

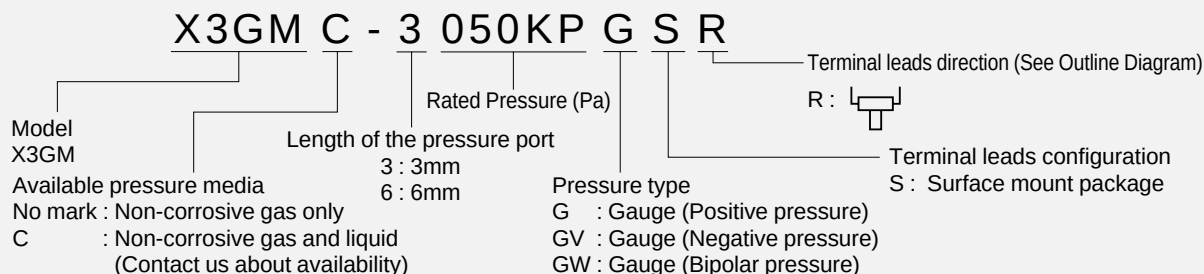
Features

- 3V excitation, Battery operation available
- Volt level output
- On-chip amplification and temperature compensations
- Pre-calibration of offset voltage and span
- Non-corrosive liquid measurable (X3GMC only)

Part number for ordering

Applications

- Industrial instrumentation
- Pressure switch, Pneumatic device
- Medical device



Pressure type	Gauge pressure	
	X3GM-3	X3GM-6
Model		
Package configuration	Surface mount package, 3mm pressure port	Surface mount package, 6mm pressure port

Measurable pressure range (kPa)	Part number for ordering	
-100~100	X3GM-3100KPGWSR	X3GM-6100KPGWSR
0~-100	X3GM-3100KPGVSR	X3GM-6100KPGVSR
0~50	X3GM-3050KPGSR	X3GM-6050KPGSR
0~100	X3GM-3100KPGSR	X3GM-6100KPGSR
0~200	X3GM-3200KPGSR	X3GM-6200KPGSR
0~1000	X3GM-3001MPGSR	X3GM-6001MPGSR

Specifications

Model/Rated pressure	100KPGW	100KPGV	050KPG	100KPG	200KPG	001MPG	Unit
Recommended operating conditions							
Pressure type	Gauge pressure						—
Rated pressure	±100	—100	50	100	200	1000	kPa
	±1.020	—1.020	0.510	1.020	2.040	10.20	kg/cm ²
Measurable pressure range	—100~100	0~-100	0~50	0~100	0~200	0~1000	kPa
Pressure media ※1	XFGM : Non-corrosive gas only, XFGMC : Non-corrosive gas and liquid						—
Excitation voltage	3.0±0.15						VDC
Absolute maximum rating							
Maximum load pressure	Twice of rated pressure					1.5times of rated pressure	—
Maximum excitation voltage	6						VDC
Operating temperature	—10~80						℃
Storage temperature	—20~100						℃
Operating humidity	30~80 (No dew condensation)						%RH
Electric performances/characteristics (Excitation voltage Vcc=3.0V constant, Ambient temperature Ta=25℃)							
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※1.2	0.5±0.075						V
Full scale span voltage※1.2	2.0±0.075						V
Accuracy※1.2	+5.0						%FS/0~50℃

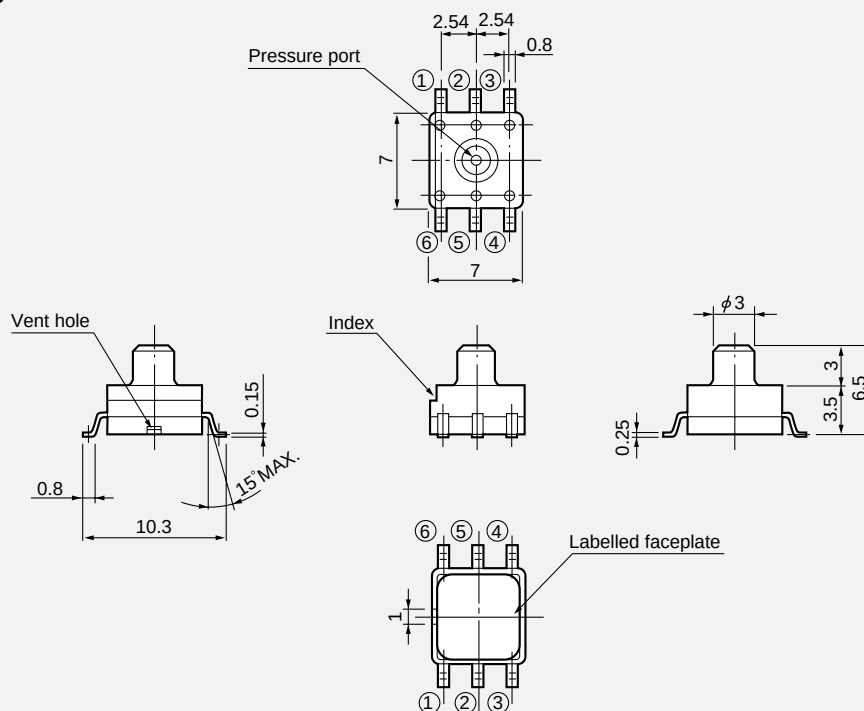
Note ; ※1) Please consult us available when you choose the C models.

※2) Excluding input voltage error.

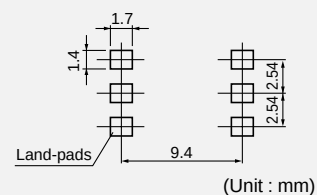
Outline dimensions

Unit : mm

X3GM-3

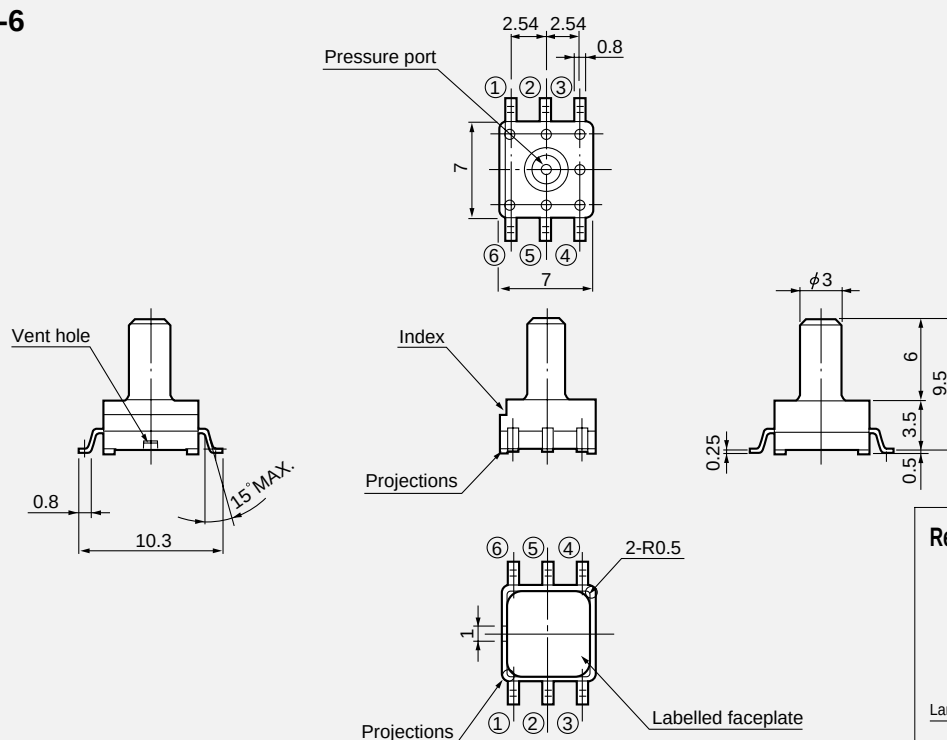


Recommended footprint for PCB

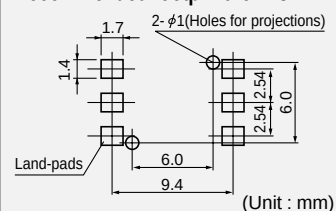


X3GM-6

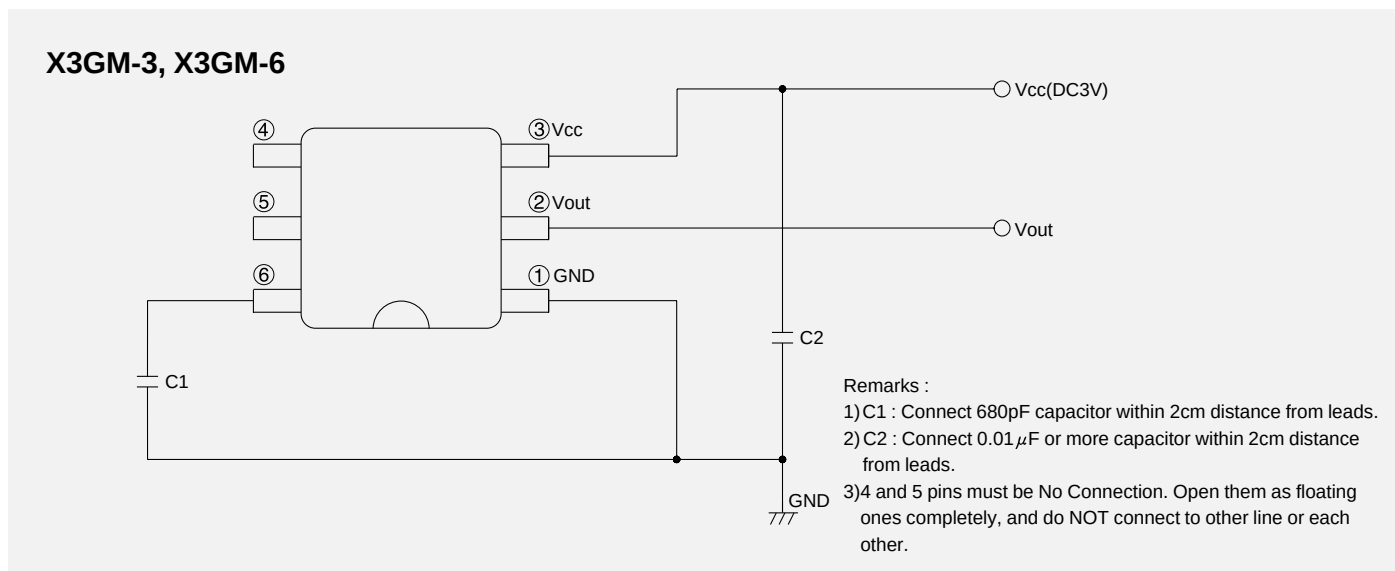
Unit : mm



Recommended footprint for PCB



■ Connection diagram ■



■ Transfer Function ■

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

※ $V_s=3.0$ volts

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)	-100~+100kPa	0.0025	0.4167	10.0
200KPG(D)	0~200kPa	0.0025	0.1667	10.0
001MPG(D)	0~1MPa	0.0005	0.1667	50.0
115KPA	15~115kPa.abs	0.005	0.09167	5.0

※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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