

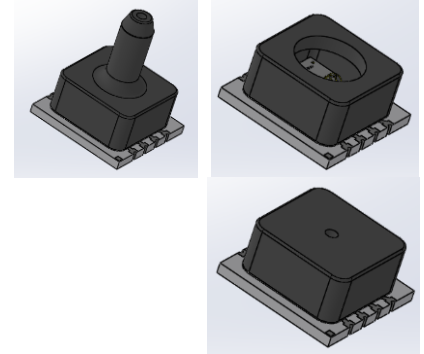
CCT-4 SERIES

CCT-4 Series

Small size

mV Output, Uncompensated

Voltage Supply



DESCRIPTION

Advanced Sensors Ceramic Castellation Technology (CCT) 4 Series contains a piezo resistive sensor element that delivers a high level mV output in a low cost, small footprint, leadless castellation package. This low profile sensor is available in narrow hole, single tube, and wide hole with gel to ensure isolation from the pressure media. The closed bridge sensor delivers a stable mV output in absolute and gauge pressures in both psi and inH2O ranges. The sensor high input impedance and wide supply voltage allow the sensor to be used in low power battery applications. The CCT-4 series small leadless package, many port configurations make it the best low cost sensor for OEM customers.

APPLICATIONS

- Pneumatic controls
- Automotive diagnostics
- Medical equipment/instrumentation
- Dental equipment
- Environmental controls
- Barometric pressure measurement
- Altimeters
- Pneumatic controls
- Battery powered equipment

FEATURES

- Small size
- inH2O or PSI Ranges
- Wide selection of ports
- Absolute or gage pressures
- High-impedance bridge
- Low power consumption

SPECIFICATIONS

	Symbol	Min	Typical	Max	Unit	Note
Performance Characteristic (PSI Ranges)						
Supply Voltage		1.8V	3.0	12.0	V	
Bridge Resistance		3900		6100	Ω	
Zero Pressure Offset		-30	8	+30	mV	
Pressure Non Linearity		-0.1		+0.1	PSI	2
Hysteresis & Repeatability			0.05		%FSS	
Full Scale Span	FSS	See Table 1.				
Temperature Coefficient Resistance		2300	+2800	3100	ppm/°C	3
Temperature Coefficient Sensitivity		-2100	-1800	-1400	ppm/°C	3
Temperature Coefficient Offset			0.10		%FSS /°C	3
Temperature Hysteresis, Offset & Span		-0.20		+0.20	%FSS	3
Long Term Stability, Offset & Span			±0.4		%FSS	4
Weight				0.3	grams	
Operating Temperatures		-40 to 125			°C	

SPECIFICATIONS	Symbol	Min	Typical	Max	Unit	Note
Performance Characteristic (mBar Ranges)						
Supply Voltage		1.8V	3.0	9.0	V	
Bridge Resistance		3150		4350	Ω	
Zero Pressure Offset		-20	0	+5	mV/V	
Pressure Non Linearity		-0.75		+0.75	PSI	2
Hysteresis & Repeatability			0.05		%FSS	
Full Scale Span		See Table 1.				
Temperature Coefficient Resistance		2300	+2800	3100	ppm/ $^{\circ}$ C	3
Temperature Coefficient Sensitivity		-2100	-1800	-1400	ppm/ $^{\circ}$ C	3
Temperature Coefficient Offset			2		μ V/V/ $^{\circ}$ C	5
Operating Temperatures		-40 to 125			$^{\circ}$ C	

SPECIFICATIONS	Symbol	Min	Typical	Max	Unit	Note
Absolute Maximum Conditions						6
Supply Voltage				15	V	
Storage Temperature		-50		150	$^{\circ}$ C	
Overage Pressure						
Proof				5x	Range	
Burst				10x	Range	
Media Compatibility		CDA, Non Ionic, Non Corrosive Gases				
Wetted Materials		Ceramic, LCP, Epoxy, RTV, Silicon, Gold, Aluminum, Palladium Silver				
Media Compatibility		CDA, Non Ionic, Non Corrosive Gases				

SPECIFICATIONS	Range	Min	Typical	Max	Unit	Note
Full Scale Span (mbar Ranges)						
	20	18.0	33.0	50	mV	
	50	18.0	33.0	50	mV	
	100	18.0	33.0	50	mV	
	200	60.0	90.0	120	mV	
Full Scale Span (PSI Ranges)						
	5	30.0	36.0	42.0	mV	
	15	54.0	66.0	80.0	mV	
	30	57.0	69.0	80.0	mV	
	50	60.0	75.0	90.0	mV	
	100	75.0	96.0	108.0	mV	
	150	60.0	75.0	90.0	mV	
	300	50.0	60.0	75.0	mV	

Reference Conditions: Vsupply: 3.00Vdc, Ta=25 $^{\circ}$ C.

1. All specification at reference conditions unless otherwise noted. Output is ratio metric to supply voltage.
2. 1/2 Terminal Base Non Linearity (Measured at 0, 50% and 100% FS).
3. Deviation between 70 $^{\circ}$ C and 0 $^{\circ}$ C expressed as percentage of reading at 25 $^{\circ}$ C.
4. Deviation after 1 year period measured at reference conditions.
5. Measured over the temperature range of 70 $^{\circ}$ C and 0 $^{\circ}$ C.
6. Exceeding Absolute Maximum Specification may damage the device. Extended exposure beyond the operating conditions may affect device reliability.

PART NUMBERING FOR ORDERS

Series	Port Style	Pressure Range	Pressure Units	Pressure Type (Range Availability) [Package Availability]
CCT-4	NH=Narrow Hole ST=Single Tube WH=Wide Hole	005 015 030 050 100 150 300	P=PSI	A=Absolute (15,30,50,100,150,300) [NH,ST,WD] G=Gauge (All) [NH,ST,WD]
		20 50 100 200	W=inH2O	G=Gauge (All) [NH,ST,WD]

Part Number Example: CCT-4NH015PG

0-15 PSI Gage, Narrow Hole

WARRANTY

Pressure sensors have a limited one-year warranty to the original purchaser. AVSensors will repair or replace, at its option, without charge those items it finds defective. This is the buyers sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose. In no event shall AVSensors be liable for consequential, special, or indirect damages. This warranty does not apply to units that have been modified, misused, neglected or installed where the application exceeds published ratings. Specifications may change without notice. The information supplied is believed to be accurate and reliable as of this printing, however, we assume no responsibility for its use.