

# Model DPB

48mm X 48mm Panel Mounting  
Differential Low Pressure Gauge / Switch

## Description

DPB model is suitable for air conditioning systems because it can be used for non-corrosive gases and can measure low differential pressure, vacuum pressure, and gauge pressure.

There are various output options such as analog output, RS485 MODBUS RTU output, RELAY, NPN TR, and PNP TR. It can be used by attaching it to panel with a size of 48X48mm.

## Features

- ▶ CE Certified
- ▶ 3-1/2 digit LED display
- ▶ 48mm X 48mm Panel Mounting Type
- ▶ Auto Zero
- ▶ 1~5, 0~5, 0~10VDC or 4~20mA analog output (Adjustable Pressure Range)
- ▶ 2Ch Relay or 2Ch NPN or PNP Open Collector Alarm output
- ▶ RS485 MODBUS RTU Output
- ▶ Measuring range : 0~50Pa ... 10kPa, ±50Pa ... ±10kPa
- ▶ Piezoresistive silicon cell
- ▶ Use with non-corrosive, non-ionic media

## Applications

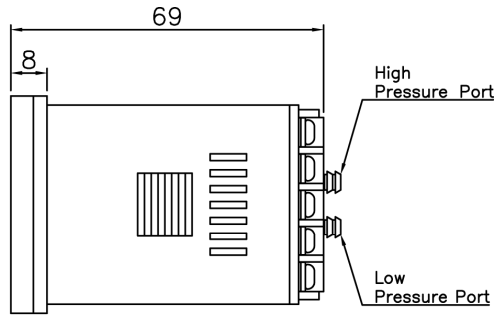
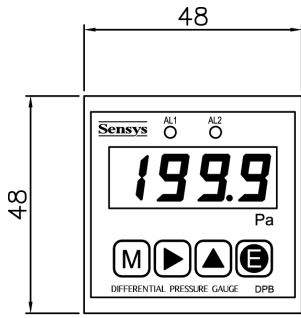
- ▶ Airflow Measurement
- ▶ Room Static Pressure
- ▶ VAV Box
- ▶ Lab/Fume Hood Control
- ▶ Clean Room Control



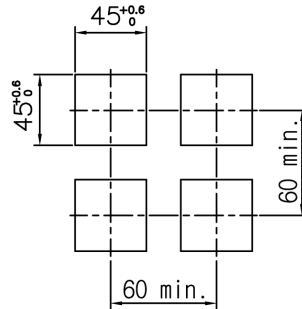
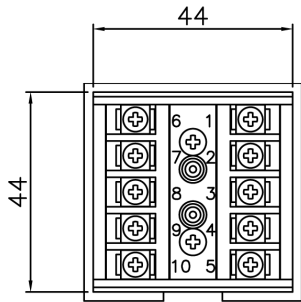
## Specifications

Range	
	0~50Pa ±50Pa
	0~100Pa ±100Pa
	0~200, 300Pa ±200Pa, ±300Pa
	0~500Pa, 1, 2, 4, 10kPa ±500Pa, ±1, ±2, ±4, ±10kPa
Performance	
Accuracy(Total 0~50°C)	±5%FS      ±3%FS      ±1.5%FS      ±1%FS
Operating Temperature Range	-5~65°C(No freezing or condensation)
Electrical	
Display	3-1/2 Digit LED
Excitation	12~24VDC±10% (Relay Type : 18~24V)
Output	
Analog	1~5VDC or 0~5VDC or 0~10VDC or 4~20mA (Adjustable Pressure Range)
Switching	2 RELAY(5A 30VDC / 5A 250VAC) or 2-Channel NPN or PNP open collector output TR(80mA, 24VDC)
Digital	RS485 MODBUS RTU(8N1) : 2400, 4800, 9600bps, 19.2k, 38.4k, 57.6k, 115kpbs
Response Time	10, 20, 100, 500, 1000, 2000ms
Physical	
Proof Pressure	300%FS Max.
Burst Pressure	500%FS Min.
Pressure Port	1/8" Nipple
Media-Wetted Materials	Brass(Ni plated), SiO <sub>2</sub> , Si Rubber

## Dimension



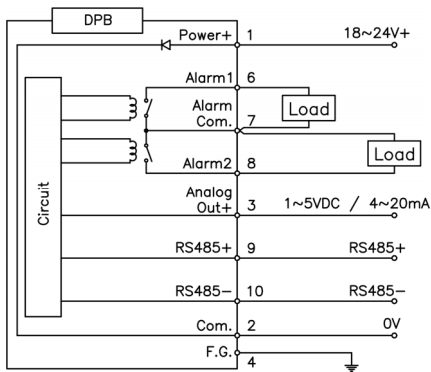
Pin No.	Connections			
1	Power+			
2	Com.			
3	Analog output+			
4	F.G.			
5	N.C.			
6	Relay Output	Alarm1	NPN TR Output	Alarm1
7		Alarm Com.		N.C.
8		Alarm2		Alarm2
9	RS485 +			
10	RS485 -			



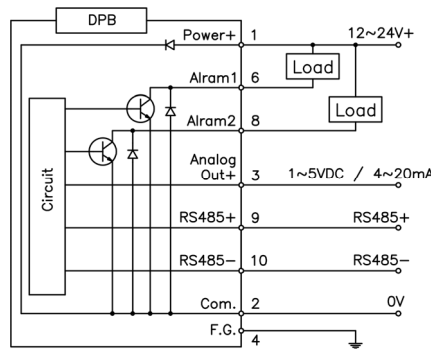
\* PANEL Thickness : 1~10mm

## Circuit Diagram

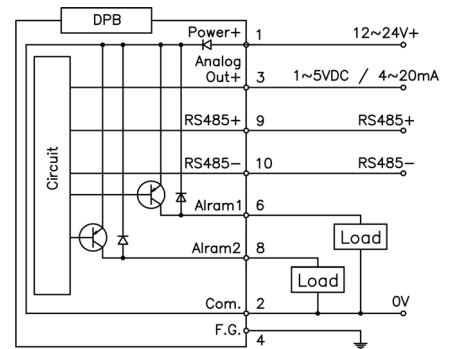
### ▶ Relay Output



### ▶ NPN Open Collector Tr. Output

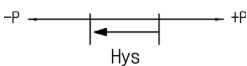
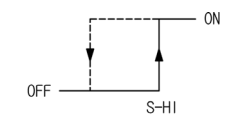


### ▶ PNP Open Collector Tr. Output

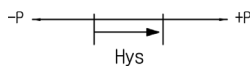
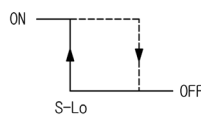


## Alarm Mode

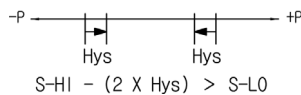
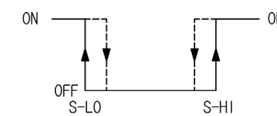
### ▶ Hi Mode



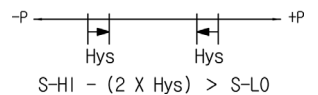
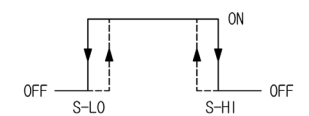
### ▶ Low Mode



### ▶ A Mode



### ▶ B Mode



## Ordering Information

	<b>DPB</b>	<b>E</b>	<b>N</b>	<b>±001</b>	<b>R</b>	
<b>Model Name</b>						<b>Pressure Unit</b>
<b>Analog Output</b>						A : Pa R : kPa D : mmH <sub>2</sub> O N : inH <sub>2</sub> O H : mmHg
C : 0~5V						
J : 0~10V						
E : 1~5V						
G : 4~20mA						
<b>Switching &amp; Digital Output</b>						<b>Pressure Range</b>
R : 2CH. Relay, RS485						XXXX : Pressure
N : 2CH. NPN Open Collector, RS485						
P : 2CH. PNP Open Collector, RS485						