

SPECIAL LOW PRESSURE RANGE DIFFERENTIAL SENSOR WITH ANALOGUE OUTPUT

This Smartec differential pressure sensor has an amplified analogue output. Via internal settings the sensor is compensated for offset, sensitivity, temperature drift and nonlinearity.

The sensor has a range of 102 mm H₂O FS and the output is ratiometric to the power supply voltage. Other pressure ranges on request (0.3 – 100 PSI).



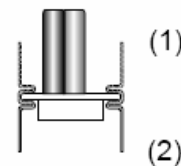
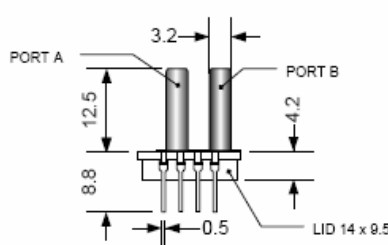
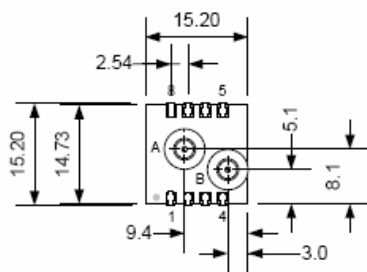
Electrical Characteristics

Performance Characteristic at Vcc =5V excitation @ 25 °C.

Parameter	Min	Typ	Max	Units.
Supply Voltage	4.75	5.00	5.25	V
Supply Current	-		2.0	mA
Pressure range (fs)		±102		mmH ₂ O
Zero Output (Dif)	2.45	2.50	2.55	Vdc
Span Output (Dif)	1.95	2.00	2.05	Vdc
Response time		25		ms
Linearity	-2.5		+2.5	%FS
Thermal Hysteresis	-0.1		+0.1	%FS
Temp coeff. Offset	-2.5		+2.5	%FS
Temp coeff. Span	-2		+2	%FS
Pressure overload			10X	rating
Temp compensation	0		50	°C
Operating Temp range	-20		70	°C
Storage temperature	-40		125	°C

It is advised to place a 100nF capacitor between Vss and Vdd
 Wetted materials are: Pyrex glass, RTV, Ceramic, Nickel and Silicon
 The output is ratiometric to Vcc

Dimension



NOTE:
 1. Port A is used for positive differential
 2. Port A is not used for absolute
 3. Port B is not used for gage
 4. All dimension in mm

Use of N.C. pins will cause malfunction
 Connect between Vss and Vdd a capacitor of 100 nF

Pin	Description
1	NC
2	Vss
3	Out
4	Vdd
5 - 8	NC