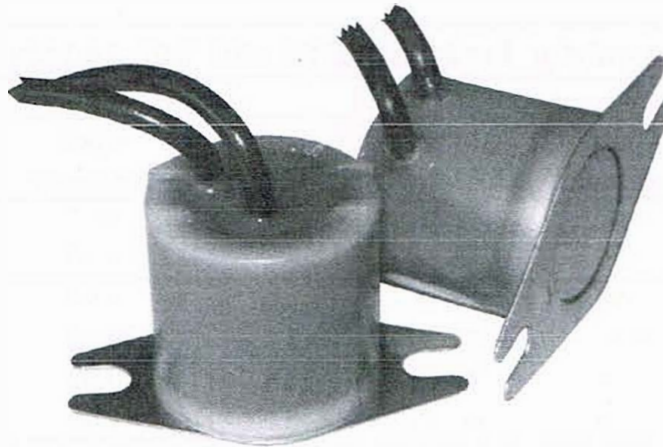


416 SPDT 3/4" Encapsulated Snap Discs



Models Shown with Small Flange Surface Mount Option

Product Data:

The 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 bimetal 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.

The 416 series is SPDT.

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, black and red. Standard lead length is 1 foot. Other lengths are available. Lead wires are normally stripped, but are also available with quick connect terminals or eyelets.

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.

416 Features:

Size/Type:	3/4"/Auto Reset
Switch Action:	SPDT
Control Options:	Break on Rise or Fall
Resistive Load:	5-10 Amps
Inductive FLA	2.2-6 Amps
Inductive LRA	13.2-36 Amps
Temp. Range:	20-221°F
Differential range:	10-80°F
Open Tolerances:	+/- 5°F - +/- 7°F
Close Tolerances:	+/- 6°F - +/- 9°F
Cycle Ratings:	100,000 @ 120VAC
UL File #s:	E40404
CSA File #:	12619
VDE File #:	15357-4510-1004

Additional Options:

Bimetal Exposure:	Enclosed or Exposed
Terminals:	Flagged or Straight Quick Connect. Eyelets
Mounting Options	Surface, or Pipe

Mounting options illustrated on following pages.

416 SPDT 3/4" Encapsulated Snap Discs

Operating Temperatures and Tolerances							
Fahrenheit				Celsius			
Temperature Range	Open Tolerance	Close Tolerance	Mean Differential	Temperature Range	Open Tolerance	Close Tolerance	Mean Differential
20-80	+/-5	+/-6	10-29	(-7)-(27)	+/-3	+/-3	6-16
	+/-5	+/-7	30-80		+/-3	+/-4	17-44
81-200	+/-5	+/-6	10-19	27-93	+/-3	+/-3	6-11
	+/-5	+/-7	20-29		+/-3	+/-4	11-16
	+/-6	+/-8	30-39		+/-3	+/-4	17-22
	+/-7	+/-9	40-80		+/-3	+/-5	22-33
201-221	+/-5	+/-7	15-29	94-105	+/-3	+/-3	8-16
	+/-6	+/-8	30-39		+/-3	+/-4	17-22
	+/-7	+/-9	40-80		+/-4	+/-5	22-44

Differential is the difference between the opening and closing temperatures. Allow an additional 2 degrees greater than specified for inspection due to differences in methods and equipment.

Tolerances of +/-3°F or +/-4°F may be available at an extra charge depending on range differential and application.

414 Electrical Ratings - SPST			
Load	120 VAC	240 VAC	277 VAC
Resistive	10 Amps	10 Amps	7.3 Amps
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

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.

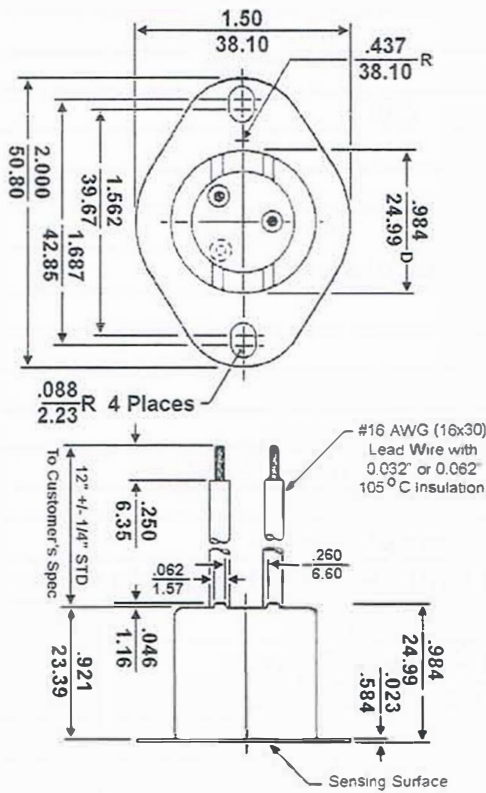
Contact the factory for special load requirements. A 15 amp rating at 120VAC and 240VAC is available with a 6,000 cycle rating.

416 Electrical Ratings Terminals 1 & 3			
Load	120 VAC	240 VAC	277 VAC
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

416 Electrical Ratings Terminals 1 & 2			
Load	120 VAC	240 VAC	277 VAC
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

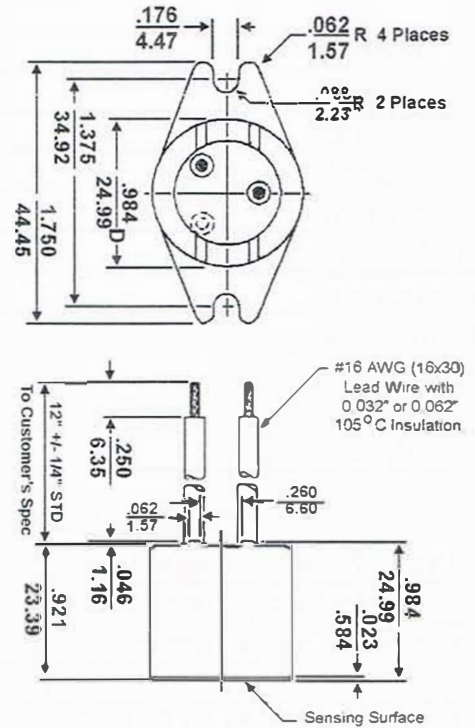
416 SPDT Mounting Options

Inches/Millimeters



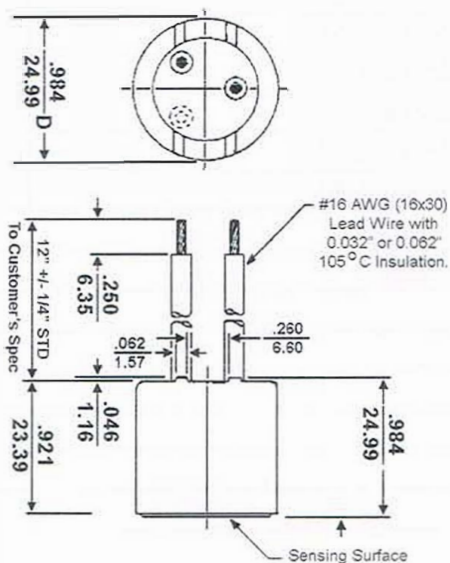
Large Oval Surface Mount

Inches/Millimeters



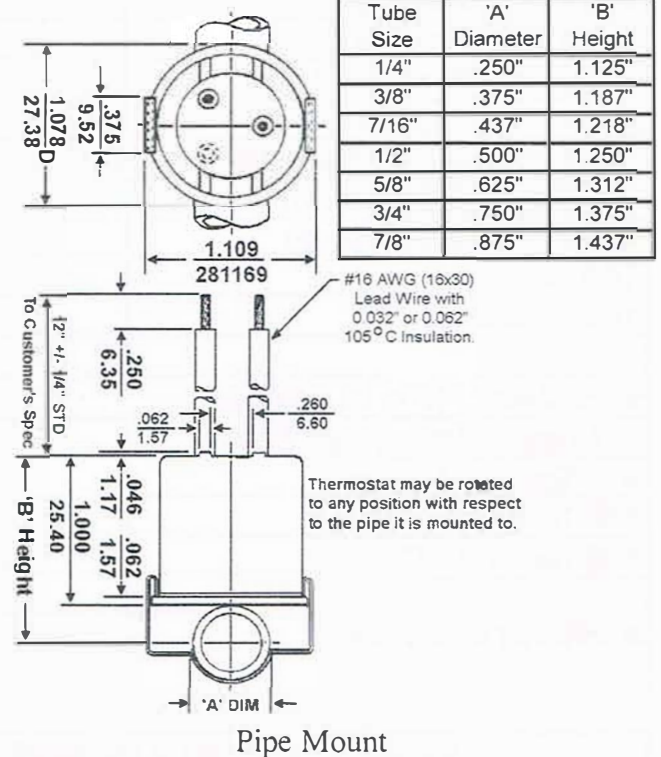
Small Flange Surface Mount

Inches/Millimeters



Surface Mount

Inches/Millimeters



Pipe Mount

416 Snap Disc Quote Request Form

Customer: _____ QR#: _____
 Attn: _____ Date: _____
 Address _____ Cust#: _____
 City _____ State: _____ Zip: _____
 Tel: _____ Fax: _____
 Email: _____
 Salesman: _____ Agency #: _____
 Send Quote to: Customer: _____ Rep Agency _____ (Check one or both)

Application: _____
 Comments: _____

 Est. Yearly Qty: _____ Target Cost: _____

Specifications: Please Fill Out Completely

Model Type: Refer to Page 33		Terminal Options (for 416 specify terminals)	
414 Single Pole Single Throw		1/4" stripped leads	
416 Single Pole Double Throw		Straight 1/4" Quick Connect	
		Flagged 1/4" Quick Connect	
Load/Operation: Refer to Page 34		Eyelet	
Voltage			
AC or DC		Mounting Brackets: Refer to Page 35	
Current (Amps)		Standard Surface Mount	
Inductive or Resistive Load		Large Oval Surface Mount	
Open Temperature		Small Flange Surface Mount	
Break on Temp Rise or Fall		Pipe Mount 1/4"	
Exposed or Enclosed Bimetal		Pipe Mount 3/8"	
		Pipe Mount 7/16"	
Lead information: Refer to Page 33		Pipe Mount 1/2"	
16 AWG (Specify Length)		Pipe Mount 5/8"	
18 AWG (Specify Length)		Pipe Mount 3/4"	
1/16" Insulation		Pipe Mount 7/8"	
1/32" Insulation			
		Approvals:	
Wire Color: Refer to Page 33		UL	
414 Color (Black, White, Red)		C.S.A	
416 Terminal 1 Color		V.D.E	
416 Terminal 2 Color			
416 Terminal 3 Color			

Additional Comments

Please fax or e-mail this form to the attention of Customer Service.