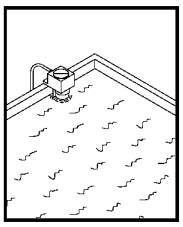
Thermal Overload Protectors - 1, 2, or 3 Series

PROCESS TECHNOLOGY®

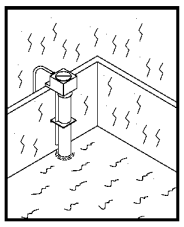
PROTECT YOUR HEATER

THE PROTECTOR 1 SERIES

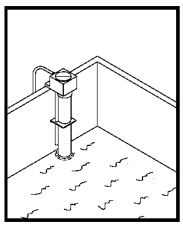
The Protector 1 overtemperature control system utilizes a heat sensitive fuse to detect overheat conditions. The protector, placed inside a thermowell, positioned in contact with the heater sheath, will cut power to the heater in the event of low liquid level.



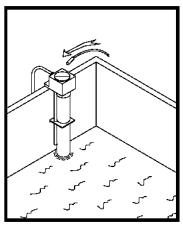
Immersion heater with Protector 1 working normally



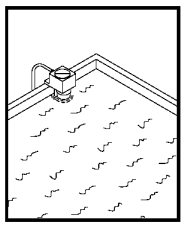
Process bath level drops due to tank leak or evaporation.



Protector 1 sensor detects elevating temperature and shuts off power to heater



Replace Protector.

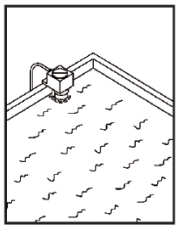


Restore the liquid level and resume operation.

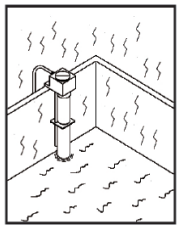
THE PROTECTOR 2 AND 3 SERIES

The Protector 2 and Protector 3 systems provide the same reliable overtemperature protection as the Protector 1; however, the control systems feature a heat sensing thermostat. If the liquid level drops and the heater reaches a preset overheat temperature, the thermostat cuts power to the heater and an audible alarm activates. After filling the tank, the immersion heater can quickly be made operational by pushing the reset button on the control to restore power.

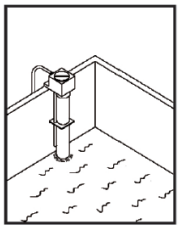
Protector 3 is designed for flexible lead or high temperature fluoropolymer (PTFE) heater applications only.



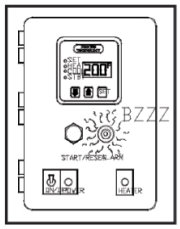
Immersion heater with Protector 2 working normally



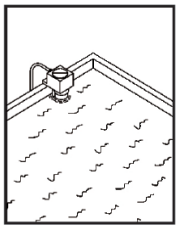
Process bath level drops due to tank leak or evaporation.



Protector 2's thermostat detects elevated temperature and shuts off power to heater



The alarm is activated



Restore the liquid level and and push the reset button to resume operation.

P4, 5, 6, 7, 8 Also available.

DO NOT wire P2, P6, P7 or P8 devices directly to power or heater load, as a dangerous short circuit will result with irreparable damage to the heater. Refer to wiring diagrams for proper installation.

See **SELECTION GUIDE** next page.

REPLACEABLE THERMAL PROTECTORS					
MODEL NUMBER	ITEM #	HEATER MATERIAL	HEATER STYLE	WIRE COLOR	TEMPERATURE RANGE
P1	6021-18-R	Metal	over the side	white	up to 180°F (82°C)
P4	6022-18-R	Metal	over the side	blue	180 to 230°F (82 - 110°C)
P5	6023-18-R	Metal	over the side	red	230 to 300°F (110 - 150°C)
P1	6021-85-R	Metal	L-shaped	white	up to 180°F (82°C)
P4	6022-85-R	Metal	L-shaped	blue	180 to 230°F (82 - 110°C)
P5	6023-85-R	Metal	L-shaped	red	230 to 300°F (110 - 150°C)
P1	6032-26-R	Fluoropolymer	over the side	red	up to 190°F (88°C)
P1	6032-48-R	Fluoropolymer	L-shaped	red	up to 190°F (88°C)
P1	6032-26-R	Quartz	over the side	red	up to 180°F (82°C)
P4	6033-26-R	Quartz/Fluoropolymer	over the side	blue	180 to 230°F (82 - 110°C)

RESETTABLE THERMAL PROTECTORS					
MODEL NUMBER	ITEM #	HEATER MATERIAL	HEATER STYLE	WIRE COLOR	TEMPERATURE RANGE
P2	2804-18-R	Metal	over the side	white	up to 180°F (82°C)
P6	4047-18-R	Metal	over the side	blue	180 to 230°F (82 - 110°C)
P7	2805-18-R	Metal	over the side	red	230 to 300°F (110 - 150°C)
P2	2804-85-R	Metal	L-shaped	white	up to 180°F (82°C)
P6	4047-85-R	Metal	L-shaped	blue	180 to 230°F (82 - 110°C)
P7	2805-85-R	Metal	L-shaped	red	230 to 300°F (110 - 150°C)
P2	4575-26-R	Fluoropolymer	over the side	white	up to 190°F (88°C)
P8	5163-120-R	Fluoropolymer	over the side	brown	190 to 210°F (88 - 99°C)
P2	4575-48-R	Fluoropolymer	L-shaped	white	up to 190°F (88°C)
P8	5163-120-R	Fluoropolymer	L-shaped	brown	190 to 210°F (88 - 99°C)
P2	4575-26-R	Quartz	over the side	white	up to 180°F (82°C)
P6	5580-48-R	Quartz/Fluoropolymer	over the side	blue	180 to 230°F (82 - 110°C)

Also Available: Protector 3 - designed for flexible lead or high temperature fluoropolymer (PTFE) heater applications only.