

Features

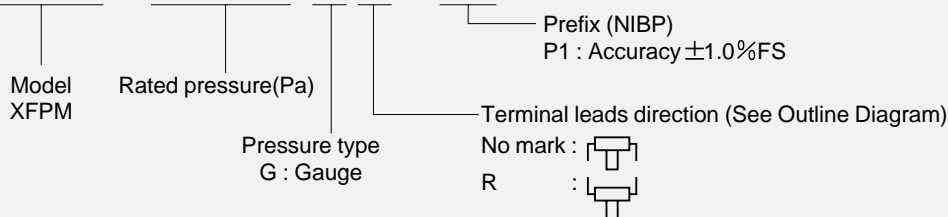
- Accuracy, $\pm 1.0\%$ FS
- Volt level output
- On-chip amplification and temperature compensations
- Pre-calibration of offset voltage and span

Applications

- Non-invasive Blood Pressure(NIBP)monitors
- Medical device

Part number for ordering

XFPM - 050KP G R - P1



Pressure type	Gauge pressure
	XFPM
Model	
Package configuration	Dual-In-line-Package (DIP)

Measurable pressure range (kPa)	Part number for ordering	
0~50	XFPM-050KPG-P1	XFPM-050KPR-P1

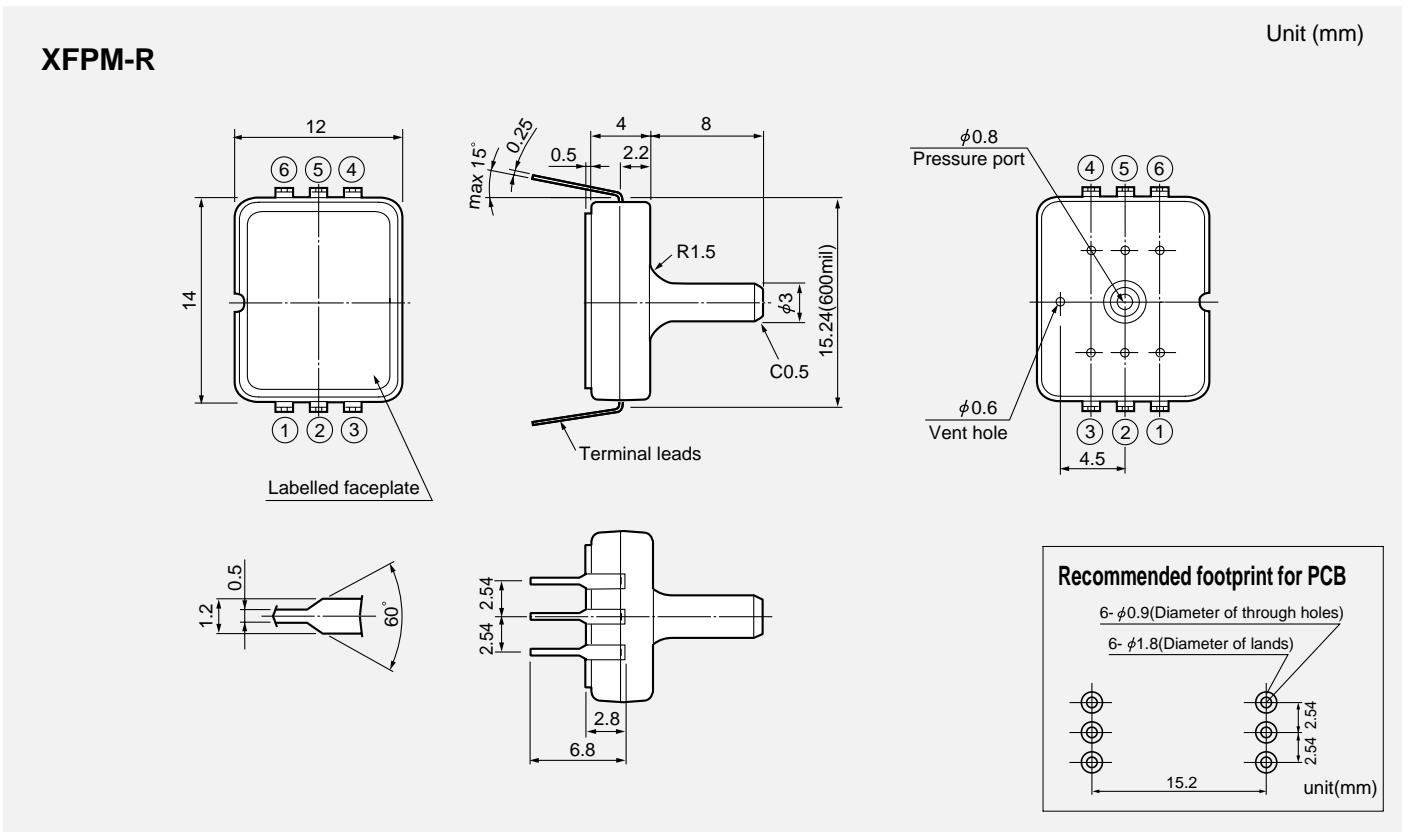
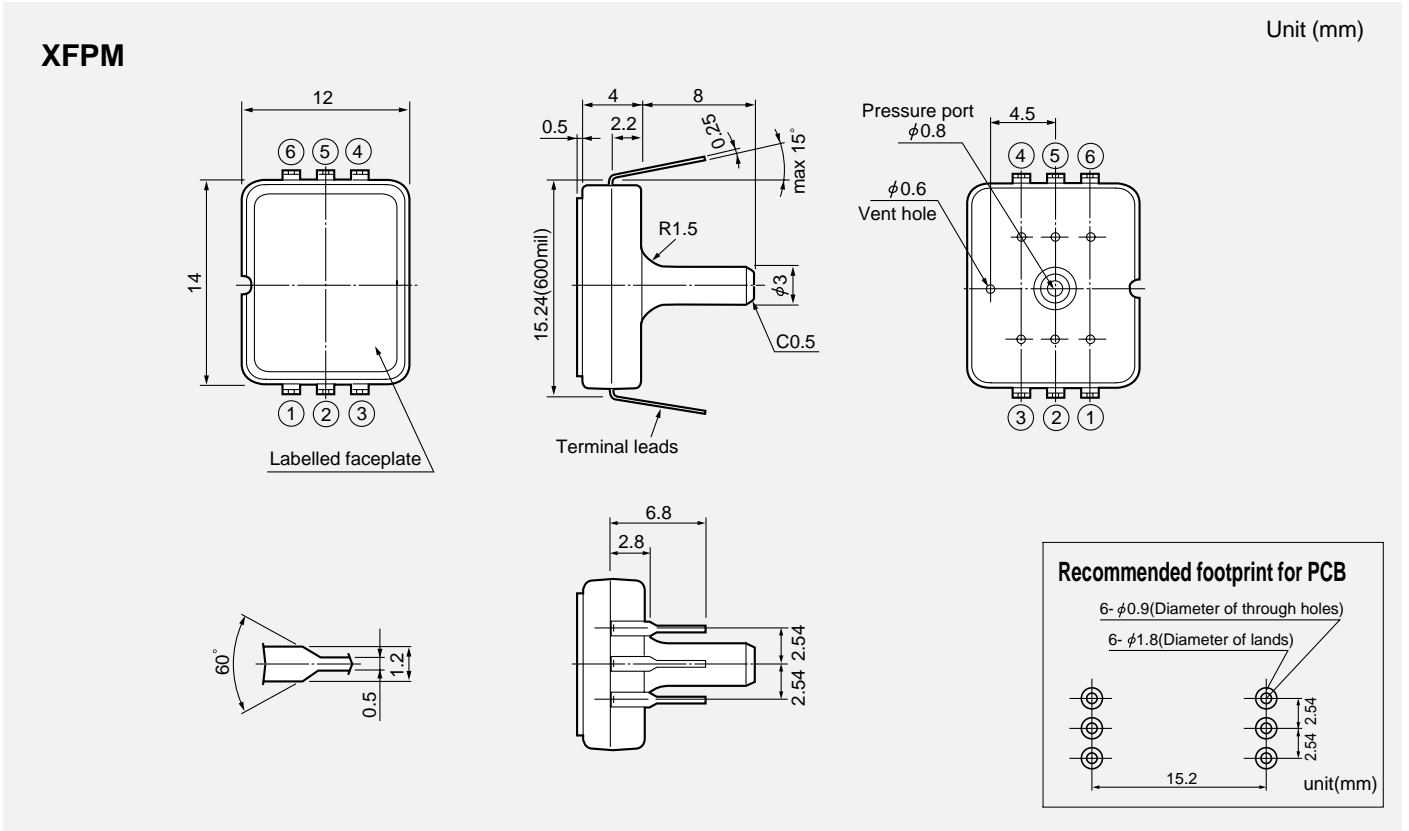
Specifications

Model/Rated pressure	050KPG(R)-P1	Unit
Recommended operating conditions		
Pressure type	Gauge pressure	—
Rated pressure	300(40)	mmHg(kPa)
Measurable pressure range	0~300(0~40)	mmHg(kPa)
Pressure media	Non-corrosive gas only	—
Excitation voltage	5 \pm 0.25	VDC
Absolute maximum rating		
Maximum load pressure	Twice of rated pressure	—
Maximum excitation voltage	8	VDC
Operating temperature	-40~125	°C
Storage temperature	-40~125	°C
Operating humidity	30~80 (No dew condensation)	%RH
Electric performances/characteristics (Excitation voltage Vcc=5.0V constant, Ambient temperature Ta=25°C)		
Current consumption	less than 10	mA
Output impedance	less than 10	Ω
Source current	less than 0.2	mA
Sink current	less than 2	mA
Mechanical response time	2 (For the reference)	msec
Full scale span voltage	3.5	V
Offset voltage※1	0.5 \pm 0.1	V
Full scale span voltage※1	4.0 \pm 0.1	V
Temperature sensitivity of offset(TSO)	\pm 0.2	V/0~50°C
Accuracy※1,2	\pm 1.0	%FS/0~50°C

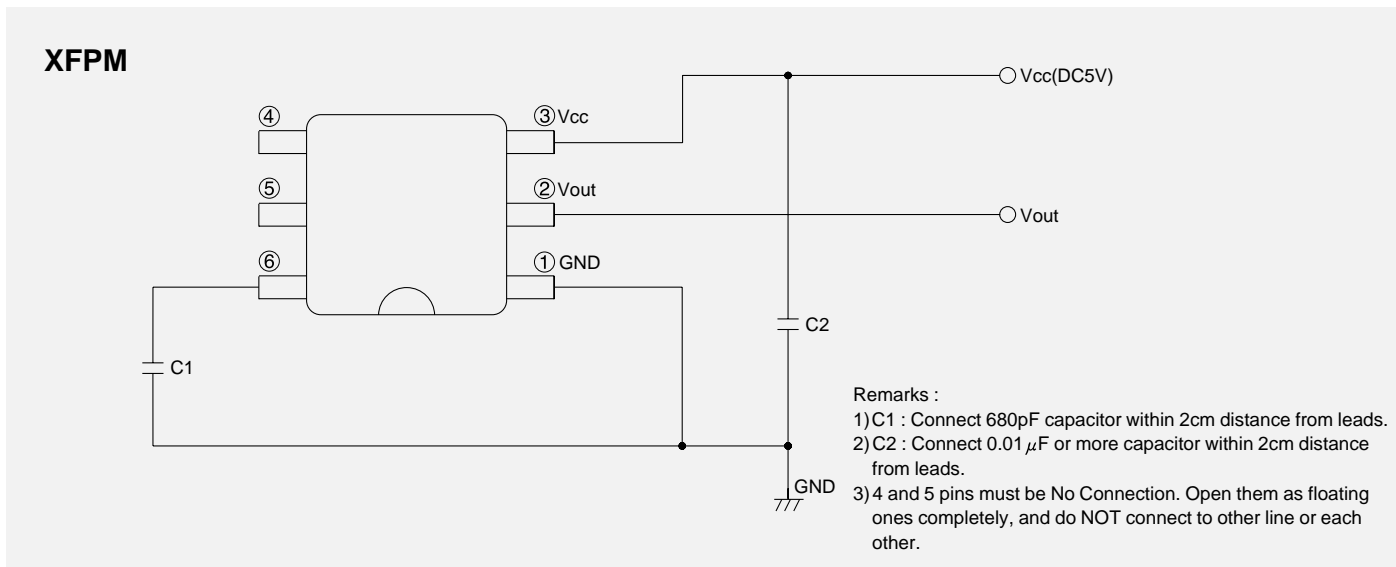
Note ; ※1) Excluding input voltage error.

※2) Excludes offset calibration error and temperature error of offset.

Outline dimensions



■ Connection diagram ■



■ Transfer Function ■

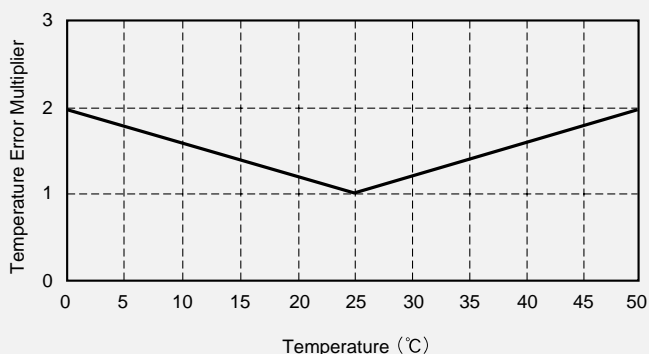
$$V_{out} = V_s \times (P \times \alpha + \beta) \pm (\text{Pressure Error} \times \text{Temperature Error Multiplier} \times \alpha \times V_s)$$

※Vs=5.0V

※Notes ; Output, Vout, is not perfectly ratiometric power supply voltage Vs.

Model	pressure range	α	β	Pressure Error※1)(mmHg)
XFPM-050KPGR-P1	0~+300mmHg	0.00233	0.1	8.57

※Temperature Error Multiplier=1



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

Fujikura Ltd.

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