



Klixon® | 20425 SERIES HIGH CURRENT DEFROST THERMOSTATS
20425 Series, Snap-Action Automatic Reset

WORLD CLASS PERFORMANCE

Klixon® 20425 Series thermostats are fixed setting, low-cost snap-action temperature controls designed with sealed construction for refrigeration, air conditioning and heat pump applications.

Sensata Technologies has been a leading global supplier of pressure sensors & switches for over 50 years.

The 20425 Series is available in single-pole, single-throw (SPST) or single-pole, double-throw (SPDT) automatic reset configurations. All operating parts and lead connections are contained within a metal cup which is filled with an epoxy resin compound to completely seal out moisture, dust and other contamination. Temperature actuation is initiated by the

Klixon snap-action bi-metallic disc. The snap-action of the disc provides fast, accurate switching. The disc is located at the bottom of the cup where thermal change at the mounting point is quickly transmitted to give this product a high degree of thermal sensitivity. A variety of mountings are available, as shown on page 55.

Features & Benefits

- Completely sealed thermostat.
- Resists shock and vibration regardless of mounting position - Klixon® snap-action thermal disc assures positive make/break action.
- Splash proof enclosure - sealed against dirt and moisture.
- Easy to mount - available with bottom,

- thru-wall or tube mounting
- High capacity - up to 25 amp, 120 and 240 VAC resistive. UL recognized for 100,000 cycles. (SA995)
- Tamperproof - temperatures are factory set.
- Automatic reset - recycles automatically.

Temperature Settings, Tolerances and Nominal Differentials

The list of temperature settings, tolerances and nominal differentials shown below are standard. (Selection of larger differentials and wider tolerances offer the lowest unit price). If settings and differentials other than those shown are desired, please contact Sensata Marketing.

Range of Temperature Settings	Mfg.* Tolerances	Minimum Mean Temperature Differential		
		Open	Close	
(-10) 81	80	±6	±6	15°F
	221	±5	±5	15°F
(-10) 81	80	±6	±6	20°F
	221	±5	±5	20°F
(-10) 81	80	±6	±7	30°F
	221	±5	±5	30°F
(-10) 81	80	±6	±7	40°F
	221	±5	±7	40°F

* Customers checking tolerances should allow for differences in test equipment.

Ambient Temperature Exposure (Maximum)

- 20425 Series.....0°F to 221°F
- 20427 Series.....0°F to 221°F
- 20428 Series.....0°F to 221°F

Contact Description

Klixon 204 Series thermostats are supplied in two contact structures identified by the numbers following the basic series number.

The letter "F" added to the series number indicates that the thermostat is supplied as a fan switch (closes on temperature rise). The letter "L" indicates that the thermostat is supplied as a controlling and high limit control (opens on temperature rise).

All thermostats with "F" and "L" designations are supplied with single-pole, single-throw switching action while "D" indicates single-pole, double-throw switching action.

Leads

Leads are attached to the terminals of the basic unit prior to sealing. Leads are #14, #16, or #18 gauge wire size, and are provided with ends stripped. Quick connect terminals, eyelets, or other terminal configurations are available at additional cost.

Length of lead as required by customers is measured from the center of the thermostat to:

1. End of stripped wire
2. Center of eyelet
3. Center of right angle Quick Connect
4. End of straight Quick Connect Standard Polyvinyl Chloride (PVC) insulation is available in a variety of colors as required. XLP wire insulation is available as an option.



Electrical Ratings - UL and CSA Recognized

	TERMINALS 1 & 3, 14 or 16 AWG WIRE SPST			TERMINALS 1 & 2, 14 or 16 AWG WIRE SPDT				
	100,000 Cycles							
	VDC	VAC		VDC	VAC			
		120	240	277		120	240	277
RES		25	25	15		10	5	
FLA		13	13			5.8	2.9	
LRA		60	60			34.8	17.4	
VA		125	125			125	125	

	30,000 Cycles							
	VDC	VAC		VDC	VAC			
			120	240	277		120	240
RES		16	16			5	2.5	
FLA		16	16	15				
LRA		65	65	60				
VA		125	125	125			125	125

	6,000 Cycles							
	VDC	VAC		VDC	VAC			
		12	120	240	277	12	120	240
RES	1	16	16	10	1	15	15	10
FLA		16	16	10				10
LRA		65	65	45				45
VA		125	125					

*Note: FLA rating 7A with 18AWG wire

RES Resistive Amps
FLA Full Load Amps
LRA Locked Rotor Amps
VA Volt Amp, Pilot Duty

UL File No. SA995
Guide No. SDFY2
Guide SDFY8 for category

Wire Size (AWG)	20425 Series
#14 5/16th wall	105°C PVC, UL approved 1060 appliance wire
#16 1/16th wall	UL Style 1056
#16 1/32nd wall	UL Style 1015
#18 1/16th wall	UL Style 1056
#18 1/32nd wall*	UL Style 1015

Engineering Services

Sensata field sales engineers who understand your temperature control problems and how our products solve them are available to discuss your application needs. Use their expertise to eliminate needless engineering cost and give your products a competitive edge.

How to Order Samples

When requesting samples, faster service is possible when your application is described in detail. A description of the duty cycles of the thermostat should be included.

Electrical Clearances

1/4" through air to ground
3/8" oversurface to ground

Please Specify:

1. Load requirements (inductive or resistive).
2. Temperature settings (opening and closing).
3. Maximum tolerances allowable on temperature settings.
4. Lead wire specifications (length, wire size, type termination).
5. Type mounting flange.
6. Estimated yearly usage.

Other conditions which affect the thermostat should be described:

1. Maximum and minimum temperature exposure.

2. Location with respect to heat source.
3. Temperature transfer medium (air, metal surface, etc.).
4. Possible contamination sources (lint, chemical fumes, etc.).
5. Exposure to liquid and submersion.

Dimensional Drawings

Plain Mounting

LEAD LENGTH
1/4 STRIPPED

STRIPPED ENDS SHOWN, quick connect, eyelets and other terminal configurations available

Surface Mounting Oval Flange

FLANGE: BRASS, TIN-PLATED, SOLDERED TO TIN-PLATED COPPER CUP

.500 R (2 PLACES)
LEAD LENGTH
1/4 STRIPPED
1.562
.062
.170 (2 PLACES)
LEAD LENGTH
FLANGE ROTATION 90°
1 1/2

Stripped ends, quick connect, eyelets and other terminal configurations available

Mounting Cup for 3/8", 1/2", 5/8", and 3/4" Dia. Tubes

LEAD LENGTH
LEAD LENGTH

Terminal numbers stamped on cup in locality noted

QUICK CONNECTS SHOWN, stripped ends, eyelets and other terminal configurations available

1.270 MAX. DIA.
1.045 DIA.
1.183 DIA.
.500
1.045 DIA.
1.183 DIA.
.320
.160
.178
.262
.083
.906 DIA.
.514 for 3/8" tube
.639 for 1/2" tube
.764 for 5/8" tube
.889 for 3/4" tube
.187 R for 3/8" tube
.250 R for 1/2" tube
.312 R for 5/8" tube
.375 R for 3/4" tube

SPRING CLIP OPTIONAL. NOT SUPPLIED UNLESS REQUESTED.
no. 50097-1 must be specified when 1/2" spring clip is ordered
no. 50097-2 must be specified when 3/8" spring clip is ordered
no. 50097-3 must be specified when 5/8" spring clip is ordered
no. 50097-5 must be specified when 3/4" spring clip is ordered