

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 to 760Torr, 5×10^{-4} to 1013mbar). In addition, this gauge removes control and display panels from traditional controllers, keeping the minimum necessary functions only, thus saving cost and space.





Features

➤ Wide-range Measurement

Measures from atmospheric pressure to 5×10^{-2} Pa $(3.75\times10^{-4}$ to 760Torrr, 5×10^{-4} to 1013mbar)

➤ Wiring Reduction

Combined sensor and controller, thus reducing cables, saving space and energy.

➤ Improvement in Visibility

LED error verification for better visibility

> One-touch Adjustment

Atmospheric adjustment and the zero point adjustment can be done in one-touch

➤ Maintenance

Sensor head can be replaced easily

Measured value output signal Pressure is 0 to 10V Log output

➤ Control Output Signal 2 set point output (SW1-1)

➤ Serial Communication Type RS232C/RS485 communication (only SW1-2)

Certification 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

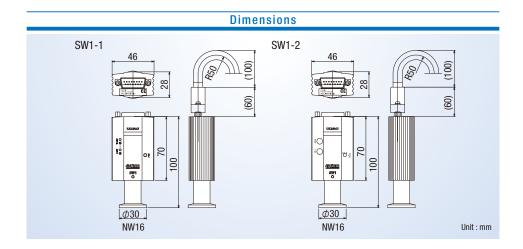




G-TRAN Series Pirani Gauge [SW1-1/SW1-2]

Specifications			
Model		SW1-1	SW1-2
Connectable sensor		1 pc	
Compatible sensor head		SWP-16 (NW16)	
Measurable pressure range		5.0×10 ⁻² to 1.0×10 ⁺⁵ Pa (3.75×10 ⁻⁴ to 760Torr, 5×10 ⁻⁴ to 1013mbar)	
Accuracy*		1×10 ⁻¹ to 1×10 ⁻⁴ Pa (7.5×10 ⁻⁴ to 75Torr, 1×10 ⁻³ to 100mbar) : ±10%	
		5.0×10^{-2} to 1.0×10^{-1} Pa (3.75×10 ⁻⁴ to 7.5×10 ⁻⁴ Torr, 5×10 ⁻⁴ to 1×10 ⁻³ mbar), 1×10 ⁺⁴ to 1×10 ⁺⁵ Pa (75 to 760Torr, 100 to 1013mbar): $\pm 20\%$	
Repeatability		1×10 ⁻¹ to 1×10 ⁺⁴ Pa (7.5×10 ⁻⁴ to 75Torr, 1×10 ⁻³ to 100mbar) : ±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	<u> </u>
		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 (50 to 104°F)	
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 (M2.6 screw)	
Weight		150g (SWP-16)	
Dimension (Power supply) $W\times D\times H$		70mm×46mm×28mm	
Applicable standard		CE	

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



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