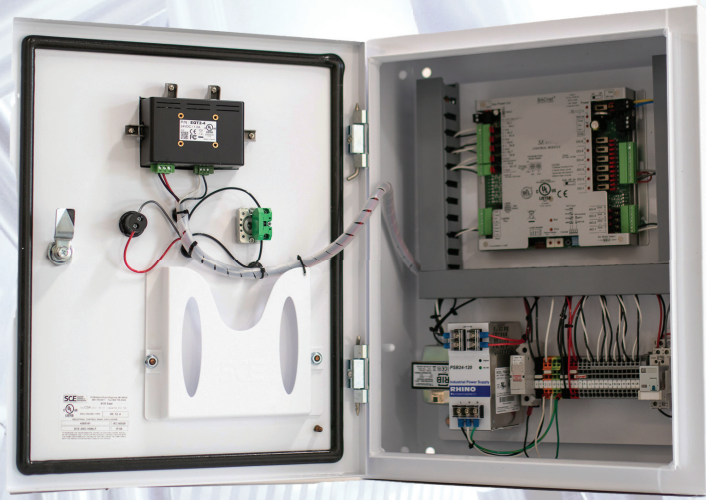




EC1000 SERIES TOUCHSCREEN CONTROL PANEL



DESCRIPTION

The Thermaflo EC1000 Electronic Controller combines full PID BacNet based control of temperature pressure level or flow and a combination one simple dynamic panel. Over 40 years of field experience has been designed into the EC1000. Standard application for the EC1000 are as follows:

Temperature control of Heat Exchangers, Process Vessels, Hot Water Hydronic Heating Systems, as well as Domestic Water Systems

Pressure Control of Steam Pressure Reducing Stations, VFD drive pump controls, Boiler and Deaerator systems, and Clean Steam Generators

Level control of Feed Water and Deaerator Tanks, Process Tanks and Vats, Clean Steam Generators and Boiler Systems

Flow control of heating logics, steam flow into processors, and buildings with BTU /Steam Flow/or Water Flow Measurements

Simple standard functions, all EC1000 controllers are designed to operate with Thermaflo water heating clean steam and feedwater systems. Standard features include high temperature alarms, value shutdowns, slow ramp startup, remote BacNet or 4-20 Ma control, remote on-off and real time trending of set points versus actual with 24 hour 10 year backup for BAC systems

Single point wiring: These controllers only require one 120VAC connection for operation and internal system wiring required on packages with built in surge protection 5 AMP service required

The EC1000 features a NEMA standard enhanced white panel completely programmed, wired, and tested ready for operation

FEATURES

Touchscreen Control: The standard 4.5" touchscreen keeps the user informed of set point versus actual, alarms, go off operating of control valve while allowing simple adjustments to be made available in 7" and 10" optional sizes.

Alarm Function: Closes control valves and safety shutdown valve in the event of high temperature or pressures, plus has a latching or non-latching feature. These alarm points are fully programmable.

Ramp Control System: This feature slowly starts a system by incrementally opening at a programmed rate a steam or hotwater control valve thus eliminating thermal shock, water hammer or system overload. Startup is made simple and controlled and can be automatically, or remotely activated

Contacts for BMS (Building Management Systems): Building management systems are fully informed 24/7 with BacNet, Dry Contact or 4-20 MA of alarms, set points, Control valve positions, and control. Remote control of set points and On-Off are standard.

Single Point UL Wiring: Each EC1000 has single point 120 vac power connection and is UL Certified

Custom Setup and Programming: Thermaflo application Technicians can setup program, and test the EC1000 for your specific needs in our live system and hydronic testing at facility.

SPECIFICATIONS

Supply Voltage	120 Volts AC @ 5AMPS
Power Consumption	24 Volts DC 60 Watts
Power Supply Output	24V DC 60 Watt
Inputs	MA, RTD, 1000
Up to	OHM Thermister
BacNet Remote	Dry Contacts or EMS Signal
Outputs	0-20 MA, 4-20
PDI and BacNet	Ma 0-10 Volts, Dry Contact Relay
Control Actions	Direct or Reverse on all outputs heating, cooling or level
Display Standards	Touchscreen 4.9" LLC (7" and 10" Optional)
Real Time Clock	10,000 Hours continuous
Internal Power Supply	24 VDC 60 Watts for control valve actuator power
Ambient Temperature	-4° to 140° F Cooling optional
Accuracy Enclosure Approval	UL Listed NEMA _____ Standard NEMA 4x Optional
Weight	22 lbs
Overall Dimensions	16" width x 20" height x 8" depth

Model Number Code EC1000-01-04.5-1-120V

Programmed PID Loops _____
 01 Standard
 02 2 Loops
 03 3 Loops
 04 4 Loops

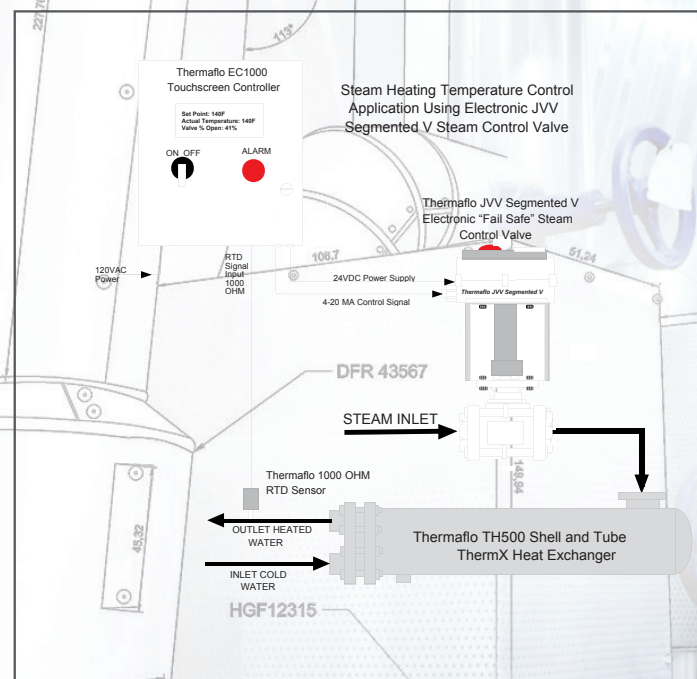
Touchscreen Size _____
 04.5 4.5" Optional
 07 7" Standard
 010 10" Optional
 Note: 10" Option increases panel size to 20"x 24" x 6"

NEMA Panel Rating _____
 1 NEMA 1 Optional
 4 NEMA 4 Standard
 4X NEMA 4X

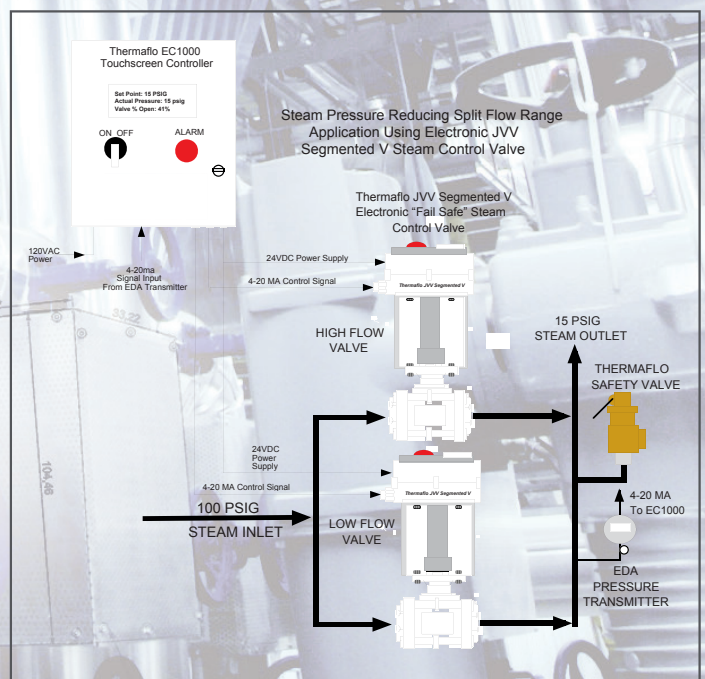
120V Power 60Hz Standard
 50 Hz Available

When ordering specify control mode of each loop for example:
01- Temperature
02- Pressures
03- (2) Temperatures
(1) Pressure

Thermaflo EC1000 JVV Single Valve Hookup

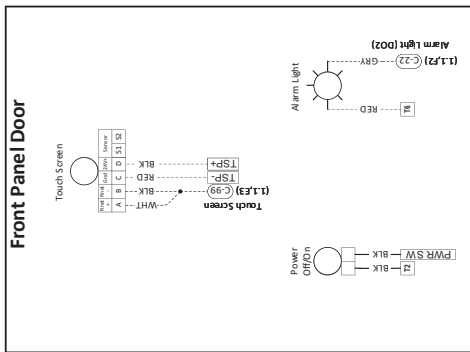


Thermaflo EC1000 JVV Dual PRV Valve Hookup



Thermaflo Engineering EC1000 Touchscreen Bacnet Panel

Panel Size: 16" Wide x 20" OAH, 4.5" Deep
White Gloss Color



Standard Touchscreen 7" Size

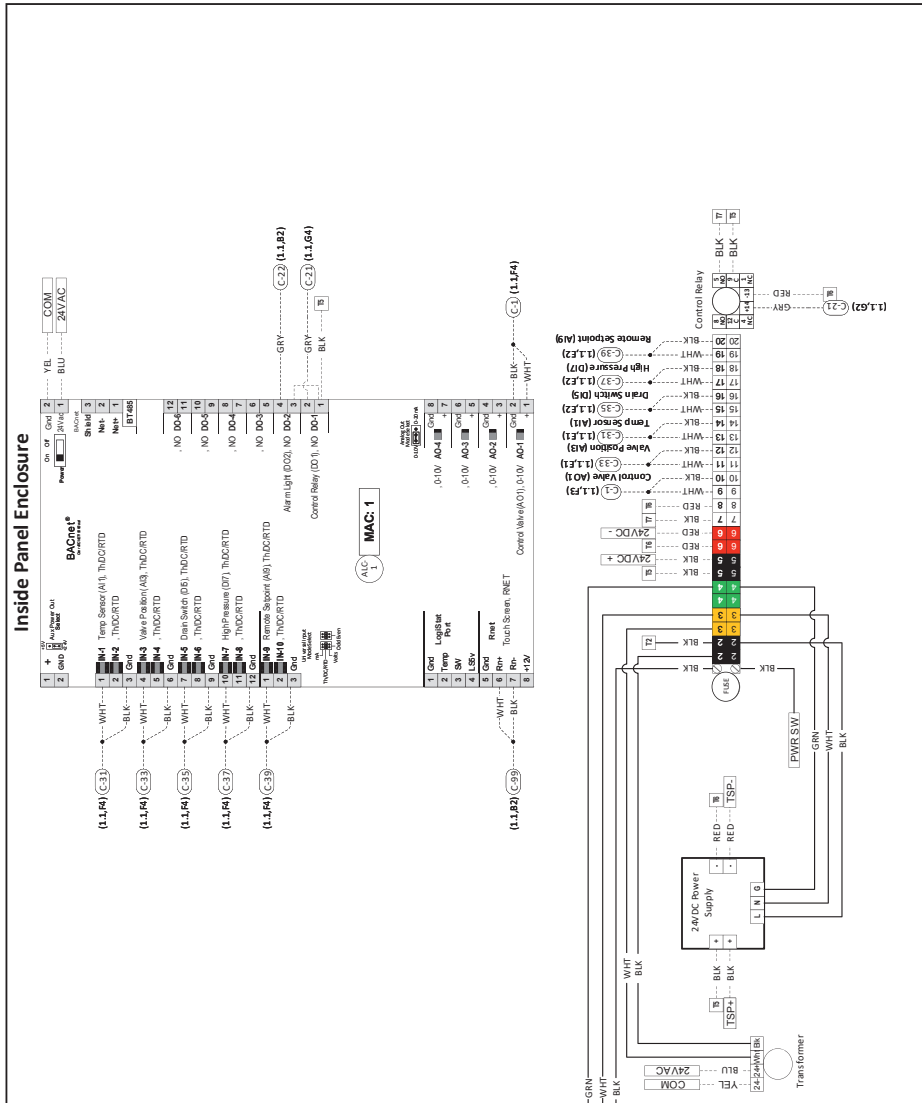
Standard Inputs:

- 1000 Ohm RTD Temperature Control
- Control Valve Position Feedback % Open
- Pressure Transmitter 4-20ma
- Remote Bacnet Temperature Setpoint
- Remote On Off

Standard Outputs and Display:

- Outlet Water or Fluid Temperature 0-10 or 4-20
- Control Valve % Open
- High Temperature Alarm
- High Pressure Alarm Latching
- Options:
 - Flow Meter GPM Inputs (2)
 - Temperature Input (1)
 - Level Control PID
 - Pressure Control PID (2) Valves

Standard 24VDC Transformer to operate the
Thermaflo JVV Segmented V Control Valve



This panel and the design is the property of Thermaflo Engineering and shall not be used, duplicated, or changed without the written permission of Thermaflo Engineering 704-940-1228 Newberry, South Carolina www.thermafloengineering.com



THERMAFLO 
INCORPORATED SINCE 1986
 MANUFACTURERS OF STEAM FIRED SPECIALTY EQUIPMENT
 2880 FAIR AVENUE, NEWBERRY, SC. 29108 | PHONE: 704-940-1228