■Features

Differential pressure
On-chip amplification and temperature compensations
Pre-calibration of offset voltage and span
Surface mount package

■Ordering Information

XFDM－025KP　D　SR

- XFDM: Model
- 025KP: Rated Pressure (KP：kPa, MP：MPa)
- D: Pressure type (D：Differential (Positive pressure), DW：Differential Pressure(Positive/Negative pressure))
- SR: Terminal leads configuration (Surface mount package)

Weight (grams)
1.3

RoHS compliance

Measurable pressure range(kPa)	Part number
-100 to 100	XFDM-100KPDWSR
0 to 25	XFDM-025KPDSR
0 to 50	XFDM-050KPDSR
0 to 100	XFDM-100KPDSR
0 to 200	XFDM-200KPDSR
0 to 1000	XFDM-001MPDSR

■Specifications

Model	100KPDW	025KPD	050KPD	100KPD	200KPD	001MPD	Unit
Recommended operating conditions							
Pressure type	Differential pressure						-
Rated pressure	+/-100	25	50	100	200	1000	kPa
Measurable pressure range	-100 to 100	0 to 25	0 to 50	0 to 100	0 to 200	0 to 1000	kPa
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 differential pressure *1	Twice of rated pressure					1.5 times of rating pressure	-
Port1 Maximum load pressure							
Port2 Maximum load 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　*2	4.5						V
Offset voltage　*2,*3	*4	0.2+/-0.1125 (at 0 kPa)					V
Output voltage at full scale *2,*3	*5	4.7+/-0.1125 (at rated pressure)					V
Accuracy　*3	+/-2.5						%FS/0-85deg.C

*1　Port1 pressure > Port2 pressure　, Port2 pressure : reference pressure
*2　Output refers to pressure at pressure port2.
*3　Excluding input voltage error.　0-85deg.C
*4　0.2+/-0.1125V(at -100kPa)　　*5　4.7+/-0.1125V(at +100kPa)

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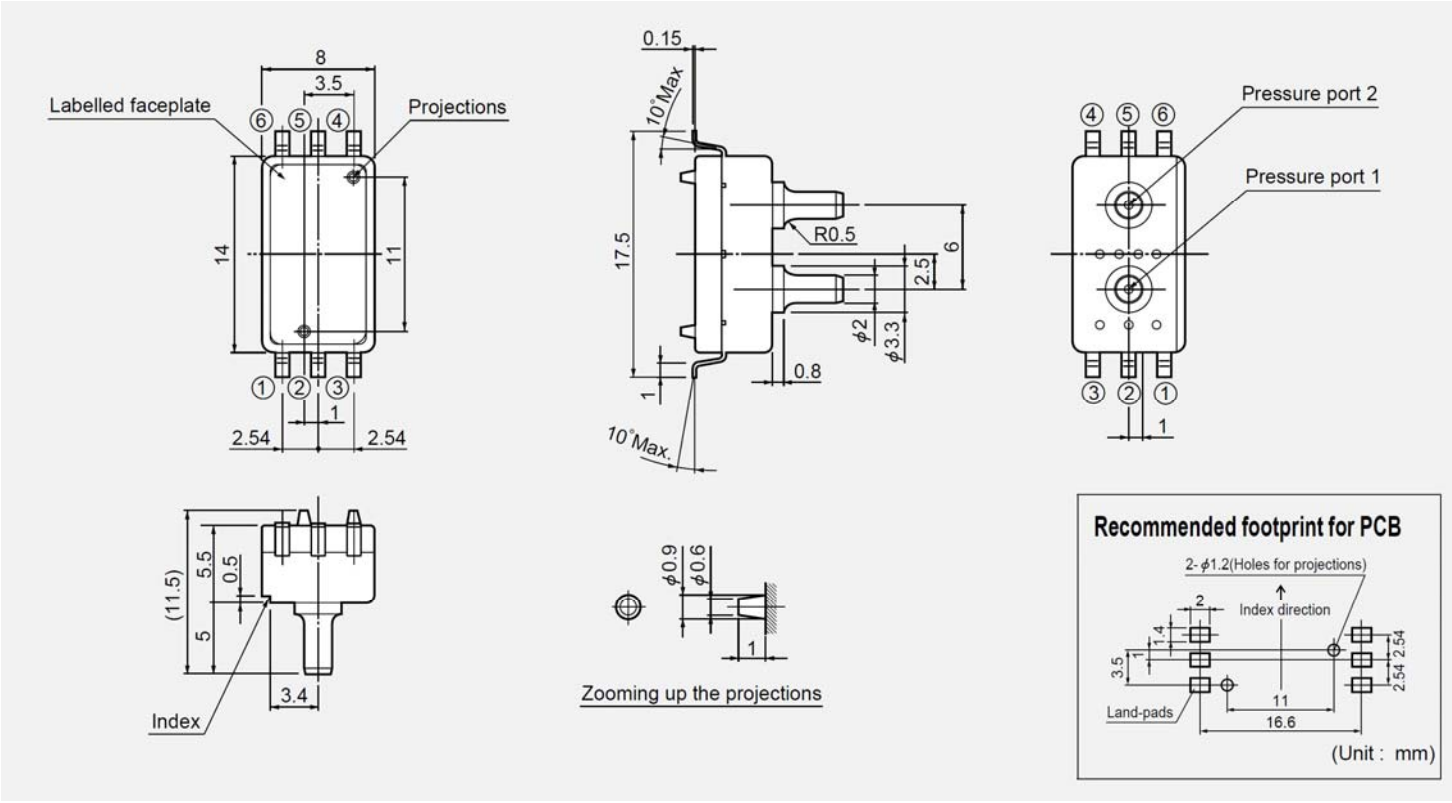
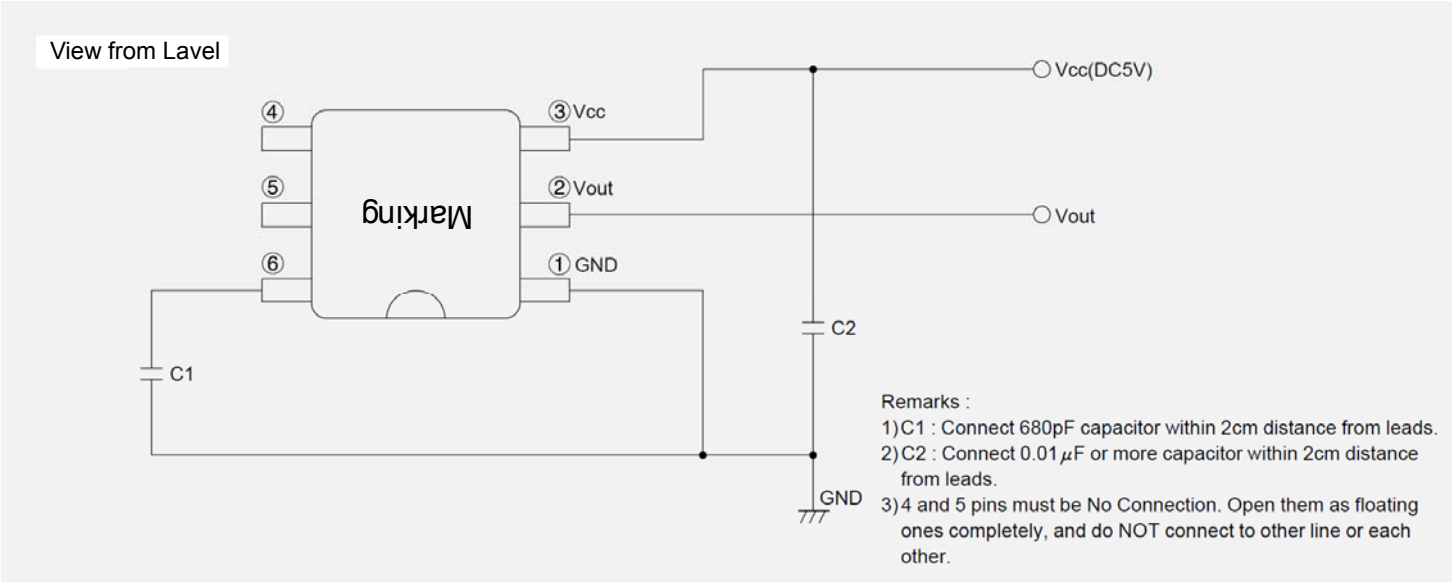
■Outline dimensions■



■Connection diagram■



■**Transfer Function**■

Vout = Vs×(P×α+β) ± (Pressure Error×Temperature Error Multiplier×α×Vs)

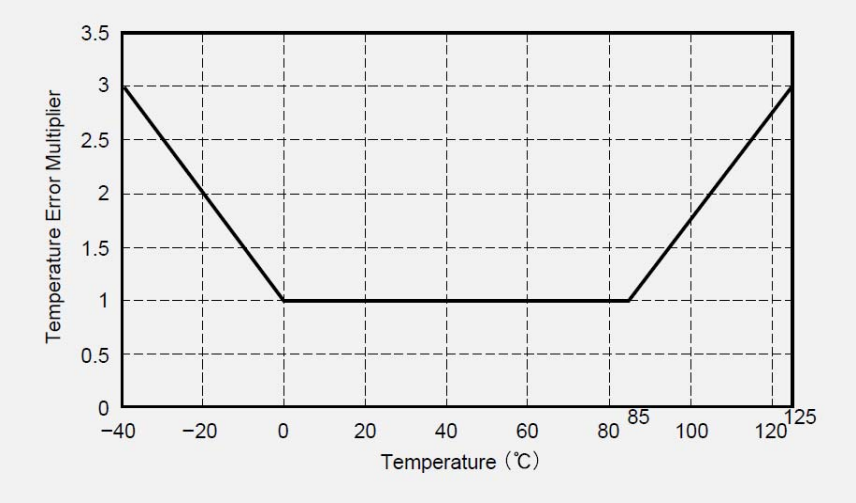
Vs=Vcc=5.0V

P=Pressure(kPa) =Port1 pressure - Port2 pressure

(Port1 pressure > Port2 pressure)　Output refers to pressure at pressure port2.

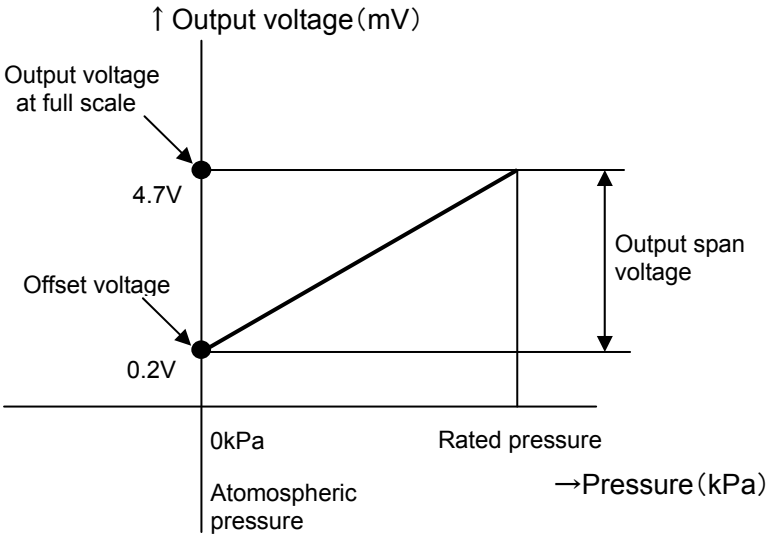
Model	Measurable pressure range(kPa)	α	β	Pressure Error (kPa)
XFDM-100KPDWSR	-100 to 100	0.0045	0.49	5
XFDM-025KPDSR	0 to 25	0.036	0.04	0.625
XFDM-050KPDSR	0 to 50	0.018	0.04	1.25
XFDM-100KPDSR	0 to 100	0.009	0.04	2.5
XFDM-200KPDSR	0 to 200	0.0045	0.04	5
XFDM-001MPDSR	0 to 1000	0.0009	0.04	25

Temperature Error Multiplier



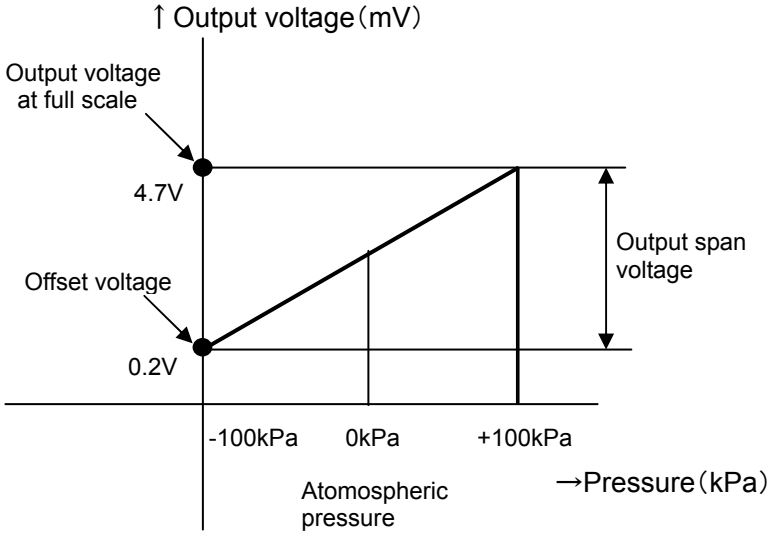
■Output characteristics■

XFDM-025KPDSR
XFDM-050KPDSR
XFDM-100KPDSR
XFDM-200KPDSR
XFDM-001MPDSR



Pressure(kPa) =Port1 pressure - Port2 pressure
(Port1 pressure > Port2 pressure)
Output refers to pressure at pressure port2.

XFDM-100KPDWSR

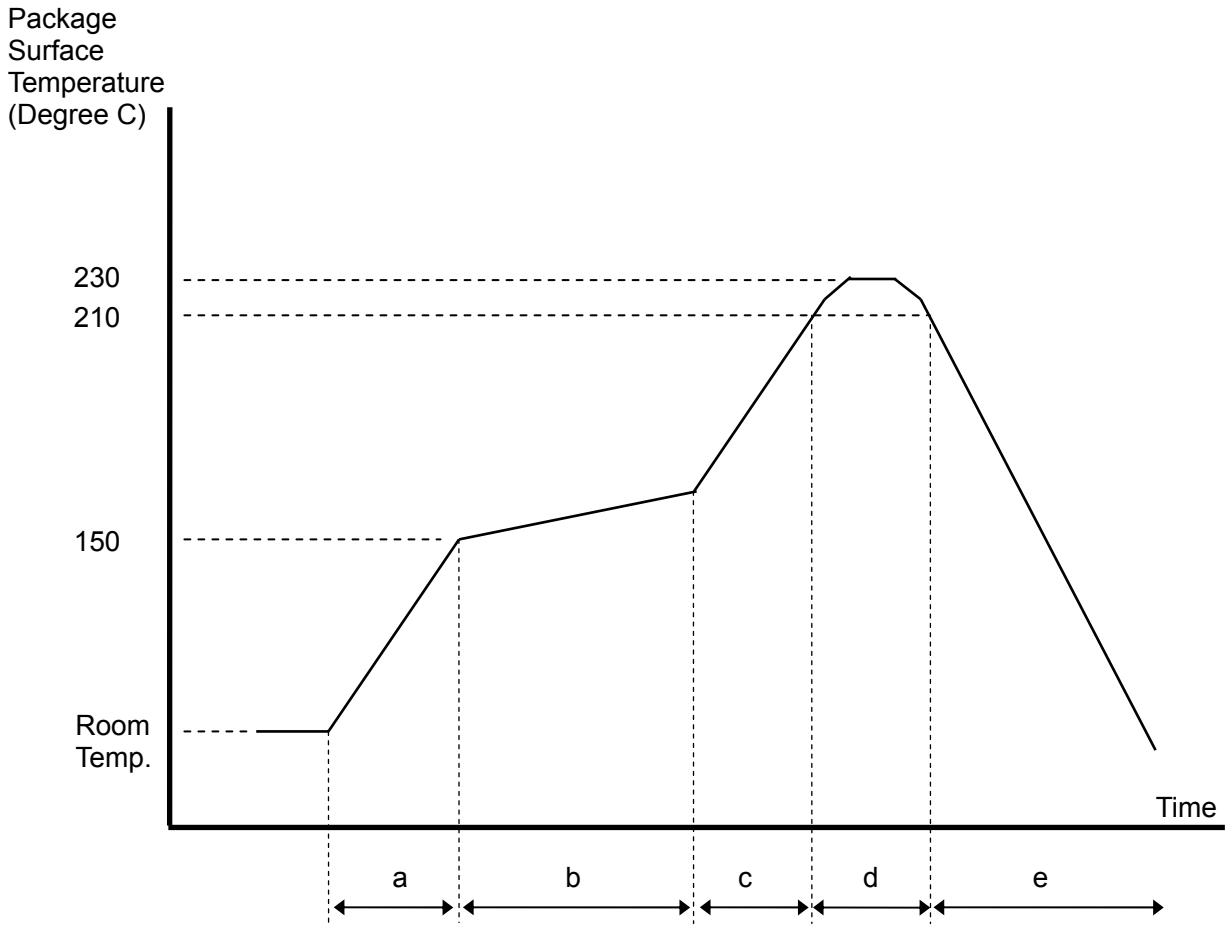


Pressure(kPa) =Port1 pressure - Port2 pressure
(Port1 pressure > Port2 pressure)
Output refers to pressure at pressure port2.

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

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.

Reflow Soldering process recommendation profile



a: Rump up rate 1 or 2 deg.C/sec.
b: Pre-heating 150 to 180 deg.C,within 60 to120sec.
c: Rump up rate 1 to 2 deg.C/sec.
d: Heating max.230 deg.C,max.10sec. 210 deg.C,within 30sec.
e: Rump down rate 1 or 2 deg.C/sec.

Note ; 1) Temperature means Surface temperature of the sensor package.
2) Reflow process max. 2 times.
3) Do not wash the sensor.
4) Do not put the solder and flux on the sensor package.

If you have any questions regarding technical issues or specifications, please contact us.
Fujikura Ltd. Sensor Department 5-1 Kiba 1-chome, Koto-ku, Tokyo 135-8512, Japan
Phone +81-(0)3-5606-1072
E-mail : sensor@fujikura.co.jp

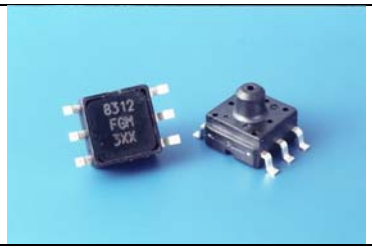
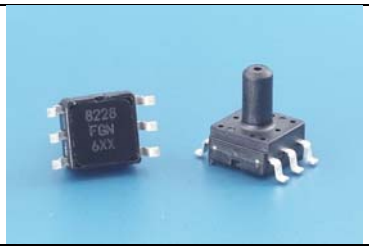
■Features

On-chip amplification and temperature compensations
Pre-calibration of offset voltage and span
Surface mount package

■Ordering Information

XFGM－6　025KP　G　SR

- XFGM: Model
- 6: Length of the pressure port
  - 3：3mm
  - 6：6mm
- 025KP: Rated Pressure
  - KP：kPa
  - MP：MPa
- G: Pressure type
  - G：Gauge(Positive pressure)
  - GV：Gauge Pressure(Negative pressure)
  - GW：Gauge Pressure(Positive/Negative pressure)
- SR: Surface mount package
- Terminal leads configuration

	Weight (grams)		Weight (grams)
	0.3		0.35

Measurable pressure range(kPa)	Part number	
	3mm pressure port	6mm pressure port
-100 to 100	XFGM-3100KPGWSR	XFGM-6100KPGWSR
0 to -100	XFGM-3100KPGVSR	XFGM-6100KPGVSR
0 to 25	XFGM-3025KPGSR	XFGM-6025KPGSR
0 to 50	XFGM-3050KPGSR	XFGM-6050KPGSR
0 to 100	XFGM-3100KPGSR	XFGM-6100KPGSR
0 to 200	XFGM-3200KPGSR	XFGM-6200KPGSR
0 to 1000	XFGM-3001MPGSR	XFGM-6001MPGSR

RoHS compliance

■Specifications

Model	100KPGW	100KPGV	025KPG	050KPG	100KPG	200KPG	001MPG	Unit
Recommended operating conditions								
Pressure type	Gauge pressure							-
Rated pressure	+/-100	-100	25	50	100	200	1000	kPa
Measurable pressure range	-100 to100	0 to -100	0 to 25	0 to 50	0 to 100	0 to 200	0 to 1000	kPa
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						1.5 times of rating 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 *1	*2	*3	0.2+/-0.1125 (at 0 kPa)					V
Output voltage at full scale *1	*4	*5	4.7+/-0.1125 (at rated pressure)					V
Accuracy *1	+/-2.5							%FS/0-85deg.C

*1　Excluding input voltage error.　0-85deg.C
*2　0.2+/-0.1125V(at -100kPa)　*3　0.2+/-0.1125V(at 0kPa)
*4　4.7+/-0.1125V(at +100kPa)　*5　4.7+/-0.1125V(at -100kPa)

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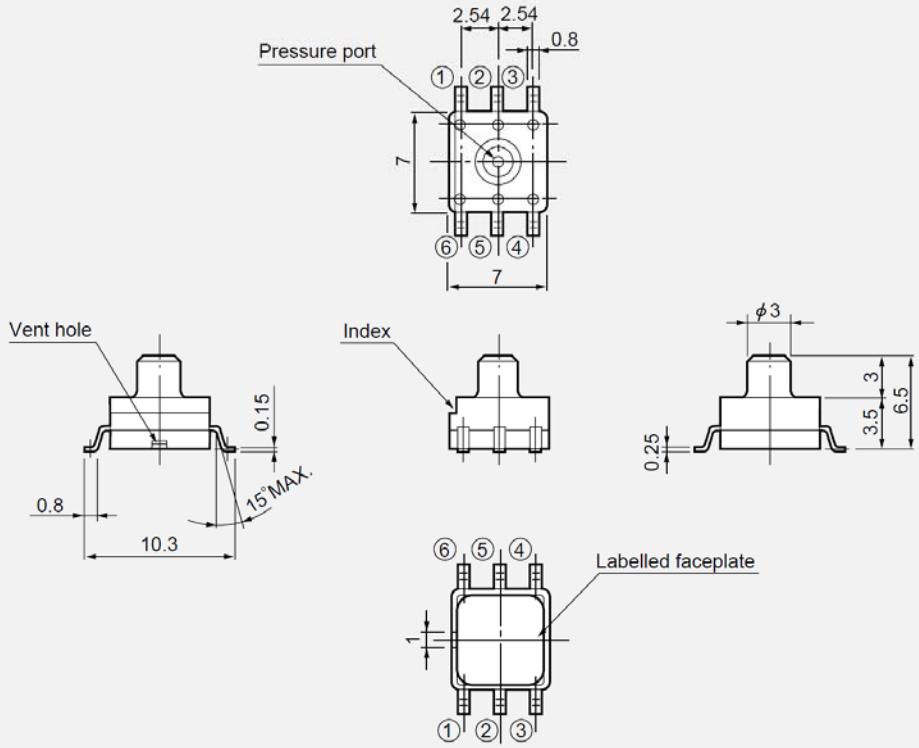
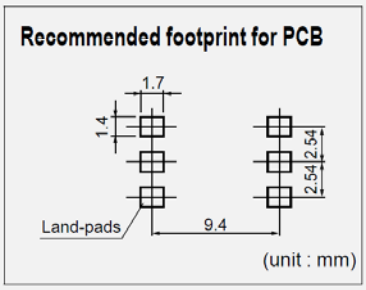
■Outline dimensions■

unit : mm

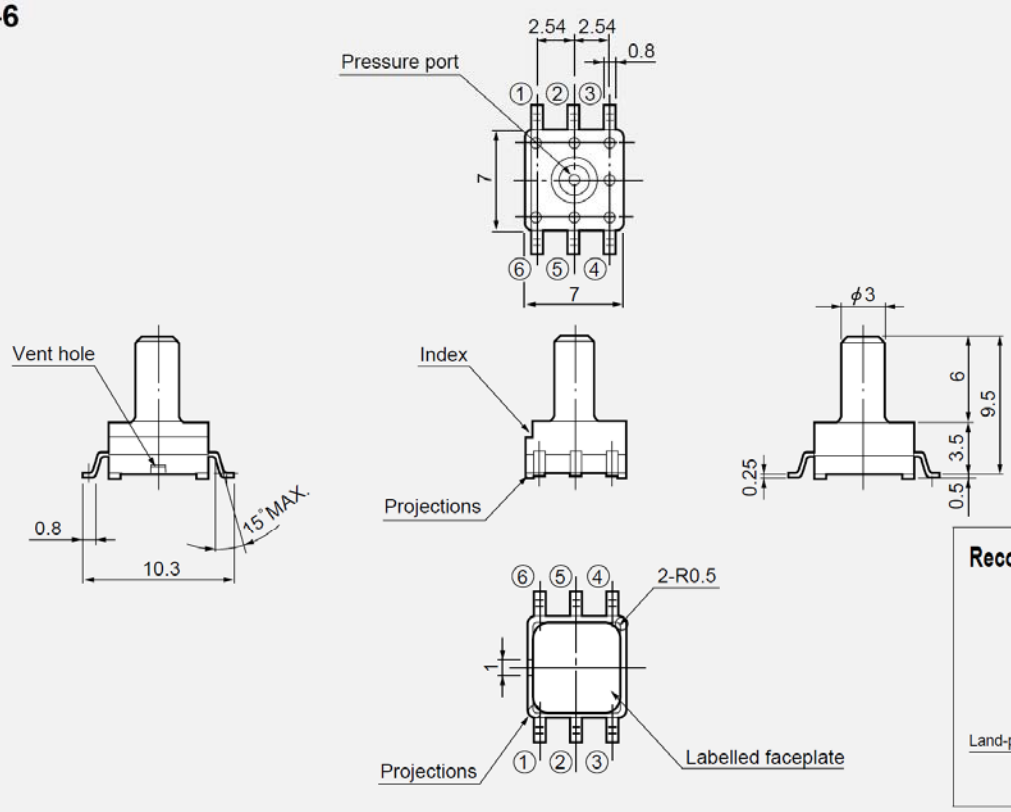
XFGM-3

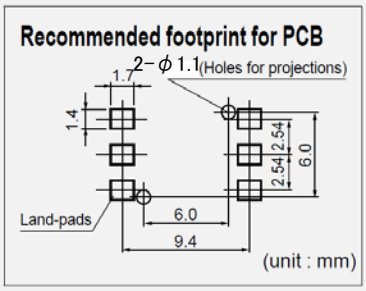




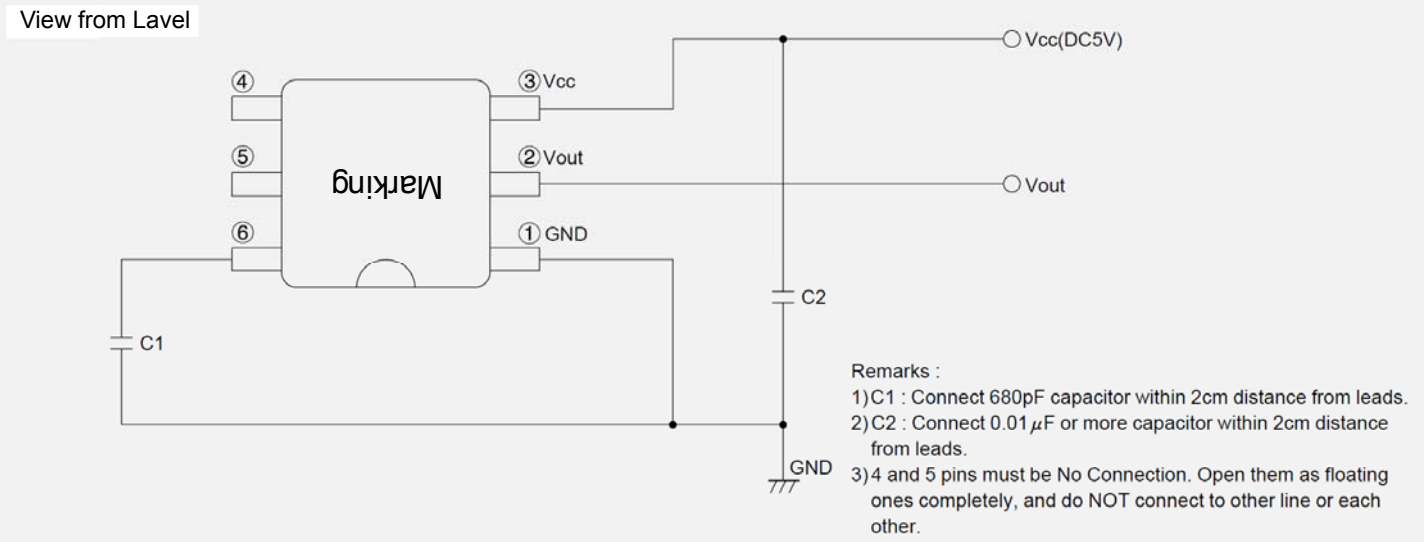
unit : mm

XFGM-6





■Connection diagram■



■Transfer Function■

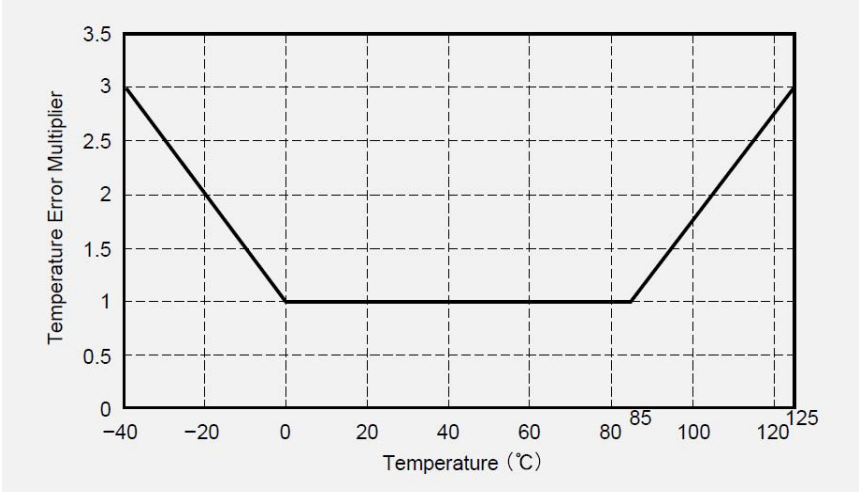
Vout = Vs×(P×α+β) ± (Pressure Error×Temperature Error Multiplier×α×Vs)

Vs=Vcc=5.0V

P=Input pressure(kPa)

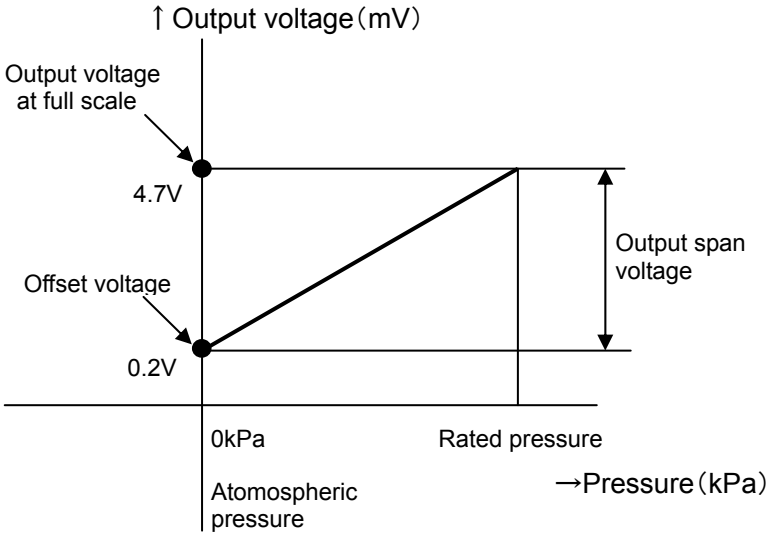
Model		Measurable pressure range(kPa)	α	β	Pressure Error (kPa)
XFGM-3100KPGWSR	XFGM-6100KPGWSR	-100 to 100	0.0045	0.49	5
XFGM-3100KPGVSR	XFGM-6100KPGVSR	0 to -100	-0.009	0.04	2.5
XFGM-3025KPGSR	XFGM-6025KPGSR	0 to 25	0.036	0.04	0.625
XFGM-3050KPGSR	XFGM-6050KPGSR	0 to 50	0.018	0.04	1.25
XFGM-3100KPGSR	XFGM-6100KPGSR	0 to 100	0.009	0.04	2.5
XFGM-3200KPGSR	XFGM-6200KPGSR	0 to 200	0.0045	0.04	5
XFGM-3001MPGSR	XFGM-6001MPGSR	0 to 1000	0.0009	0.04	25

Temperature Error Multiplier

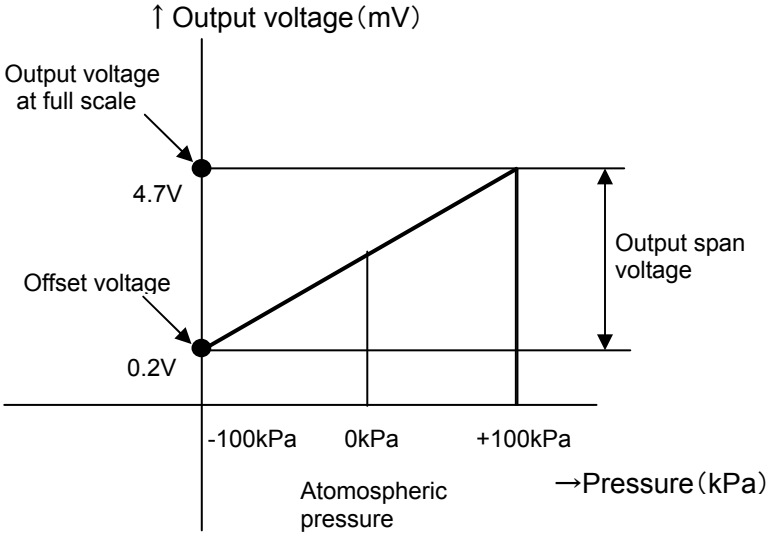


■Output characteristics■

XFGM-3100KPGVSR	XFGM-6100KPGVSR
XFGM-3025KPGSR	XFGM-6025KPGSR
XFGM-3050KPGSR	XFGM-6050KPGSR
XFGM-3100KPGSR	XFGM-6100KPGSR
XFGM-3200KPGSR	XFGM-6200KPGSR
XFGM-3001MPGSR	XFGM-6001MPGSR



XFGM-3100KPGWSR	XFGM-6100KPGWSR

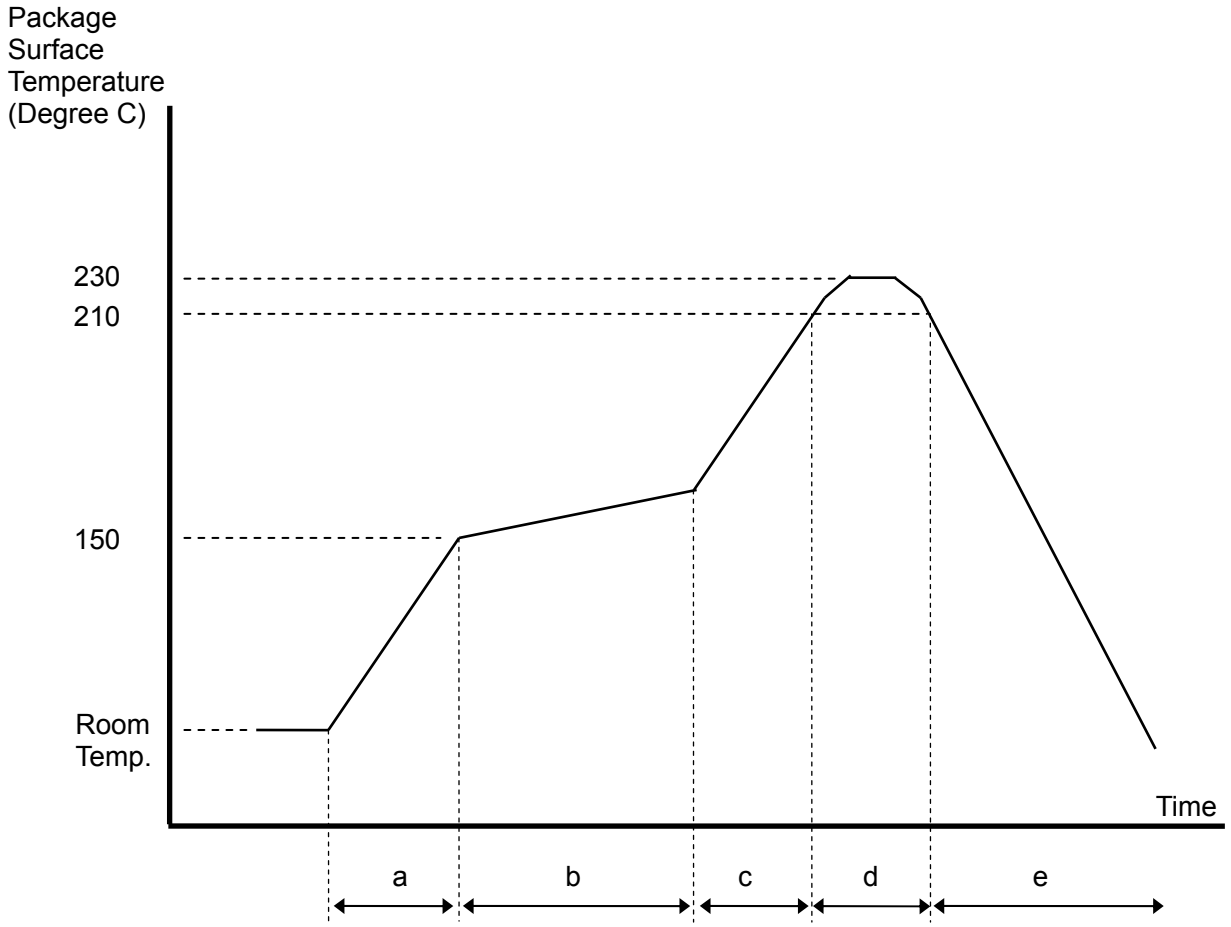


Note ; Please read instruction “Notes” before using the sensor.
Fujikura reserves the right to change specifications without notice.

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.

Reflow Soldering process recommendation profile



a: Rump up rate 1 or 2 deg.C/sec.
b: Pre-heating 150 to 180 deg.C,within 60 to120sec.
c: Rump up rate 1 to 2 deg.C/sec.
d: Heating max.230 deg.C,max.10sec. 210 deg.C,within 30sec.
e: Rump down rate 1 or 2 deg.C/sec.

Note ; 1) Temperature means Surface temperature of the sensor package.
2) Reflow process max. 2 times.
3) Do not wash the sensor.
4) Do not put the solder and flux on the sensor package.

If you have any questions regarding technical issues or specifications, please contact us.
Fujikura Ltd. Sensor Department 5-1 Kiba 1-chome, Koto-ku, Tokyo 135-8512, Japan
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消费电子产品网://www.icasic.com/军工产品网:http://www.junpinic.com/
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电话：0755-83607652 83376489 83376549 83370250 83370251
传真：0755-83376182 （0）13902971329 MSN: SUNS8888@hotmail.com
邮编：518033 E-mail:szss20@163.com QQ: 195847376
技术支持：0755-83394033 13501568376