

Features

- 3V excitation, Battery operation available
- Volt level output
- On-chip amplification and temperature compensations
- Pre-calibration of offset voltage and span

Applications

- Industrial instrumentation
- Medical device
- Barometer, Altimeter
- Altitude compensation

Part number for ordering

X3AM - 115KP A S R

Model
X3PM
X3AM


Rated pressure (Pa)


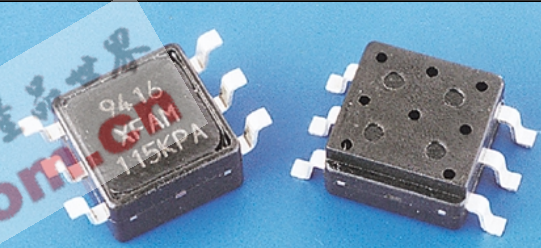
Pressure type
A : Absolute

Terminal leads configuration
No mark : DIP(X3PM)
S : Surface mount package (X3AM)

Terminal leads direction (See Outline Diagram)

No mark : 

R : 

Pressure type	Absolute pressure		
	X3PM	X3AM	
Model			
Package configuration	Dual-In-line-Package (DIP)	Surface mount package	
Measurable pressure range (kPa)	Part number for ordering		
15~115	X3PM-115KPA	X3PM-115KPAR	X3AM-115KPASR

Specifications

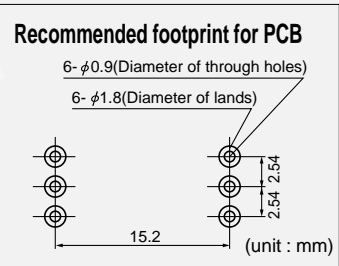
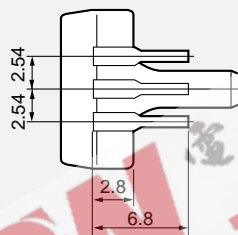
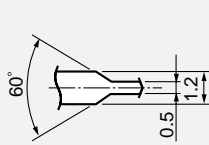
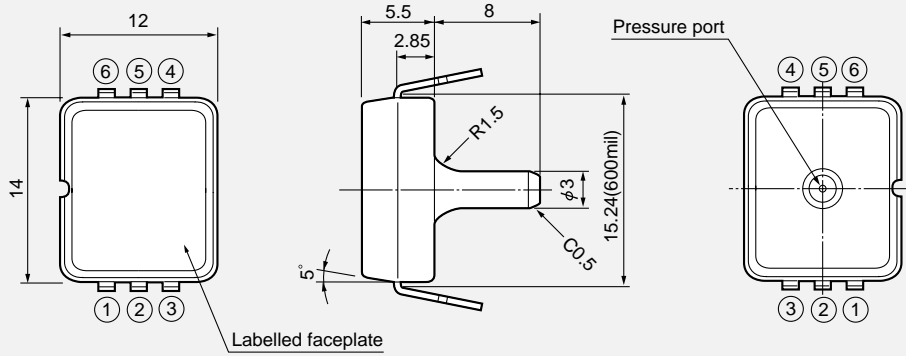
Model/Rated pressure	115KPA	Unit
Recommended operating conditions		
Pressure type	Absolute pressure	—
Rated pressure	115	kPa-abs
Measurable pressure range	15~115	kPa-abs
Pressure media	Non-corrosive gas only	—
Excitation voltage	3.0±0.15	VDC
Absolute maximum rating		
Maximum load pressure	Twice of rated pressure	—
Maximum excitation voltage	6	VDC
Operating temperature	-10~80	°C
Storage temperature	-20~100	°C
Operating humidity	30~80 (No dew condensation)	%RH
Electric performances/characteristics (Excitation voltage Vcc=3.0V constant, Ambient temperature Ta=25°C)		
Current consumption	less than 6	mA
Output impedance	less than 10	Ω
Source current	less than 0.1	mA
Sink current	less than 1	mA
Mechanical response time	2 (For the reference)	msec
Full scale span voltage	1.5	V
Offset voltage ※	0.5±0.075	V
Full scale span voltage ※	2.0±0.075	V
Accuracy ※	±5.0	%FS/0~50°C

Note ; ※ Excluding input voltage error.

Outline dimensions

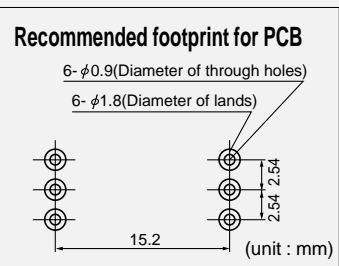
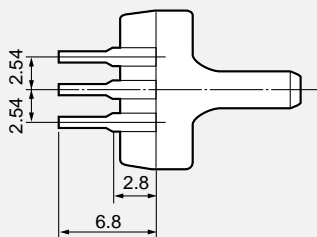
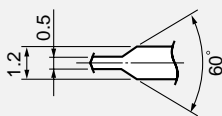
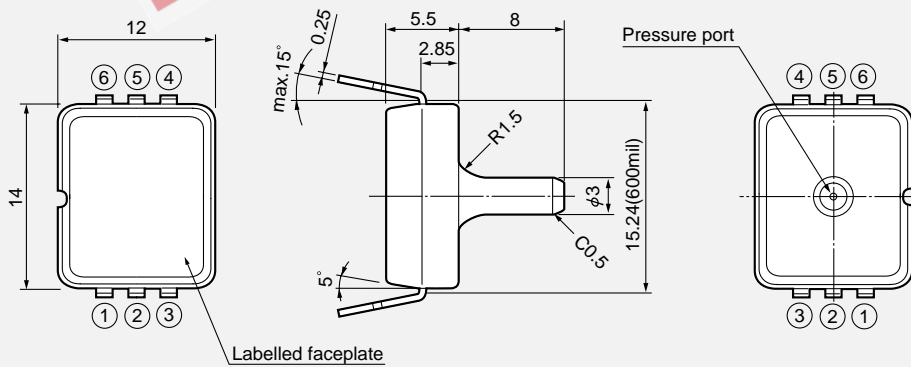
Unit : mm

X3PM (Absolute pressure)

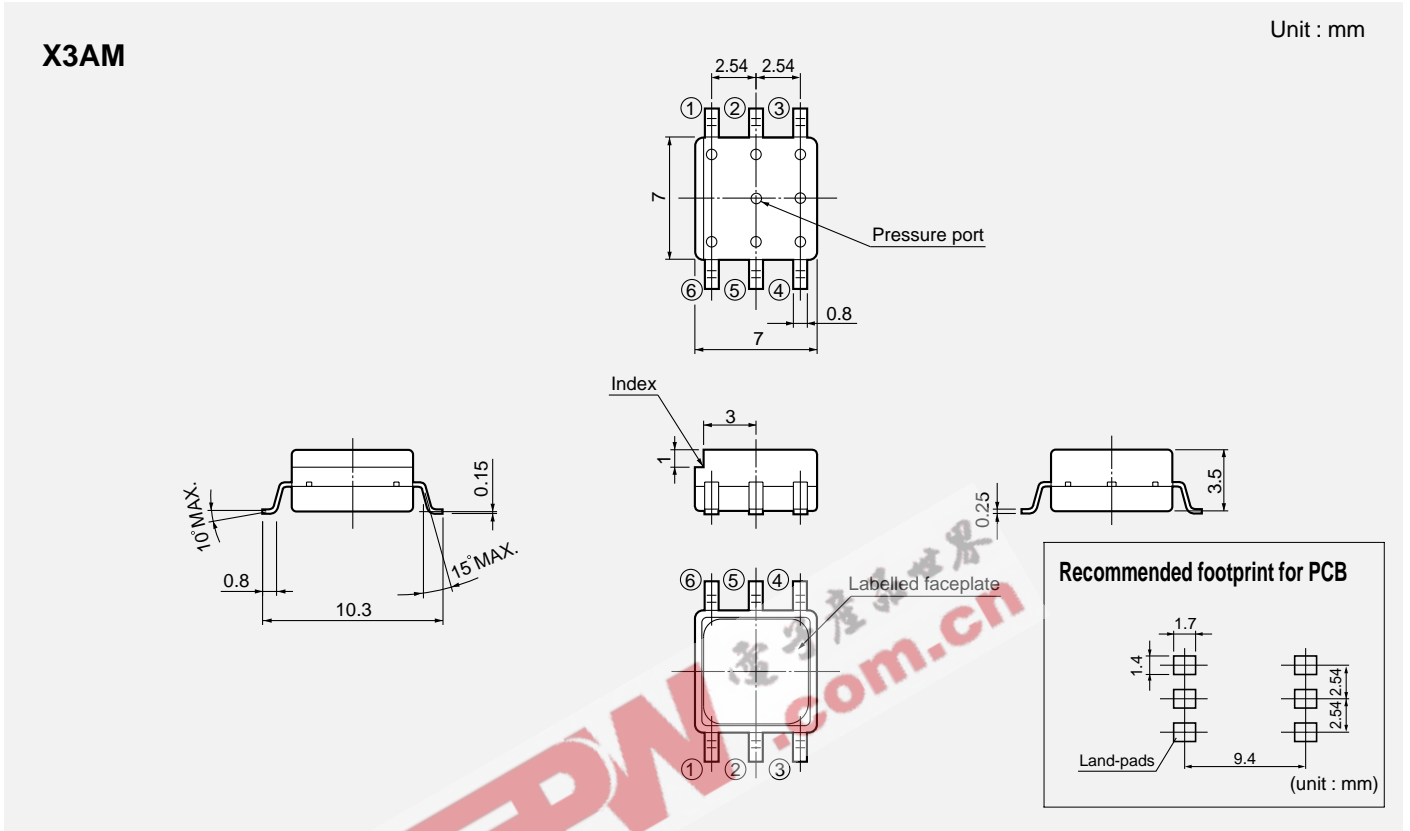


X3PM-R (Absolute pressure)

Unit : mm



Outline dimensions



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=3.0volts Notes ; The output voltage (Vout) is no perfect ratiometric with the power supply voltage.

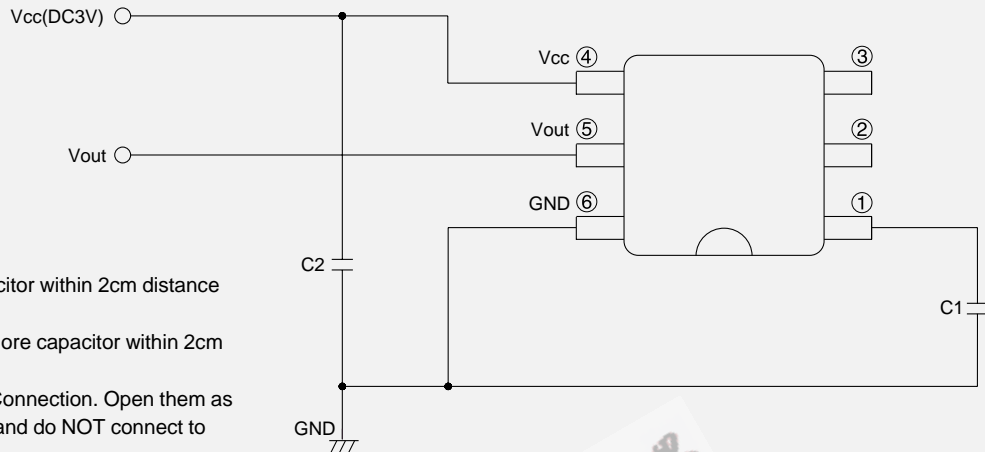
※P=Input Pressure(kPa)

Model	pressure range	α	β	Pressure Error(kPa)
050KPG(D)	0~50kPa	0.01	0.1667	2.5
100KPG(D)	0~100kPa	0.005	0.1667	5.0
100KPGV	0~-100kPa	-0.005	0.1667	5.0
100KPGW(DW)	-0~+100kPa	0.0025	0.4667	10.0
200KPG(D)	0~200kPa	0.0025	0.1667	10.0
001MPGW(D)	0~1MPa	0.0025	0.1667	50.0
115KPA	15~115kPa.abs	0.005	0.09167	5.0

※Temperature Error Multiplier=1

■ Connection diagram ■

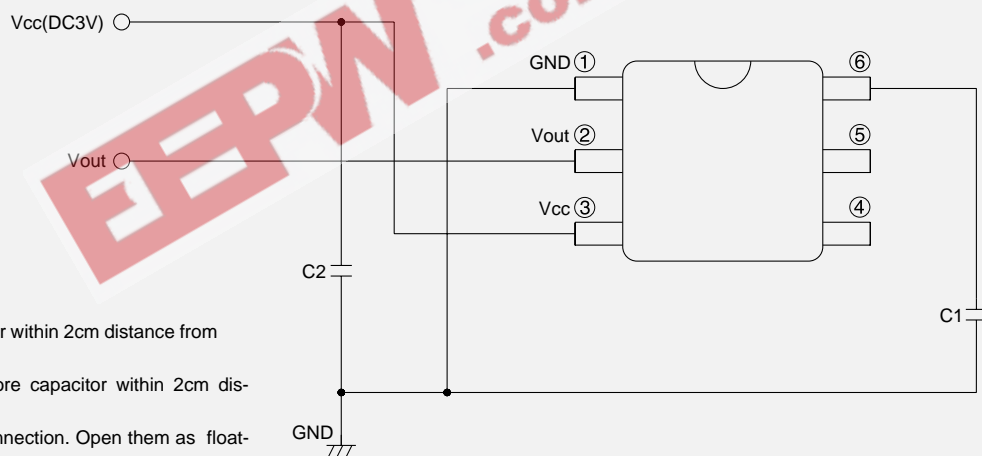
X3PM (Absolute pressure)



Remarks :

- 1) C1 : Connect 680pF capacitor within 2cm distance from leads.
- 2) C2 : Connect 0.01 μ F or more capacitor within 2cm distance from leads.
- 3) 2 and 3 pins must be No Connection. Open them as floating ones completely, and do NOT connect to other line or each other.

X3AM



Remarks :

- 1) C1 : Connect 680pF capacitor within 2cm distance from leads.
- 2) C2 : Connect 0.01 μ F or more capacitor within 2cm distance from leads.
- 3) 4 and 5 pins must be No Connection. Open them as floating ones completely, and do NOT connect to other line or each other.

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.
Sensor Engineering Department 5-1 Kiba 1-chome, Koto-ku, Tokyo 135-8512, Japan
Phone +81-(0)3-5606-1072 Fax. +81-(0)3-5606-1538
E-mail : sensor@fujikura.co.jp