

G-TRAN Series Pirani Gauge [SW1-1/SW1-2]

This is a wide range pirani gauge which measures from atmospheric pressure to 5×10^{-2} Pa. (3.75×10^{-4} Torr, 5×10^{-4} mbar) In addition, cost reduction and space saving were realized by removing control and display panels from conventional controller (sensor unit), and keeping minimum necessary functions only.



SW1-1/SWP-16



SW1-2/SWP-R1/8

Features

- ▶ **Wide-range Measurement**
Measures from atmospheric pressure to 5×10^{-2} Pa.
- ▶ **Improvement in Shock Resistance**
Design structure is highly resistance to shock
- ▶ **Exceptional measure accuracy at Atmospheric pressure.**
Within $\pm 20\%$ of measurement accuracy
Measurement is not dependent on the mounting position
(Patent number 4878289)
- ▶ **Filament Material · Platinum (Pt)**
Corrosion-resistant platinum is used as the filament material
- ▶ **Improvement in Visibility**
With high visible LED for error verification
- ▶ **One-touch Adjustment**
Atmospheric adjustment and the zero point adjustment can be done in one-touch operation
- ▶ **Maintenance**
Sensor head can be replaced easily.
- ▶ **Flange model expansion addition of R1/8 flange model in to the line up**
- ▶ **Measured Value Output Signal**
Pressure output in 0 to 10V by log

- ▶ **Control Output Signal**
2 set point output (SW1-1)
- ▶ **Serial Communication Type**
RS-232C/RS-485 communication (SW1-2)
- ▶ **Applicable Standard**
Conforms with CE

Applications

- ▶ Process control in low vacuum processes such as for photovoltaic field, FPD, semiconductor, optics and electronic parts manufacturing systems
- ▶ Process control in low vacuum range processes for industrial equipment such as vacuum furnaces, etc.
- ▶ Process control in low vacuum system, which requires multiple process chambers, such as in-line sputtering and single wafer processing equipment
- ▶ For pumping unit (system) which it has a vibration and/or shack in the manufacture process

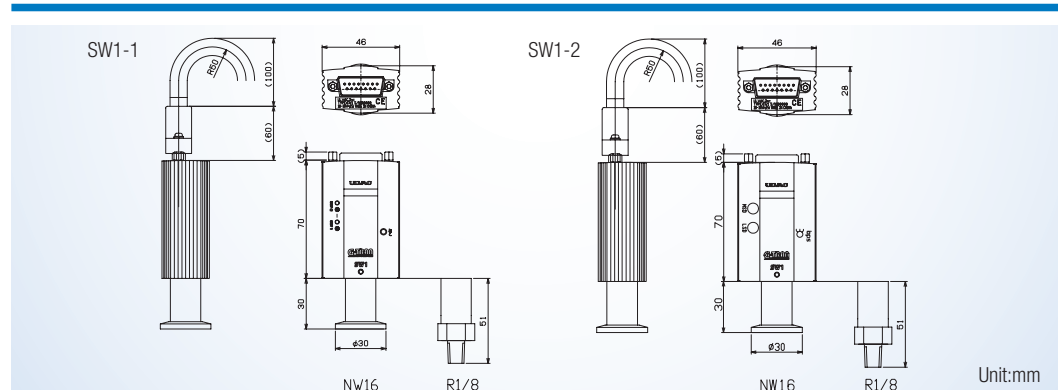
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Specifications

Model	SW1-1	SW1-2
Connectable sensor head	1 pc	
Compatible sensor head	SWP-16 (NW16), SWP-R1/8(R1/8)	
Measurable pressure range	5.0×10^{-2} to $1.0 \times 10^{+5}$ Pa	
Accuracy*	1×10^{-1} Pa to $1 \times 10^{+4}$ Pa: $\pm 10\%$ 5.0×10^{-2} to 1.0×10^{-1} Pa, $1 \times 10^{+4}$ Pa to $1 \times 10^{+5}$ Pa: $\pm 20\%$	
Repeatability	1×10^{-1} Pa to $1 \times 10^{+4}$ Pa: $\pm 2\%$	
Sampling time	5 times in 50ms running average	
Value output	Output voltage DC 0 to 10V Pressure indication (Log) 1.7V to 8.0V 1V/decade	
Update time	50ms	
Control input signal	Open collector input, Negative logic ADJ Adjustment (ZERO point, atmosphere adjust)	—
Control output signal	Open collector output, negative logic [rating: 30V _{MAX} , 50mA _{MAX} , 70mW] Error signal Set point 1, 2	—
Monitor for setpoint	Set point 1, 2: 0 to 10V Log output	—
Serial communication type	—	RS232C/RS485
LED display	POWER/ERROR: Power error LED SET-1: Set point 1LED SET-2: Set point 2LED	—
Material of filament	Pt	
Operating temperature range	10 to 40°C	
Operating humidity range	15 to 80% (not condensing)	
IP rating	IP30 (sensor unit)	
Fixing position	Free	
Power supply voltage	DC18V to 30V, 2W (4.8W w/power input)	
Input/output connector	D-sub 15-pin (M2.6mm screw) - side sensor unit	
Weight	150g (with SWP-16)	
Dimension (Power supply) W×D×H	70mm×46mm×28mm	
Standard accessories	Instruction manual (CD)	
Option	Input/output connector (D-sub 15-socket (M2.6mm screw)), Inspection result data sheet, General calibration test report, JCSS calibration certificate	
Applicable standard	CE	

*The value indicates accuracy after atmospheric pressure adjustment and zero point adjustment.

Dimensions



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