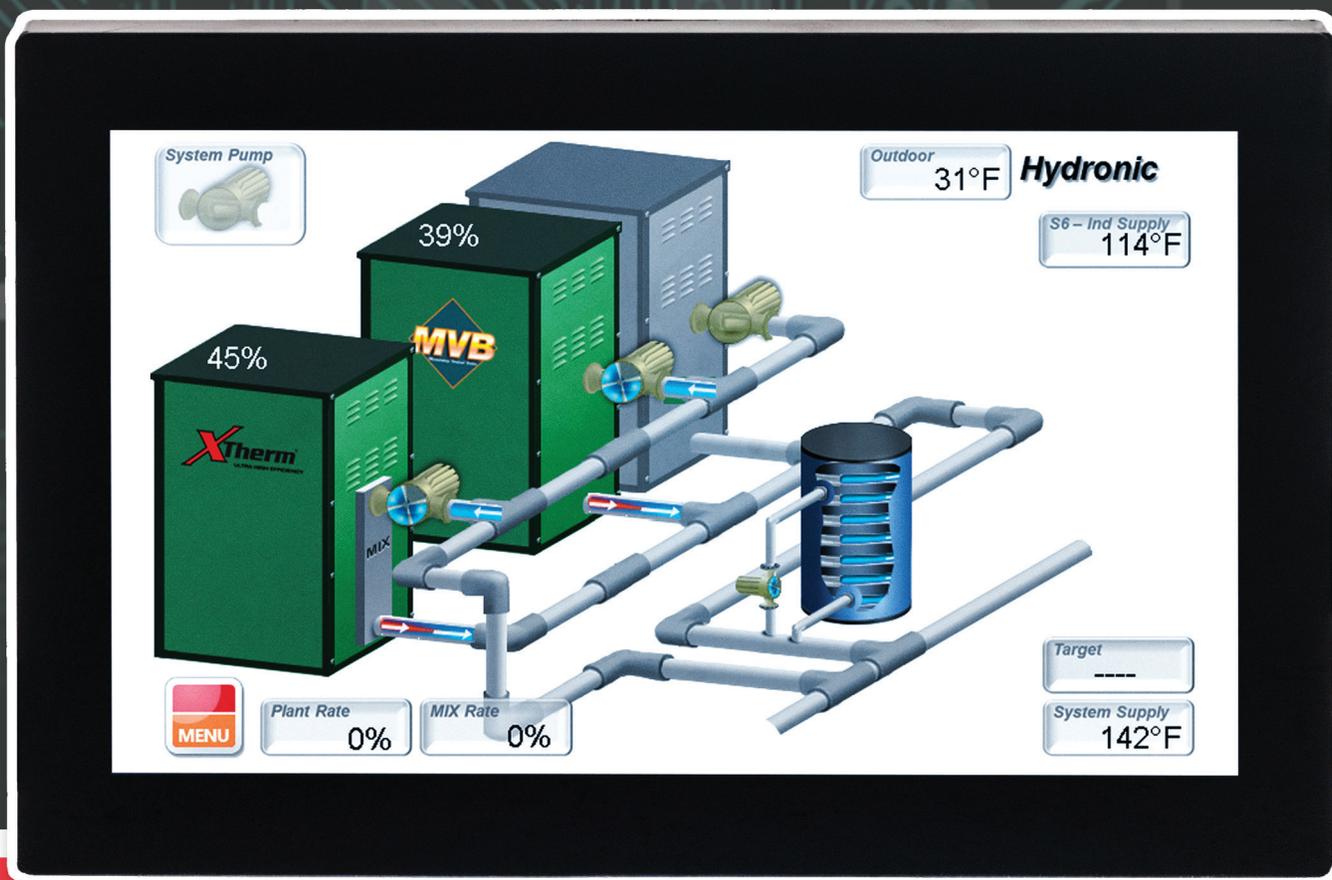


# Electronic Temperature Controllers

Engineered for Raypak® Boilers & Water Heaters



Versa IC® Touch Screen Display

**Raypak**®  
A Rheem® Company



# VERSA IC®

## Integrated Control Platform

Raypak's VERSA IC combines modulating temperature control, safety limits, and ignition programming into one user-friendly Integrated Control Platform. It is CSA certified for each of these functions. The same control includes diagnostics to monitor boiler and system faults, provide local alarm, and transmit both to a BMS System via a built-in Modbus RTU port. Large display, Freeze Protection, and 0 -10 VDC Remote Set Point are just a few of the many VERSA IC standard features.

Easy front access facilitates set-up and troubleshooting. All low-voltage wiring is plug-in. Flash memory for future upgrades.

Each VERSA IC has cascade capability for up to 4 boilers. Inlet and outlet sensors are factory-installed in each boiler. Remote sensors shipped loose. Controller monitors blower speed and can drive external motorized auxiliaries such as extractors and louvers. Relay for DHW Indirect and remote alarm are provided.

VERSA IC is now standard on all models of Raypak Hi Delta, MVB, XPakFT, XFyre, XTherm and XVers products.

### Standard Features

- 3.5" LCD Display with Touch Pad Interface on Hi Delta, XPakFT and XFyre
- 7" Color Touchscreen interface on MVB, XTherm and XVers
- CSA Certified for multiple functions
- Cascade up to 4 boilers/stages
- Modulating
- Selectable P or PID Logic
- Inlet Sensor
- Outlet Sensor
- Individual Boiler Delta-T Monitor
- Remote Set Point, 0 – 10 VDC
- Rotation Function
- Manual Override
- Full Diagnostics – 16 safety/ignition points
- Two-way BMS Communication
- Modbus Port included
- Relay Ratings, 5A @ 250 VAC
- CSA Certified
- DHW Indirect Sensor
- Burner Status Contact

### Options

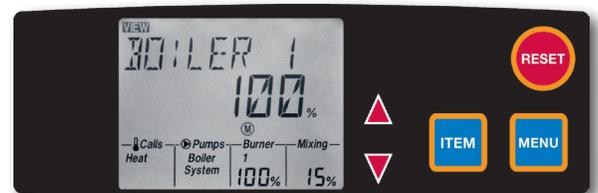
- Outdoor Reset Sensor
- Alarm Bell
- B-85 BMS Protocol Converter - BACnet MS/TP, BACnet IP, N2 Metasys, or Modbus TCP
- B-86 BMS Protocol Converter - LONworks

### Programmable Functions

- Adjustable Outdoor Reset Ratio Parameters
- Min. System Water Temperature
- Max. System Water Temperature
- Control Band Differential (2 to 10°F)
- Setpoint (50 to 190°F)
- Outdoor Cutoff (35 to 85°F)
- Adjustable PID
- Boiler DHW and System Pump Post Purge (0 to 10 min.)
- Freeze Protection
- Cold Water Protection



**7" Color Touchscreen - MVB, XTherm and XVers**



**3.5" LCD Display - Hi Delta, XPakFT and XFyre**

# TempTracker Multi-Stage Controller | TempTracker Mod Modulating Boiler Controller

TempTracker stage-controllers are designed to sequence multiple boilers up to four total stages, whether it's one to four on/off boilers, two two-stage boilers, or one boiler with up to four stages. They are available either factory-mounted or shipped loose on Raytherm boilers. TempTracker Mod is a single-boiler modulating control that is optional on Raytherm. Both controls can be used for space heating and hot water supply with eight application-specific modes to meet various applications, including outdoor reset for heating systems. The controls monitor and display inlet and outlet temperatures on all applications as well as monitor outdoor temperature when an outdoor reset mode is selected.

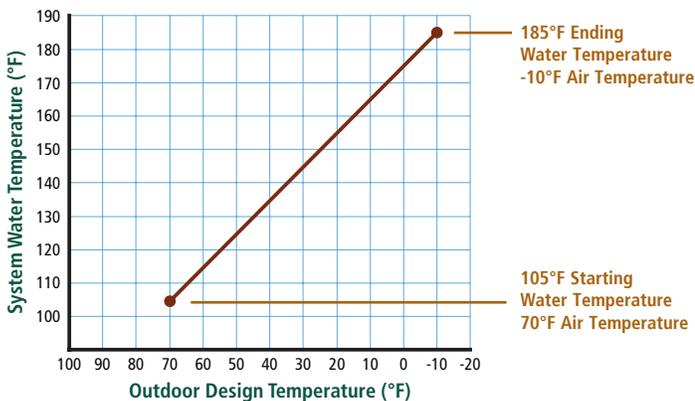


## Features

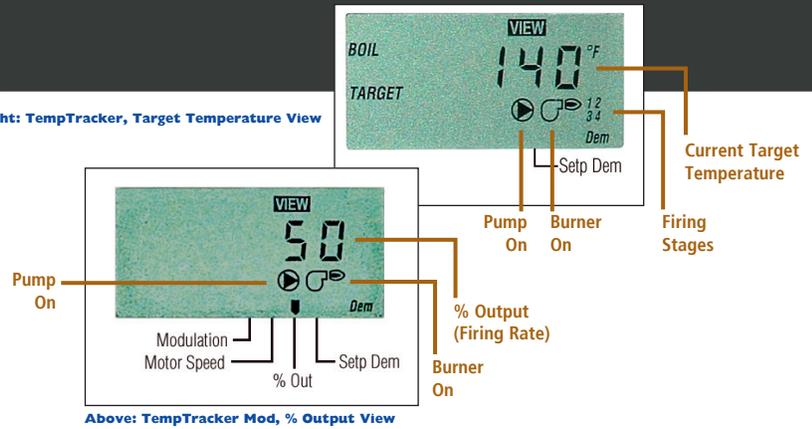
- TempTracker - 1-4 boilers/stages  
TempTracker Mod - 1 Raytherm
- Selectable P or PID logic
- LCD display
- NEMA 1 enclosure
- Boiler inlet and outlet water sensors
- System water sensor
- Outdoor air sensor optional
- Alarm ready (pilot duty)
- CSA approved
- 24 VAC, 60 Hz, 3 VA supply power requirement
- Relay Ratings  
Stage 1: 5A @ 120 VAC  
Stages 2 to 4: 3A @ 120 VAC
- Limp-Along Feature- Ability to operate with as few as 1 of the 3 water sensors. Provides service indication when a sensor fails.
- BMS 0-10VDC setpoint control
- BMS 0-10VDC firing rate control

## Fully-Adjustable Outdoor Reset Slope

Raypak's custom software allows for complete adjustment of the outdoor reset slope start and end points.



At right: TempTracker, Target Temperature View



## Programmable Functions

- 8 programming modes for TempTracker and TempTracker Mod
- Adjustable outdoor reset ratio
- Min. system water temperature (70°F)
- Max. system water temperature
  - Heating: 220°F
  - DHW: 190°F
- Temperature differential (2 to 42°F)
- Boiler target (70 to 220°F)
- Outdoor cutoff (35 to 85°F)
- Boiler mass (low, med, high)
- Stage-on delay (P mode) (10 sec. to 8 min.)
- System pump-off delay (0 to 20 min.) Stage Control only
- Temperature measurement (°F or °C)
- Boiler pump off delay (0 to 20 min.) Mod Control

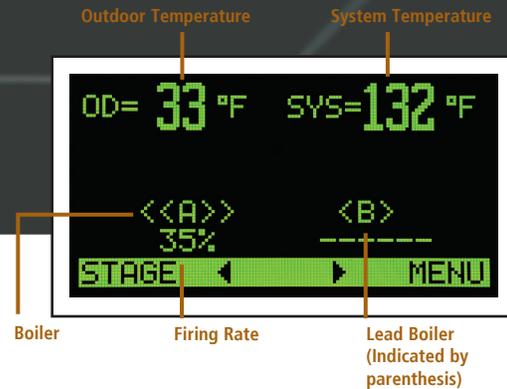
## Ordering Information (TempTracker)

Option No.	Description
B-26	2-stage setpoint
B-27	2-stage outdoor reset
B-21	4-stage setpoint
B-23	4-stage outdoor reset
B-40	Raytherm Mod
B-41	Raytherm Mod outdoor reset

# TempTracker Mod+ Hybrid

## Multi-Boiler Modulating Controller

The TempTracker MOD+ Hybrid is available as a loose option and controls up to four Raytherm MVB, XFyre, XTherm and XVers boilers for precise load tracking of space heating and hot water supply systems. Expand the control to 16 boilers by adding up to two six-boiler expansion modules. TempTracker Mod+ Hybrid monitors and displays supply water temperatures on all applications including outdoor temperature when outdoor reset mode is selected. As an added feature, this model offers PID logic as well as automatic or manually selectable lead-lag boiler operation. During boiler servicing or in the event of a controller problem, a manual override feature can be activated to bypass programmed operation.



At right: TempTracker Mod+ Hybrid, Standard View

## Features

- 1-4 boilers, expandable to 16 with optional expansion modules
- Selectable P or PID logic
- LCD display
- NEMA 1 enclosure
- System water and outdoor air sensors
- 365-day time clock
- Auto/manual lead-lag and enable/disable functions
- Manual override
- DHW override
- Lockable enclosure
- UL and cUL approved
- 120 VAC, 60 Hz, 12 VA supply power requirement
- Relay ratings - 1A inductive; 6A @ 120 VAC 15A total for all circuits
- Remote Setpoint (4-20 mA)
- Raypak has highly customized the TempTracker Mod+Hybrid to maximize the overall system efficiency when used with our boilers and water heaters.
- Hybrid control function for multi-boiler installations using condensing and non-condensing boilers.



Hybrid system using 2-MVB's and 1-XTherm

## Programmable Functions

- Selectable modulating outputs (4-20 mA, or 0-10 VDC)
- Adjustable outdoor reset ratio (1:4 to 4:1)
- Min. system water temperature (70 to 180°F)
- Max. system water temperature (90 to 240°F)
- Automatic/manual lead-lag (1 to 1440 hrs.)
- Initial setpoint (70 to 240°F)
- Outdoor cutoff (20 to 100°F)
- Morning boost (30 min.)
- Night setback (0 to 75°F)
- DHW override (with or without priority)
- System sensor gain (-5 to +5°F)
- Outdoor sensor offset adjustment (-5 to +5°F)
- Boiler gain (-10 to +10°F)
- Boiler-on delay (0 to 60 min)
- System pump-off delay (0 to 360 min)
- Standby boiler delay (1 to 60 min)
- Temperature measurement (°F or °C)
- BACnet MSTP - on/off (9600, 19200, 38400 baud rate)

## Ordering Information

Option No.	Description
B-36	4 boilers
B-37	10 boilers
B-38	16 boilers
B-39	Remote setpoint module
B-62	BACnet MSTP module

# VERSA IC

## Integrated Boiler Control



- Cascade up to 4 boilers
- Modbus RTU comm port standard
- All faults and interlocks monitored and reported in plain English
- Building Management System integration via optional gateways
  - BACnet MS/TP, BACnet IP, N2 Metasys or Modbus TCP
  - LONworks

**BACnet®  
Metasys®  
Modbus®  
gateway module**  
*(optional)*



**LONworks®  
gateway module**  
*(optional)*



### Raypak Leadership in Boiler Management

The modulating or stage-fire VERSA IC® fully integrates temperature control, ignition, safety, temperature safety and individual fault monitoring. Field upgradable. Raypak's unique Cold Water Protection control function is now built-in; simply add the appropriate 3-way valve or variable-speed pump. A Modbus communications port is standard for continuous monitoring, trending, and troubleshooting.