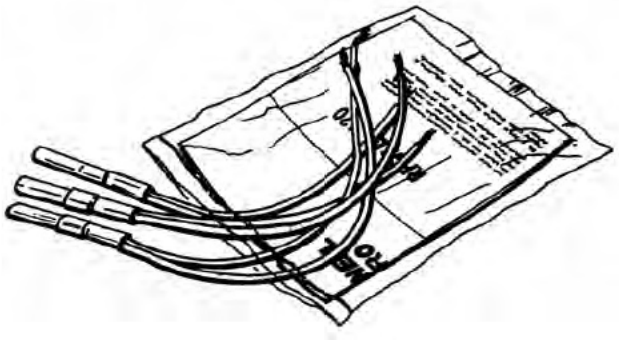
KLIXON℠ THERMOSTAT KIT'S



KLIXON™ SL11 & SL 9 Thermostat kits are an economical method for protecting motors against overheating. When installed properly, SL series kits will allow the motor to run at full load, but will protect against dangerous overheat condition. Overloads can be retrofitted into those motors needing protection, or installed during the rewind process to guard against future motor burnout. SL series thermostats guard against many conditions not sensed by conventional current overload, blocked ventilation, high ambient temperatures and single - phasing. Supplied in a kit of three thermostats, SL kits are designed to be tied to the end turns or buried in the winding during the rewind process. One thermostat should be tied or buried in each phase of the motor to provide total protection for the motor. Once the thermostats are installed, they should be connected in series with the coil of the starter. If one of the phase windings encounters an overheat condition the motor will be shut down. SL series thermostats can be used in a relay circuit to sound an alarm. The kits have also been used as alarm devices in time delay circuits that shut down the motor after a short alarm period. Each kit contains three thermostats. Each thermostat is 3/16" T x 1/4" W x 1" L, covered with a MYLAR* sleeve 1-3/8" long.

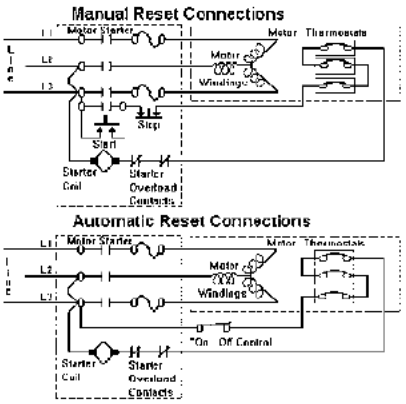
RFG-SL-11 KITS

Epoxy sealed thermostats for general purpose applications. The 9700K thermostat used in kits RFG-SL-11-90 through RFG-SL-11-150 are UL component recognized for hazardous location motor enclosure use at 720VA (pilot duty).
UL File E34618.

RFG-SL-9 KITS

High reliability sealed thermostats for refrigeration motors, hazardous atmospheres, rugged service.

TRIP TEMP.	SL-9 SERIES PART NUMBER	SL-11 SERIES PART NUMBER
75°	RFG-SL-9-1	RFG-SL-11-75
85°	RFG-SL-9-2	-
90°	RFG-SL-9-3	RFG-SL-11-90
95°	RFG-SL-9-4	-
100°	RFG-SL-9-5	RFG-SL-11-100
105°	RFG-SL-9-6	-
110°	RFG-SL-9-7	RFG-SL-11-110
115°	RFG-SL-9-8	-
120°	RFG-SL-9-9	RFG-SL-11-120
130°	-	RFG-SL-11-130
135°	RFG-SL-9-10	RFG-SL-11-135
140°	-	RFG-SL-11-140
145°	-	RFG-SL-11-145
150°	-	RFG-SL-11-150



THERMOSTAT SELECTION PROCEDURE

THERMOSTAT SELECTION CHART THERMOSTAT TIED ON END TURNS				
INSULATION	A	B	F	H
Class	(105°C)	(130°C)	(155°C)	(180°C)
ODP Enclosure	105°	117.5°	130°	142.5°
TEFC Enclosure	110°	122.5°	135°	147.5°
TENV Enclosure	115°	127.5°	140°	152.5°
THERMOSTAT BURIED IN WINDINGS				
INSULATION	A	B	F	H
Class	(105°C)	(130°C)	(155°C)	(180°C)
ODP Enclosure	120°	132.5°	145°	157.5°
TEFC Enclosure	125°	137.5°	150°	162.5°
TENV Enclosure	130°	142.5°	155°	167.5°

The selection chart has been developed using standard 40°C ambient temperature rating with a 90°C temperature rise. To determine the proper thermostat rating for a specific motor use, the following formula.
1.) Determine UL Maximum Allowed Running Temperature.

UL MAXIMUM ALLOWED RUNNING TEMPERATURE				
INSULATION CLASS	A	B	F	H
Max. Operating Temp.	140°C	165°C	190°C	215°C

2.) Determine the normal running temperature. Add the ambient temperature rating and the temperature rise rating of the specific motor.
3.) Determine the midpoint between Max. Allowed temperature and normal running temperature.
4.) Subtract the gradient rating for the position that fits the thermostat installation position.

TYPICAL GRADIENTS MOTOR ENCLOSURE			
THERMOSTAT LOCATION	ODP	TEFC	TENV
Tied On End Turns	30°C	25°C	20°C
Buried In Windings	15°C	10°C	5°C

5.) Result is thermostat temperature rating.
I.E. Motor is a TEFC, has Class F Insulation, standard 40°C Ambient with a 55°C temperature Rise. Thermostat will be tied on to end turns. Maximum Allowed UL Running Temperature is 190°C. Normal running temperature is 95°C. Midpoint is 142.5. Subtract the gradient of 25° thermostat temperature rating is 117.5°C. Use thermostat with a 115° or 120°C rating.

Installation Notes:

1.) Install thermostat as far as possible from any air flow.
2.) Tie thermostat firmly in place to aid in heat transfer & reduce temperature gradient.
3.) Install one thermostat in each phase winding.
4.) Do not remove MYLAR* sleeve, this is needed for insulation.
5.) If the motor is to be dipped & baked, oven temperature should not exceed 300°F.
6.) Wire thermostats in series with the starter coil.
7.) SL Series thermostat kits provide overheat protection only. Current overloads in the starter are required for locked rotor protection.
8.) SL series thermostats will handle starter coil sizes through NEMA size 5 starters and the control relays in most large size starters.

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