

# STEM THERMOSTAT

## TYPE BHA 7/11

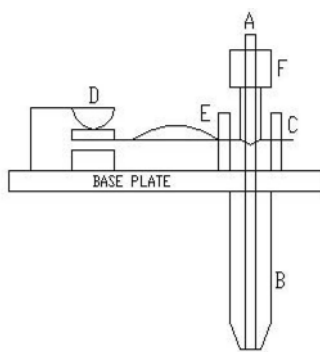
The BHA Stem Thermostat regulates the temperature continuously by switching the power on and off after the achievement of the preset temperature. The Stem Thermostat's normally closed contacts opens on achieving the preset temperature on certain drop of temperature contacts again becomes closed, the difference between the temperature at which the contacts becomes open & closed is called the hysteresis, which is between 5 to 10°C. The BHA Stem Thermostat operates with 5% tolerance of the scale printed on the cover, the temperature is set by adjusting the knob over cover.



The BHA Stem Thermostat is far more economical, less bulky & accurate as compared with analog temperature controller & capillary type thermostat.

### FUNCTIONAL DESCRIPTION

The Stem Thermostat mainly consists of sensing stem and a snap-action switch (spring contact). Fig. 1 below will make the mode of operation clear.



**A** Is a Bimetal rod with thread on top carrying threaded knurling with brass pipe welded at the other end whose function is to sense the preset temperature & activate the switching mechanism

**B** Is a brass pipe fitted on the switching mechanism

**C** Is a snap-action switch operating the contact **D**

**E** Is a knife-edge through which bimetal assembly **A** can operate the switching mechanism

**F** Is a means of adjustment of temperature

Fig. 1

Normally the contact **D** is closed so that current flows through the load. When the preset temperature is achieved the bimetal assembly opens the switch **C**, interrupting the current to the load, when the temperature falls the bimetal assembly then cools making the switch closed and the current passes through the load, thus maintains the preset temperature within the limits. The difference between the temperature at which the switch opens and closed again is the differential of the thermostat and the temperature at which the switch opens is called the operating temperature, The operating temperature is set by adjusting the knob **F**

It is basically a series switch which makes the load on & off by sensing the correct temperature.

### ELECTRICAL CONNECTION

Screw terminals

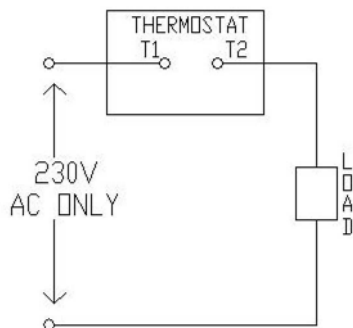
### MOUNTING

Spring clip attached to base plate.

## TECHNICAL SPECIFICATIONS

- ELECTRICAL RATING : 250V, AC ONLY, 50Hz, 15A MAX.
- TEMPERATURE RANGE : 30-80°C, 30-120°C, 30-150°C, 50-180°C
- MAXIMUM HEAD T°C : 105°C
- DIFFERENTIAL : BETWEEN 5 TO 10°C
- STEM LENGTH : 125mm,175mm,275mm,450mm
- ISOLATION : 2.5kv A.C, for 1 minute, leakage current <3.5mA
- LERAKAGE CURRENT : less than 210 micro Amp. As per IS 302
- LIFE : 1,00,000 switching cycles under normal conditions
- SAFETY : Meets VDE, IEC Standards, CE, **ISI MARKED**
- HEAD DIMENSIONS : LENGTH-27mm WIDTH-26.5mm HEIGHT-28mm APPROX.
- WEIGHT : BHA-7 49.0gm BHA-7 58.0gm APPROX.

## ELECTRICAL WIRING DIAGRAM



## APPLICATION

Water heater, Sterilizer, water bath, Scientific & laboratory instruments, ovens etc.

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