PERFORMANCE SPECIFICATIONS

Unless otherwise specified: Supply Voltage[1] 3.0 V_{DC}, Reference Temperature: 25°C

PARAMETERS	MIN	TYP	MAX	UNITS	NOTES
Operating Voltage	1.8		3.6		
ADC			24	bits	
Pressure Accuracy		See Table 2 Below		%FS	2,5
Total Error Band (TEB)	-2.5		2.5	%FS	3
Temperature Accuracy (Reference Temperature)		±1.5		ºC	4,5
Temperature Accuracy		±2.5		ºC	4,5
Supply Current		See OSR Table Below		mA	
Compensated Temperature	0		85	ºC	
Operating Temperature	-40		+125	ºC	
Conversion Time		See OSR Table Below		ms	
Weight		3		grams	
Media	Non-Corrosive Dry Gases Compatible with Silicon, Glass, LCP, RTV, Gold, Thermo-Epoxy, Silicone Gel, Aluminum and Epoxy. See "Wetted Material by Port Designation" chart.				

Notes

1. Proper operation requires an external capacitor placed as shown in Application Circuit. Output is not ratiometric to supply voltage.
2. The maximum deviation from a best fit straight line(BFSL) fitted to the output measured over the pressure range at 25°C. Includes all errors due to pressure non-linearity, hysteresis, and non-repeatability.
3. The maximum deviation from ideal output with respect to input pressure and temperature over the compensated temperature range. Total error band (TEB) includes all accuracy errors, thermal errors over the compensated temperature range, span and offset calibration tolerances. TEB values are valid only at the calibrated supply voltage.
4. The deviation from a best fit straight line (BFSL) from 25°C. to 85°C.
5. Six coefficients must be read by microcontroller software and are used in a mathematical calculation for converting D1 and D2 into compensated pressure and temperature values.

Table 2- TYPICAL ACCURACY SPECIFICATION BY PRESSURE RANGE

Range	Port 1	Port 2	Unit
001	±0.25	±1.0	%FSS
002	±0.25	±0.5	%FSS
005	±0.50	±1.0	%FSS
015	±0.25	±0.25	%FSS
030	±0.25	±0.25	%FSS

OVERSAMPLNG RATIO (OSR) PERFORMANCE CHARACTERISTICS

SUPPLY CURRENT CHARACTERISTICS

Parameter	Symbol	Conditions		Min.	Typ.	Max	Unit
Supply current (1 sample per sec.)	I_{DD}	OSR	4096		12.5		µA
			2048		6.3		
			1024		3.2		
			512		1.7		
			256		0.9		
Peak supply current		during conversion			1.4		mA
Standby supply current		at 25°C			0.02	0.14	µA

ANALOG DIGITAL CONVERTER (ADC)

Parameter	Symbol	Conditions		Min.	Typ.	Max	Unit
Conversion time	t_c	OSR	4096	7.40	8.22	9.04	ms
			2048	3.72	4.13	4.54	
			1024	1.88	2.08	2.28	
			512	0.95	1.06	1.17	
			256	0.48	0.54	0.60	

INPUT/OUTPUT SPECIFICATIONS

DIGITAL INPUTS (CSB, I²C, DIN, SCLK)

Parameter	Symbol	Conditions	Min.	Typ.	Ma	Unit
Serial data clock	SCLK	SPI protocol			2	MHz
Serial data clock	SCL	I_2C protocol			400	kHz
Input high voltage	V_{IH}	Pins CSB	80%		100% V_{DD}	V
Input low voltage	V_{IL}		0%		20% V_{DD}	V
Input leakage current	$I_{leak25°C}$ $I_{leak85°C}$	at 25°C			0.1 5	µA
Input capacitance	C_{IN}				6	pF

PRESSURE OUTPUTS (I²C, DOUT)

Parameter	Symbo	Conditions	Min.	Ty	M	Unit
Output high voltage	V_{OH}	I_{source} = 0.6 mA	80% V_{DD}		100%	V
Output low voltage	V_{OL}	I_{sink} = 0.6 mA	0% V_{DD}		20% V_{DD}	V
Load capacitance	C_{LOAD}				1	pF