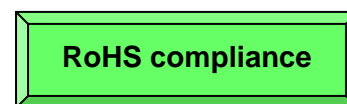
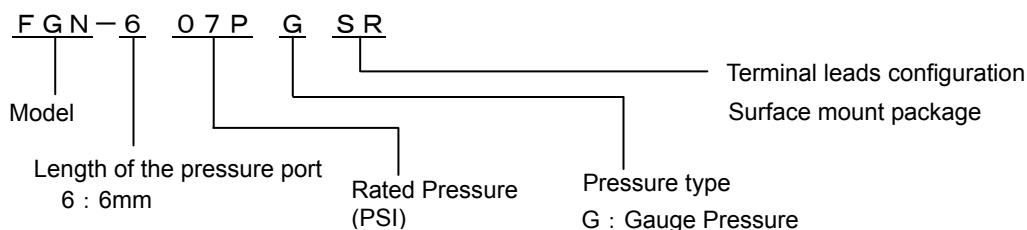


## ■Features

Surface mount package

## ■Ordering Information



Measurable pressure range(kPa)	Part number
-13.79 to 13.79	FGN-602PGSR
-34.47 to 34.47	FGN-605PGSR
-48.26 to 48.26	FGN-607PGSR

## ■Specifications

Model	602PG	605PG	607PG	Unit
<b>Recommended operating conditions</b>				
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
<b>Absolute maximum rating</b>				
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
<b>Electric characteristics (Drive Current 1.5mA constant ,ambient temperature Ta=25deg.C)</b>				
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)

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

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)

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

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

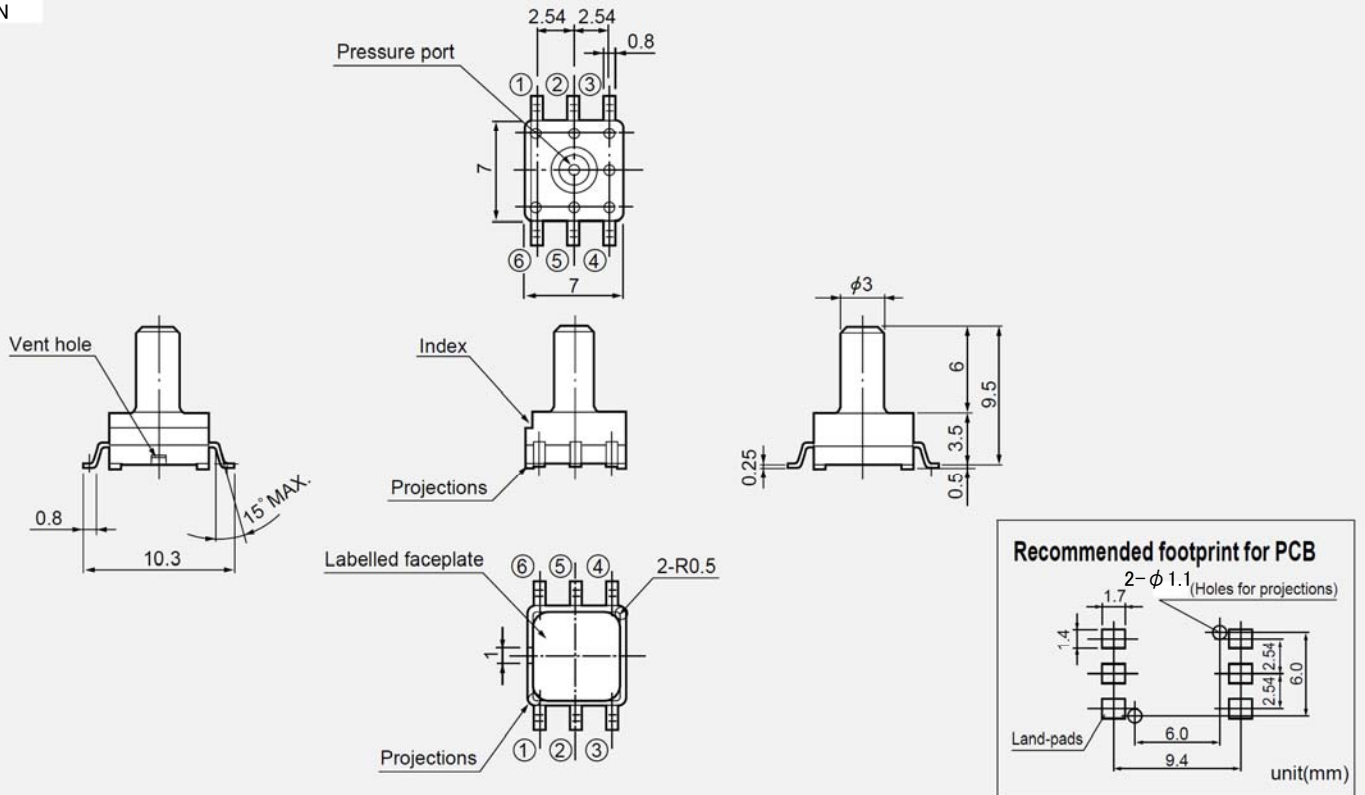
$$\text{Phys} = \{ V_{\text{off}}'(25) - V_{\text{off}}(25) \} / SV(25) \times 100$$

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

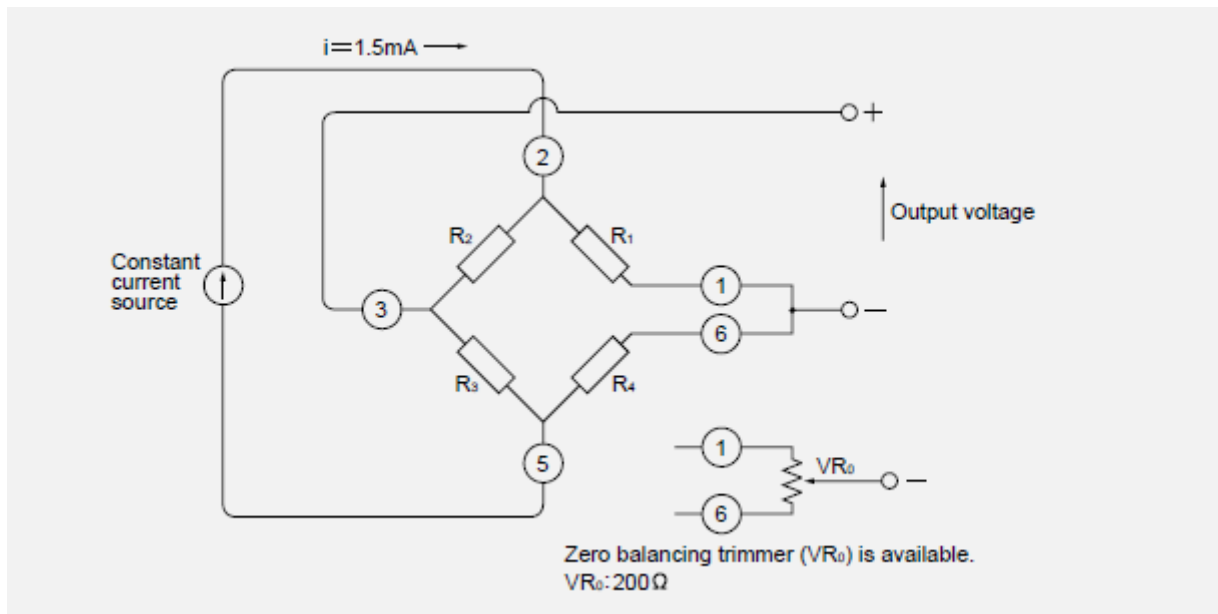
■ Outline dimensions ■

unit(mm)

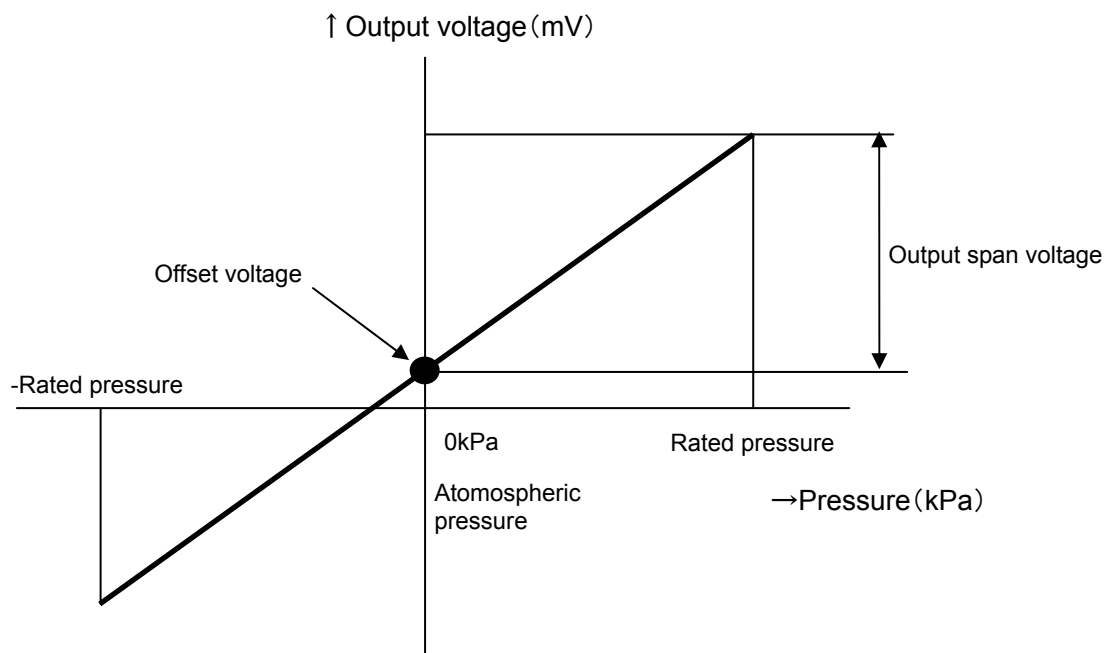
FGN



■ Connection diagram ■



■Output characteristics■

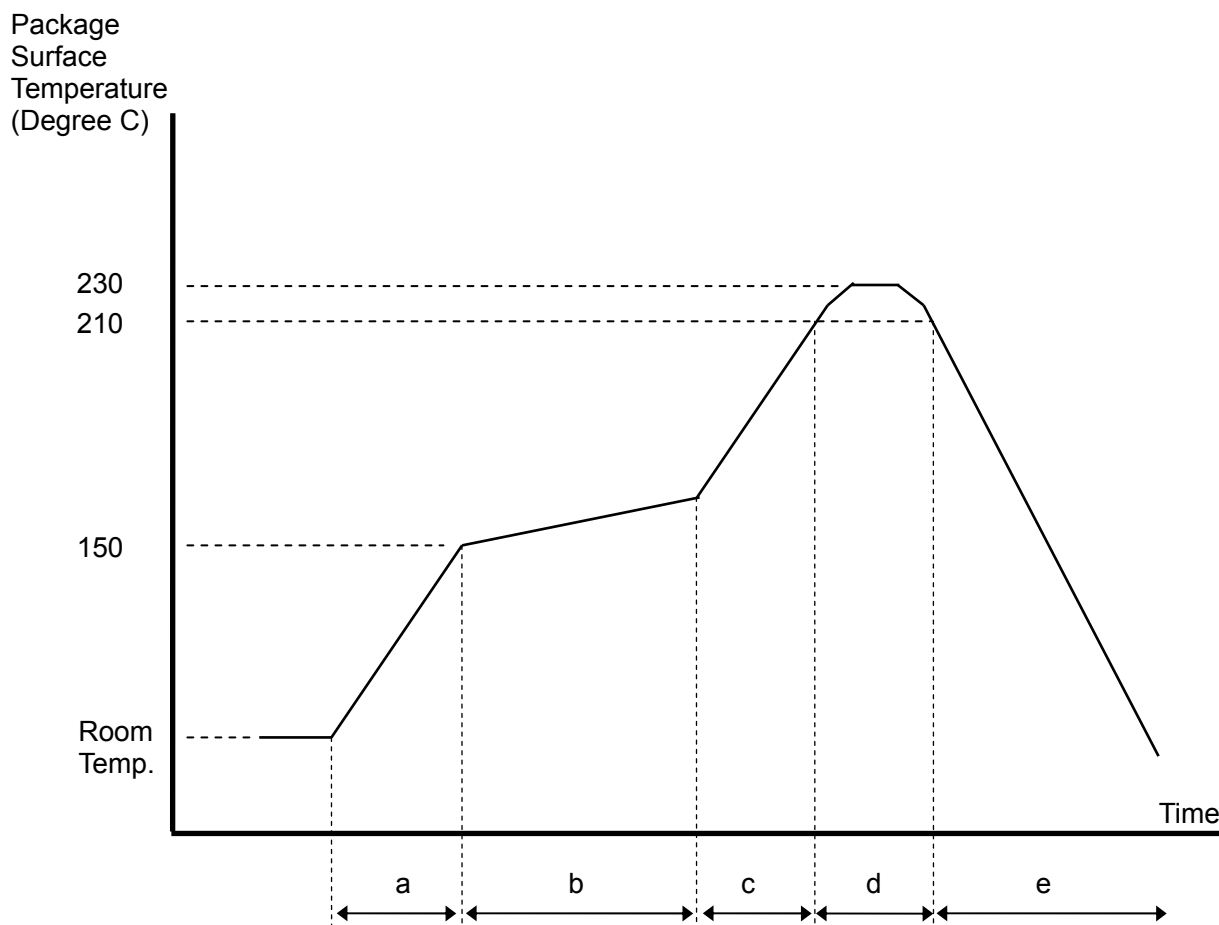


Note ; Please read instruction "Notes" before using the sensor.  
Fujikura reserves the right to change specifications without notice.

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.

## Reflow Soldering process recommendation profile



- |                   |  |
|-------------------|--|
| a: Ramp up rate   | 1 or 2 deg.C/sec.                                    |
| b: Pre-heating    | 150 to 180 deg.C, within 60 to 120sec.               |
| c: Ramp up rate   | 1 to 2 deg.C/sec.                                    |
| d: Heating        | max. 230 deg.C, max. 10sec. 210 deg.C, within 30sec. |
| e: Ramp down rate | 1 or 2 deg.C/sec.                                    |

- Note ;
- 1 ) Temperature means Surface temperature of the sensor package.
  - 2 ) Reflow process max. 2 times.
  - 3 ) Do not wash the sensor.
  - 4 ) Do not put the solder and flux on the sensor package.

If you have any questions regarding technical issues or specifications, please contact us.  
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 Phone +81-(0)3-5606-1072  
 E-mail : [sensor@fujikura.co.jp](mailto:sensor@fujikura.co.jp)

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