

High Capacity SW, Low and Absolute Pressure Intelligent Digital Display

VSW2 series

(2-contact high capacity output, For Low-Absolute pressure)

5kPa–700kPa

50kPa–500kPa abs



* Actual products may differ from photo depending on specifications.

- Pressure switch, high-capacity 2-contact for output only (Contact capacity: 50 mA)
- "Max./min memory" function included, which allows abnormal pressures detected so far to be checked during operation.
- Color LCD adopted with display colors "red and green" intuitively understandable for users.
- Compact design (length: 111 (107) mm, width: 37 mm) suitable as a replacement for mechanical switch.

Measured medium	<p>S sensor: Inert gases that will not corrode SUS304, SUS316L, Silicon glass, NBR and Silicon gel.</p> <p>H sensor, A sensor: Water, oil, gases or other media that will not corrode Hastelloy C22 and SUS316L.</p> <p>P sensor: Water, oil, gases or other media that will not corrode SUS316L.</p>
Pressure type	Positive, absolute, and compound pressures can be measured.
Pressure range	<p>S sensor: 5kPa</p> <p>H sensor: 50kPa and 50kPa abs</p> <p>A sensor: 100–500kPa and 100–500kPa abs</p> <p>P sensor: 100–700kPa</p>

Specifications

Display	–1999–2000(*1) 7 segments 4 digit LCD (Character height:9mm)
Display Color	Red or Green (Arbitrary setting)

Rated Capacity	5, 50, 100, 200, 500, 700kPa 50, 100, 200, 500kPa abs
Calibration Range	0– (5, 50, 100, 200, 500, 700) kPa 0– (50, 100, 200, 500) kPa abs
Accuracy	±0.5%F.S.±1digit (Non Linearity, hysteresis and repeatability included.)
Output Channels	2points of NPN Open collector output Maximum rating for setting output: DC30V 50mA Residual voltage:0.85V
Use Temperature Range	Temperature: 0–50°C (Temperature of medium to be measured: 0–70°C)
Safe Overload Rating	S sensor, H sensor, A sensor: 300%R.C. P sensor: 200%R.C.
IP Rating	Equivalent to IP65(Dedicated cable connection state)
Temperature Effect	±2.5%F.S.(25°C standard, within the service temperature range)
Vibration-Proof	98m/s ² (10G) [Compliant with IEC68-2-6]
Connection Screw	R1/4[Male screw]
Applicable standards	CE marking (EMC directive, European RoHS directive)
Connector	Model number XS2M-D423 made in Omron
Measured medium	S sensor: Inert gases that will not corrode SUS304, SUS316L, Silicon glass, NBR and Silicon gel.
	H sensor, A sensor: Water, oil, gases or other media that will not corrode Hastelloy C22 and SUS316L.
	P sensor: Water, oil, gases or other media that will not corrode SUS316L.
Power Source Voltage	DC18–30V
Consumption current	Approx. 30mA
Functions	Peak hold / Damping /FIX zero / Maximum and Minimum memory Window Comparator / Zero shift / Key protection
Material	Connection screw S sensor: SUS304+SUS316L H sensor, A sensor, P sensor: SUS316L
	Diaphragm S sensor: Semiconductor H sensor, A sensor: Hastelloy C-22 P sensor: SUS316L

Weight	S sensor, H sensor, A sensor: Main body Approx. 200g Dedicated cable 2m Approx.60g P sensor: Main body Approx. 150g Dedicated cable 2m Approx.60g
Accessories	Operating manual 1 copy (Specify English or Japanese.) Test report 1 copy
Options(*2)	Wall hangings fixation bracket [VSW2-BR]

- (*1)Depends on the factory setting. Values beyond the calibration range cannot be displayed.
- (*2)Contact our sales office for details.

Model Selection

	①Model	②Analog Output	③Output	④Power	⑤Calibration
Example	VSW2	0	2N	4	5
		⑥Cable Connection	⑦Sensor Type	⑧Rated Capacity(R.C.)	⑨Connection
		6	7	8	R2

Selection	Check	Model	Specifications
1.Model	<input type="radio"/>	VSW2	Small intelligent digital pressure meter for Minute-Low-Absolute pressure
2.Analog output	<input type="radio"/>	0	Not available
3.Setting Output	<input type="radio"/>	2N	2 setting NPN Open collector output, Maximum rating DC30V 50mA
4.Power	<input type="radio"/>	4	DC18–30V (Consumption current: Approx. 30mA)
5.Calibration		Positive perssure (Low pressure), Absolute pressure	5.00kPa S sensor, Rated capacity 005KPG designation
			35.0kPa H sensor, Rated capacity 050KPG designation
			50.0kPa A sensor, Rated capacity 100KPG designation
			100kPa A sensor, Rated capacity 200KPG designation
			100.0kPa A sensor, Rated capacity 200KPG designation
			200kPa A sensor, Rated capacity 200KPG designation
			200.0kPa A sensor, Rated capacity 200KPG designation

			350kPa	A sensor, Rated capacity 500KPG designation n	
			500kPa	A sensor, Rated capacity 500KPG designation n	
			700kPa	P sensor, Rated capacity 700KPG designation n	
			35.0kPa abs	H sensor, Rated capacity 050KPA designation n	
			50.0kPa abs		
			100kPa abs	A sensor, Rated capacity 100KPA designation n	
			100.0kPa abs		
			200kPa abs	A sensor, Rated capacity 200KPA designation n	
			200.0kPa abs		
			500kPa abs	A sensor, Rated capacity 500KPA designation n	
	Negative pressure, Compound pressure (*1)		(-5.00kPa)	S sensor, Rated capacity 005KPG designation n	
			P(±5.00kPa)		
			N(±5.00kPa)		
				(-50.0kPa)	H sensor, Rated capacity 050KPG designation n
				P(±50.0kPa)	
				N(±50.0kPa)	
				(-100kPa)	P sensor, Rated capacity 100KPG designation n
				(-100.0kPa)	
				P(±100kPa)	
				N(±100kPa)	
				P(±100.0kPa)	
				N(±100.0kPa)	
				(-100-200kPa)*2	

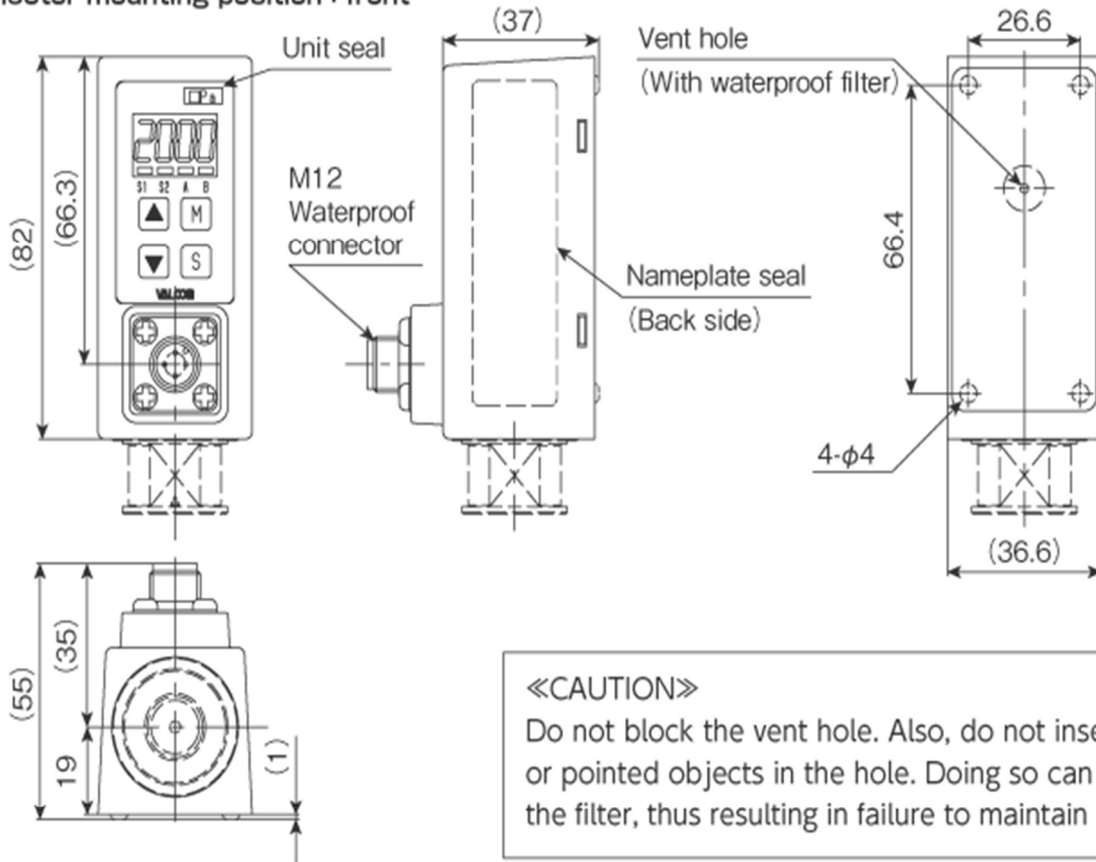
			(-100.0-200.0kPa)*2	P sensor, Rated capacity 200KPG designation n
			(-100-350kPa)*2	P sensor, Rated capacity 700KPG designation n
			(-100-500kPa)*2	P sensor, Rated capacity 700KPG designation n
			(-100-700kPa)*2	P sensor, Rated capacity 700KPG designation n
6.Cable Connection		WN	Cable not included. (If prepared by the customer), Front connector type Main body use connector: Panel mounting connector plug made in Omron (Model number) XS2M-D423	
		WS	Waterproof connector (Front: Straight type) + Cable 2m	
		WR	Waterproof connector (Front: Angle type) + Cable 2m	
		RN	Cable not included. (If prepared by the customer), Rear connector type Main body use connector: Panel mounting connector plug made in Omron (Model number)XS2M-D423	
		RS	Waterproof connector (Rear: Straight type) + Cable 2m	
		RR	Waterproof connector (Rear: Angle type) + Cable 2m	
7.Sensor Type		S	Semiconductor sensor: Inert gases that will not corrode SUS304, SUS316L, Silicon glass, NBR and Silicon gel.	
			Material: Semiconductor + SUS304 + SUS316L	
		H	Semiconductor thin-film type sensor: Water, oil, gases or other media that will not corrode Hastelloy C22 and SUS316L.	
			Material: Hastelloy C-22+SUS316L	
		A	Semiconductor thin-film type sensor: Water, oil, gases or other media that will not corrode Hastelloy C22 and SUS316L.	
			Material: Hastelloy C-22+SUS316L	

		P	Semiconductor thin-film type sensor: Water, oil, gases or other media that will not corrode SUS316L.		
			Material: SUS316L		
8.Rated Capacity(R.C.)		See right table. Enter the range in the <input type="text"/> as it is.	For inert gases	When <input type="text"/> S sensor is specified	<input type="text"/> 005KPG 5kPa
			For gases and liquids	When <input type="text"/> H sensor is specified	<input type="text"/> 050KPG 50kPa <input type="text"/> 050KPA 50 kPa abs
				When <input type="text"/> A sensor is specified	<input type="text"/> 100KPG 100kPa <input type="text"/> 100KPA 1 00kPa abs
					<input type="text"/> 200KPG 200kPa <input type="text"/> 200KPA 2 00kPa abs
					<input type="text"/> 500KPG 350kPa
					<input type="text"/> 500KPG 500kPa <input type="text"/> 500KPA 5 00kPa abs
				When <input type="text"/> P sensor is specified	<input type="text"/> 100KPG 100kPa
<input type="text"/> 200KPG 200kPa					
			<input type="text"/> 700KPG 500kPa		
9.Connection screw	○	R2	R1/4		

- (*1)When specifying compound pressure, select whether to focus on positive pressure or negative pressure for calibration. P: Calibrate with focus on positive pressure. N: Calibrate with focus on negative pressure.
- (*2)Only P (focus on positive pressure) is available for models of rating 200 or more.

External dimensions (Unit: mm)

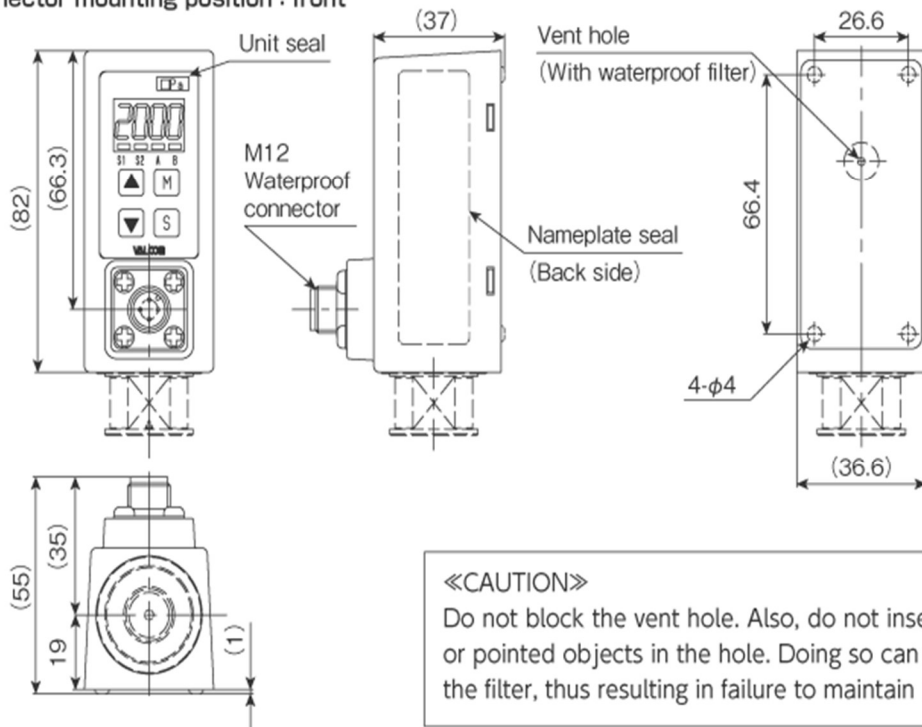
● Connector mounting position : front



«CAUTION»

Do not block the vent hole. Also, do not insert sharp or pointed objects in the hole. Doing so can damage the filter, thus resulting in failure to maintain IP rating.

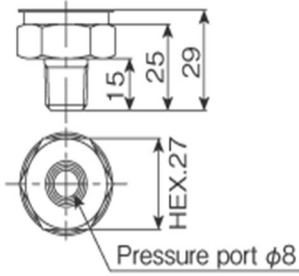
● Connector mounting position : front



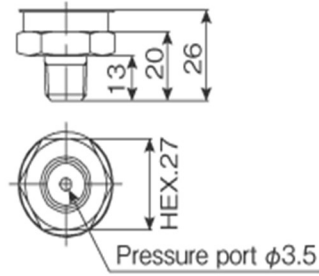
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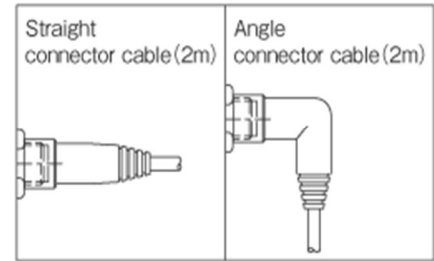
● When using H/A/P sensors



● When using S sensor



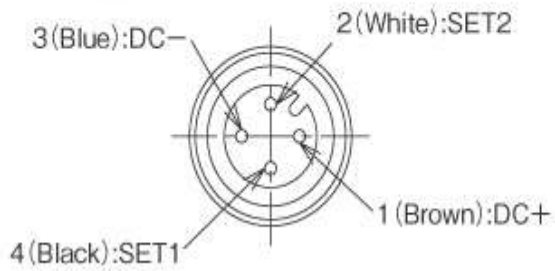
● Cable / Cable connector



Wiring diagram

● VSW2-02 type

2 setting open collector output



▲ Bracket for well hanging VSW2-BR



▲ Connection connector shape