

V SERIES SMART PRESSURE TRANSMITTERS



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Product Overview

The V Series Smart Pressure Transmitters from OA Products, Inc. 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

<i>MODEL</i>	V-4	V-6	V-8	V-10
<i>Accuracy</i>	0.075% (FS)	0.075% (FS)	0.075% (FS)	0.075% (FS)
<i>Temp Effect</i>	+/- 0.1% (FS)	+/- 0.1% (FS)	+/- 0.1% (FS)	+/- 0.1% (FS)
<i>Long term Stability</i>	0.1% FS/yr.	0.1% FS/yr.	0.1% FS/yr.	0.1% FS/yr.
<i>Operating Temp</i>	-40 – 85 C	-20 – 70 C	-40 – 85 C	-20 – 70 C
<i>Communication</i>	RS232/485	RS232/485	HART	HART
<i>Display</i>	N/A	LCD	N/A	LCD
<i>Operable Turn-down</i>	100:1	100:1	100:1	100:1
<i>Effective Turndown</i>	30:1	30:1	30:1	30:1
<i>Zero Elevation/ Suppression</i>	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
<i>Effect on accuracy of adjustment w/o a pressure source</i>	0.1%	0.1%	0.1%	0.1%
<i>Operator Interface</i>	Internal & External keys	Internal & External keys	Internal & External keys HART or PC	Internal & External keys HART or PC
<i>Power Supply</i>	9 to 45 VDC	9 to 45 VDC	9 to 45 VDC	9 to 45 VDC
<i>Damping</i>	0.2 or 1.6 s	0-32 s	0-32 s	0-32 s
<i>Self - Diagnosis/Alarm</i>	Fail to 3.6mA or 21mA	User Configurable	User Configurable	User Configurable

Sensor Material, Pressure & Temperature Limits

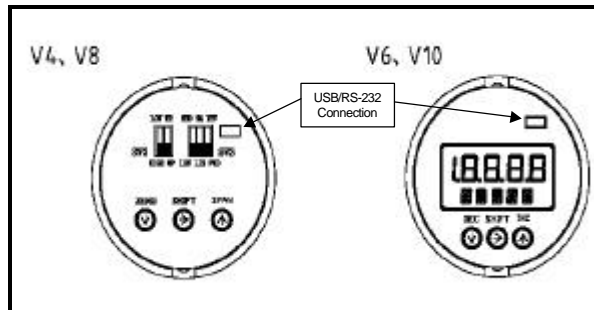
Sensor Type	Diaphragm	Seal	Fill Fluid	Process Conn.
Silicon	316SS	BUNA N	Silicon Oil	316SS
Ceramic	AL ₂ O ₃	Fluorine Rubber	N/A	316SS
Capacitive	316SS/C276	Fluorine Rubber	Silicon Oil	316SS

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

Detailed Specifications

Supply Voltage: 9~45VDC
 Output: 4~20mADC (all models) + RS232 + HART (select models only)
NOTE: HART Requires series resistor 250Ω <RL < 600Ω Communicates via Handheld: HART275/375
 Response Time: 0~32sec. (User Adjustable)
 Accuracy: 0.075% (R)
 Operating Temperature: -25C to +70C
 Storage Temperature: -40C to +85C
 Ambient Temperature Effect: Temperature Effect: Zero and Span : 0.1% FS from -40C to +80C
 Temperature coefficient: Zero and Span: 0.04% FS / 10C from -40C to +80C
 Humidity: 90%RH Non condensing
 Calibration Stability: 12 months
 Electronics Housing: ZL104 Aluminum alloy, Powder coated, Heat Cured
 Gasket Material: BUNA N; Optional: Fluorine-rubber
 Enclosure Protection: IP65 Rated
 Electrical Connection: M20x1.5F; 1/2NPTF
 Approvals: NEPSI Ex-Proof, CUL Pending
 Display (V-6 & V-10): 5 Character (User configurable)

SPECIFICATION NOTICE: Specifications contained herein may be subject to change without notice. OA Products, Inc. and its representatives cannot guarantee the applicability or suitability of our products in all situations, since it is impossible to anticipate or control every condition under which our products may be used or specified.



Keyboard

Ordering Information (Range & Sensor Code Selector)

S = Silicon Piezoresistive Sensor, C = Ceramic capacitive sensor, E = Differential Capacitive sensor

Range Code	Range	Sensor Type Code				
		GP	DP	AP	HP	DR
2	0-0.22 PSI / 0-1.5KPa	E	N/A	N/A	N/A	E
3	0-1 PSI / 0-7KPa	E/C	E	N/A	N/A	N/A
4	0-7 PSI / 0-35KPa	E/C/S	E	N/A	E	N/A
5	0-30 PSI / 0-200KPa	E/C/S	E	S	E	N/A
6	0-100 PSI / 0-700KPa	E/C/S	E	S	E	N/A
7	0-300 PSI / 0-2.1MPa	E/C/S	E	S	E	N/A
8	0-500 PSI / 0-3.5MPa	E/C/S	E	N/A	N/A	N/A
9	0-1000 PSI / 0-7MPa	E/C/S	E	N/A	N/A	N/A
10	0-3000 PSI / 0-21MPa	E/S	N/A	N/A	N/A	N/A
11	0-5000 PSI / 0-35MPa	S	N/A	N/A	N/A	N/A
12	0-6000 PSI / 0-42MPa	S	N/A	N/A	N/A	N/A

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 ² 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