# IMMERIONS HEATERS

# **WT RANGE**





#### WT RANGE APPLICATION

The WT range incorporates **low water protection** and is designed for the heating of water in wash sinks, sterilisers or similar applications where there is a risk of the element becoming uncovered and running dry causing failure of the heater. The range is easily adapted to suit OEM equipment.

The low water protection is provided by an element being brazed to a thermostat pocket. If the water level drops below the level of the heater the element transmits heat via the brazed thermostat pocket to a thermostat which will switch off power to the elements

The low level protection thermostat can either be automatic reset or manual reset. An automatic reset model will allow the heater to cool until the thermostat resets and then switch power back onto the elements. This can cause cycling until either the immersion heater is switched off or the water level rises above the low water protection thermostat.

The alternative manual reset thermostat will switch the power off to the elements and remain off until the reset button is pressed on the thermostat.

kW loadings range from 1kW to 15kW. Up to 3kW can be supplied without the need for a contactor and over 3kW requires to be wired through a contactor. The metal sheathed rod elements are fixed to the threaded connection boss and can be supplied in nickel plated copper, Nicalloy 800 and Nicalloy 825 element materials. If an element were to fail, the entire heater requires to be replaced.

Thread sizes are available ranging from  $1\frac{1}{2}$ " to  $2\frac{1}{2}$ " BSP and are supplied with a jamb nut to aid installation.

All models are fitted with a robust, cast aluminium, painted terminal enclosure rated to IP66.

### STANDARD RANGE

The standard WT range of immersion heaters is designed for the heating of water in wash sinks, sterilisers or similar applications. The range is fitted with nickel plated copper elements which have an average watts density of 9W/cm² to 12W/cm² (60 - 80W/in²)

LIST NUMBERS					Immersed
Auto Reset Thermostat		Manual Reset Thermostat		kW Load	Length
2" BSP	21/4" BSP	2" BSP	21/4" BSP		mm(in)
WT101	WT201	WT301	WT401	2	305 (12")
WT102	WT202	WT302	WT402	3	305 (12")
WT103	WT203	WT303	WT403	3	380 (15")
WT104	WT204	WT304	WT404	4*	305 (12")
WT105	WT205	WT305	WT405	6*	305 (12")
WT106	WT206	WT306	WT406	6*	380 (15")

<sup>\*</sup> Must be used in conjunction with a contactor switch.

#### SPECIALIST APPLICATIONS

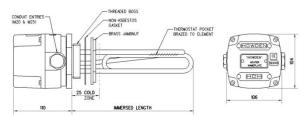
The WT range is extremely flexible and our Technical Department can provide specifications suitable for a wide range of applications. To obtain a quotation or further information please contact our Technical Department.

### **MOUNTING**

The WT range is suitable for horizontal mounting only. The heater must be fitted with the thermostats above the elements. A jamb nut is supplied with the heater so the heater can be positioned and the jamb nut rotated to tighten onto the heater

thread. This saves the heater being rotated and ensures the heater can be positioned with the thermostats above the elements.

Thread sizes are available from 1½" to 2½" BSP. The heater is supplied with a WRAS approved fibre gasket.



## **TEMPERATURE CONTROL**

Standard models are fitted with a control thermostat range 37-90°C rated at 20 Amps to control the temperature of the water and a low water protection thermostat. The low water protection thermostat is rated at 20 Amps for auto reset models and 16 Amps for manual reset models.

Where the current consumed exceeds the thermostat rating, the heater must be wired through a contactor switch. A contactor switch must be fitted on all three phase supplies.

Control panels can be supplied incorporating all necessary controls. Please refer to our TC range.

### **OPERATING TEMPERATURE & PRESSURE**

Standard models have a maximum operating temperature of 90°C and a maximum operating pressure of 6 Bar.

#### **VOLTAGE**

Single phase heaters from our standard range are designed to operate at 230/240V and three phase heaters at 400/415V.

Non-standard models can be supplied designed to suit operating voltages from 110V to 480V AC or DC. Please contact our Technical Department.

# CONSTRUCTION

Immersion heaters are manufactured generally to BS7798.

Elements on standard models are brazed into the threaded boss using silver solder and are nickel plated. Individual elements cannot be replaced

The boss material on the standard range is brass. Alternative boss materials are available e.g. stainless steel.

The terminal enclosure is painted cast aluminium, impact-resistant and rated to IP66 with two conduit entries (M20 and M25).

## **COMMON VARIATIONS**

Please contact our Technical Department for further details.

- Various operating voltages in single or three phase star or delta.
- Nicalloy 825 element for prolonged life in hard or aggressive waters.
- o Polished elements for catering and food applications.
- Boss and jamb nut in 316 stainless steel.