

APS-35V

Differential Pressure Sensor

Analog Output

- Pressure Range : 0 to 200…10,000Pa
- Piezo-resistive silicon micro-machined sensor
- Analog output
- Operating voltage : 3.0V or 5.0V
- Embedded temperature compensation
- RoHS compliant and Halogen-free

❖ KEY FEATURES

The APS-35V is the pressure sensor which measures gauge pressures. It consists of a silicon micro-machined sensing element chip and a signal conditioning ASIC. The ASIC is equipped with a 12-bit resolution  $\Sigma-\Delta$  ADC and outputs a highly precise pressure value as a digital value. The pressure sensor element and the ASIC are mounted inside a system-in-package and wire-bonded to appropriate contacts.

The APS-35V-P(Analog Type) provides the digital output data with the format of Analog Type. It can achieve ESD robustness, fast response time, high accuracy and linearity as well as long-term stability. All measurement data is fully calibrated and temperature compensated. In addition, it allows for easy system integration.



TYPICAL APPLICATIONS

- ✓ Medical instrumentation
- ✓ Pneumatic control
- ✓ Air cleaner
- ✓ Filter Control

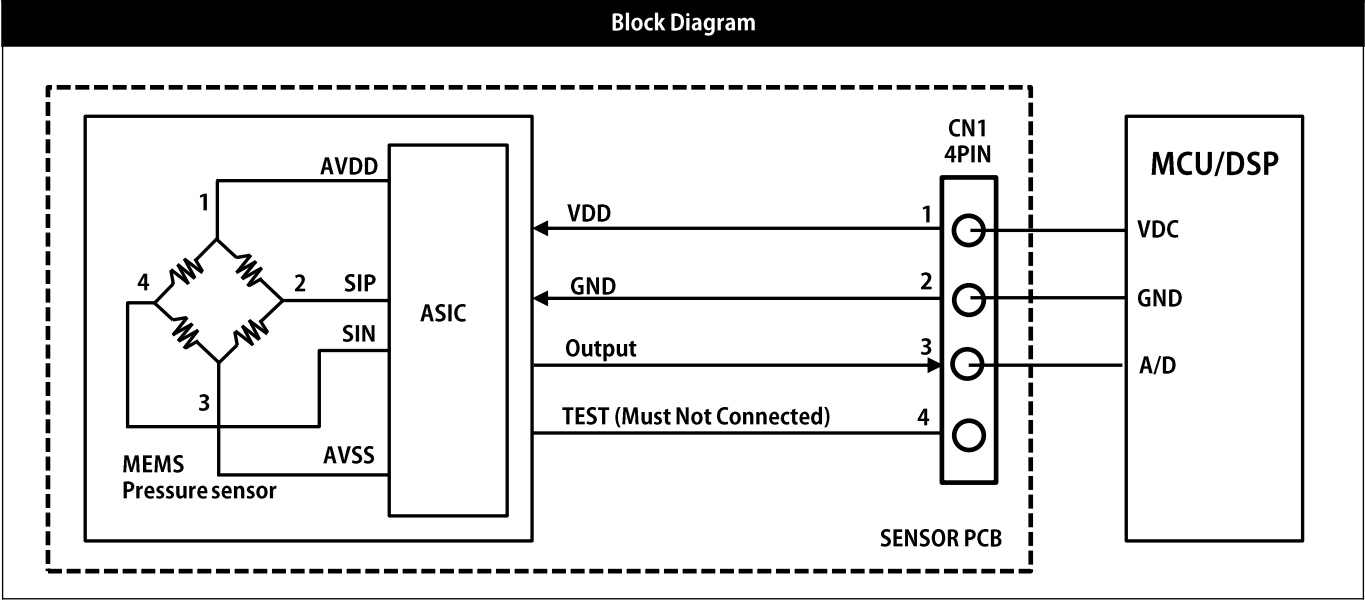
❑ Maximum Ratings

PARAMETER	MIN	TYP	MAX	UNITS
Analog Supply Voltage	3.0	-	5.0	V
Voltages at Digital and Analog I/O - In Pin	-0.3	-	VDD+0.3	V
Voltages at Digital and Analog I/O - Out Pin	-0.3	-	VDD+0.3	V
Storage Temperature Range (≥10 hours)	-40	-	85	° C
Storage Temperature Range (<10 hours)	-50	-	150	° C

❑ Recommended Operating Conditions

Specifications		Performance & Environmental	
Pressure range	0 to 200…10,000Pa	Operating Temp	-20 to 80°C
Supply Voltage	3VDC or 5VDC	Accuracy	±0.5% of F.S
Supply Current	8.5mA	Total error band	±1.0% of F.S(0 to 50°C) ±1.5% of F.S(-20 to 80°C)
Output Range	0 to 90% of F.S Can be adjusted to application.	Linearity	±0.2% of F.S
Output	0.5 to 2.5V (Supply 3VDC ) 0.5 to 4.5V 1 to 3V	Cycle life	1,000,000 / cycle
ADC resolution	Selection : 24bit	Proof pressure	3 x F.S
DAC resolution	Analog output : 16bit	Burst pressure	5 x F.S
ESD withstand	2KV	Water protection	IP-60
Humidity Limits	0 to 95% RH	External Material	PBT

Block Diagram



Outline Drawing Dimension (mm)

Dimensions (mm)

PIN No.	Description	REMARK
1	VDD	3.0VDC or 5.0VDC
2	GND	GND
3	Output	Voltage Output
4	TEST	Must Not Connected

How to Order

Order Code INFO.					
APS-35V					
1) Pressure range					
0 to 200 Pa	-----	-----	200		
0 to 500 Pa	-----	-----	500		
0 to 1,000 Pa	-----	-----	1000		
0 to 2,000 Pa	-----	-----	2000		
0 to 3,000 Pa	-----	-----	3000		
0 to 5,000 Pa	-----	-----	5000		
0 to10,000 Pa	-----	-----	10000		
Other on request	-----	-----	Z		
2) Output signal					
0.5 to 2.5V (Only Power 3V)	-----	-----	-----	V1	
0.5 to 4.5V	-----	-----	-----	V2	
1 to 3V	-----	-----	-----	V3	
3) Supply Voltage					
3 VDC	-----	-----	-----	-----	3V
5 VDC	-----	-----	-----	-----	5V