

Digital Type Ultra-High Vacuum Gauge **GI-N8**



GI-N8

The GI-N8 is a hot cathode type ionization vacuum gauge for measuring ultra-high vacuum pressures. The unit includes abundant functions, such as autorange, range hold, and set points (2 points), as well as an RS232C port as standard equipment. These features make the unit applicable in a wide range of areas while improving the ease of use.

Features

- Although the pressure range is normally determined by autorange switching, the range hold function can be used to set the lower limit range.
- Accurate pressure measurement with high sensitivity settings according to the gas type.
- Degassing by electron bombardment.
- Digital output (BCD) is included as standard equipment.
- External control by a host computer with RS-232C interface.
- 2 independent set points.
- Linear base number or quasi-logarithm for recorder output of pressure values selected with a switch.
- Compact size.
- A bakable cable is available (at 250 °C) with WIN-N2.
- Since a photocoupler is used in the digital input/output signal section, the GI-N8 and control equipment can be electronically insulated through an internal change (effective when electric potentials are different between devices or when a control cable has noise).

Applications

- Pressure control in automated vacuum equipment
- Pressure measurement and parameter management for high vacuum pumping equipment and production process lines
- Control of automatic pressure adjustment devices
- Pressure measurement for other general ultra-high vacuum pumping systems

Specifications

Item	Model	GI-N8
Pressure measurement range	Pa	4×10^{-9} - 6.6×10^{-1}
Measurement accuracy		$\pm 15\%$
Pressure indication		Digital indication: 2 digits for mantissa and 1 digit for exponent
Sampling time	ms	100
Degassing method		Electron bombardment (500 V, 60 mA MAX)
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, emission 0.5/5mA, modulator ON/OFF
Functions		Gas sensitivity setting: N ₂ , H ₂ , or other free value; range hold function; pressure protection (filament turned off at 6.6×10^{-1} Pa), RS-232C
Applicable temperature range	°C	10-40
Power		AC100 V $\pm 10\%$ 50/60 Hz, 150 W max (DEGAS), normal measurement: 77 W
Weight	kg	6.1
External dimensions*	W x D x H mm	240 x 380 x 99
Standard accessories	Power cable	3P plug with ground
	Connector	For external input/output (EXT-I/O)
Options		Sensor cables: 4, 10, 15, 20, 25, 30, and bakable cables Gauge head: WIN-G5, WIN-G6, WIN-G7, WIN-N2, WIN-N3 RS-232C cable

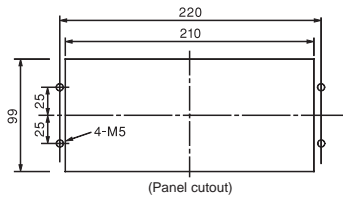
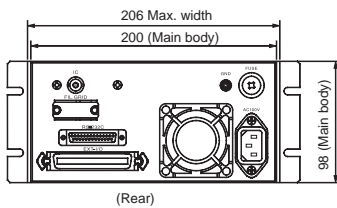
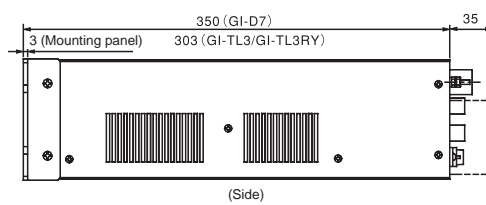
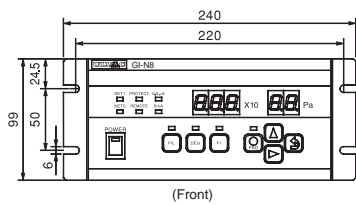
* External dimensions: W = Width, D = Depth, H = Height

(Reference: Pressure conversion 1 Pa = 7.5×10^{-3} Torr)

External Dimension Diagram

(unit: mm)

• Controller



• Sensor head

