

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

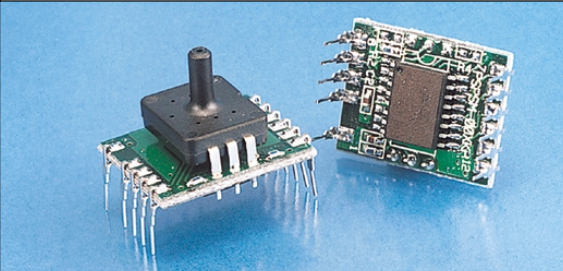
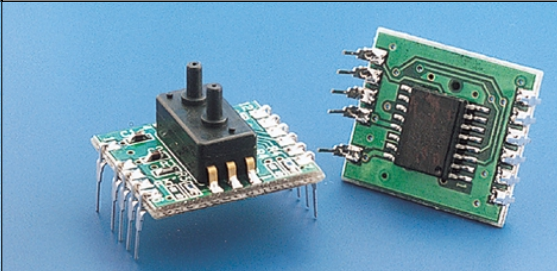
PSM - 005KP G

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
Recommended operating conditions							
Pressure type	Gauge pressure			Differential pressure			—
Rated pressure	± 1 ± 10	± 2 ± 20	± 5 ± 51	2 20	5 51	10 102	kPa g/cm ²
Measurable pressure range	-1~1	-2~2	-5~5	0~2	0~5	0~10	kPa
Pressure media ※1	Non-corrosive gas only						—
Excitation voltage	5 \pm 0.25						VDC
Absolute maximum rating							
Maximum load pressure	27						kPa
Maximum excitation voltage	7						VDC
Operating temperature	-20~100						°C
Storage temperature	-40~120						°C
Operating humidity	30~80 (No dew condensation)						%RH
Electric performances/characteristics (Excitation voltage Vcc=5.0V constant, Ambient temperature Ta=25°C)							
Current consumption	less than 5						mA
Mechanical response time	less than 2						msec
Output voltage ※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
Full scale span voltage ※2	4.0						V
Offset voltage ※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
Full scale span voltage ※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
Accuracy ※2	± 5.0	± 3.0	± 2.0	± 5.0	± 3.0	± 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	α	β	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.
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