

# Smartphone-Direct Pirani Gauge [SWU10-U]

This is a pirani vacuum gauge which can measure degree of vacuum by connecting your smartphone directly with USB cable. No need for dedicated power supply and display.







Image of product usage Note) Smartphone and USB cable are not attached.

#### **Features**

- ➤ Direct Connection with Smartphone
  Direct connection with smartphone by using USB cable (patent pending). No need for the other components.

  ※ Connection with PC is also possible.
- No Need for AC Power Supply No need for a dedicated power supply.
- ➤ Lightweight and Compact Size: \$\phi46 \times 81mm\$, weight: 85g (NW16 spec). The smallest and lightest of ULVAC pirani gauge lineup.
- > Excellent Shock Resistance Excellent shock resistance by ULVAC original structure (patent number 6595945) and body protection rubber.
- ➤ Wide Range Measurement
  Measureable pressure range: 5×10<sup>-2</sup> to 1×10<sup>+5</sup>Pa (3.75×10<sup>-4</sup> to 760Torr, 5×10<sup>-4</sup> to 1,013mbar)
- ➤ Various Fitting Lineup
  7 kinds of fitting lineup including NW16, R1/8, etc.
- ➤ Applicable Standard Conforms with CE

### **Applications**

- ▶ Ultimate pressure check in vacuum pump maintenance.
- ▶ Pressure check in vacuum equipment maintenance.





# Smartphone-Direct Pirani Gauge [SWU10-U]

Specifications								
Name	Smartphone-Direct Pirani Gauge							
Model	SWU10-U							
Measureable pressure range	5.0×10 <sup>-2</sup> to 1.0	5.0×10 <sup>-2</sup> to 1.0×10 <sup>+5</sup> Pa (3.75×10 <sup>-4</sup> to 760Torr, 5×10 <sup>-4</sup> to 1,013mbar)						
Accuracy*1(N <sub>2</sub> )	1×10 <sup>-1</sup> to 1×10 <sup>-4</sup> Pa 7.5×10 <sup>-4</sup> to 75Torr : ±10% 1×10 <sup>-3</sup> to 100mbar							
	$5\times10^{-2}$ to $1\times10^{-1}$ Pa, $1\times10^{+4}$ to $1\times10^{+5}$ Pa 3.75×10 <sup>-4</sup> to 7.5×10 <sup>-4</sup> Torr, 75 to 760Torr : $\pm20\%$ 5×10 <sup>-4</sup> to $1\times10^{-3}$ mbar, 100 to 1,013mbar							
Repeatability	$1 \times 10^{-1}$ to $1 \times 10^{-4}$ Pa $7.5 \times 10^{-4}$ to $75$ Torr : $\pm 2\%$ $1 \times 10^{-3}$ to $100$ mbar							
Material of filament	Pt	Pt						
Burst pressure*2	2×10 <sup>+5</sup> Pa(abs)	2×10+5Pa(abs)						
Operating temperature range	10 to 40℃ (50 to 104°F)							
Operating humidity range	15 to 85% (not condensing)							
Storage temperature	-20 to 65℃ (not condensing)							
IP rating	IP30							
Fixing position	Free							
Power supply voltage	DC5V±5% 35	DC5V±5% 350mA <sub>MAX</sub>						
I/O connector	USB microB	USB microB						
Fitting	NW16	NW25	R1/8	Φ18tube	Φ15tube	ICF034	Sanitary	
Weight	85g	88g	94g	93g	80g	80g	145g	
Option		USB2.0 cable (certified product, Type-C-micro-B, 1.5m)*3 Inspection certificate, calibration certificate,traceability certificate, JCSS calibration certificate						
Applicable Standard	CE							

- \*1 Value after atmospheric pressure adjustment and zero point adjustment.
  \*2 Consider separately burst pressure of flange and clamp, etc.
  \*3 Select C-microB OTG cable when using a commercial USB cable.

#### Available smartphone<sup>3</sup>

#### Android 6 or later

Connector: USB Type-C

\*4 For available smartphone models list, see ULVAC web page

# Application software "UL-MOBI" \*5

For smartphone	Download from Google Play
For PC	Download from ULVAC web page







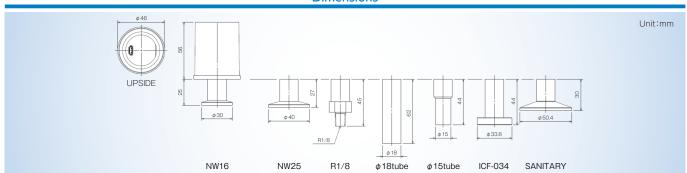
Image of "UL-MOBI" on smartphone Pressure value display

Data logging function Log data is saved as CSV format. Sampling interval: Min. 200ms

Trend display

#5 For further details, see explanation of app on Google Play.

#### **Dimensions**



#### **ULVAC, Inc. Components Division**

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