

DPT110 Series Differential Pressure Transmitter

LFM110 series differential pressure transmitter is used for measuring low pressure of air and non-combustible gases in order to monitor and control building automation, HVAC and cleanroom systems.

These transmitters boast of their outstanding performance, high quality and economical pricing

Technical Detail

- Range: 0 ~ ±10Pa/0 ~ ±10,000Pa
- Accuracy: ±1.0%
- Supply Voltage: 16 ~ 30VAC/VDC (2-wire)
- Output signal: 0~5VDC、0~10VDC、4~20Ma
(both 2- wire and 3-wire available)
- Selectable pressure measuring unit
- LCD backlit digital display or without display
- Auto zero point when power on
- Selectable response time field adjustable from 20mS ~2S
- Manual zero point push button
- Easy installation



Pressure range table

Pressure	Unidirectional pressure	Bidirectional pressure
-100 ~ +100Pa	0~10Pa	-5.0 ~ +5.0 Pa
	0~25Pa	-12.5 ~ +12.5 Pa
	0~50Pa	-25.0 ~ +25.0 Pa
	0~75Pa	-37.5 ~ +37.5 Pa
	0~100Pa	-50.0 ~ +50.0 Pa
-1000 ~ +1000 Pa	0~100Pa	-50 ~ +50 Pa
	0~250Pa	-125 ~ +125 Pa
	0~500Pa	-250 ~ +250 Pa
	0~750Pa	-375 ~ +375 Pa
	0~1000Pa	-500 ~ +500 Pa
-10,000 ~ +10,000 Pa	0~1000Pa	-500 ~ +500 Pa
	0~2500Pa	-1250 ~ +1250 Pa
	0~5000Pa	-2500 ~ +2500 Pa
	0~7500Pa	-3750 ~ +3750 Pa
	0~10,000Pa	-5000 ~ +5000 Pa

Housing Function

Material: Industrial plastic, fire resistance level per UL94-V0.

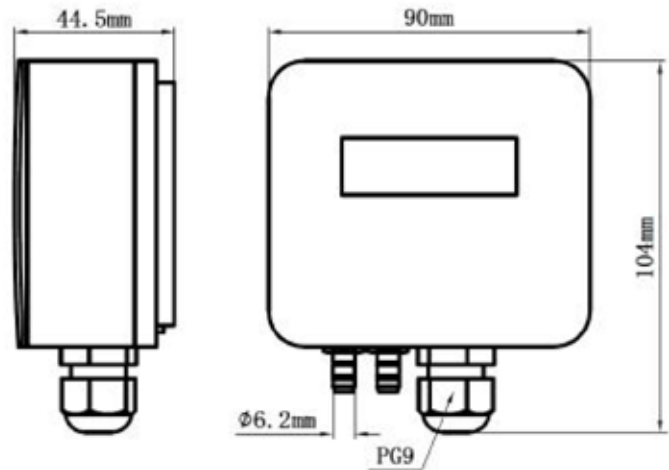
Display: backlit digital display 50 x 22.5 mm

Digital Height: Value 10 mm, Units 5 mm

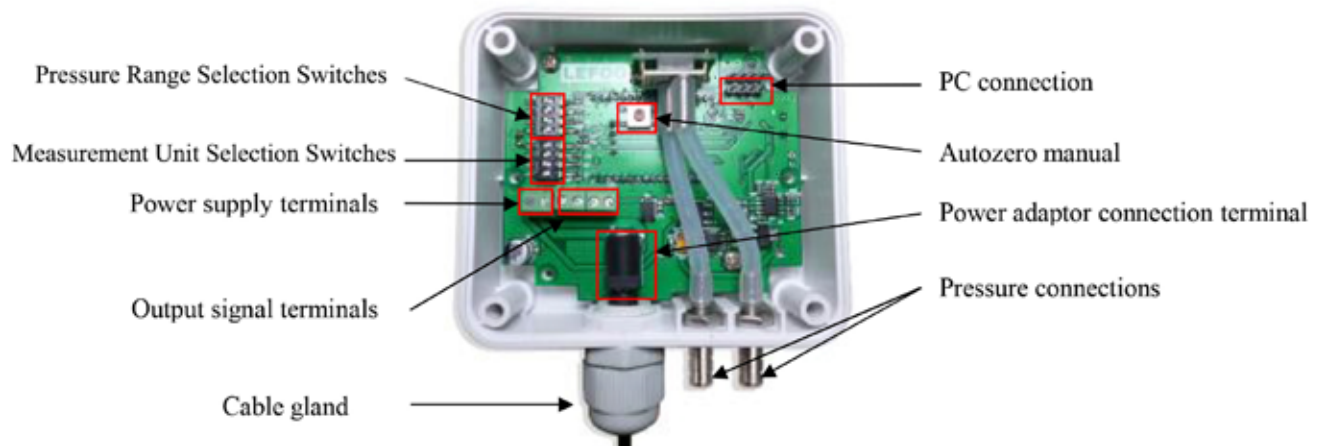
Pressure Connection: Ribbed \varnothing 6.2 mm

Cable Gland: For cables \varnothing 8 mm maximum

Weight: 166g



Details



Product Instruction

1. Display function

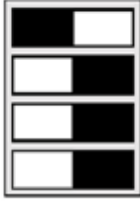
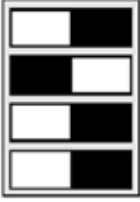
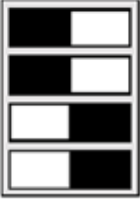
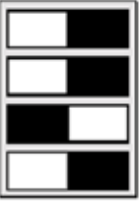
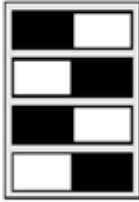
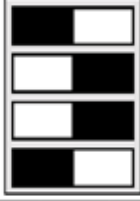
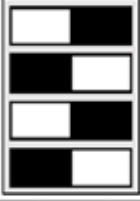
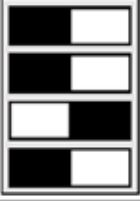


Display pressure range -1000Pa~1000Pa, other display pressure unit available as Pa, mmH₂O, inWG, mmHG, daPa, KPa, hPa, mbar.

2. Function settings

Precision calibration is through the circuit board by pushing the button. When the button activated, the sensor will enter into the precision calibration status. Input the pressure supply to -1000Pa and push the button to save the -1000Pa pressure value. Afterwards, by pressing quickly on the button, you can increment a value and scroll down the different portion or values while by pressing on the button more than 3 seconds, you can validate the setting and go to the next setting. Usually, we set the pressure range with professional machines and workers before shipment, customers are not encouraged to set the pressure.

3. Dial-up switch setting

Pressure Range Selection Table

4 3 2 1																
	MODEL	DPT-110	DPT-112	DPT-116	DPT-110	DPT-112	DPT-116	DPT-110	DPT-112	DPT-116	DPT-110	DPT-112	DPT-116	DPT-110	DPT-112	DPT-116
	Pa	100	1.000	10	250	2.500	25	500	5.000	50	750	7.500	75	1.000	10.000	100
	mmH2O	10,0	100,0	1	25,0	250,0	2,5	50,0	500	5	75,0	750	7,5	100,0	1.000	10
	mbar	1,0	10,00	0,1	2,5	25,00	0,25	5,0	50	0,5	7,5	75	0,75	10,0	100	1
inWG	0,40	4,00	0,04	1,00	10,00	0,1	2,00	20	0,2	3,00	30	0,3	4,00	40	0,4	
mmHG	0,75	7,50	0,075	1,87	18,75	0,187	3,75	37,5	0,375	5,62	56,2	0,562	7,50	75	0,75	
daPa	10,0	100	1	25,0	250	2,5	50,0	500	5	75,0	750	7,5	100,0	1.000,0	10	
Kpa	0,100	1,00	0,01	0,250	2,50	0,025	0,500	5	0,05	0,750	7,5	0,075	1,000	10,00	100	
hPa	1,00	10,00	0,1	2,50	25,00	0,25	5,00	50	0,5	7,50	75	0,75	10,00	100,00	1	
4 3 2 1																
	MODEL	DPT-110	DPT-112	DPT-116	DPT-110	DPT-112	DPT-116	DPT-110	DPT-112	DPT-116	DPT-110	DPT-112	DPT-116	DPT-110	DPT-112	DPT-116
	Pa	±50	±500	±5	±125	±1.250	±12,5	±250	±2.500	±25	±375	±3.750	±37,5	±500	±5.000	±50
	mmH2O	±5,0	±50,0	±0,5	±12,5	±125,0	±1,25	±25,0	±250	±2,5	±37,5	±375	±3,75	±50,0	±500	±5
	mbar	±0,5	±5,00	±0,05	±1,25	±12,50	±0,125	±2,5	±25	±0,25	±3,75	±37,5	±0,375	±5,0	±50	±0,5
inWG	±0,20	±2,00	±0,02	±0,50	±5,00	±0,05	±1,00	±10	±0,1	±1,50	±15	±0,15	±2,00	±20	±0,2	
mmHG	±0,375	±3,75	±0,0375	±0,935	±9,35	±0,0935	±1,875	±18,75	±0,1875	±2,81	±28,1	±0,281	±3,75	±37,5	±0,375	
daPa	±5,0	±50	±0,5	±12,5	±125	±1,25	±25,0	±250	±2,5	±37,5	±375	±3,75	±50,0	±500,0	±5	
Kpa	±0,050	±0,50	±0,005	±0,125	±1,25	±0,0125	±0,250	±2,5	±0,025	±0,375	±3,75	±0,0375	±0,500	±5,00	±50	
hPa	±0,50	±5,00	±0,05	±1,25	±12,50	±0,125	±2,50	±25	±0,25	±3,75	±37,5	±0,375	±5,00	±50,00	±0,5	

To set a unit of measurement, put the 4,3,2 and 1 on-off switches as indicated in the table above (For example, when the pressure range is 100Pa, the display will be 0-100Pa and with output signal as 4-20mA or 0-10V) The above table shows the dial-up switch position in order to reach the desired pressure range .

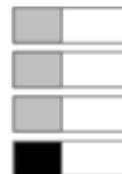
Other pressure range are available according to customer's requirements

Full range/ Central zero (take 0~1,000Pa as an example)

To set the type of measuring range, put the on-off switch as indicated below



Full range: 0~1,000Pa



Central zero: -500Pa~500Pa



Please follow carefully the combinations above the Dial-up switch. If the combination is wrongly done, the following message will appear on the display as "Err" In that case, you have to unplug the transmitter, place the Dial-up switches correctly and

then power the transmitter up

To set a measurement unit, put the on-off switch 3,2 and 1 of the units as shown in the table below

Measurement Unit Selection Table

Stop the autozero in starting up								
	Pa	mmH2O	mbar	inWG	mmHG	daPa	Kpa	hPa
4								
3								
2								
1								

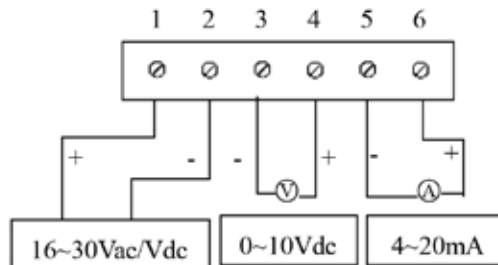
Start the autozero in powering up								
	Pa	mmH2O	mbar	inWG	mmHG	daPa	Kpa	hPa
4								
3								
2								
1								

4. Autozero Manual

Press the autozero manual button will zero the data and save the zero point

Electrical Connection

- 1- Vac/Vdc Positive;
- 2- Vac/Vdc Negative;
- 3- GND;
- 4- V_{out};
- 5- GND;
- 6- I_{out};



Mounting

To mount the transmitter, mount the ABS plate on the wall (drilling: $\varnothing 6\text{mm}$, screws and pins are supplied)

Insert the transmitter on the fixing plate (see A on the drawing)

Rotate the housing in clockwise direction until you hear a 'click' which confirms that the transmitter is correctly installed. Once the transmitters installed and powered up, please make autozero.

