



- ▶ **Single 5V supply voltage**
- ▶ **Easy to use package**
- ▶ **Wide compensated range (0 to 70°C)**
- ▶ **High performance OEM applications**

The Pressure Transducer model HPSP 1000 is a pressure sensing device packaged in a compact SMD package. High performance and accuracy provides OEM users

maximum freedom for any type of application with dry air or non-corrosive gases. The HPSP 1000 is designed for surface mount assembly with one pressure tube.

Applications:

Industrial process control

Pressure transducer

Air flow monitoring

Process control

Leak detection

Specifications									
Pressure range	10 m bar (0,15 psi)	20 mbar (0,3 psi)	50 mbar (0,8 psi)	100 mbar (1,5 psi)	350 mbar (5 psi)	1 bar (15 psi)	2 bar (30 psi)	4 bar (60 psi)	7 bar (100 psi)
Pressure types	gauge / bidirectional					gauge / bidirectional / absolute	gauge / absolute		
V _{out}	0.5 to 4.5 V								
Operating Temp.	-25 to 85° C								
Storage Temp.	-40 to 125° C								
Compensated Temp.	0 to 70° C								
Over pressure	100 mbar	200 mbar	500 mbar	1 bar	1 bar	3 bar	6 bar	8 bar	14 bar
Burst pressure	150 mbar	300 mbar	750 mbar	1.5 bar	1,7 bar	5 bar	10 bar	12 bar	21 bar



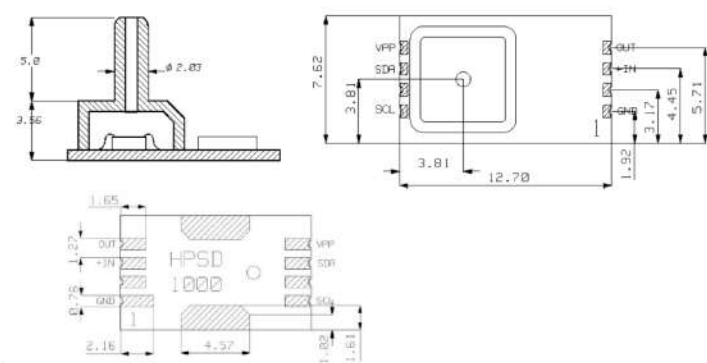
Performance characteristics

TAMB = 25° C

Vcc = 5 V, unless otherwise noted

Parameter	Unit	Min.	Typ.	Max.
Power supply				
Supply voltage V_{cc}	V	4.75		5.25
Current consumption I_{cc}	mA		4	6.5
Analog output (pressure)				
Offset voltage V_O	V		0.50	
Full scale output (FSO) V_{FS}	V		4.50	
Full scale span (FSS) V_{FSO}	V		4.00	
Offset voltage (bidirectional devices) V_O	V		2.50	
Digital output (pressure), 15 bits				
Offset voltage V_O	counts		3277	
Full scale output (FSO) V_{FS}	counts		29491	
Full scale span (FSS) V_{FSO}	counts		26214	
Offset voltage (bidirectional devices) V_O	counts		16384	
Digital output (temperature), 15 bits				
Temperature output @ 0° C	counts		8192	
Temperature output @ 70° C	counts		24576	
Accuracy (pressure) @ 25°C				
Low pressure	%FSO		0.3	±0.5
(10 to 100 mbar devices)	%FSO		0.2	±0.4
Standard pressure				
Total accuracy (pressure)				
@ 0 to 70° C	%FSO		0.5	±1
Low pressure	%FSO		0.3	±0.5
(50 to 100 mbar FS devices)				
Standard pressure (all other devices)				
Resolution				15
A/D converter			11	
D/A converter				
Response time	ms		1.5	
Reflow error (offset, span)	%FSO		0.1	
Repeatability	%FSO		±0.05	
Nonlinearity / pressure hysteresis (BFSL)	%FSO		±0.1	
Load resistance	k	2		∞
Media compatibility	see spec. note			
Weight	g		9	

Dimensions



Ordering information

(Please use the characters in the chart below to create your product code)

Sample Code

HPSD1000 - 010M - A - B - I

Pressure range

See table below*

Pressure Type

A absolute pressure (for $p \leq 1$ bar)

G gauge pressure

Pressure direction

0 0 to pressure range

B bidirectional

Port Type

T Pressure Port

H Hole (without pressure port)

Pressure Range									
mBar	10	20	50	100	350	1000	2000	4000	7000
Order Code	010M	020M	050M	100M	350M	001B	002B	004B	007B

If you require a customized solution for your program contact our sales team.