■Features

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

■Applications

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

■Part number for ordering

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 for ordering
-100～100	XFDM-100KPDWSR
0～25	XFDM-025KPDSR
0～50	XFDM-050KPDSR
0～100	XFDM-100KPDSR
0～200	XFDM-200KPDSR
0～1000	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	-100～100	0～25	0～50	0～100	0～200	0～1000	kPa
Temperature range	0～85						℃
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	-40～125						℃
Storage temperature	-40～125						℃
Operating humidity	30～80 (Non dew condition)						%RH
Electrical characteristics (Excitation voltage Vcc=5.0V constant ,ambient temperature Ta=25℃)							
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 *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 *2,*3	±2.5						%FS/0～85℃

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

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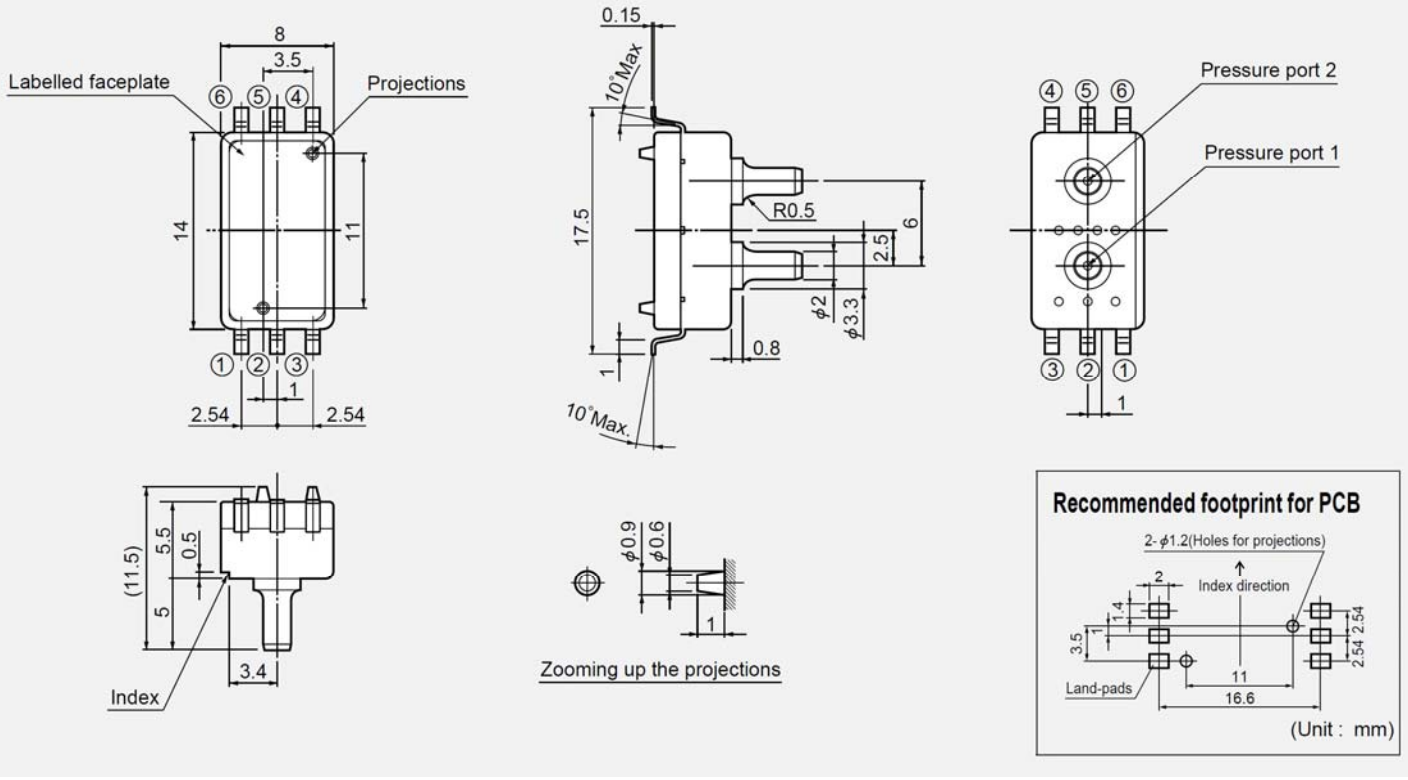
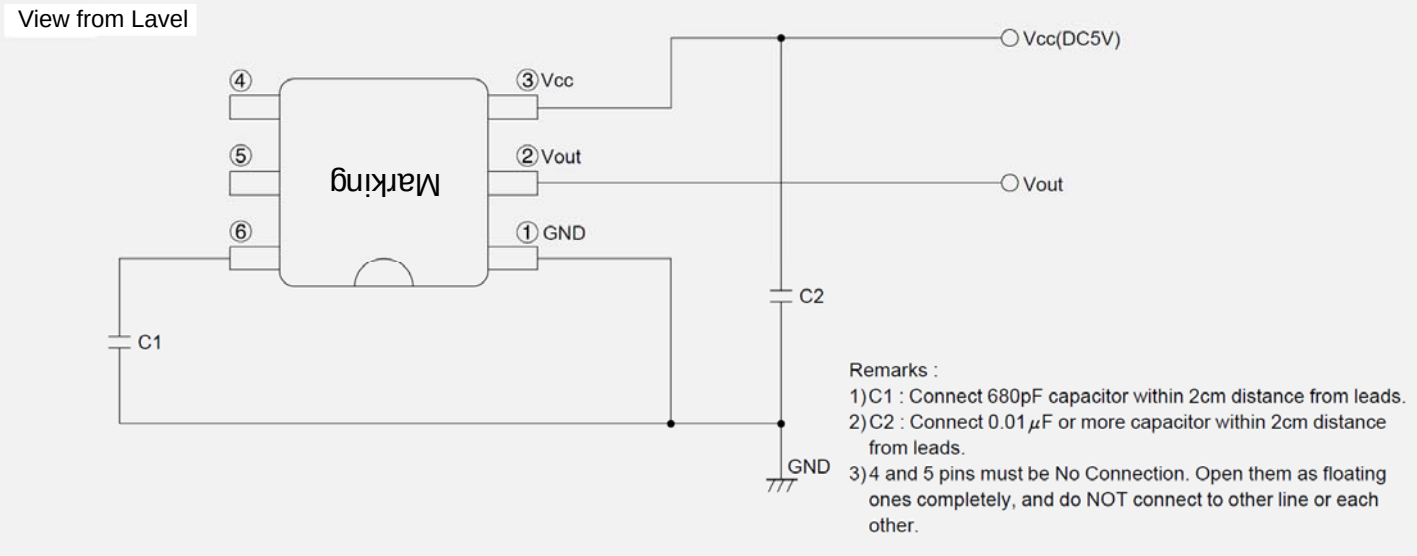
■Outline dimensions■



■Connection diagram■



Remarks :
1) C1 : Connect 680pF capacitor within 2cm distance from leads.
2) C2 : Connect 0.01 μF 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.

■Transfer Function■

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

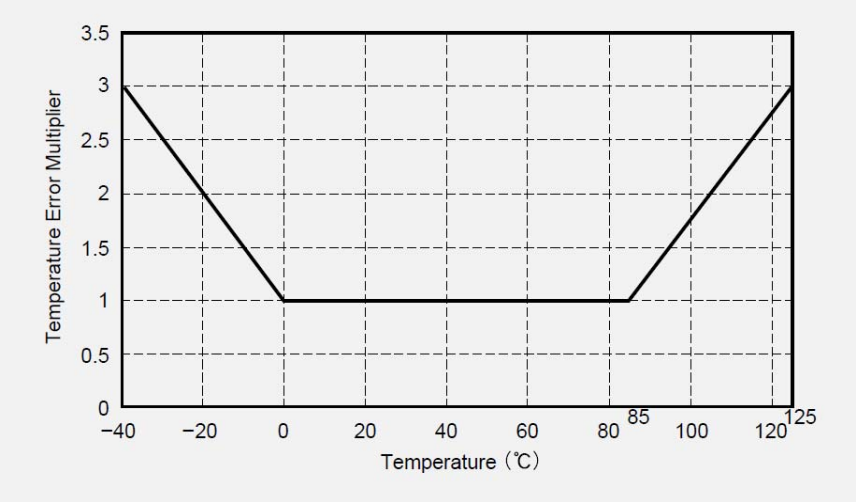
Vs=Vcc=5.0V

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

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

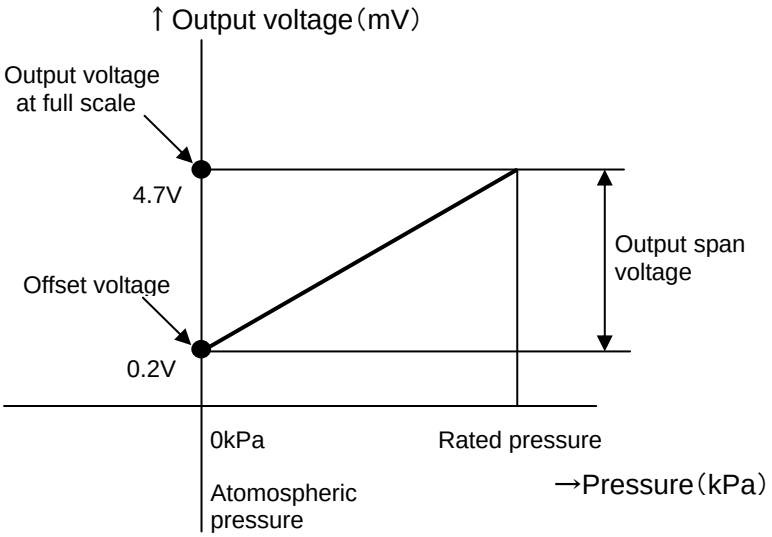
Model	Measurable pressure range(kPa)	α	β	Pressure Error (kPa)
XFDM-100KPDWSR	-100～100	0.0045	0.49	5
XFDM-025KPDSR	0～25	0.036	0.04	0.625
XFDM-050KPDSR	0～50	0.018	0.04	1.25
XFDM-100KPDSR	0～100	0.009	0.04	2.5
XFDM-200KPDSR	0～200	0.0045	0.04	5
XFDM-001MPDSR	0～1000	0.0009	0.04	25

Temperature Error Multiplier



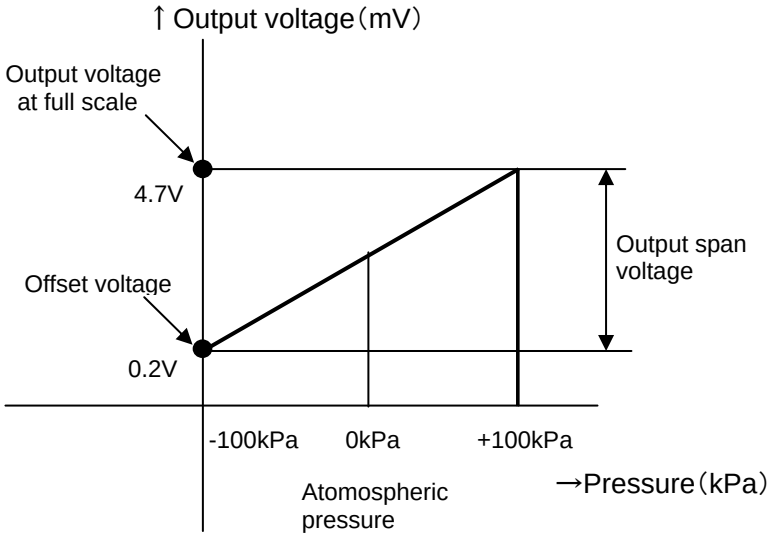
■**Output characteristics**■

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.

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