

# Atmospheric Pirani Gauge Combo [SW1&ISG1 Package]

This is a wide range pirani gauge which measures from atmospheric pressure to  $5 \times 10^{-2}$  Pa ( $3.75 \times 10^{-4}$  Torr,  $5 \times 10^{-4}$  mbar)  
Platinum wire is used for filaments , therefore, the filament will function even at atmospheric pressure.



ISG1



SW1-1/SWP-16



SW1-1/SWP-R1/8

## Features

- ▶ **Wide-range Measurement**  
Measures from atmospheric pressure to  $5 \times 10^{-2}$  Pa ( $3.75 \times 10^{-4}$  Torr,  $5 \times 10^{-4}$  mbar)
- ▶ **Power Supply Voltage**  
Powered with 24VDC or 100VAC to 240VAC input
- ▶ **Shock Resistant**  
Design is highly resistant to shock
- ▶ **Filament Material: platinum (Pt)**  
Corrosion-resistant platinum is used as the filament material
- ▶ **High Visibility LEDs Used for Error Display**
- ▶ **One-touch Adjustment**  
Atmospheric adjustment and the zero point adjustment can be done with one-touch
- ▶ **Maintainability**  
Sensor head can be replaced easily
- ▶ **Measured Value Output Signal**  
Pressure is 0 to 10V Log output
- ▶ **Control Output Signal**  
3 set point output

- ▶ **Serial Communication Spec**  
RS485 communication (ISG1)
- ▶ **Display Unit**  
With visible LED
- ▶ **Certification**  
Conforms with CE

## Applications

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

# Atmospheric Pirani Gauge Combo [SW1&ISG1 Package]

## Specifications

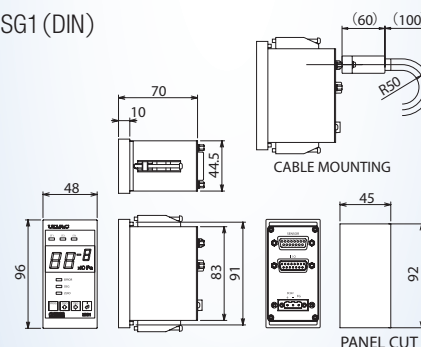
Model	SW1&ISG1 package (DIN type)	SW1&ISG1 package (JIS type)
Specifications	DIN standard	JIS standard
Measurable pressure range	$5.0 \times 10^{-2}$ to $1.0 \times 10^{-5}$ Pa ( $3.75 \times 10^{-4}$ to 760 Torr, $5.0 \times 10^{-4}$ to 1013 mbar)	
Unit of pressure	Pa	
Connectable sensor	1 pcs	
Pressure indication	Significant: 2 digit, Exponent: 1 digit digital $\square.\square \times 10^{\square}$ (LED)	
Update time	200ms	
Sampling time 70ms	70ms running average in 5 times	
Accuracy*	$1 \times 10^{-1}$ to $1 \times 10^{-4}$ Pa : $7.5 \times 10^{-4}$ to 75 Torr : $\pm 12\% \pm 1$ digit $1 \times 10^{-3}$ to 100 mbar : $5.0 \times 10^{-2}$ to $1.0 \times 10^{-1}$ Pa, $1 \times 10^{-4}$ to $1 \times 10^{-5}$ Pa : $3.75 \times 10^{-4}$ to $7.5 \times 10^{-4}$ Torr, 75 to 760 Torr : $\pm 22\% \pm 1$ digit $5 \times 10^{-4}$ to $1 \times 10^{-3}$ mbar, 100 to 1013 mbar :	
Repeatability	$1 \times 10^{-1}$ to $1 \times 10^{-4}$ Pa : $7.5 \times 10^{-4}$ to 75 Torr : $\pm 2\% \pm 1$ digit $1 \times 10^{-3}$ to 100 mbar :	
Analog output	DC 0V-10V, LOG output	
Control input signal	Open collector input, negative logic Filament lighting signal, Atmosphere pressure adjustment etc.	
Control output signal	Open collector output, Negative logic [rating: 30Vmax, 50mAmax, 70mW] Error signal Set point 1, 2, 3	
Serial Communication Spec	RS485	
Power supply voltage	DC24V, AC100-240V (AC power adapter in use)	
Operating temperature range	10 to 40°C (50 to 104°F)	
Operating humidity range	15 to 80% (not condensing)	
Weight	Display unit: 250g Sensor unit: 150g (with SWP-16)	
Dimension (Power supply) W×D×H	Display unit: 48mm×96mm×70 mm    50mm×100mm×70 mm Sensor unit: 70mm×46mm×28 mm	
Standard parts	Sensor unit SW1-1: 1pc Display unit ISG1: 1pc Sensor head SWP-16 (NW16) or SWP-R1/8(R1/8): 1pc Sensor head cable: Choose it from 2, 5, 10, 15, 20, 25 or 30m: 1pc AC power adapter: PW-060A-01Y240 (G) Power supply connect to PHOENIX: MSTB 2, 5/3-STF-5, 08: 1pc DIN panel fixation joints: 2pc Instruction manual CD: 1pc	
Option	Inspection result data sheet, General calibration test report, JCSS calibration certificate Input / output connector D-sub 15 socket (M2.6mm screw)	
Applicable standard	CE	

\* The value is accurate after atmospheric pressure adjustment and zero point adjustment.

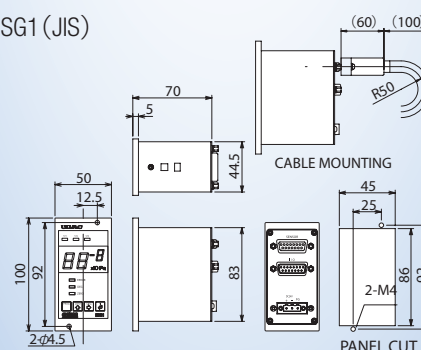
## Dimensions

Unit:mm

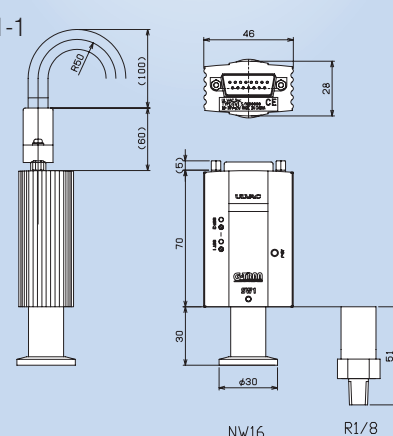
ISG1 (DIN)



ISG1 (JIS)



SW1-1



NW16

R1/8

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