

**Features**

- Low pressure measurable ( $\pm 1\text{kPa}$ ,  $\pm 2\text{kPa}$ ,  $\pm 5\text{kPa}$ )
- Volt level output
- Piggy-back style, pre-amplified and pre-compensated module
- Pre-calibration of offset voltage and span

**Applications**

- Industrial instrumentation
- Pressure switch, Pneumatic device
- Medical device
- HVAC
- Pressure leak down check

**Part number for ordering**

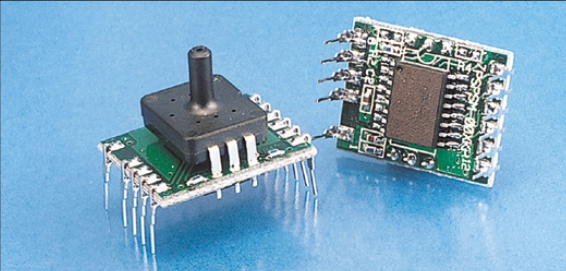
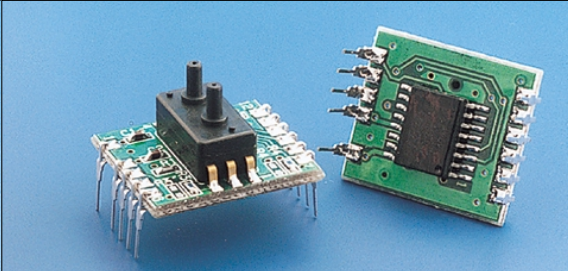
**PSM - 005KP G**

Model  
PSM

Rated pressure(Pa)

Pressure type

- GW : Gauge(Bipolar pressure)
- DW : Differential(Bipolar pressure)
- G : Gauge(Positive pressure)
- D : Differential(Positive pressure)

Pressure type	Gauge pressure PSM-G	Differential pressure PSM-D
Model		
Package configuration	Piggy-back style module	Piggy-back style module

Measurable pressure range (kPa)	Part number for ordering	
-1~1	PSM-001KPGW	PSM-001KPDW
-2~2	PSM-002KPGW	PSM-002KPDW
-5~5	PSM-005KPGW	PSM-005KPDW
0~2	PSM-002KPG	PSM-002KPD
0~5	PSM-005KPG	PSM-005KPD
0~10	PSM-010KPG	PSM-010KPD

**Specifications**

Model/Rated pressure	001KPGW 001KPDW	002KPGW 002KPDW	005KPGW 005KPDW	002KPG 002KPD	005KPG 005KPD	010KPG 010KPD	Unit
<b>Recommended operating conditions</b>							
<b>Pressure type</b>	Gauge pressure			Differential pressure			—
<b>Rated pressure</b>	$\pm 1$ $\pm 10$	$\pm 2$ $\pm 20$	$\pm 5$ $\pm 51$	2 20	5 51	10 102	kPa g/cm <sup>2</sup>
<b>Measurable pressure range</b>	-1~1	-2~2	-5~5	0~2	0~5	0~10	kPa
<b>Pressure media</b> ※1	Non-corrosive gas only						—
<b>Excitation voltage</b>	5 $\pm$ 0.25						VDC
<b>Absolute maximum rating</b>							
<b>Maximum load pressure</b>	27						kPa
<b>Maximum excitation voltage</b>	7						VDC
<b>Operating temperature</b>	-20~100						°C
<b>Storage temperature</b>	-40~120						°C
<b>Operating humidity</b>	30~80 (No dew condensation)						%RH
<b>Electric performances/characteristics (Excitation voltage Vcc=5.0V constant, Ambient temperature Ta=25°C)</b>							
<b>Current consumption</b>	less than 5						mA
<b>Mechanical response time</b>	less than 2						msec
<b>Output voltage</b> ※1,2	0.5(-1kPa) ~ 4.5(+1kPa)	0.5(-2kPa) ~ 4.5(+2kPa)	0.5(-5kPa) ~ 4.5(+5kPa)	0.5(0kPa) ~ 4.5(+2kPa)	0.5(0kPa) ~ 4.5(+5kPa)	0.5(0kPa) ~ 4.5(+10kPa)	V
<b>Full scale span voltage</b> ※2	4.0						V
<b>Offset voltage</b> ※1,2	2.5 $\pm$ 0.2	2.5 $\pm$ 0.12	2.5 $\pm$ 0.08	2.5 $\pm$ 0.2	2.5 $\pm$ 0.12	2.5 $\pm$ 0.08	V
<b>Full scale span voltage</b> ※1,2	4.5 $\pm$ 0.2	4.5 $\pm$ 0.12	4.5 $\pm$ 0.08	2.5 $\pm$ 0.2	4.5 $\pm$ 0.12	4.5 $\pm$ 0.08	V
<b>Accuracy</b> ※2	$\pm 5.0$	$\pm 3.0$	$\pm 2.0$	$\pm 5.0$	$\pm 3.0$	$\pm 2.0$	%FS/0~50°C

Note ; ※1)Output refers to pressure at pressure port 2.  
 ※2)Excluding input voltage error.

■ Outline dimensions ■

**PSM-G**

unit(mm)

**ELECTRICAL PIN CONNECTIONS**

PIN NO.	SYMBOL
①	Vcc
②	NO PIN
③	Vout
④	NC
⑤	NC
⑥	NC
⑦	NC
⑧	NC
⑨	NC
⑩	NC
⑪	NC
⑫	GND

**Recommended footprint for PCB**

unit(mm)

**PSM-D**

unit(mm)

**ELECTRICAL PIN CONNECTIONS**

PIN NO.	SYMBOL
①	Vcc
②	NO PIN
③	Vout
④	NC
⑤	NC
⑥	NC
⑦	NC
⑧	NC
⑨	NC
⑩	NC
⑪	NC
⑫	GND

**Recommended footprint for PCB**

unit(mm)

■ 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=5.0volts

※P=Input Pressure(kPa)

※Temperature Error Multiplier=1

Model	pressure range	$\alpha$	$\beta$	Pressure Error(kPa)
001KPGW(DW)	-1~1kPa	0.4	0.5	0.1
002KPGW(DW)	-2~2kPa	0.2	0.5	0.12
005KPGW(DW)	-5~2kPa	0.08	0.5	0.2
002KPG(D)	0~2kPa	0.4	0.1	0.1
005KPG(D)	0~5kPa	0.16	0.1	0.15
010KPG(D)	0~10kPa	0.08	0.1	0.2

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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