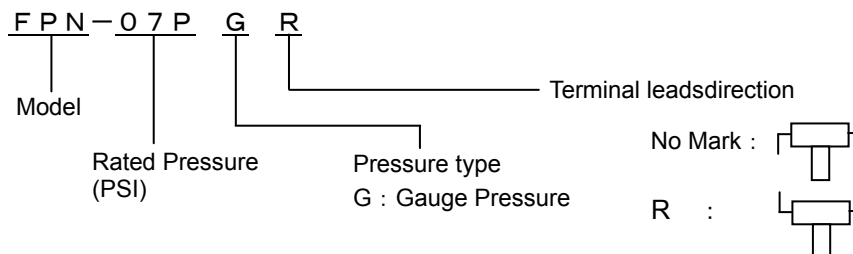


■Features

Dual-in-line package (DIP)

■Ordering Information



RoHS compliance

Measurable pressure range(kPa)	Part number	
-13.79 to 13.79	FPN-02PG	FPN-02PGR
-34.47 to 34.47	FPN-05PG	FPN-05PGR
-48.26 to 48.26	FPN-07PG	FPN-07PGR

■Specifications

Model	02PG	05PG	07PG	Unit
Recommended operating conditions				
Pressure type	Gauge pressure			-
Rated pressure	13.79	34.47	48.26	kPa
Measurable pressure range	-13.79 to 13.79	-34.47 to 34.47	-48.26 to 48.26	kPa
Temperature range	0 to 50			deg.C
Pressure media	Non-corrosive gases only (No liquid)			-
Excitation current (Constant)	1.5			mADC
Absolute maximum rating				
Maximum load pressure	Twice of rated pressure			-
Maximum excitation current	3.0			mADC
Operating temperature	0 to 80			deg.C
Storage temperature	-20 to 100			deg.C
Operating humidity	30 to 80 (Non dew condition)			%RH
Electric characteristics (Drive Current 1.5mA constant ,ambient temperature Ta=25deg.C)				
Output span voltage	40 to 130 (at 0kPa to rated pressure)			mV
Offset voltage	+/-25 (at 0kPa)			mV
Bridge resistance	4000 to 6000			Ω
Response time	2 (for the reference)			msec.
Accuracy	TSO*	+/-10	+/-8	%FS/0-50deg.C
	TCS*	5.0	2.5	%FS/0-50deg.C
	Linearity	+/-0.6	+/-0.3	%FS
	Pressure hysteresis	+/-1.0	+/-0.7	%FS

*TSO : Temperature sensitivity of offset voltage(Temperature range from 0-50 deg.C)

*TCS : Temperature coefficient of output span voltage(Temperature range from 0-50 deg.C)

$P1 = 0 \text{ kPa}$ $T1 = 0 \text{ deg.C}$
 $P2 = 1/2 \times P3 \text{ (kPa)}$ $T2 = 25 \text{ deg.C}$
 $P3 = \text{reted pressure (kPa)}$ $T3 = 50 \text{ deg.C}$

Offset voltage (mV)

$$V_{\text{off}} = V(P1, T)$$

$$V_{\text{off}}(0) = V(P1, T1)$$

$$V_{\text{off}}(25) = V(P1, T2)$$

$$V_{\text{off}}(50) = V(P1, T3)$$

Output voltage at full scale (mV)

$$V_{\text{fs}} = V(P3, T)$$

$$V_{\text{fs}}(0) = V(P3, T1)$$

$$V_{\text{fs}}(25) = V(P3, T2)$$

$$V_{\text{fs}}(50) = V(P3, T3)$$

Output span voltage (mV)

$$SV = V_{\text{fs}} - V_{\text{off}}$$

$$SV(0) = V_{\text{fs}}(0) - V_{\text{off}}(0)$$

$$SV(25) = V_{\text{fs}}(25) - V_{\text{off}}(25)$$

$$SV(50) = V_{\text{fs}}(50) - V_{\text{off}}(50)$$

Temperature sensitivity of offset voltage (%FS)

$$TSO = \{\text{LARGER ONE}\} / SV(25) \times 100$$

$$\text{LARGER ONE} = \text{larger absolute value which of } \{V_{\text{off}}(0) - V_{\text{off}}(25)\} \text{ and } \{V_{\text{off}}(50) - V_{\text{off}}(25)\}$$

Temperature coefficient of output span voltage (%FS)

$$TCS = \{\max[SV(0), SV(25), SV(50)] - \min[SV(0), SV(25), SV(50)]\} / SV(25) \times 100$$

Linearity (%FS)

$$NL = \{V(P2, T2) - [V_{\text{off}}(25) + V_{\text{fs}}(25)]/2\} / SV(25) \times 100$$

Pressure hysteresis (%FS)

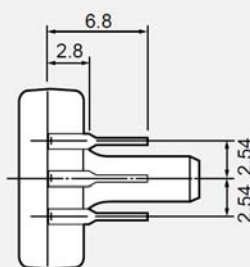
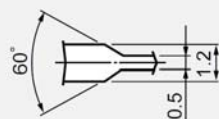
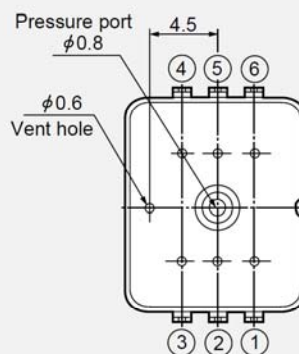
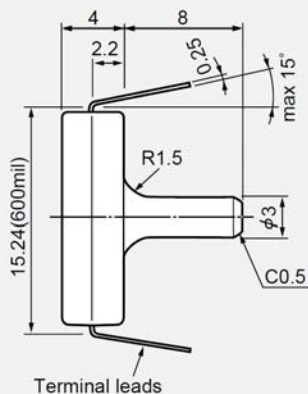
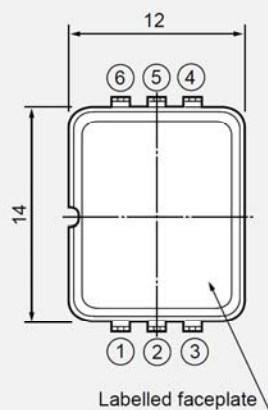
$$\text{Phys} = \{V_{\text{off}}'(25) - V_{\text{off}}(25)\} / SV(25) \times 100$$

$V_{\text{off}}'(25)$: Output voltage against P1 after stressing by P3 pressure.

■ Outline dimensions ■

FPN

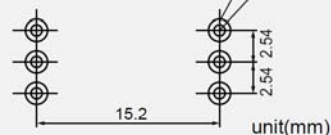
unit(mm)



Recommended footprint for PCB

6- φ0.9 (Diameter of through holes)

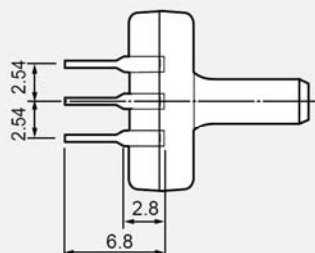
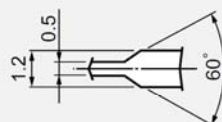
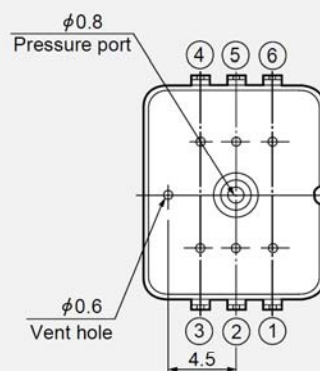
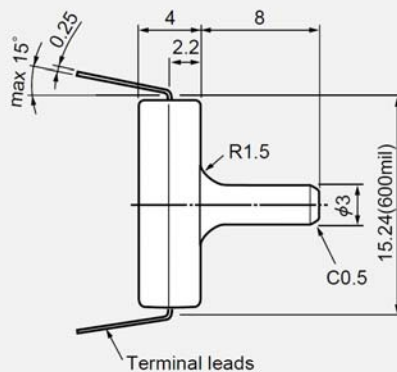
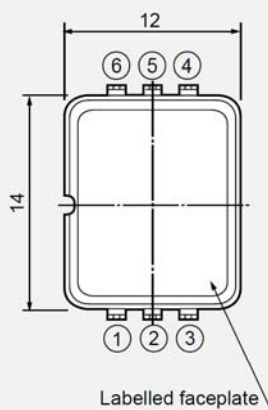
6- φ1.8 (Diameter of lands)



unit(mm)

FPN-R

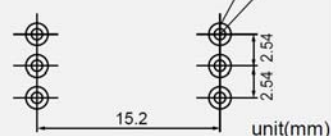
unit(mm)



Recommended footprint for PCB

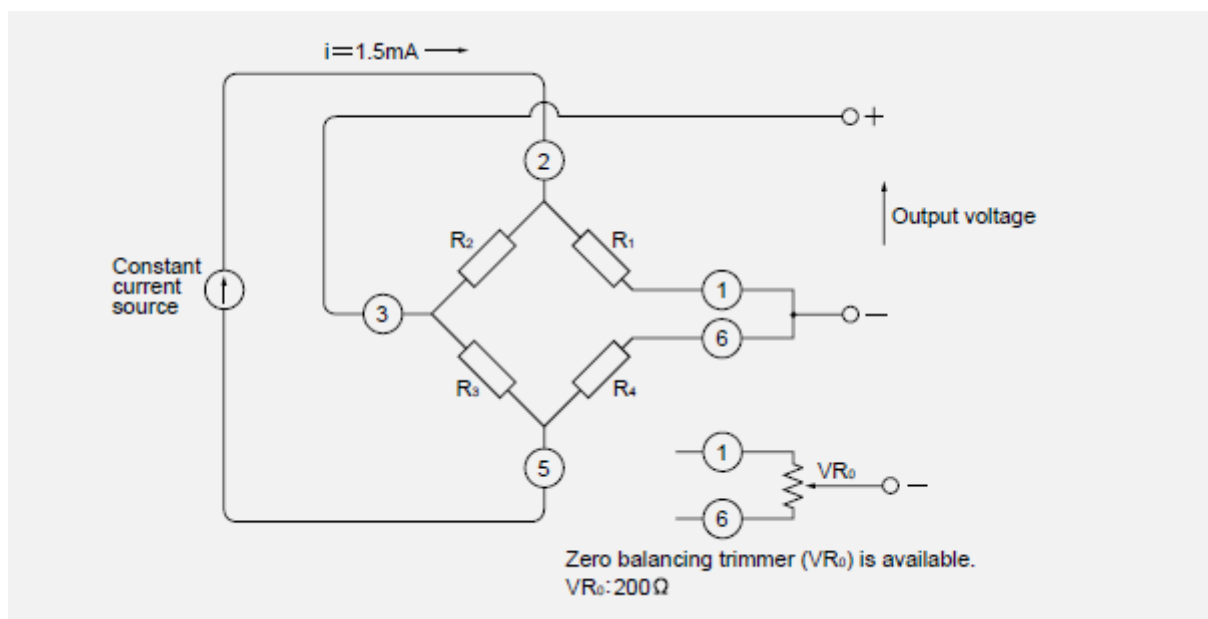
6- φ0.9 (Diameter of through holes)

6- φ1.8 (Diameter of lands)

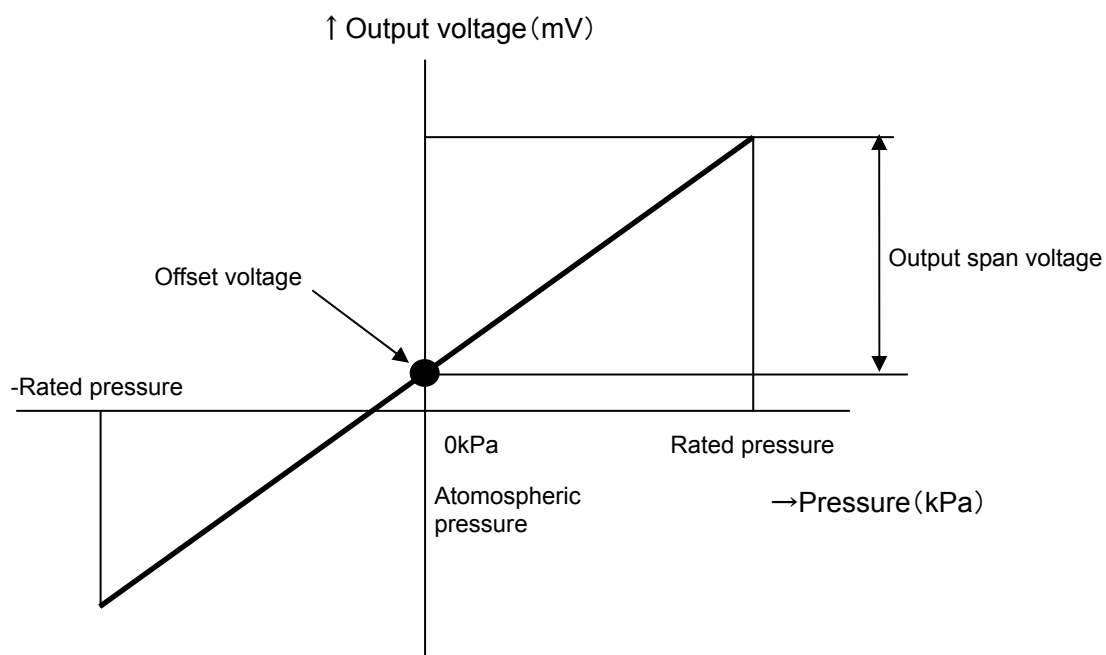


unit(mm)

■Connection diagram■



■Output characteristics■



Note ; Please read instruction "Notes" before using the sensor.
 Fujikura reserves the right to change specifications without notice.

Please keep the sensors sealed using static shielding bags on storage. The pins of the sensor are plated by Ag. If the sensors expose to an atmosphere, the pins will be black by sulfuration.

Please set Zero-calibration function up your products. The offset voltage may be shifted some mechanical stress such as mounting, installation and etc. over longtime using.

If you have any questions regarding technical issues or specifications, please contact us.
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