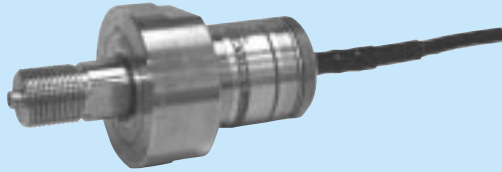


# PHB-A

## High/Low-Temperature Pressure Transducers

● -196 to 210°C ● 1 to 50 MPa



- TEDS-installed versions can be manufactured. Inquiries are welcome.

PHB-A series is designed for pressure measurement at low to high temperatures. The pressure sensing surface is stainless steel diaphragm and for increased reliability, inert gas is filled in. Suitable for pressure measurement of LPG/LNG tanks and gas or steam turbines.

### Features

- Usable at both high and low temperatures
- Corrosion resistant
- Hermetically-sealed structure with inert gas filled in
- Highly reliable

### Specifications

#### Performance

- Rated Capacity: See table below.
- Nonlinearity: Within  $\pm 0.4\%$  RO
- Hysteresis: Within  $\pm 0.4\%$  RO
- Rated Output: 2.2 mV/V (4400  $\mu\text{m/m}$ )  $\pm 15\%$

#### Environmental Characteristics

- Safe Temperature Range:  $-196$  to  $210^\circ\text{C}$
- Compensated Temperature Range:  $-196$  to  $200^\circ\text{C}$
- Temperature Effect on Zero Balance: Within  $\pm 0.03\%$  RO/ $^\circ\text{C}$
- Temperature Effect on Output:
  - Within  $\pm 0.035\%/^\circ\text{C}$  (PHB-A-1MP)
  - Within  $\pm 0.03\%/^\circ\text{C}$  (PHB-A-2 to 50MP)

#### Electrical Characteristics

- Safe Excitation Voltage: 15 VAC or DC
- Recommended Excitation Voltage: 1 to 10 VAC or DC
- Input Resistance:  $350 \Omega \pm 2\%$
- Output Resistance:  $350 \Omega \pm 2\%$
- Cable: 4-conductor (0.3 mm<sup>2</sup>) fluoroplastic shielded cable, 5 mm diameter by 3 m long, terminated with connector plug (Shield wire is connected to mainframe.)

#### Mechanical Properties

- Safe Overload Rating: 120%
- Natural Frequency: See table below.

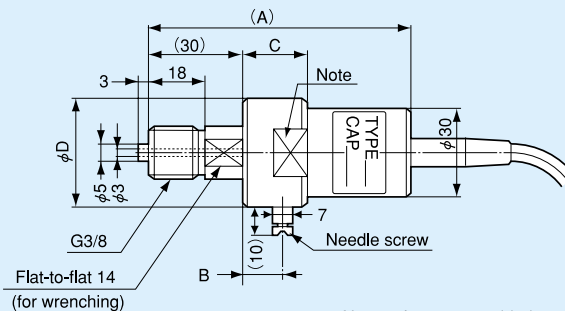
#### Material

- Case: SUS metallic finish
- Liquid-contacting part: SUS 630
- Weight: Approx. 530 g (including cable)
- Mounting Screw: G3/8, male

**Standard Accessories** Gasket (mild copper)

- Do not use PHB-A-20MP to PHB-A-50MP for endurance/fatigue tests.
- Avoid using for a long-term measurement of gas pressure if much importance is attached to the stability of output in a minute range. For such application, we can manufacture models with no air vent.

### Dimensions



Note: 2 flats are provided only for PHB-A-30 and 50MP. Do not apply the wrench to the flats.

Model	Rated Capacity	A	B	C	$\phi D$	Natural Frequency (Approx.)
PHB-A-1MP	1 MPa	81	10	16	36	8 kHz
PHB-A-2MP	2 MPa					13 kHz
PHB-A-5MP	5 MPa					21 kHz
PHB-A-10MP	10 MPa	85	13	20	36	29 kHz
PHB-A-20MP	20 MPa					40 kHz
PHB-A-30MP	30 MPa					45 kHz
PHB-A-50MP	50 MPa	85	13	20	46	50 kHz