

# Ionization Vacuum Gauge [GI-M2/GI-D7]

This series is hot cathode type ionization vacuum gauge, capable of measuring pressure in the  $9.9$  to  $5 \times 10^{-8}$  Pa ( $7.4 \times 10^{-2}$  to  $3.75 \times 10^{-10}$  Torr,  $9.9 \times 10^{-2}$  to  $5 \times 10^{-10}$  mbar) (Metal gauge, GI-M2),  $6.7 \times 10^{-1}$  to  $1.3 \times 10^{-6}$  Pa ( $5 \times 10^{-3}$  to  $9.75 \times 10^{-9}$  Torr,  $6.7 \times 10^{-3}$  to  $1.3 \times 10^{-8}$  mbar) (Glass gauge, GI-D7) range using triode tube or B-A type sensor heads.



## Features

- ▶ **Measures a Wide Pressure Range**  
Can measure a wide pressure range from  $9.9$  to  $5 \times 10^{-8}$  Pa (GI-M2) ( $7.4 \times 10^{-2}$  to  $3.75 \times 10^{-10}$  Torr,  $9.9 \times 10^{-2}$  to  $5 \times 10^{-10}$  mbar)
- ▶ **2 Types Vacuum Tube, Metal and Glass**  
Sensor head selected depending on the application (bare type also available)
- ▶ **Strong Metal Vacuum Tube**  
Small-sized metallic sensor head prevents it from breaking (GI-M2)
- ▶ **Sensitivity Setup**  
Sensitivity setup can be changed for different gases. Allowing even more accurate pressure measurement.
- ▶ **Range Hold Function**  
Ideal for fixing the measurement range
- ▶ **Control Output Signal**  
2 set point output
- ▶ **Operable at Whole Function Front Panel**  
Switch 1/2 filament, sensitivity setting, range hold function, degas function
- ▶ **Serial Communication Specification**  
RS232C communication

- ▶ **Digital Output**  
BCD output
- ▶ **Measured Value Output Signal**  
Pressure is 0 to 10V Log output (pseudo-log output)

## Applications

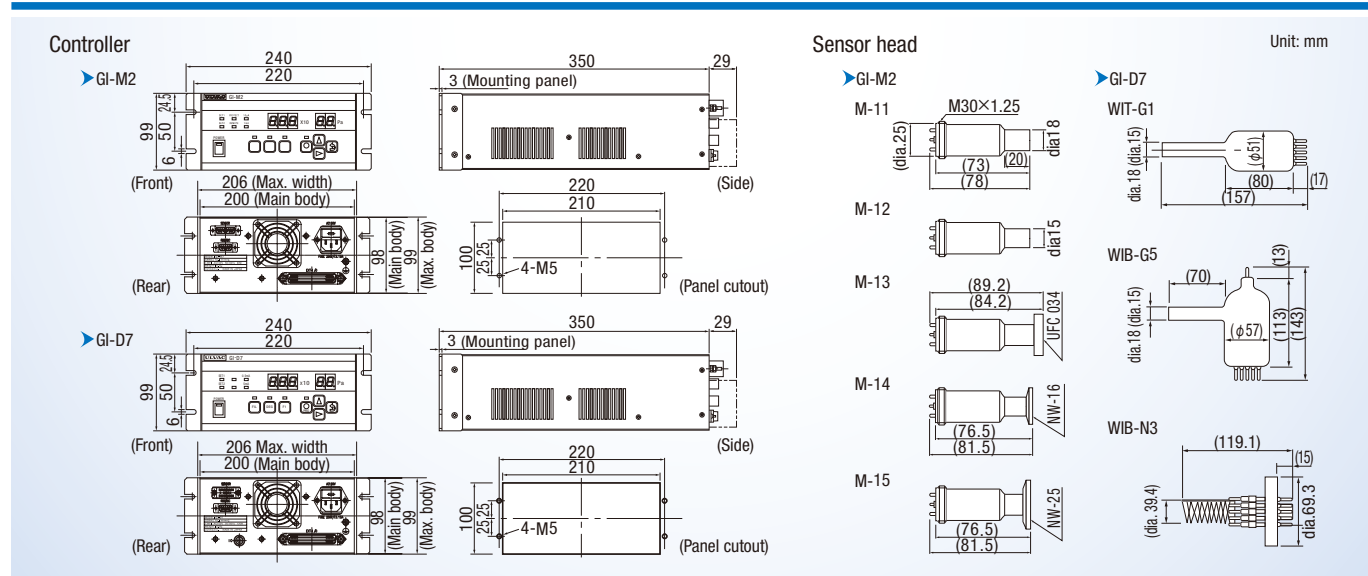
- ▶ **GI-M2**  
Sputtering system  
Vacuum evaporation system (turbomolecular pump type)  
Pressure measurement for other general ultra-high vacuum pumping system
- ▶ **GI-D7**  
Vacuum heat treatment furnace  
Vacuum brazing furnace  
Vacuum evaporation system (diffusion pump type)  
Process control for furnaces and other industrial equipment

# Ionization Vacuum Gauge [GI-M2/GI-D7]

## Specifications

Product name		Metal Ionization Vacuum Gauge	Glass Ionization Vacuum Gauge
Model		model GI-M2	model GI-D7
Measurable pressure range		5.00×10 <sup>-8</sup> to 9.99×10 <sup>0</sup> Pa (3.75×10 <sup>-10</sup> to 7.49×10 <sup>-2</sup> Torr, 5.00×10 <sup>-10</sup> to 9.99×10 <sup>-2</sup> mbar)	WIT: 1.30×10 <sup>-8</sup> to 6.7×10 <sup>-1</sup> Pa (9.75×10 <sup>-8</sup> to 5.03×10 <sup>-3</sup> Torr, 1.30×10 <sup>-7</sup> to 6.7×10 <sup>-3</sup> mbar) WIB: 1.30×10 <sup>-6</sup> to 2.3×10 <sup>-2</sup> Pa (9.75×10 <sup>-9</sup> to 1.73×10 <sup>-4</sup> Torr, 1.30×10 <sup>-8</sup> to 2.3×10 <sup>-4</sup> mbar)
Accuracy		±15%	
Pressure indication		Digital indication 2 digit mantissa, 1 digit exponent	
Compatible sensor head		M-11, M-12, M-13, M-14, M-15	WIT-G1, WIT-G2, WIT-G3, WIT-G8, WIB-G5, WIB-N3
Sampling time		100ms	
DEGAS		Direct electrical heating of grid AC power 1.5VA	
Functions		Range hold function, Gas sensitivity setting, Filament selection	
Measurement value output		linear output 0 to 10 VDC, Pseudo-logarithmic output 0-10VDC (1V linear signal in each digit), Log output	
Control input		REMOTE/LOCAL, Filament ON/OFF, Filament 1/2, DEGAS ON/OFF, Range hold	
Control output		Analog output (0-10V), BCD output, Filament ON/OFF, Emission current setting, Degassing ON/OFF	
Set point (contact point capacity)		2 points (AC125V <sub>max</sub> , 0.5A <sub>max</sub> / DC24V <sub>max</sub> , 1.0A <sub>max</sub> )	
Serial communication spec		RS232C	
Operating temperature range		10 to 40 °C (50 to 104°F)	
Operating humidity range		15 to 18% (not condensing)	
Power supply voltage		AC100±10V 50/60Hz, 60VA	AC100±10V 50/60Hz, 120VA
Fuse		BS. SEMKO 3.15A (2pcs)	
External dimensions W×D×H		240mm×380mm×99mm	
Weight		5.6kg	5.7kg
Standard accessories	Power cord	3P Plug with ground	
	Connector	For external input / output	
	Instruction manual (CD)	1 pc	
Options	Sensor cable	2, 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60m	4, 10, 15, 20, 25, 30m
	Gauge head	Metal Gauge: M-11, M-12, M-13, M-14, M-15	Triode type glass gauge: WIT-G1, WIT-G2, WIT-G3 (W Filament) WIT-G8 (Ir/Y <sub>2</sub> O <sub>3</sub> Filament) B-A type glass gauge: WIB-G5 B-A type nude gauge: WIB-N3

## Dimensions



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