

Pirani Vacuum Gauge [GP-G Series]

This series is a pirani vacuum gauge utilizing heat conduction of a gas.

A platinum wire is used, therefore, the units will not break even at atmospheric pressure.

The gauges have a wide range of applications and can easily measure pressures in the low vacuum range.

Various types of interlocks and pumping sequence control are available within a set point.



Features

- ▶ **Low Vacuum Region is Measured**
Constant temperature Pirani vacuum gauge that work using the thermal conduction of gas
- ▶ **Interchangeable Sensor Heads**
Employs sensor heads from the WP series
- ▶ **Filament Material: platinum (Pt)**
Corrosion-resistant platinum is employed as filament material
- ▶ **Vacuum Level Output Signal**
Pressure is 0 to 10V Log output
- ▶ **Digital Output**
BCD output (GP-1000G)
- ▶ **Serial Communication Specification**
RS232C communication (GP-1000G)

- ▶ **Control Output Signal**
Set Point : 2 pcs available from GP-1GRY/GP-2GR and
3 pcs from GP-1000G/GP-2001G/GP-2002G
- ▶ **LED Monitor for Crisp Display**
4.5-digits display (GP-2001G/GP-2002G)
- ▶ **Employ DIN Standard**
Compact in size, 96×48DIN standard (GP-2001G/GP-2002G)

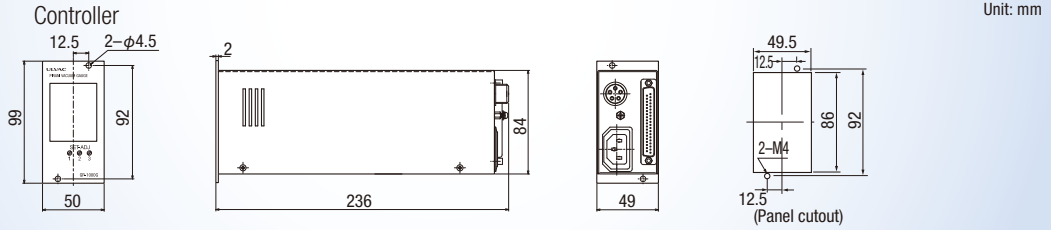
Applications

- ▶ Pressure measurement in roughing pumping systems
- ▶ Pressure monitoring in various vacuum pumping systems
- ▶ Interlocks, sequencing, and other control system related functions for practical vacuum equipment
- ▶ Process control of various vacuum equipment

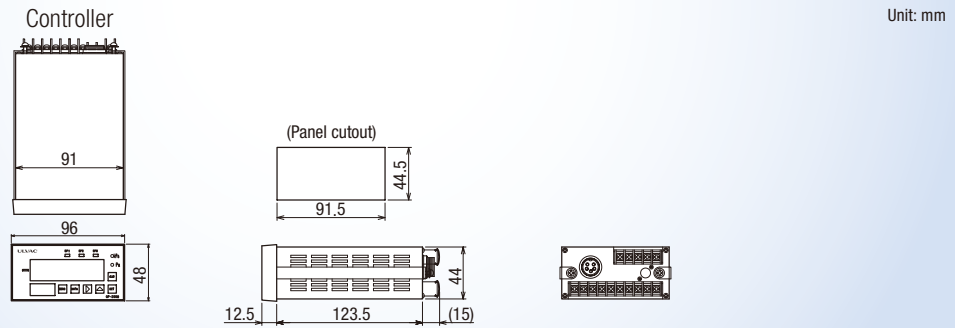
Pirani Vacuum Gauge [GP-G Series]

Dimensions

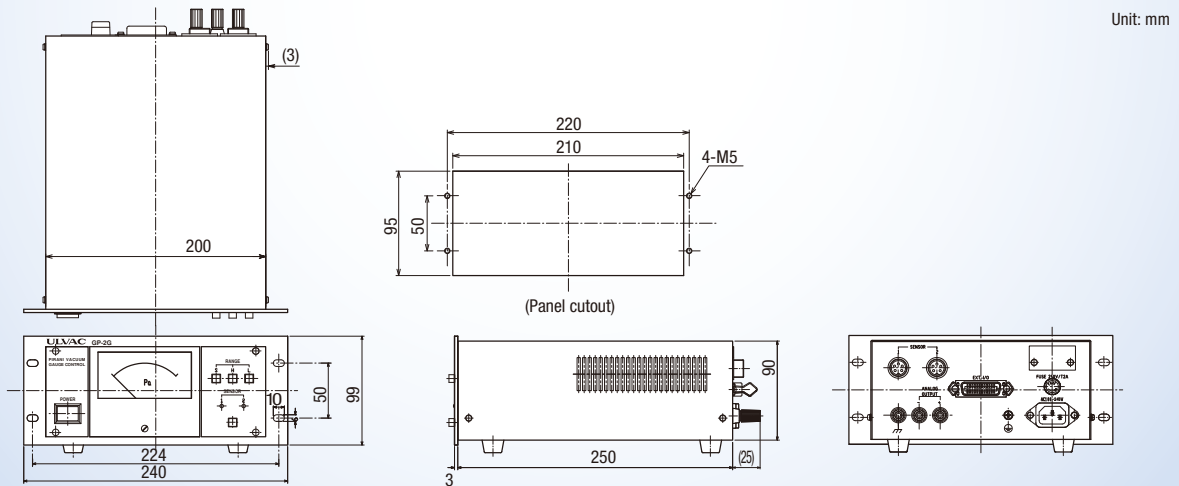
GP-1000G



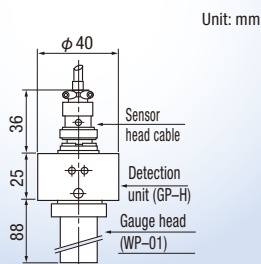
GP-2001G/GP-2002G



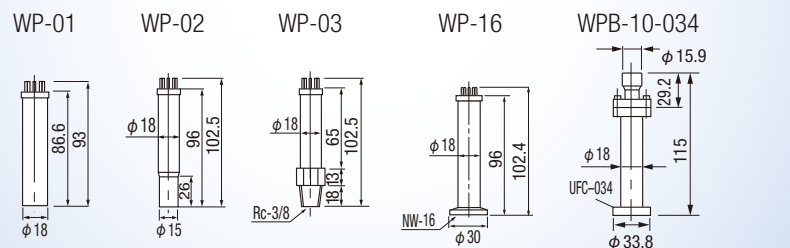
GP-2G/GP-2GRY



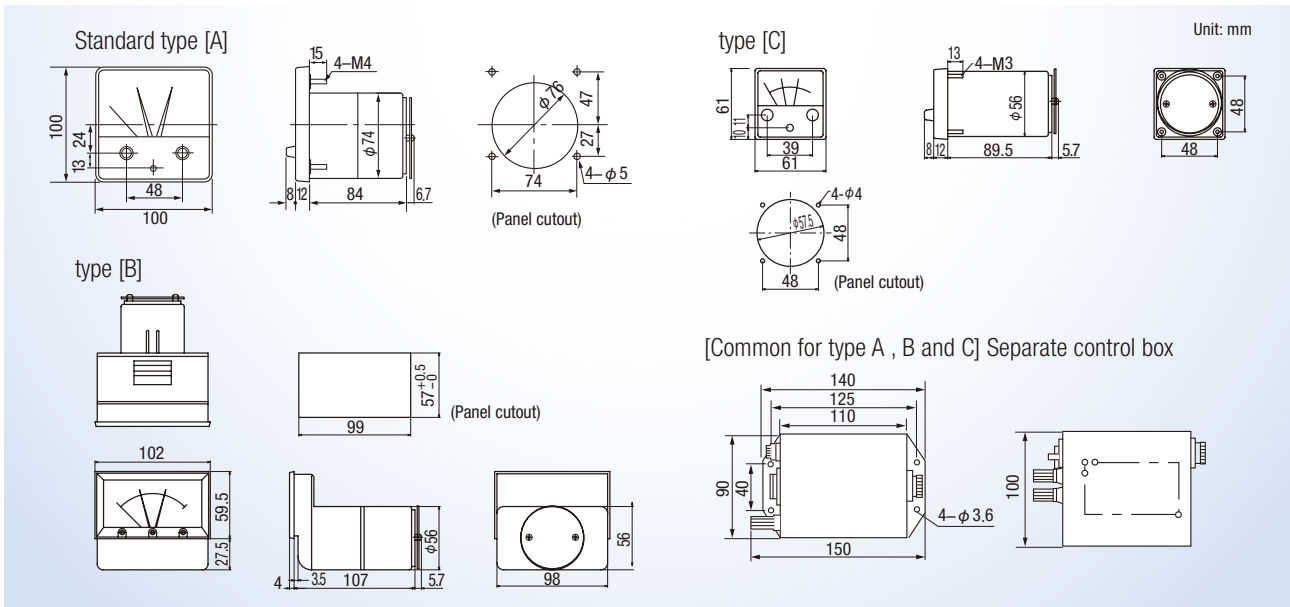
Measurement Section



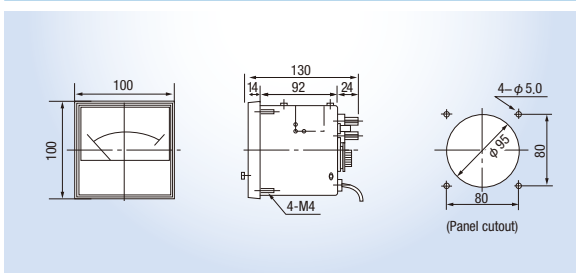
Gauge Head



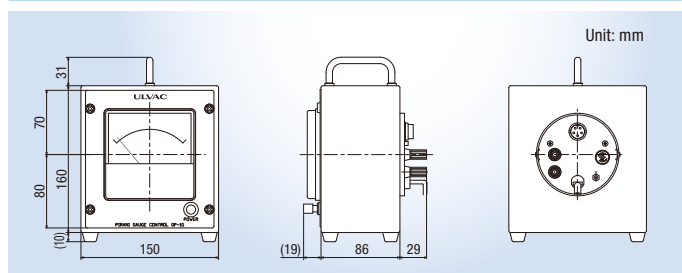
GP-1GRY



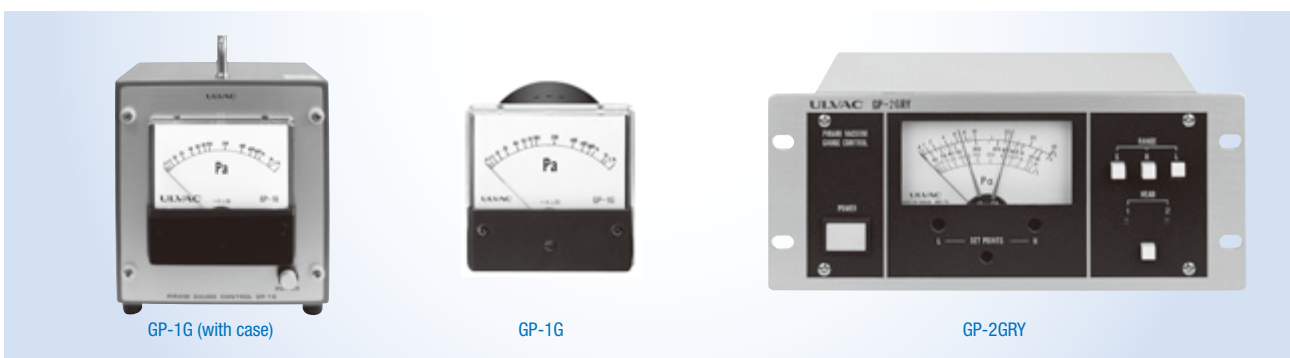
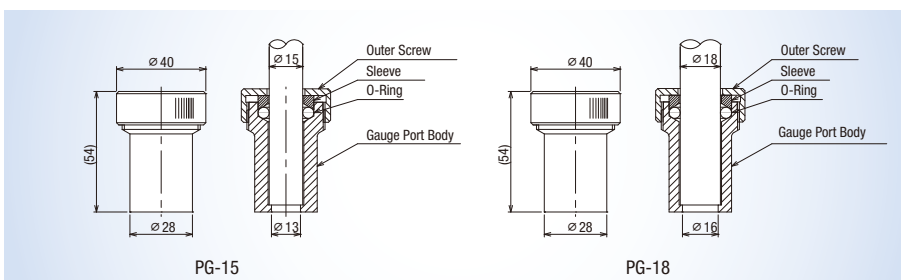
GP-1G



GP-1G (with case)



Gauge Port (Option)



Pirani Vacuum Gauge [GP-G Series]

Specifications

Model	GP-1000G	GP-2001G	GP-2002G	GP-1GRY(A)	GP-1G	GP-1G (with case)	GP-2GRY	GP-2G
Measurable pressure range	0.4 to 2700 Pa 3×10 ⁻³ to 20 Torr 4×10 ⁻³ to 27 mbar	0.4 to 3000 Pa 3×10 ⁻³ to 22.5 Torr 4×10 ⁻³ to 30 mbar			0.4 to 2700 Pa 3×10 ⁻³ to 20 Torr 4×10 ⁻³ to 27 mbar		0.4 to 3000 Pa 3×10 ⁻³ to 22.5 Torr 4×10 ⁻³ to 30 mbar	
Pressure unit	Pa	Pa/kPa				Pa		
Measurement locations			1				2	
Accuracy	±15% 51 to 760 Pa 3.8×10 ⁻¹ to 5.7 Torr 5.1×10 ⁻¹ to 7.6 mbar	±30% 10 to 1000 Pa 7.5×10 ⁻² to 7.5 Torr 0.1 to 10 mbar (exclude 51 to 760 Pa 3.8×10 ⁻¹ to 5.7 Torr 5.1×10 ⁻¹ to 7.6 mbar)				±3% of full scale (linear scale conversion)		
	±50% 0.4 to 2700 Pa 3×10 ⁻³ to 20 Torr 4×10 ⁻³ to 27 mbar (exclude 10 to 1000 Pa 7.5×10 ⁻² to 7.5 Torr 0.1 to 10 mbar)	±50% 0.4 to 3000 Pa 3×10 ⁻³ to 22.5 Torr 4×10 ⁻³ to 30 mbar (exclude 10 to 1000 Pa 7.5×10 ⁻² to 7.5 Torr 0.1 to 10 mbar)						
Display	Digital indication (LCD)	Digital indication (LED)				Analog indication		
Sampling time	200ms	100ms				—		
Measurement value output	①DC 0 to 10V linear output (10 ³ Pa (7.5 Torr, 10 mbar) f. s.) ②DC 0 to 10V linear output (10 ² Pa (0.75 Torr, 1 mbar) f. s.) ③Quasi-log output (1V for each range)	DC1.5 to 11.5V ①Linear output 0 to 10V: 0 to 3000 Pa 0 to 22.5 Torr, 0 to 30 mbar ②Linear output 1 0 to 10V: 0 to 1000 Pa 0 to 7.5 Torr, 0 to 10 mbar ③Linear output 2 0 to 10V: 0 to 100 Pa 0 to 0.75 Torr, 0 to 1 mbar			DC 0 to 10mV Nonlinear output		DC 0 to 10V Nonlinear output	
Set points	3 (AC100V / 0.5A MAX)	3 (DC24V / 50mA MAX)		2 (AC100V / 0.5A MAX)		—	2 (AC100V / 0.5A MAX)	—
Communication serial / Digital output	RS232C / BCD					—		
Operating temperature range					10 to 40°C (50 to 104°F)			
Operating humidity range					15 to 18% (not condensing)			
Power supply voltage	AC100 to 240V	DC24V			AC100 to 240V		15VA	13VA
Dimension W×D×H	50×236×99mm	96×136×48mm		Controller: 90×140×100mm Meter (A-TYPE): 100×111×100mm	100×130×100mm	100×130×100mm	240×250×99mm	
Controller weight	Controller: 1.0kg	Controller: 0.4kg		Controller: 1.0kg Meter (A-TYPE): 0.7kg	Meter: 0.7kg	Meter: 1.4kg	Controller: 2.8kg	Controller: 2.7kg
				Detection unit (GP-H): 35g				
Accessories	Power cable	3m×1	3m×1 (option)	—	3m (with controller)		3m×1	
	Input / output connector	1					1	
	Operation manual				1			
Options	Sensor head	Various types of gauge heads including WP-01, 02, 03, 16, and WPB-10-034						
	Detection unit	GP-H, GP-BH special cable (WPB-10-034)						
	Sensor head cable	2, 5, 10, 15, 20, 25, 30, 50, 100m						

ULVAC, Inc. Components Division

www.ulvac.co.jp/eng

Overseas Sales in Japan TEL +81-467-89-2261

USA : ULVAC Technologies, Inc. TEL +1-978-686-7550
 GERMANY : ULVAC GmbH TEL +49-89-960909-0
 CHINA : ULVAC (SHANGHAI) Trading Co.,Ltd. TEL +86-21-6127-6618
 TAIWAN : ULVAC TAIWAN, Inc. TEL +886-3-579-5688
 KOREA : ULVAC KOREA, Ltd. TEL +82-31-683-2922
 SINGAPORE : ULVAC SINGAPORE PTE LTD TEL +65-6542-2700

PHILIPPINES : ULVAC Singapore Philippines Branch TEL +63-2-828-7700
 VIETNAM : ULVAC Singapore Vietnam Representative Office TEL +84-8-62556762
 THAILAND : ULVAC (THAILAND) LTD TEL +66-2-312-4447
 MALAYSIA : ULVAC MALAYSIA SDN. BHD. TEL +60-3-5121-4700
 INDIA : ULVAC, Inc., India Branch TEL +91-40-27007006

▶ This catalog is subject to change without notice.

▶ This catalog is published in order to sell this product in overseas. Please see Japanese catalog when purchasing in Japan.