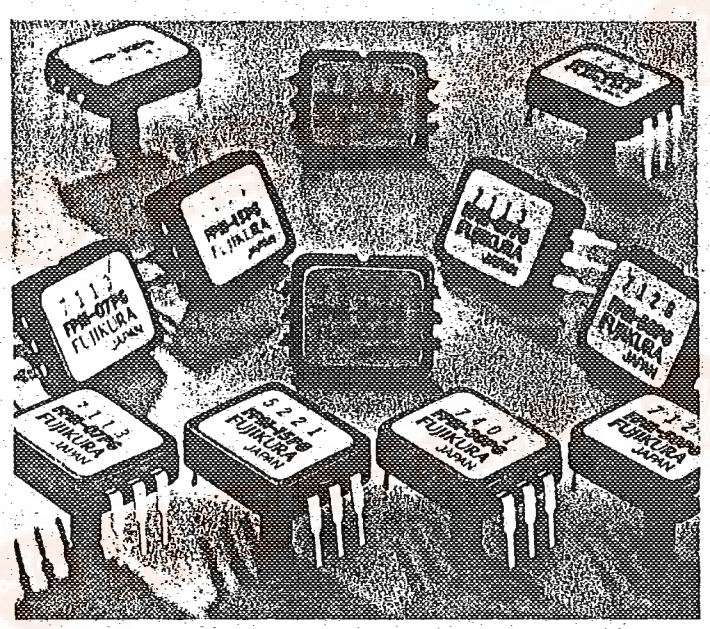
FPM Series

High-accuracy, low-priced plastic mold DIP type

T-65-13



Features

- High accuracy, low price, high reliability
- DIP type permitting easy mounting on PC board
- Standard gauge pressure types
- Vacuum pressure mesurement

Applications

- Medical equipment
- Industrial instruments
- Pneumatic devices
- Automobiles

Model code

FPM-07PGR

- Pin direction
  - No mark : (See the dimensional drawings.)
  - R :
  - *The R type can be manufactured upon request.
- Type of pressure
  - G : Gauge pressure
- Rated pressure (psi)

Specifications

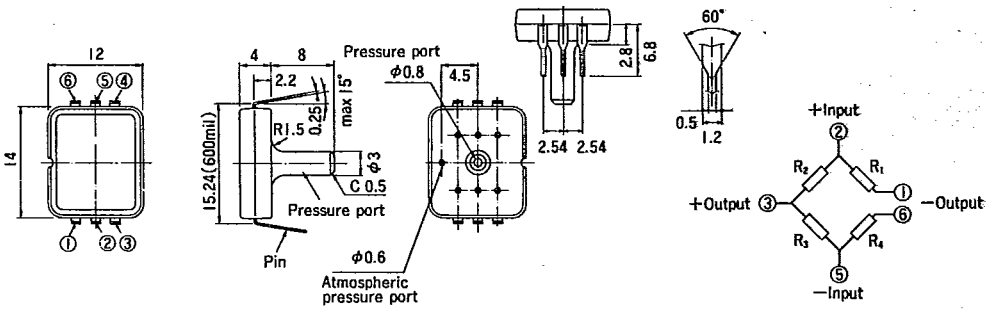
*For definitions on the specification items, refer to pp.15 and 16 of our Technical Information.

Model (FPM-)	02PG(R)	05PG(R)	07PG(R)	15PG(R)	30PG(R)	50PG(R)	70PG(R)	120PG(R)	Units	Notes
Recommended operating conditions										
Rated pressure	0.141 13.79	0.352 34.47	0.492 48.26	1.055 103.4	2.109 206.8	3.515 344.7	4.922 482.6	8.437 827.4	kg/cm² kPa	
Measurable pressure range	−0.141 ~ +0.141	−0.352 ~ +0.352	−0.492 ~ +0.492	−1 ~ +1.055	−1 ~ +2.109	−1 ~ +3.515	−1 ~ +4.922	−1 ~ +8.437	kg/cm²	
Type of pressure	Gauge pressure									
Pressure media	Non-corrosive gases									
Drive current (constant)	1.5								mA	
Absolute maximum rating										
Maximum load pressure	Rated pressure × 2							Rated pressure ×1.5		
Maximum drive current	3								mA	
Operating temperature	−20~100								℃	
Storage temperature	−40~120								℃	
Electrical characteristics (Drive current I =1.5mA constant current; ambient temperature Ta =25℃)										
Output span voltage	60~140								mV	
Offset voltage	±20								mV	
Bridge resistance	4000~6000								Ω	
Accuracy: TSO*3	±5								%FS/50℃	*2
Accuracy: TCS*4	2.5								%FS/50℃	*2
Accuracy: Linearity	±0.5	±0.3				±0.5	±0.6		%FS	
Accuracy: Pressure hysteresis	±0.4	±0.2				±0.4			%FS	

NOTES: *1) ☐PGR manufactured upon request
*2) For temperature range from 0 to 50°C

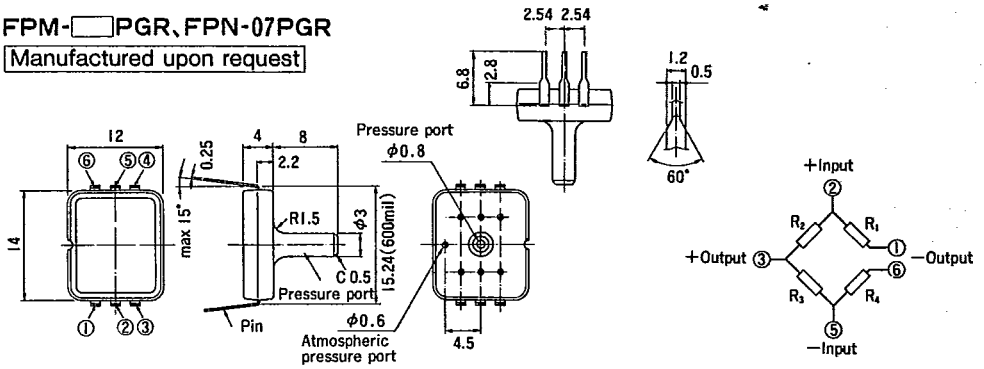
Dimensions and electrical pin connections

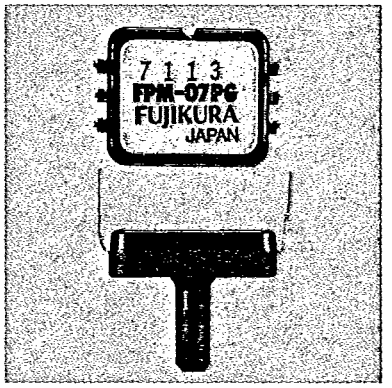
FPM-□PG、FPN-07PG



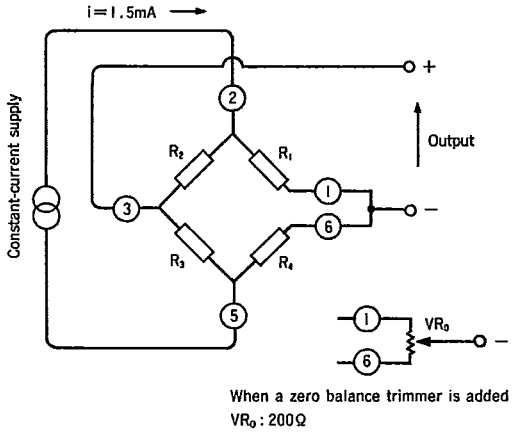
FPM-□PGR、FPN-07PGR

Manufactured upon request





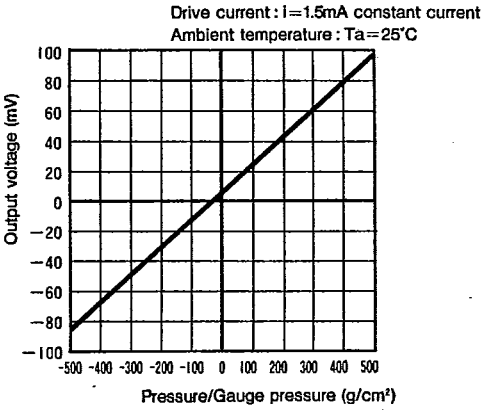
Example of electrical connection



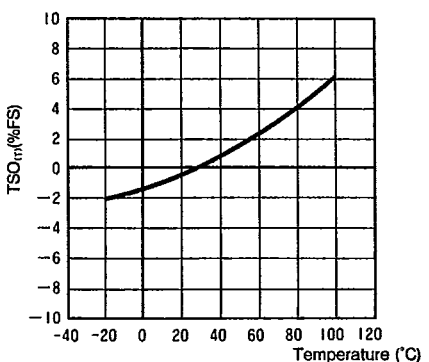
When a zero balance trimmer is added
VR_0 : 200Ω

Example of characteristics (with FPM-07PG as representative)

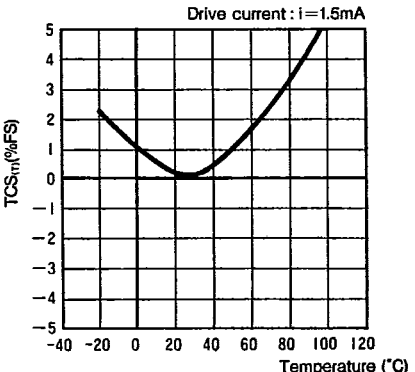
Example of output characteristics (FPM-07PG)



Example of $TSO_{(T)}$ characteristics (FPM-07PG)



Example of $TCS_{(T)}$ characteristics (FPM-07PG)



The characteristics curves shown here are based on the following definitions :

- $V_{(P,T)}$: Output voltage at pressure Pg/cm² and temperature T°C
- $SV_{(T)}$: Output span voltage at temperature T°C
  $:=V_{(492.2,T)}-V_{(0,T)}$

TSO at T°C is defined as $TSO_{(T)}$ (%FS)
$:=(V_{(0,T)}-V_{(0,25)})/SV_{(25)}\times 100$

TCS at T°C is defined as $TCS_{(T)}$ (%FS)
$:=(SV_{(T)}-SV_{(25)})/SV_{(25)}\times 100$