & External keys	Internal & External keys	Internal & External keys HART or PC	Internal & External keys HART or PC
Power Supply	9 to 45 VDC	9 to 45 VDC	9 to 45 VDC	9 to 45 VDC
Damping	0.2 or 1.6 s	0-32 s	0-32 s	0-32 s
Self - Diagnosis/Alarm	Fail to 3.6mA or 21mA	User Configurable	User Configurable	User Configurable

**Sensor Material, Pressure & Temperature Limits**

Sensor Type	Diaphragm	Seal	Fill Fluid	Process Conn.
Silicon	316SS	BUNA N	Silicon Oil	316SS
Ceramic	AL <sub>2</sub> O <sub>3</sub>	Fluorine Rubber	N/A	316SS
Capacitive	316SS/C276	Fluorine Rubber	Silicon Oil	316SS

Sensor Type	Over Pressure Limit	Storage Temp	Ambient Temp.
Silicon (Piezoresistive)	(1.5~3) times range	-50~125 C	-40~85 C
Ceramic (Capacitive)	(3~100) times range	-50~125 C	-40~85 C
Differential (Capacitive)	7/14/31MPa	-50~125 C	-40~85 C
Electronics	-----	-50~85 C	-40~85 C
LCD	-----	-40~85 C	-20~85 C



**Product Selector Chart**

V	Smart Pressure /Differential Pressure
	4 Accuracy: 0.075% (FS) Communication: RS232/485 Display N/A
	6 Accuracy: 0.075% (FS) Communication: RS232/485 Display: LCD
	8 Accuracy: 0.075% (FS) Communication: Display N/A
	10 Accuracy: 0.075% (FS) Communication: HART Display: LCD
	Measuring style code:
	GP AP DP DR HP
	Range & sensor
	Please see the Range & Sensor Code Selector
	Engineering Units
	1: Psi 2:Pa/KPa/MPa 3: mbar/bar 4:mmHg 5:torr 6:atm 7:%
	8:mm/cm/m 9: in.H2O/ft. H2O 10: in.Hg 11: g or Kg/cm <sup>2</sup> 12: mA
	Process Connection
	N1: 1/2-14NPT (male)
	M1: M20 x1.5 (male)
	G1:G1/2 (male)
	C0:1/2-14NPT (female)
	C1:With welding tube
	C2:Conical connection
	Agency Approval
	E0 Without approval
	E1 NEPSI, Intrinsic Safety
	E2 NEPSI, Ex-proof
	Mounting Bracket
	Using Differential Capacitive Sensor
	B1:Bracket, pipe mount (flange connection)
	B2:Bracket, flat, pipe mount
	B3:Bracket, panel mount
	Using Silicon Piezoresistive Sensor/ Ceramic capacitive sensor
	B4:Bracket, wall mount
	B5:Bracket, pipe mount (thread connection)
	B0:No bracket
	Vent/Drain Position (Required by using Differential Capacitive Sensor only)
	V0:No drain/vent valve
	V1:Drain/vent valve is at the back of flange
	V2:Side drain/vent valve, top position
	V3:Side drain/vent valve, bottom position
	Configuration Selection
	W1 Linear output, calibrated to upper limit, standard damping and alarm
	W2 User-defined calibration and configuration
V	
	GP
	2
	M1
	B0
	V0
	W1