

# 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.



SWU10-U(NW16 spec)



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:  $\phi 46 \times 81$ mm, 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:  $5 \times 10^{-2}$  to  $1 \times 10^{+5}$ Pa  
( $3.75 \times 10^{-4}$  to 760Torr,  $5 \times 10^{-4}$  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						
Measurable pressure range	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* <sup>1</sup> (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						
	5×10 <sup>-2</sup> to 1×10 <sup>+1</sup> Pa, 1×10 <sup>+4</sup> to 1×10 <sup>+5</sup> Pa 3.75×10 <sup>-4</sup> to 7.5×10 <sup>-4</sup> Torr, 75 to 760Torr : ±20% 5×10 <sup>-4</sup> to 1×10 <sup>-3</sup> mbar, 100 to 1,013mbar						
Repeatability	1×10 <sup>-1</sup> to 1×10 <sup>+4</sup> Pa 7.5×10 <sup>-4</sup> to 75Torr : ±2% 1×10 <sup>-3</sup> to 100mbar						
Material of filament	Pt						
Burst pressure* <sup>2</sup>	2×10 <sup>+5</sup> Pa(abs)						
Operating temperature range	10 to 40°C (50 to 104°F)						
Operating humidity range	15 to 85% (not condensing)						
Storage temperature	-20 to 65°C (not condensing)						
IP rating	IP30						
Fixing position	Free						
Power supply voltage	DC5V±5% 350mA <sub>MAX</sub>						
I/O connector	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)* <sup>3</sup> 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>4</sup>

Android 6 or later

Connector: USB Type-C

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

## Application software "UL-MOBI"\*<sup>5</sup>

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

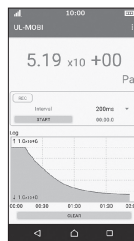
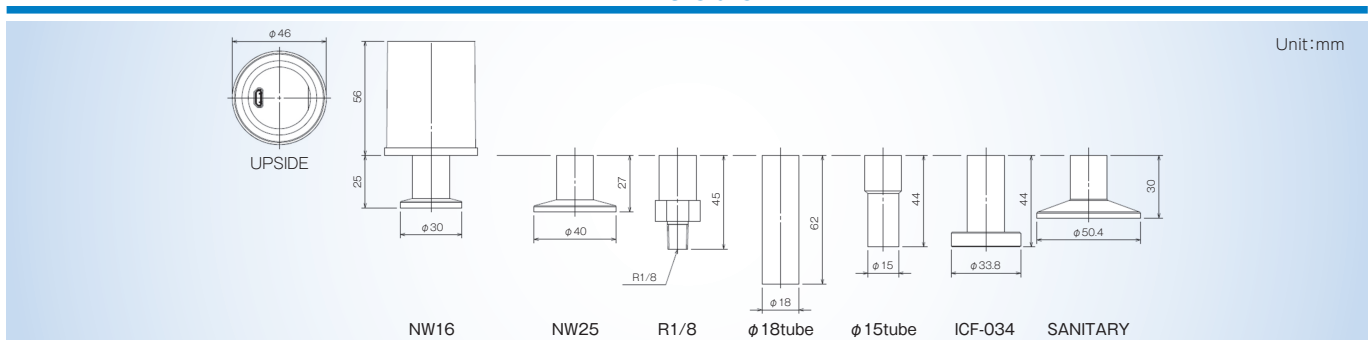


Image of "UL-MOBI" on smartphone

- ← 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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