Series Number:

4848T

4848T Touchscreen Reactor Controller

4848T Reactor Controller

The Parr Model 4848T Controller brings a new touchscreen design to our controller line. This full featured controller has the same functionality as a fully populated 4848 Reactor Controller but with a touchscreen interface.

Connectivity

The Model 4848T is designed for superior connectivity via network communications. After connecting to your network, the Model 4848T can communicate with your tablet, phone, or PC via a built-in web or VNC server.

Module Features of 4848T

The Model 4848T Controller is offered as a fully populated controller with Primary Temperature Control, Motor Control Module, Pressure Display Module, and secondary temperature module.

Primary Temperature Control Module (PTM)

The temperature control module can accept either a thermocouple or RTD temperature sensor. It has three outputs that are used for heating and cooling control and for alarm-actuated heater cut off. The control function is a full proportional, integral and derivative (PID) control with auto-tune capabilities. The controller provides ramp and soak programming with up to 64 steps.

Pressure Display Module (PDM)

This pressure monitoring module is set up to accept its input from a pressure transducer mounted on the reactor or attached accessory. It can be set to accept a wide variety of operating ranges. Operating pressures are displayed continuously. These modules are available calibrated in either psi, bar, or mPa. The output from the pressure monitoring module is connected to the alarm relay to shut off power to the heater if the high pressure limit set by the operator is reached during operation.

Motor Control Module (MCM)

In this configuration, the module provides true closed loop feedback control of the reactor stirring speed. The primary output of this module is wired to dynamically adjust the motor voltage in response to changes in motor loading. This provides better reactor stirring speed regulation than the standard open loop speed control, especially with reactions that involve changing viscosities. A by-product of this closed loop speed control scheme is that the value of the primary controller output directly reflects the degree of loading on the motor in order to maintain a constant stirring speed. While not a direct torque measurement, this is a useful option for those who want to monitor the progress of a reaction where there is a change in viscosity as the reaction proceeds.

High Temperature Cut Off Module (HTM)

The high temperature cut off module or limit controller augments the operation of the main control module. Its redundant sensor can be mounted either internally or externally to the reactor. The primary output of the module is wired to activate the lockout relay in order to provide safety shutdown should the reactor reach an unsafe temperature.

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4848T back panel for 115V model.

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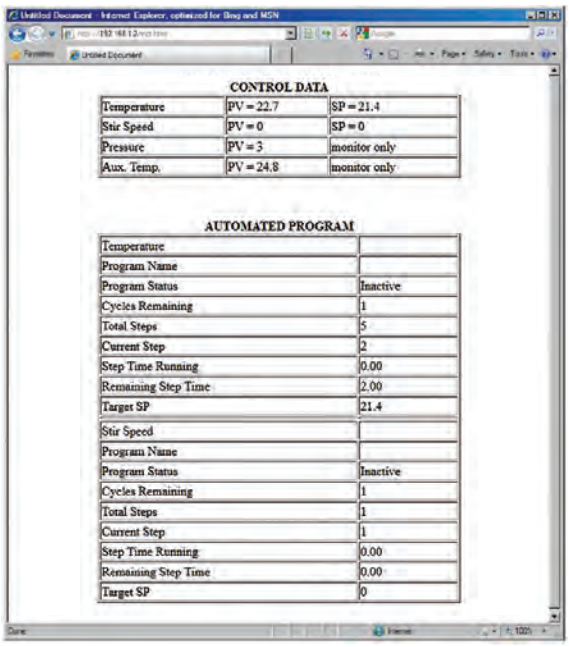
External Temperature Limit Module (ETLM)
This configuration uses the same aforementioned HTM Module with its sensor mounted in such a way to monitor the reactor's outside wall temperature. The primary output of this module is used to limit the external temperature of the reactor. This is done by interrupting the control signal form the main temperature controller when the external temperature exceeds a predetermined value. The secondary output of this module is used to activate the lockout relay in a non-latching manner if the outside wall temperature exceeds a preset unsafe temperature. The use of this module provides an effective alternative to cascade control, offering improved temperature regulation in systems with large thermal lags, such as those found in non-stirred reactors or systems that use PTFE liners, as well as systems where the reactants have low heat capacities, such as gas phase reactions.



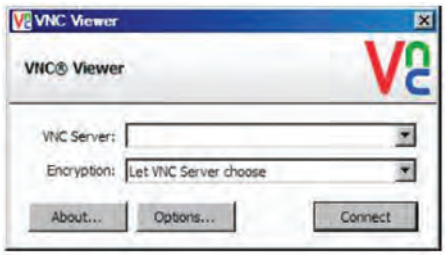
CONTROL DATA

Temperature	PV = 22.7	SP = 21.4
Stir Speed	PV = 0	SP = 0
Pressure	PV = 3	monitor only
Aux. Temp.	PV = 24.8	monitor only

AUTOMATED PROGRAM

Temperature	
Program Name	
Program Status	Inactive
Cycles Remaining	1
Total Steps	5
Current Step	2
Step Time Running	0.00
Remaining Step Time	2.00
Target SP	21.4
Stir Speed	
Program Name	
Program Status	Inactive
Cycles Remaining	1
Total Steps	1
Current Step	1
Step Time Running	0.00
Remaining Step Time	0.00
Target SP	0

4848T Communications via IP Network



4848T Communications via VNC

Series 4848T Ordering Guide

A composite identification number to be used when ordering a 4848T Reactor Controller can be developed by combining individual symbols from the separate sections.

Example: A 4848T Reactor Controller, 115V electrical, with High Temperature Module, for use with 1/4 HP motor would be listed as:

No.4848T-EB-HTM-VS.25

A.	B.	C.	D.
Model	**Voltage**	**Options**	**Motor**
4848T	-EB	-HTM	-VS.25

A Base Model

Touchscreen, PID, Ramp & soak digital communications with motor speed control and software

Model No.	Description
4848T	Touchscreen Controller with Primary Temperature Control, Motor Control Module, Pressure Display Module, and either High Temperature Module or External Temperature Limit Module

B Electrical Supply

-EB	115 VAC
-EE	230 VAC

C Secondary Temperature Option

-HTM	High Temperature Module with redundant thermocouple
-ETLM	External Temperature Limit Module with external thermocouple mounted through heater VAC

Dimensions

Model	Width, in.	Height, in.	Depth, in.
4848T	11.5	12.7	13.3