

# Model PTB

## General Purpose Pressure Transducer

### Description

PTB model has applied Silicon Piezoresistive cell, which attached High Temperature Glass on Titanium. Its low price makes it suitable for industrial uses. With its various outputs, it may be interfaced with various controllers.

### Features

- ▶ CE Certified
- ▶ Built-in amplifier Circuit(VDC, mA)
- ▶ Measuring range -100kPa~10MPa
- ▶ 0.5%FS accuracy
- ▶ Piezoresistive silicon cell
- ▶ Zero, Span Adjustable
- ▶ Stainless steel, Titanium, EPDM media-wetted materials

### Applications

- ▶ Process control
- ▶ Hydraulics & Pneumatic
- ▶ Compressor Control
- ▶ Chillers
- ▶ Refrigeration Equipment



### Specifications

#### Range

0 ~ 100, 200, 600kPa / 1, 2, 3, 5, 10MPa (Gauge)  
-100 ~ 0, 100, 200, 600kPa / 1, 2, 3, 5, 10MPa (Gauge)

#### Performance

Accuracy	±0.5%FS(RSS)
Thermal Effect on Zero	±0.05%FS/°C
Thermal Effect on Span	±0.05%FS/°C
Compensated Temperature Range	-10 ~ 70°C
Operating Temperature Range	-20 ~ 80°C

#### Electrical

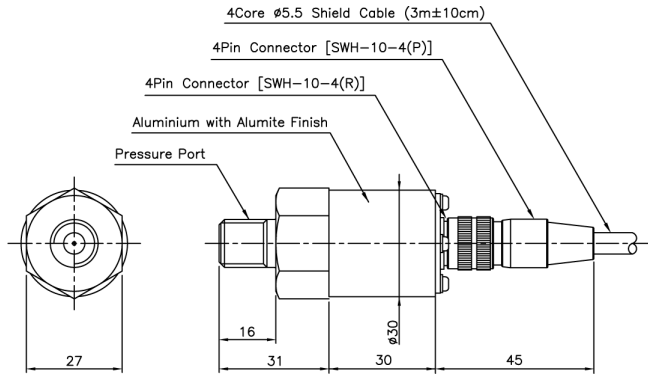
Excitation	11 ~ 28VDC(PTBA 12VDC Max.)
Output	10~20mV/V(600kPa~10MPa Only) 0~5VDC, 1~5VDC, 0~10VDC(3, 4Wire), 4~20mA(2, 3 Wire)
Electrical Connection	Connector, Head, Din Connector

#### Physical

Proof Pressure	150%FS Max.
Burst Pressure	200%FS Min.
Vibration	49.1m/s <sup>2</sup> {5G}, 10~500Hz
Shock	490m/s <sup>2</sup> {50G}
Pressure Port	R(PT)1/8", G(PF)1/8", R(PT)1/4", G(PF)1/4", R(PT)3/8", G(PF)3/8"
Media-Wetted Materials	Stainless Steel 304, Titanium 87%, O-ring : EPDM(Optional VITON)
Weight	Connector type : Approx. 140g (Sensor Only)

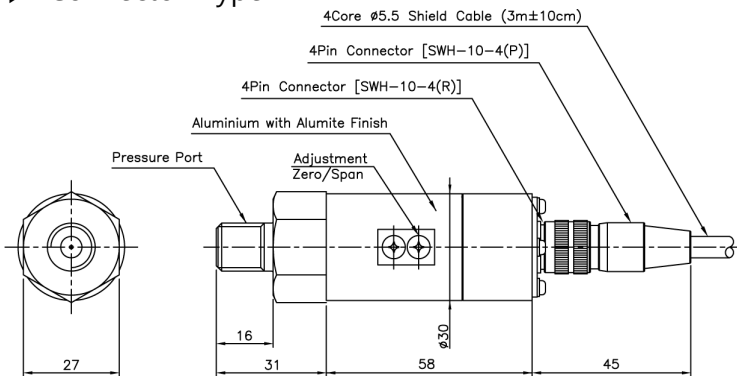
## Dimension

### ► mV Output Connector Type



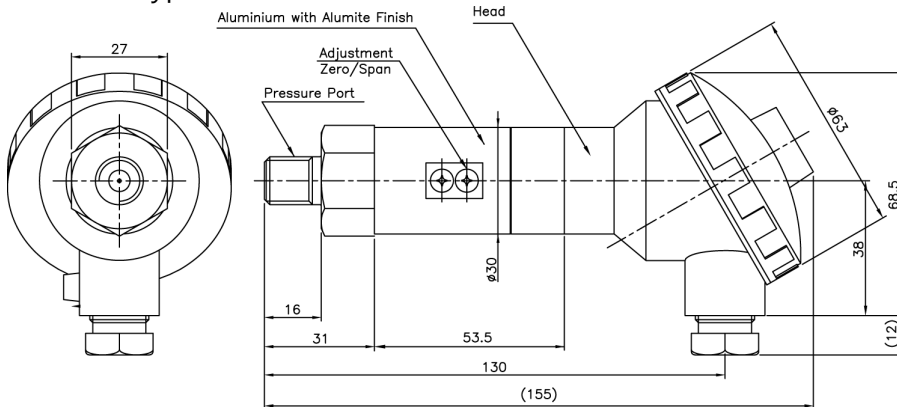
Pin No.	Connections
1	Input ⊕
2	Output ⊖
3	Input ⊖
4	Output ⊕
5	Earth

### ► Connector Type



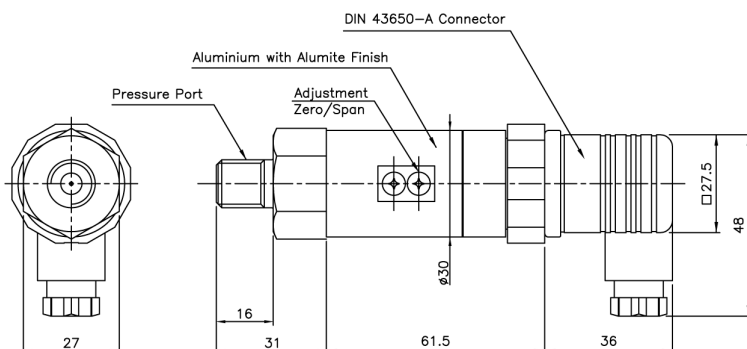
Pin No.	Wire Color	Connections		
		4Wire	3Wire	2Wire
1	Red	Input ⊕	Input ⊕	Input ⊕
2	White	Output ⊖	Common ⊖	x
3	Black	Input ⊖	x	Output ⊕
4	Green	Output ⊕	Output ⊕	x
5	Shield	Earth	Earth	Earth

### ► Head Type



No.	Connections
	2Wire
+	Input ⊕
⊕	Earth
-	Output ⊕

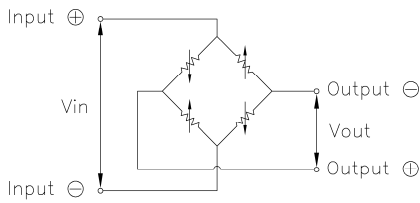
### ► Din connector Type



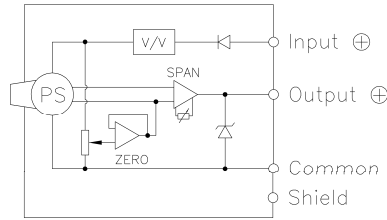
Pin No.	Connections	
	3Wire	2Wire
1	Input ⊕	Input ⊕
2	Common ⊖	Output ⊕
3	Output ⊕	x
⊕	Earth	Earth

## Internal Circuit Diagram

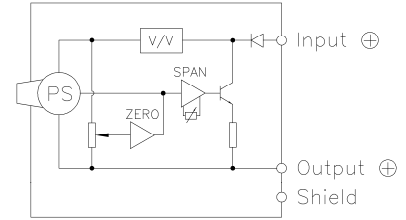
### ► mV Output Type



### ► 2Wire mA Output Type



### ► 3, 4Wire VDC Output Type



## Ordering Information

Model Name	PTB	B	0010	K	A	P	A	Option
<b>Output</b>								A : Normal
A : mV/V								<b>Connecting Methods</b>
B : 4Wire 0~5V								P : Connector
C : 3Wire 0~5V								H : Head
D : 4Wire 1~5V								I : Din 43650-A connector
E : 3Wire 1~5V								
<b>Pressure Range</b>								<b>Pressure port</b>
XXXX : Pressure								A : R(PT)3/8"      D : G(PF)1/4"
CXXX : Compound Pressure								B : G(PF)3/8"      G : R(PT)1/8"
								C : R(PT)1/4"      H : G(PF)1/8"
								<b>Pressure Unit</b>
								R : kPa              M : MPa
								B : bar              K : kgf/cm <sup>2</sup>
								P : psi              H : mmHg