



Usable Anywhere, Anytime, Portable Pressure Sensors

Handheld Digital Manometers

PG-100N/B Series

Easy-to-read large LCD display



Really convenient handheld manometer



Easy, one-handed operation

(Autopower off, Display hold, Zeropoint adjustment, Low battery sign, and more)

- Pocket-sized handheld manometer
- Easy-to-read large LCD display (No. of digits: 3 1/2)
- Display of pressure unit selectable (kpa, Mpa, mmHg, in.Hg, mmAq, psi, bar)

Handheld Digital Manometers



Specifications

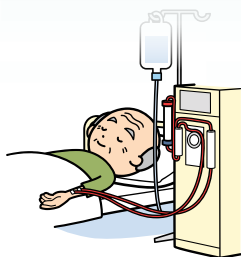
Series	PG-100N / PG-100B			
Pressure reference	Gauge (Compound)			Absolute
Model number	PG-100N-101R(-W)*	PG-100N/B-102R(-W)	PG-100N/B-103R(-W)	PG-100B-102A(-W)**
Rated pressure	-1.45~1.45 psi	-14.5~14.5 psi	-14.5~145 psi	0~14.5 psi abs
Max. pressure	2.9 psi	29 psi	217.5 psi* / 290 psi**	29 psi abs
Indication system	3 1/2-digit LCD			
Resolution	1digit			
Indication unit (-W)	kPa, MPa, mmHg, in.Hg, mmAq, psi, bar ※For the detail, Refer to the chapter of Functional Explanation in next page.			
Function	Zero adjustment, Hold, Offset, Auto power off, Unit switching			
Indication accuracy #1	±0.5%F.S.±2digits (at 25℃)			
Indication accuracy #2	±1.5%F.S.±2digits	±1.0%F.S.±2digits	±1.0%F.S.±2digits	±2.0%F.S.±2digits
Available medium	PG-100N: Air, non-corrosive Gas / PG-100B: Gas and Liquid compatible with SUS316L			
Operating temp.	0℃ to 50℃ (No freezing)			
Operating humidity	15 to 85% RH or below (No condensing)			
Driving power	3 VDC, AAA dry cell x 2			
Pressure port	M5 female screw (P=0.8)			
IP protection	IP40 (IEC standard) ※Out-of-specification when the analog output function is used.			
Outline dimensions	55(W) × 16.9(D) × 110(H)			
Weight	Approx. 100 g			
Battery service life	Approx. 1,000 h			
Analog output (at 25℃)				
Power supply	5±0.5 VDC, 5 mA maximum, External supply			
Output voltage	±1.000 m			
Output accuracy	±10 mV (Indicated value standard)			
Remarks				
Accessories	Miniature fitting (φ6mm, O.D), Tube fitting (φ4mm, I.D)*, 2 AAA batteries, Strap, Insert ring**, Protective cover**			
Optional accessory	Soft carrying case			

#1: at 25℃ #2: at 25±25℃

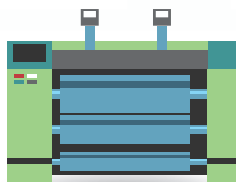
* PG-100N only ** PG-100B only

- Compatible with Gas and Liquid
- Auto power-off time selectable
- Easy zero-point adjustment
- AAA dry battery 1.5VDC×2. Battery life 1000h minimum

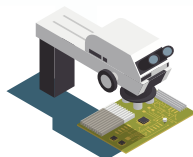
Applications



●Dialyzer



●Automatic loom



●Chip mounter

Scene of use



●Compressor

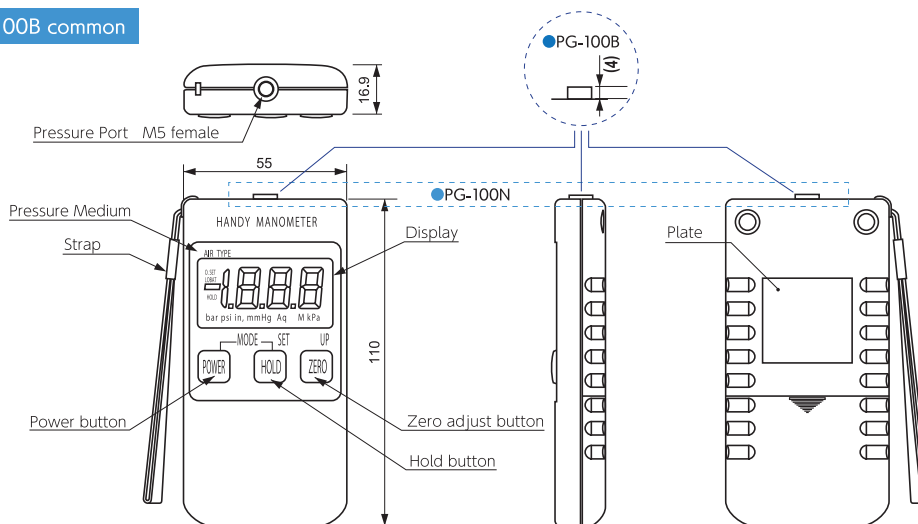
●Water processor



Outline Dimensions

PG-100N / PG-100B common

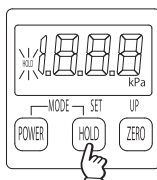
(Unit mm)



Functional Explanation

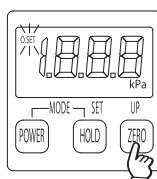
①Hold

When pressure is applied, the measured value is displayed. Press the [HOLD] button to retain the pressure value displayed at that time. At this time, the "HOLD" mark is displayed on the LCD. Press the [HOLD] button again to cancel the hold.



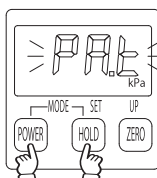
②Offset

When the pressure exceeds $\pm 1\%FS$, press the [ZERO] button for three seconds or longer to enable subsequent indication of variations with the zero value set to 0. At this time, "0.SET" is displayed on the LCD. Press the [ZERO] button for three seconds or longer again to return the indication to the previous display.



③Switching of auto power off function

With the power turned off, press the [POWER] button for one second or longer while pressing the [HOLD] button to set the mode to the switching mode of the auto power off function. Choose the mode from four modes including ["P3": 3 min.], ["P20": 20 min.], ["PAT": 20 min. after the pressure reaches zero], and ["PoF": Disabled]. Press the [ZERO] button to select the mode and press the [HOLD] button to enter the mode. While the switching mode is activated, if any button operation is not made for 20 seconds, the mode shifts to the measurement mode at the preset value displayed at that time. In the initial state, ["P3": 3 min.] is set.

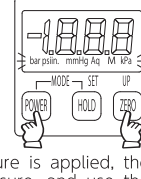


④Unit switching function [Model No. PG-100N/B-10**-W]

Model No.	Unit						
	kPa	MPa	mmHg	in.Hg	mmAq	psi	bar
101R*	○	—	○	○	—	○	○
102R	○	○	○	○	—	○	○
103R	○	○	—	○	—	○	○
102A**	○	○	○	○	—	○	○

* PG-100N only ** PG-100B only

With the power turned off, press the [POWER] button for one second or longer while pressing the [HOLD] button to set the mode to the unit switching mode. While the unit indication is blinking, press the [ZERO] button to select the mode and press the [HOLD] button to enter the mode.

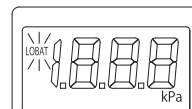


⑤Excessive pressure error

When pressure exceeding 130% of the rated pressure is applied, the indication will start to blink. Check the source pressure, and use the product within the range of the rated pressures.

⑥Battery replacement timing

When the battery voltage is low, "LOBAT" is displayed on the LCD. Replace the batteries. The batteries are two AAA drycells. The used batteries should be discarded according to the instructions of the respective local governments. After replacing the batteries, be sure to perform the zero adjustment.



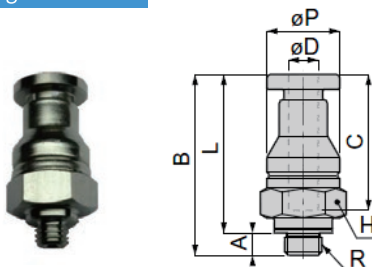
Attachment fitting for PG-100B series

The following attachments as standard accessories with PG-100B

- Miniature fitting (with Washer) [SSC6-M5] NIHON PISCO CO., LTD
- Insert Ring [WR0640] NIHON PISCO CO., LTD

With regard to the following, the excerpt of the company's catalog is used with the consent of NIHON PISCO CO., LTD

Miniature Fitting [SSC6-M5]



Dimensions

Unit: mm

Model	Tube O.D. φD	R	A	B	L	C	Hex. H	φP	Effective area (mm ²)	Weight (g)
SSC6-M5	6	M5×0.8	3	25.6	22.6	19.6	12	11.8	3	8.4

Material

Wetted material: SUS316
Elastic sleeve : FKM

Specifications

Fluid medium : Air / Water* / Other chemicals*
Max. operating pressure: 1.0 MPa
Max. vacuum : -100 kPa
Operating temp. range : -15~120 °C (No freezing)

Warning

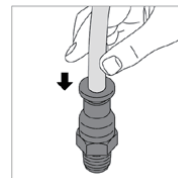
- * Make sure to follow the instructions below when the fluid medium is water or other chemicals.
1. Surge pressure must be controlled lower than max. operating pressure when using water or liquid as a fluid medium.
 2. Be sure to place Insert Ring into the tube edge when using water or liquid as a fluid medium.
 3. The specification above may not be applied, depending on the kind of chemicals or mixed gases used as fluid medium.

How to insert and disconnect

1. How to insert and disconnect tubes

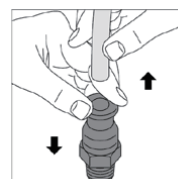
①Tube insertion

Insert a tube into Push-In Fitting up to the tube end. Collet fixes the tube automatically and the elastic sleeve seals around the tube. Refer to the following #1.



②Tube disconnection

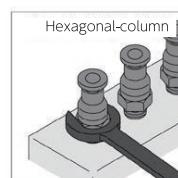
The tube is disconnected by pushing collet. Make sure to stop air supply before the tube disconnection.



2. How to tighten thread

①Tightening thread

There are two ways to tighten thread. Use a spanner for a hexagonal-column. A hex key is for an inner hexagonal socket. Inner hexagonal type can save spaces. Since there is no Sealock coating on taper pipe thread, use seal tape or sealant if necessary. Refer to the following #1.

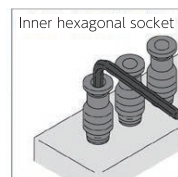


#1. Make sure that the tube outer diameter tolerance satisfies the following specifications.

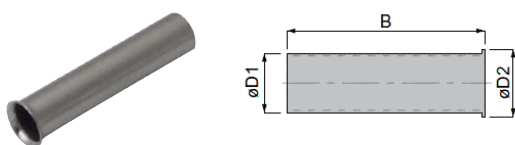
Dimensions	Nylon Tube	Urethane Tube
φ6 mm	±0.1 mm	±0.15 mm

#2. Tightening the screws to refer to the following recommended tightening torque.

Screw type	Screw size	Tightening torque
Metric thread	M5×0.8 mm	1.0~1.5 N·m



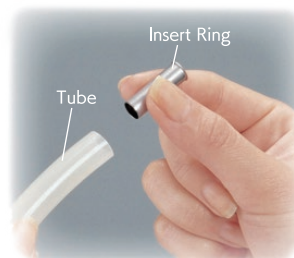
Insert Ring [WR0640]



Unit: mm

Model	Applicable tube size O.D.×I.D.(φ)	φD1	φD2	B	Thickness	Weight(g)
WR0640	6 × 4	4	4.5	18.5	0.2	0.35

Image to insert into tube



Warning

Use this insert ring (WR0640), when connecting an extremely soft tube and tubing to the miniature fitting by letting liquid flow. Not using it may cause the tube to come off.

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■ Specifications are subject to change without notice.

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