AIRPAX® | 4100 Series

BIMETAL THERMOSTAT, BRASS PROBE

FEATURES

- RoHS compliant per EU directive 2002 / 95 / EC
- Isolated or grounded case
- Low-cost brass probe, multiple configurations
- Ideal for immersion sensing

DESCRIPTION

The Airpax™ 4100 series is a brass probe, bimetal disc immersion thermostat designed to provide low-cost thermal protection in temperature ranges from 40°C to 120°C (104°F to 248°F) in 5°C increments. Its standard gold-plated crossbar contacts allow it to be used in very low-current, low-voltage applications.

The 4100 features epoxy/crimp protection that enables it to meet NEMA 4 and 13 (IP67) standards. It can withstand a variety of harsh environments, including pressure washing. The thermostat is available in both English and metric housings, with a wide assortment of terminations, including standard automotive connectors, in either isolated or grounded case configurations.

Typical applications for the Airpax 4100 include monitoring the temperature of engine manifolds, oil, coolant and hydraulic systems. It is also suited to refrigeration systems, heat exchangers and HVAC systems. These applications are found in such varied segments as off-road vehicles, air compressors, marine engines, mining equipment, long-haul trucks, railroads, public transportation and engine-generator sets.

SPECIFICATIONS

Contact Ratings	*Cycles*	*Voltage*	*Amps (resistive)*
	5,000	28 VDC	3
	30,000	32 VDC	1
	30,000	120 VAC	1
Contact Operations	Either close on rise (make) or open on rise (break), SPST (Single Pole, Single Throw)		
Max Operating Temperature	40ºC to 130ºC (104ºF to 266ºF) with nominal operating temperature settings in 5°C increments.		
Temperature Tolerance	Standard tolerance of ± 5°C (± 9°F). Optional tolerances of ± 3°C (± 5.4°F) and ± 10°C (± 18°F).		
Dielectric Strength	600VAC, 60Hz terminals to case		
Shock	MIL-STD-202, 213C		
Vibration	MIL-STD-202, 204D		
Materials	Brass, epoxy/crimp seal (NEMA 4 & 13)		

1. CONTACT OPERATION

CODE	DESCRIPTION
O	Letter "O" = Open on Rise
C	Letter "C" = Close on Rise

To build your part number (PN), choose the proper codes from pages 2 to 4.

Consult Sensata Technologies when a code Z is used to indicate a special requirement. Sensata will assign a unique, customer-specific four digit nondescript number. To complete the customer specific part number build, place a "−" dash after the PN proceeded by the assigned four digit nondescript.

2. TERMINAL SELECTION   (ISOLATED & GROUNDED CASE)
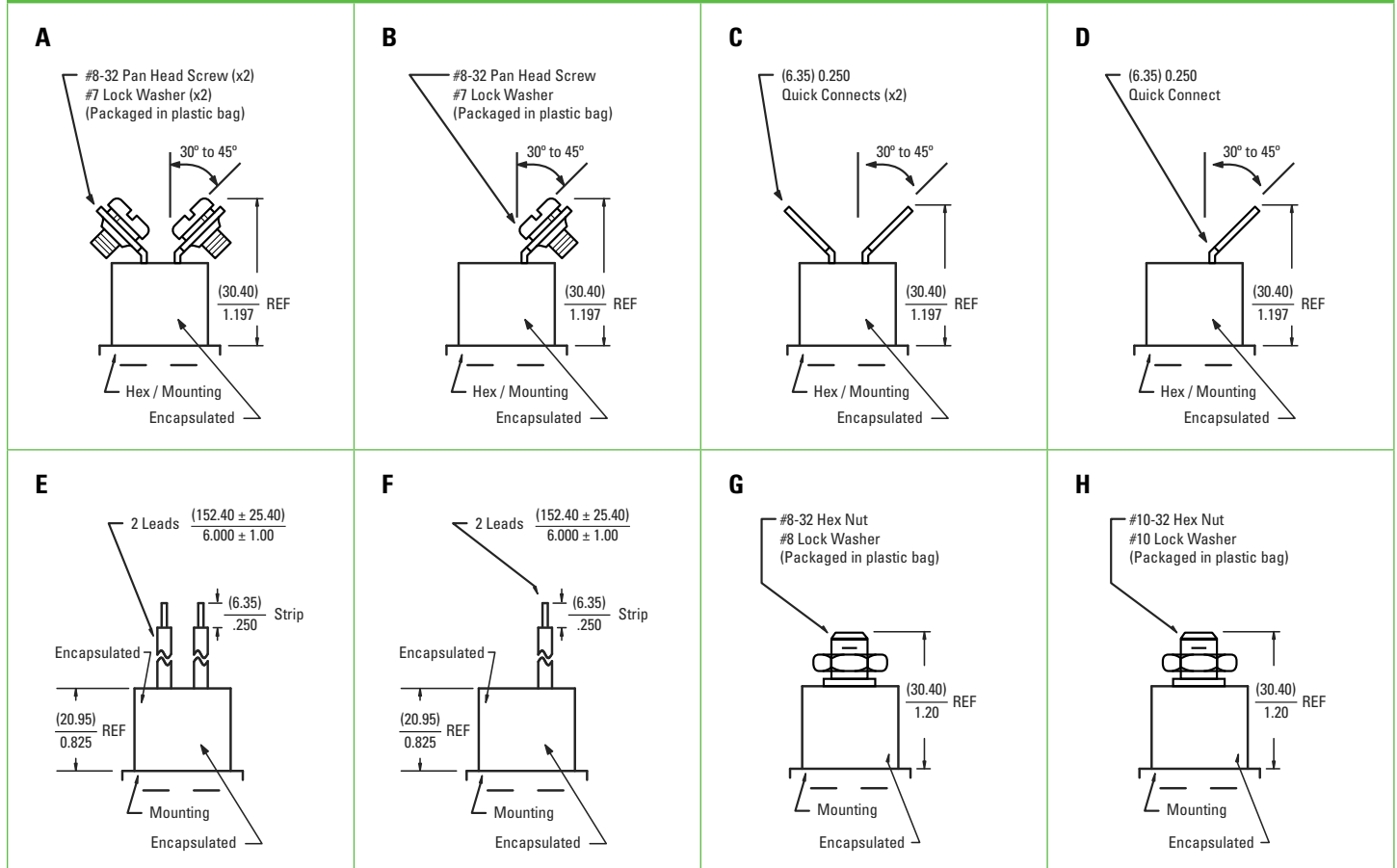
3. THREAD TYPE / BODY CONFIGURATION

CODE	THREAD TYPE	LENGTH	HEX SIZE
A	1/4"-18 NPTF	0.485"	0.688" x 0.225"
B	3/8"-18 NPTF	0.585"	0.688" x 0.225"
C	1/2"-14 NPTF	0.656"	0.875" x 0.225"
D	3/4"-16 NPTF	0.498"	1.0" x 0.225"
E	M14 - 1.5	11mm	22mm x 5.7mm
F	M16 - 1.5	11.5mm	24mm x 5.7mm
G	M18 - 1.5	12.5mm	27mm x 5.7mm

4. PROBE LENGTH

CODE	LENGTH (ENGLISH)	LENGTH (METRIC)
A	0	0
B	0.500"	12.7mm
C	1.0"	25.4mm
D *	1.5"	38.1mm
E *	2.0"	50.8mm
F	0.750"	19.1mm

* Probes D & E are not available with thread / body configurations A, E or F
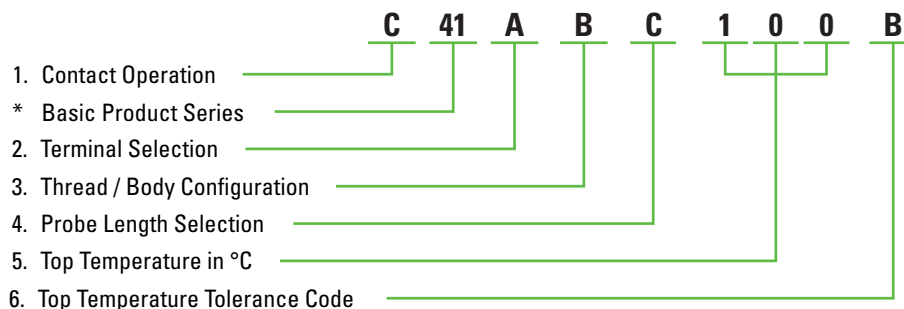
5. TEMPERATURE CALIBRATIONS (°C)

SETPOINT (°C)	MINIMUM DIFFERENTIAL	MINIMUM RESET
40	4	20
45	4	20
50	4	30
55	4	30
60	4	40
65	4	40
70	4	50
75	4	50
80	6	55
85	6	55
90	6	60
95	6	60
100	6	70
105	6	70
110	6	80
115	6	80
120	9	85
125	9	85
130	9	90

EXAMPLE : C41CAC100B

Close contacts on temperature rise, 4100 series, isolated case 8-32" screw terminals, 3/8" - 18 NPTF threads, 1.0" probe, 100°C top temperature with a ±5°C standard top tolerance and a standard 45°F differential between top and bottom temperature for temperature range of 95°C to 130°C with a standard minimum reset

6. TOP TEMPERATURE TOLERANCE CODE

CODE	TOLERANCE (°C)
A	± 3 °C
B	± 5 °C
C	± 10 °C

C 41 A B C 1 0 0 B

1. Contact Operation
* Basic Product Series
2. Terminal Selection
3. Thread / Body Configuration
4. Probe Length Selection
5. Top Temperature in °C
6. Top Temperature Tolerance Code

Sensata
Technologies