High/Low-temperature Pressure Transducer



Suitable for pressure measurement of LPG/LNG tanks and gas or steam turbines

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

PHB-A series is designed for pressure measurement from low to high temperatures. The sensor surface is made by stainless steel diaphragm and inert gas is filled in to increase reliability.

Specifications

Performance

Rated Capacity	See table below.		
Nonlinearity	Within ±0.4% RO		
Hysteresis	Within ±0.4% RO		
Repeatability	0.2% RO or less		
Rated Output	2.2 mV/V ±15%		

Environmental Characteristics

Safe Temperature	-196 to 210°C				
	(Connector plug: -25 to 85°C)				
Compensated Temperature	-196 to 200°C				
	(Connector plug: -25 to 85°C)				
Temperature Effect on Zero	Within ±0.03% RO/°C				
Temperature Effect on Output Within ±0.03%/°C					
	(1MP: Within ±0.035%/°C)				

Electrical Characteristics

Safe Excitation	15 V AC or DC			
Recommended Excitation	1 to 10 V AC or DC			
Input Resistance	350 Ω ±2%			
Output Resistance	350 Ω ±2%			
Cable 4-conductor (0.3 mm²) fluoroplastic shielded cable,				
5 mm diameter by 3 m long, terminated with a connector plug				
PRC03-12A10-7M				
(Shield wire is connected to the case.)				

Mechanical Properties

Safe Overloads	120%
Natural Frequencies	See table below.
Material	Case: Stainless steel
	Liquid-contacting part: SUS 630
Weight	See table below.
Degree of Protection	IP51 (IEC 60529)
Mounting Screw	G3/8, male

Standard Accessories Gasket (Mild copper)

Pressure

Outline

General

High temp. Low temp.

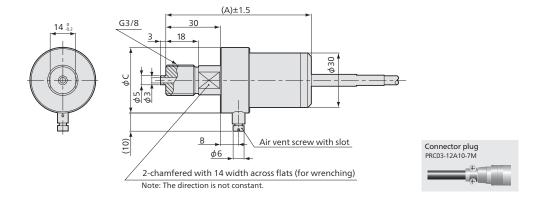
Absolute pressure

Pressure transmitter

Differential pressure

Distributed pressure

Dimensions



Models	Rated Capacity	(A)	В	φС	Natural Frequencies (Approx.)	Weight (Approx.)*	
PHB-A-1MP	1 MPa	- 80	10		8 kHz	230 g	
PHB-A-2MP	2 MPa		10		13 kHz	230 g	
PHB-A-5MP	5 MPa	84			36	21 kHz	270 g
PHB-A-10MP	10 MPa					29 kHz	
PHB-A-20MP	20 MPa		13		40 kHz		
PHB-A-30MP	30 MPa			46	45 kHz	360 g	
PHB-A-50MP	50 MPa			40	50 kHz	300 g	

*Excluding cable

^{*}Do not use PHB-A-20MP to PHB-A-50MP for endurace/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.