

## 3/4" Epoxy Sealed Snap Disc Thermostats

## 416 SERIES

Quality-engineered 3/4" epoxy sealed snap disc thermostats specifically designed for a variety of applications, such as, HVAC and Food Equipment.

Senasys 416 Series is the SPDT version of our encapsulated 3/4" automatic reset snap disc. The encapsulated design creates a seal especially designed for refrigeration, air conditioning, and industrial applications, requiring a moisture and dust resistant enclosure. The polypropylene enclosure is filled with epoxy resin to seal the thermostat mechanism, including the leads. The internal mechanism has been designed with a contact wiping action to ensure long life.

The same proven bi-metal disc, used in the other 3/4" disc thermostats, actuates the switch mechanisms of the 416 series. The snap action provides a positive and instantaneous opening and closing of the switch contacts.

Either 16 or 18 AWG wires are normally furnished, with 1/16" or 1/32" thick 105°C plastic PVC insulation. Standard colors are white (COM), yellow (NC) and orange (NO). Standard lead length is 12 inches. Other lengths and colors are available. Lead wires are normally stripped. Other custom options, such as terminals, are available.

Due to the complete plastic enclosure, except for the sensor cap, the thermal response is quite accurate. The temperature change in the controlled device is not dissipated in a metal mass.

- Units Available For Limit And Control Applications
- Opens or Closes on Temperature Rise
- Automatic Reset
- Accurate Surface Temperature Regulation
- Single-pole, double-throw (SPDT) device
- Manufactured to individual temperature specifications within 0°F to 220°F (-17°C to 80°C).
- Differential temperature range of 10°F to 130°F (-12°C to 54°C).
- Temperature calibrations are preset, and all units are subject to 100% mechanical and thermal inspection.
- Available in a variety of mounting configurations, wire leads and other custom options to meet needs of original equipment manufacturers.
- Recognized by UL/cUL Approval Agencies

## Electrical Ratings

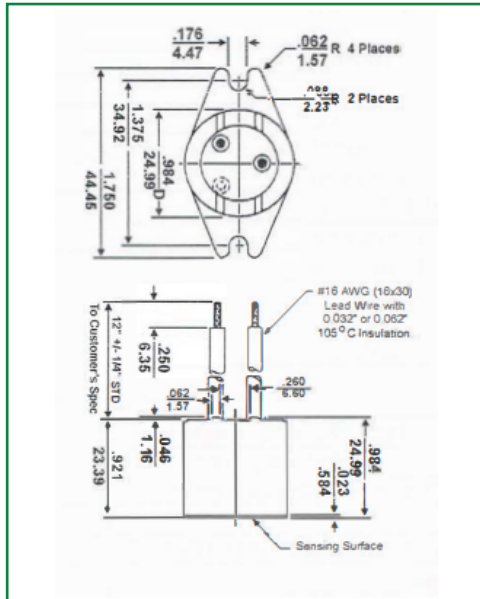
All ratings are 100,000 cycles except for the 277 VAC inductive, which has been developed for special applications requiring a 30,000 cycle operation. Contact the factory for special load requirements. A 15 amp rating at 120VAC and 240VAC is available with a 6,000 cycle rating.

LOAD	120VAC	240VAC	277VAC
<b>Terminals 1 &amp; 3</b>			
Resistive	10 Amps	10 Amps	N/A
Inductive	6 FLA 36 LRA	3.6 FLA 21.6 LRA	3.6 FLA 21.6 LRA
Pilot Duty	125 VA	125 VA	400 VA
<b>Terminals 1 &amp; 2</b>			
Resistive	5 Amps	5 Amps	N/A
Inductive	4 FLA 24 LRA	2.2 FLA 13.2 LRA	2.2 FLA 13.2 LRA
Pilot Duty	125 VA	125 VA	245 VA

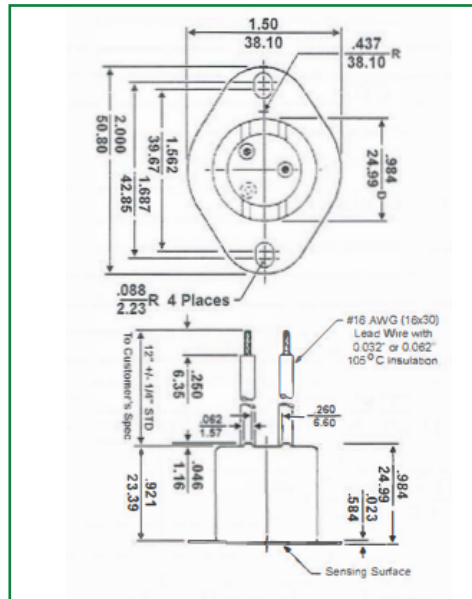
Flip for complete fact sheet. >>>

## 416 Series Bracket Options

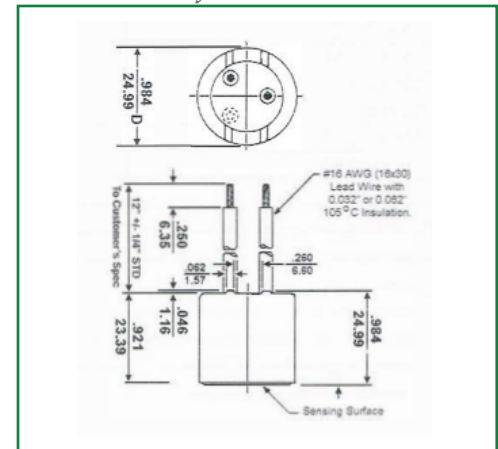
### Large Oval Surface Mount



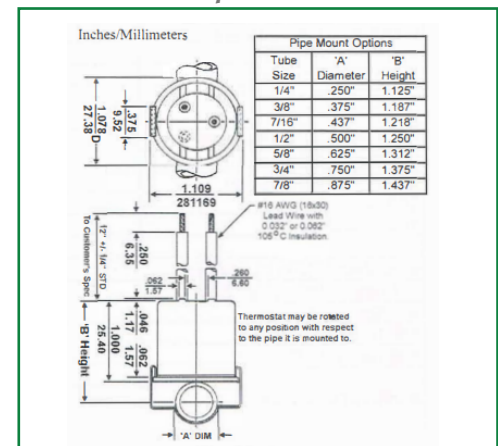
### Small Flange Surface Mount



### Surface Mount



### Pipe Mount



## 416 Series Standard Temperature Options

Below are our standard temperature ranges, tolerances and differentials for our 416 Series. Although we can provide tighter tolerances and differentials, along with special testing to meet application requirements. Please consult factory for more information. The "differential" is the number of degrees between the nominal open and nominal close. For example: A thermostat calibrated to open at 170°F ± 9°F has a 40°F temperature differential.

3/4" Epoxy Sealed Snap Disc Thermostats (414 Series)			
Temperature Set Point Ranges If unit falls in overlapping range use higher range	Tolerance		Mean Differential Number of degrees between opening and closing nominal temperatures
	Open	Close	
20°F to 80°F (-7°C to 27°C)	±5°F (±3°C)	±6°F (±3°C)	10 to 29°F (6 to 16°C)
	±5°F (±3°C)	±7°F (±4°C)	30 to 80°F (17 to 44°C)
81°F to 200°F (27°C to 93°C)	±5°F (±3°C)	±6°F (±3°C)	10 to 19°F (6 to 11°C)
	±5°F (±3°C)	±7°F (±4°C)	20 to 29°F (11 to 16°C)
	±6°F (±3°C)	±8°F (±4°C)	30 to 39°F (17 to 22°C)
	±7°F (±4°C)	±9°F (±5°C)	40 to 80°F (22 to 33°C)
201°F to 221°F (94°C to 105°C)	±5°F (±3°C)	±7°F (±4°C)	15 to 29°F (8 to 16°C)
	±6°F (±3°C)	±8°F (±4°C)	30 to 39°F (17 to 22°C)
	±7°F (±4°C)	±9°F (±5°C)	40 to 80°F (22 to 44°C)

Senasys offers a variety of custom brackets such as tube (pipe) and stud mounts. If you have a requirement that is not shown here, please consult factory.

## 416 Series Standard Nomenclature

Determine your part number from our standard list of options below. Consult factory for other custom options such as wire leads, special brackets, etc.

3/4" Epoxy Sealed Snap Disc Thermostats (416 Series)									
Series	-	Body Type	Mounting Bracket		Wire Leads		-	Temp Code	Example
416		440A	<u>X</u>		18 AWG, 0.25" Strip Length, White, Yellow & Orange			<u>###</u>	<u>416-440A00-288</u>
					<u>X</u>				
3/4" Automatic Reset Snap Disc Thermostat, Single-pole, Double-throw (SPDT)		Enclosed	0	Direct	0	12"	Consult factory for temperature code.	3/4" Epoxy Sealed Snap Disc Thermostat, SPDT, Closes on Temperature Rise, Direct Mount Bracket with 12" 18AWG Wire Leads, Close at 160°F (±5°F), Open at 145°F (±5°F).	
			1	Small Flange					
			2	Large Oval					
			3 (#)	Pipe (Choose diameter below)					
			0	0.250"	1	36"			
			1	0.375"					
			2	0.437"					
			3	0.500"					
			4	0.625"	2	72"			
			5	0.750"					
			6	0.875"					