



I-CUBE**X**

Sensors & Interfaces

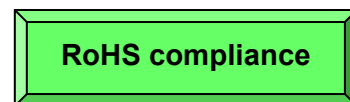
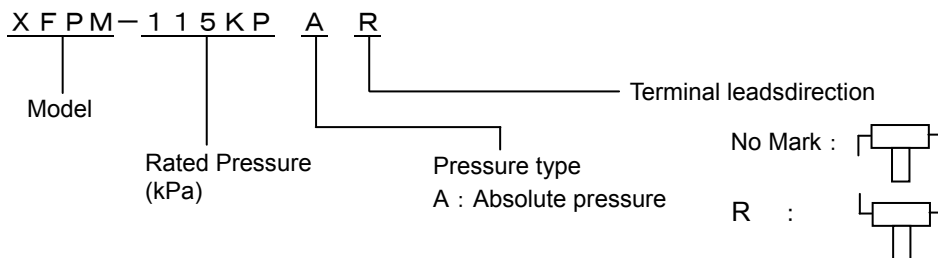
Software

Support

■Features

- Barometric pressure measurable
- On-chip amplification and temperature compensations
- Pre-calibration of offset voltage and span
- Dual-in-line package (DIP)

■Ordering Information



Measurable pressure range(kPa.abs)	Part number	
15 to 115	XFPM-115KPA	XFPM-115KPAR

■Specifications

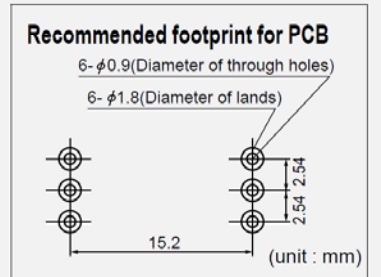
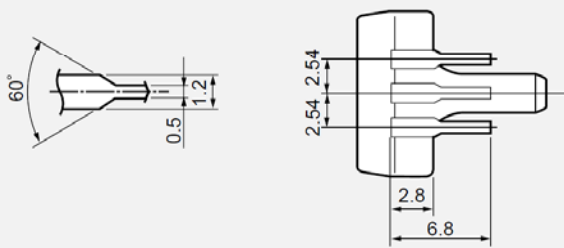
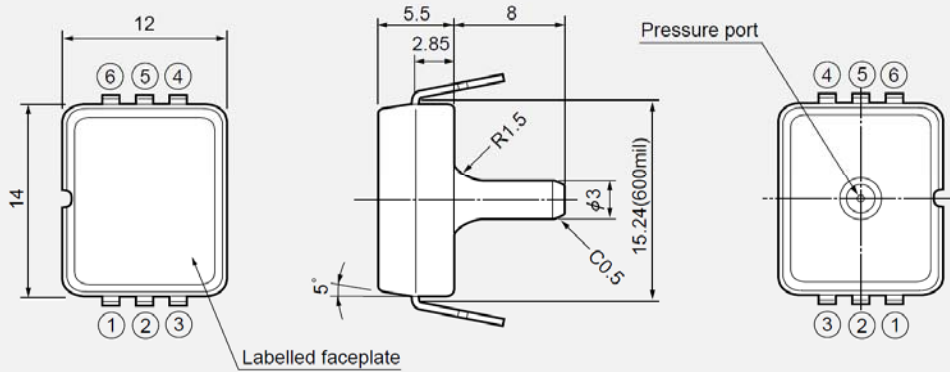
Model	XFPM-115KPA / XFPM-115KPAR	Unit
Recommended operating conditions		
Pressure type	Absolute pressure	-
Rated pressure	115	kPa.abs
Measurable pressure range	15 to 115	kPa.abs
Temperature range	0 to 85	deg.C
Pressure media	Non-corrosive gases only (No liquid)	-
Supply voltage(constant)	5+/-0.25	VDC
Absolute maximum rating		
Maximum load pressure	Twice of rated pressure	-
Maximum excitation voltage	8	VDC
Operating temperature	-40 to 125	deg.C
Storage temperature	-40 to 125	deg.C
Operating humidity	30 to 80 (Non dew condition)	%RH
Electrical characteristics (Excitation voltage Vcc=5.0V constant ,ambient temperature Ta=25deg.C)		
Power consumption	10mA max.	mA
Output impedance	10Ω max.	Ω
Source current	0.2mA max.	mA
Sink current	2mA max.	mA
Response time	2 (for the reference)	msec.
Output span voltage	4.5	V
Offset voltage *	0.2+/-0.1125 (at 15 kPa.abs)	V
Output voltage at full scale *	4.7+/-0.1125 (at 115kPa.abs)	V
Accuracy *	+/-2.5	%FS/0-85deg.C

* Excluding input voltage error. 0-85deg.C

■ Outline dimensions ■

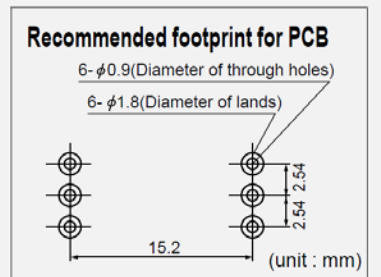
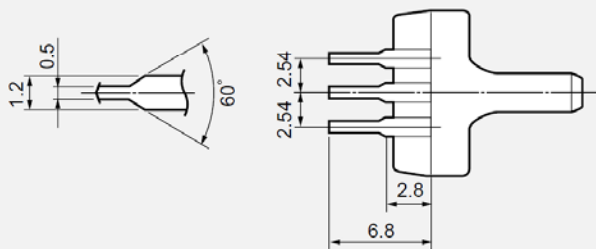
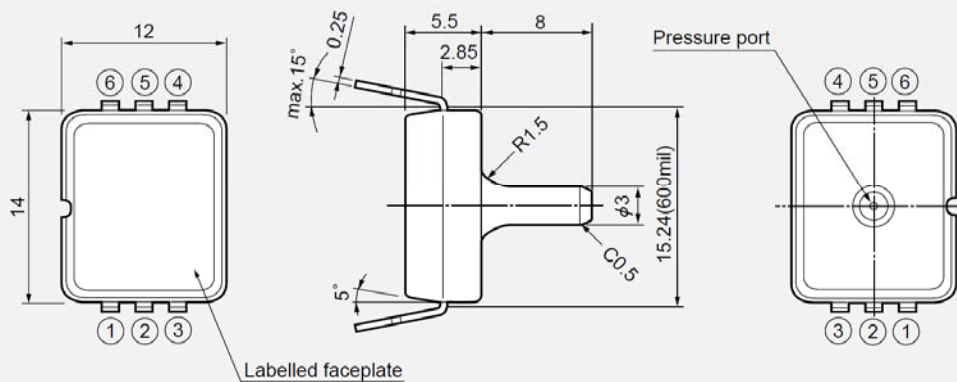
Unit : mm

XFPM (Absolute pressure)

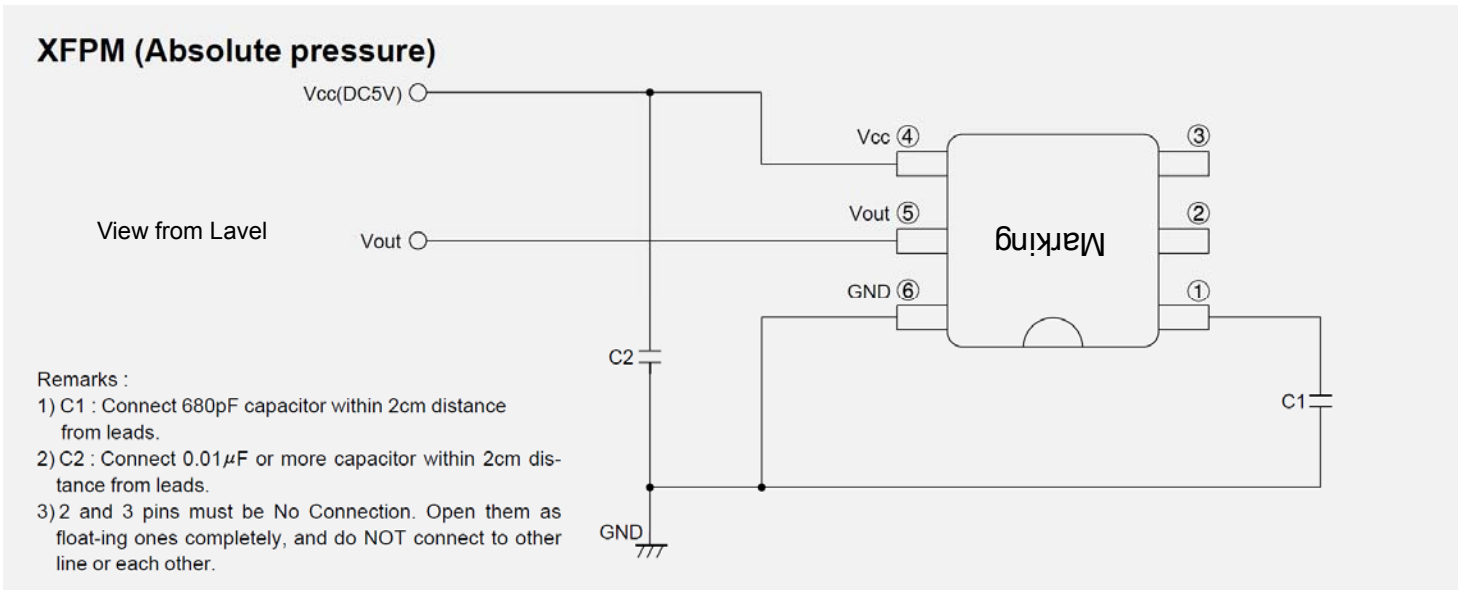


XFPM-R (Absolute pressure)

Unit : mm



■Connection diagram■



■Transfer Function■

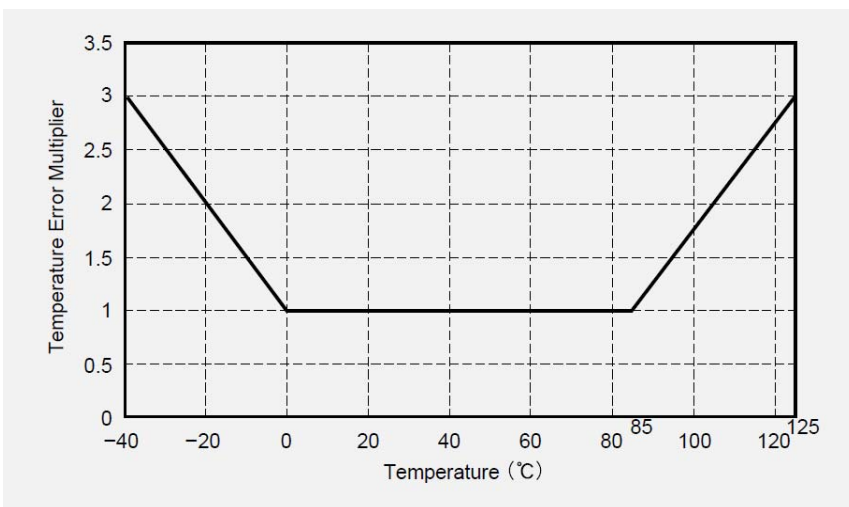
$$V_{out} = V_s \times (P \times \alpha + \beta) \pm (\text{Pressure Error} \times \text{Temperature Error Multiplier} \times \alpha \times V_s)$$

$$V_s = V_{cc} = 5.0V$$

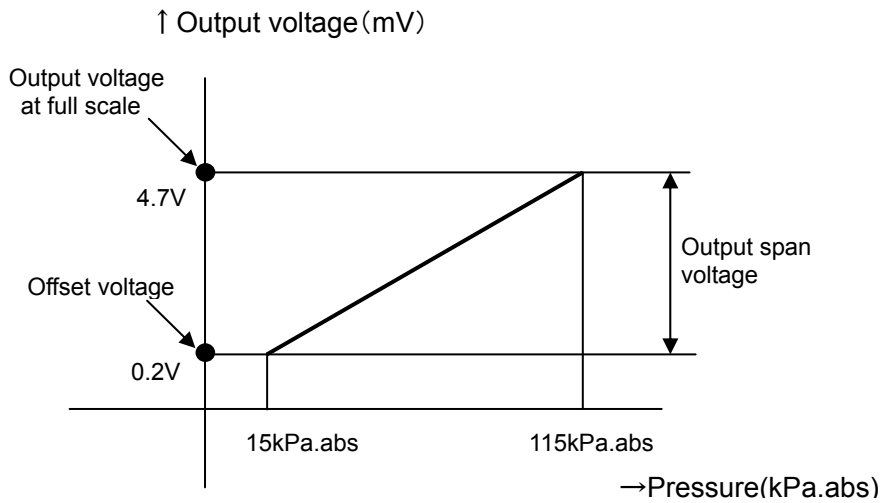
$$P = \text{Input pressure (kPa.abs)}$$

α	β	Pressure Error (kPa)
0.009	-0.095	2.5

Temperature Error Multiplier



■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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