

Metal Ionization Vacuum Gauge GI-M2



GI-M2

The Model GI-M2 metal ionization vacuum gauge features a wide measuring range from the medium to the ultra-high vacuum regions.

The use of a compact metal sensor head allows this gauge to be mounted with greater flexibility since there is no concern for glass breakage usually used in standard ionization gauge heads.

Features

- A wide pressure measuring range from 10Pa to 5×10^{-8} Pa
- Iridium filament provides improved durability in oxygen atmospheres as well as various other gases.
- A new compact metal sensor allows greater design flexibility due to its size as well as eliminating the risk of glass breakage associated with traditional sensors.
- The sensor cable is bakeable to 150 °C.
(Units available bakeable to 250 °C)
- RS-232C interface provides external control by a host computer.
- Two independent set points
- Degas time can be programmed based on application parameters (Degas of up to 99 minutes).
- All Controller functions accessible from the front panel (Including FIL 1/2, RECOU and LIN/LOG).
- Isolated signal processing of external control functions eliminates the potential effects of noise even when there is a potential difference between the apparatus and the vacuum gauge.

Applications

- Wide range pressure control of automated vacuum systems.
- Pressure measurement and management of high vacuum exhaust equipment and production process lines.
- Control of automatic pressure regulation systems.
- Pressure measurement of typical ultra-high vacuum exhaust systems.

Specifications

Item	Model	GI-M2
Pressure measurement range	Pa	$5 \times 10^{-8} - 9.9 \times 10^0$
Measurement accuracy		$\pm 15\%$
Pressure indication		Digital indication: 2 digits for mantissa and 1 digit for exponent
Sampling time	ms	100
Degassing method		Direct electrical heating of grid
Recorder output		Linear output for each base number digit, quasi-logarithm output for total measurement range: 0-10 V each
Digital output		BCD (Open collector)
Control output		Set point relays: 2, emission current output, other
Control input		REMOTE/LOCAL, filament ON/OFF, DEGAS ON/OFF, filament protection ON/OFF
Functions		Gas sensitivity setting: N ₂ , Ar, or other free value; range hold function; pressure protection (filament turned off at 1.1×10 Pa), RS-232C
Applicable temperature range	°C	10-40
Power		AC100 V $\pm 10\%$ 50/60 Hz, 100 W
Weight	kg	5.3
External dimensions*	W x D x H mm	240 x 380 x 99 Max.
Standard accessories	Power cable	3P plug with ground
	Connector	For external input/output (EXT-I/O)
	Operation manual	1
Options		Gauge head: M-11, M-12, M-13, M-14, M-15 Sensor cables: 2, 5, 10, 15, 20, 25, 30, 40, 50 m, and bakable cables at 150 °C bakable cables at 250 °C RS-232C cable

* External dimensions: W = Width, D = Depth, H = Height

Note: M-13 sensor head (with a UFC-034 flange) is recommended for measuring 10^{-7} Pa

External Dimension Diagram

(unit: mm)

