

20490-20493 SERIES | FIXED TEMPERATURE THERMOSTATS

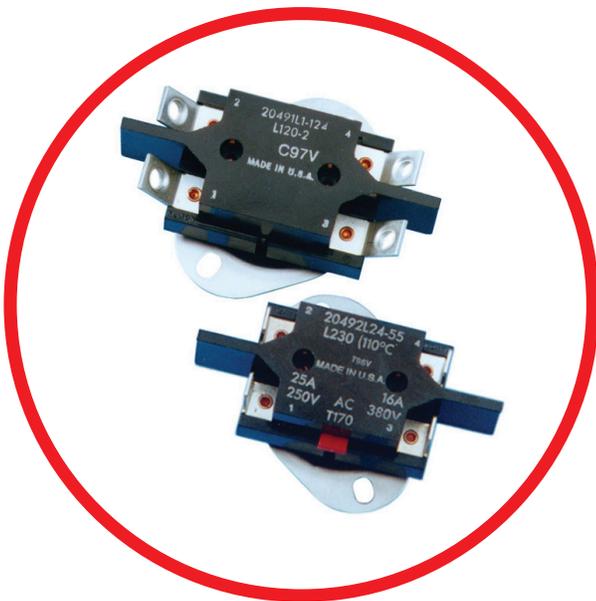
DOUBLE POLE AUTOMATIC / MANUAL RESET

Introduction

The 20490 series is a double pole single throw (DPST) fixed temperature thermostat especially designed for electric heat, laundry, and other major appliance applications. The high capacity thermostats eliminate the need for costly backup contacts and low capacity limit controls in electric heat applications.

The 20490 and 20491 are automatic reset devices. The 20492 and 20493 are manual reset and are designed for trip free operation. The trip free construction will not allow the contacts to be closed until the temperature of the disc is lowered to its reset point. Automatic and manual reset devices are available as limit (L) switches, which open on temperature rise. Automatic reset devices are also available as fan (F) switches, which close on temperature rise.

The switch is enclosed within a phenolic housing and stainless steel cup assembly which protects the contacts from contamination. The stainless steel cup also provides a variety of mounting configurations. The switch mechanism is actuated by the Klixon snap-action bimetal disc which may be enclosed or exposed. Enclosed disc types should be used in all applications where response to radiant heat is not critical as it provides protection (to the bimetal element and switch assembly) against contamination and damage due to handling. Exposed disc types are used in applications where a faster thermal response to radiant heat is required.



Features

- Double Pole Single Throw (DPST)
- Automatic Reset or Manual Reset/Trip Free
- Heavy Duty Capacity - up to 48 amperes per pole on 20493
- Snap-Action resists shock and vibration regardless of mounting position
- UL Recognized for USA and Canada (20490 only)
- Tamperproof – temperatures are factory set to customer requirements
- Molded Phenolic Case – UL V-0 rated material which seals out lint, dust, and other contamination
- High Reliability

Applications

- Electric heaters
- Laundry applications
- Major appliance applications

SPECIFICATIONS

Contact Operations	Automatic Reset (100K cycles) or Manual Reset/Trip Free (6K cycles)
Operating Temperature	0-300°F (Automatic Reset) and 100-300°F (Manual Reset)
Terminal Configurations	0.250" X 0.032" flat, 45°, 90° male quick connect 0.187" X 0.032" 90° male quick connect #8-32NC flat and 45° screw terminals #10-24 45° screw terminals (20493 only)

Automatic Reset

Temperature Range (°F)	Tolerances		Nominal Temperature Differential
	Open	Close	
0 to 80	±6	±7	20 to 60
81 to 200	±5	±7	20 to 60
201 to 250	±6	±8	20 to 60
251 to 300	±7	±10	20 to 60

Manual Reset

Opening Temperature Range (°F)	Tolerances
100 to 200	±5
201 to 250	±6
251 to 300	±7

Electrical Clearances

Type	Through Air	Over Surface
20490	1/4"	3/8"
20491	3/8"	1/2"
20492	3/8"	1/2"
20493	3/8"	1/2"

Auto Reset

(100,000 Cycles/Pole)

20490*

Resistive	25 amperes at 240 VAC
Motor Load	10 FLA-60 LRA at 120 VAC 5 FLA-30 LRA at 240 VAC
Pilot Duty	125 volt-amperes at 120 VAC

20491*

Resistive	25 amperes at 600 VAC
Motor Load	4 FLA-8 LRA at 480 VAC
Pilot Duty	690 volt-amperes at 240 VAC to 480 VAC

Manual Reset

(6,000 Cycles/Pole)

20492*

Resistive	25 amperes at 600 VAC
Motor Load	10 FLA-60 LRA at 120 VAC 5 FLA-30 LRA at 240 VAC
Pilot Duty	690 volt-amperes at 240/600 VAC 480 volt-amperes at 120 VAC

20493*

Resistive	48 amperes at 600 VAC
Motor Load	16 FLA-96 LRA at 120 VAC 8 FLA-48 LRA at 240 VAC
Pilot Duty	690 volt-amperes at 240/600 VAC 480 volt-amperes at 120 VAC

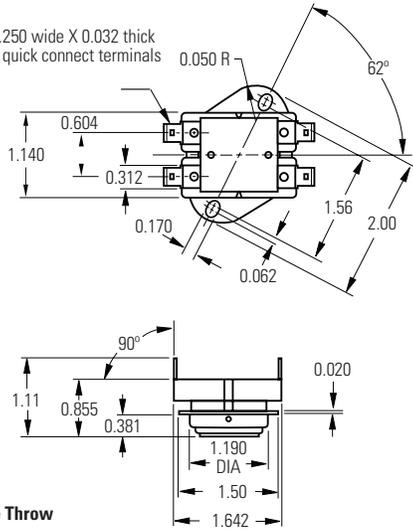


DIMENSIONS

(All dimensions are in inches unless otherwise noted.)

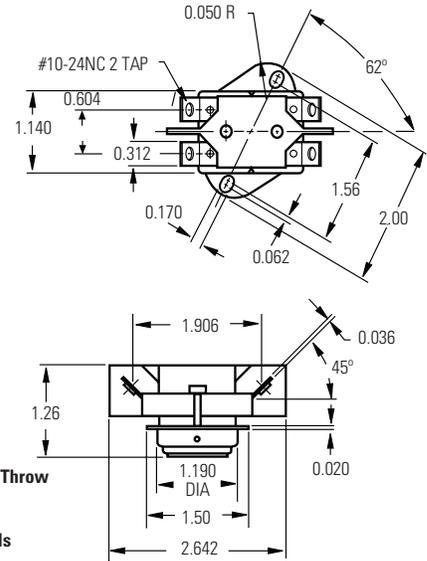
20490 and 20491

Standard 0.250 wide X 0.032 thick spade type quick connect terminals



**Double Pole, Single Throw
Small Oval Flange
Top Mounting
Quick Connect Terminal**

20492 and 20493



**Double Pole, Single Throw
Manual Reset
Small Oval Flange
Top Mounting
Screw Type terminals**



AGENCY APPROVALS AND CERTIFICATION



Agency	File Number
UL	MP986 (20490 only)
ENEC	2018218.02 (20490 only)

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