

Replacement Thermal Protection Accessories

Various construction methods are used in the manufacture of PTFE, Quartz and Metal Tube Over-the-Side Immersion Heaters.

The T1 or T2 Thermal Protection Devices are matched to the item they protect for lead length and mounting style.

T1 Thermal Fuse Devices

| Description | Catalog Number |
|---|----------------|
| T1 Thermal Fuse for PTFE Over-the-Side Heaters (to 190°F) | TMC90001 |
| T1 Thermal Fuse for PTFE L-Shaped Over-the-Side Heaters (to 190°F) | TMC90004 |
| T1 Thermal Fuse for Quartz Over-the-Side Heaters (w/SS Braid Sleeving) | |
| • Low Temperature Range (to 180°F) | TMC90002 |
| • Medium Temperature Range (to 220°F) | TMC90003 |
| T1 Thermal Fuse for Straight Metal Over-the-Side Heaters | |
| • Low Temperature Range (to 180°F) | TMC90005 |
| • Medium Temperature Range (to 220°F) | TMC90006 |
| • High Temperature Range (to 300°F) | TMC90007 |
| T1 Thermal Fuse for L-Shaped Metal Over-the-Side Heaters | |
| • Low Temperature Range (to 180°F) | TMC90008 |
| • Medium Temperature Range (to 220°F) | TMC90009 |
| • High Temperature Range (to 300°F) | TMC90010 |

T2 Bi-Metal Switch

| Description | Catalog Number |
|--|----------------|
| T2 Bi-Metal Switch for PTFE Over-the-Side Heaters (rated to 190°F) | TMC90101 |
| T2 Bi-Metal Switch for PTFE L-Shaped Over-the-Side Heaters (to 190°F) | TMC90111 |
| T2 Bi-Metal Switch for Quartz Over-the-Side Heaters (w/SS Braid Sleeving) | |
| • Low Temperature Range (to 180°F) | TMC90102 |
| • Medium Temperature Range (to 220°F) | TMC90103 |
| T2 Bi-Metal Switch for Straight Metal Over-the-Side Heaters | |
| • Low Temperature Range (to 180°F) | TMC90105 |
| • Medium Temperature Range (to 220°F) | TMC90106 |
| • High Temperature Range (to 300°F) | TMC90107 |
| T2 Bi-Metal Switch for L-Shaped Metal Over-the-Side Heaters | |
| • Low Temperature Range (to 180°F) | TMC90108 |
| • Medium Temperature Range (to 220°F) | TMC90109 |
| • High Temperature Range (to 300°F) | TMC90110 |



- High Temperature Range**— Solutions from 220°F to 300°F (104.4°C to 149.0°C)
- Medium Temperature Range**— Solutions from 180°F to 220°F (82.2°C to 104.4°C)
- Low Temperature Range**— Solutions up to 180°F (82.2°C)

Thermal Over-Temperature Protection



The realities of any plating, cleaning, anodizing, etching or pickling operation are that something could go wrong such as:

- ◆ An undetected tank leak
- ◆ Undetected evaporation losses
- ◆ Failure to refill the system

Any of these conditions creates a situation where the potential for fire or other hazard is increased.

Standard Setup — All Tempco Over-the-Side Teflon®, quartz and metal tube heaters come equipped with a replaceable thermal fuse placed in a thermowell and positioned at the top of the heater's hot zone. When wired into the heater circuit, it will instantly cut power to the heater when the preset temperature is reached. If the heater is over 15 amp, the thermal fuse would be wired into the control relay circuit. Also available is the T2 bi-metal switch which would be wired into the control relay circuit and used with additional components to form a resettable system.

We highly recommend the use of liquid level switches tied into control circuitry to provide a failsafe backup to the thermal fuse.