



# Series 8 Controllers *Temperature & High Limit Controllers*



Model 804  
1/4 DIN

Model 808  
1/8 DIN

Model 816  
1/16 DIN

SSI's affordable line of process and high limit controllers. Used for many thermal processing and indicating applications. Universal inputs with relays and analog outputs allowing for versatility and a wide range of monitoring or controlling applications.

## Features and Benefits

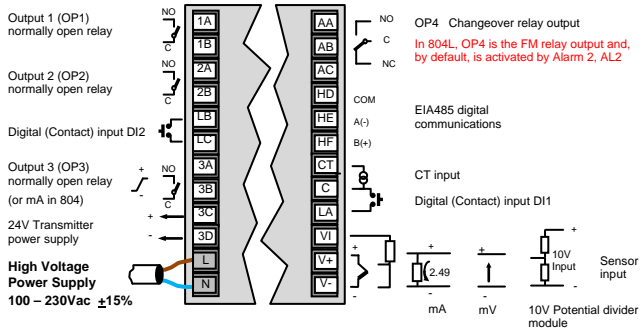
- Built-In Timers
- Configurable Alarms: High, Low, Deviation, Band, Timer Complete
- Auto-Tuning, Smart Tuning
- Modbus 485 Comms
- 3 Configurable Relay Outputs
- 4-20mA Output (Models 804, 808)
- 24 V transmitter/supply (Models 804, 808)
- 3 sizes: 1/4 DIN, 1/8 DIN, 1/16 DIN
- FM Approved, UL Listed, & CE Marked
- Designed to combine temperature and timer operation for a temper/draw furnace
- Easy-to-use logic inputs for push button operation of timer
- Automatically download set point and time from SCADA software
- Calibration Accuracy:  $\pm 0.25\%$  of reading  $\pm 1\text{LSD}$
- Thermocouple Types: K,J,N,R,S,B,L,T,C Custom, RTD, and linear mV & mA

Model name	808	808SR	808L	816	816L	804	804L
Model number	31343	31345	31346	31347	31348	31349	31350
Size	1/8 DIN	1/8 DIN	1/8 DIN	1/16 DIN	1/16 DIN	1/4 DIN	1/4 DIN
Relay	3	3	3	3	2	3	3
FM relay			1		1		1
4-20 mA output	1					1	
SSR drive output		1					
Digital inputs	2	2	2	1	1	2	2
RS485 Modbus RTU	X	X	X	X	X	X	X
Timer	X	X		X		X	
FM approval			X		X		X

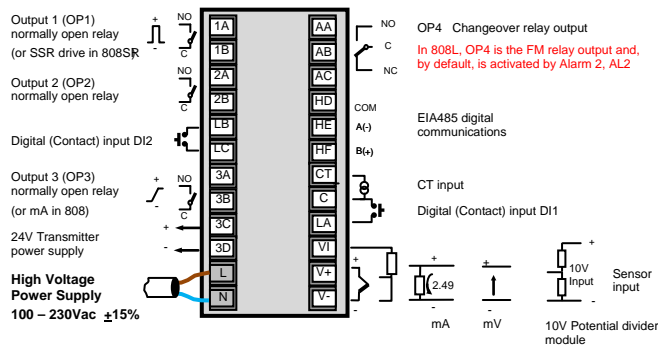


# Terminal Layouts

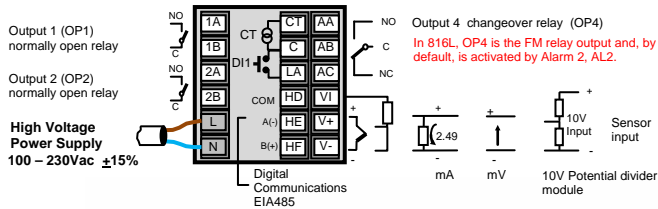
## Model 804 and 804L



## Model 808, 808SR and 808L



## Model 816 and 816L



# Output Info<sup>1</sup>

### Output 1 (All Models)

Relay Output (Form A, N.O.)  
 • Isolated output 300 Vac CAT II  
 • Contact rating: 2A, 230Vac ±15% resistive

Logic [SSR Drive] Output (808SR only)

- Not isolated
- Output ON state: 12Vdc @ 40 mA max
- Output OFF state: <300mV, <100µA
- Output switching rate must be set to prevent damage to output device.

### Output 2 (All Models)

Relay Output (Form A, N.O.)  
 • Isolated output 300 Vac CAT II  
 • Contact rating: 2A, 230Vac ±15% resistive

### Output 3 (Available only on Models 804 and 808)

Relay Output (Form A, N.O.)  
 Models 808SR, 808L, & 804L only  
 • Isolated output 300 Vac CAT II  
 • Contact rating: 2A, 230Vac ±15% resistive

DC Output  
 Models 808 and 804 only  
 • Isolated output 300 Vac CAT II  
 • Software configurable: 0-20mA or 4-20mA  
 • Max load resistance: 500Ω  
 • Calibration accuracy: ±(<0.25% of reading + <50µA)

### Output 4 (All Models)

Changeover Relay (Form C)  
 • Isolated output 300 Vac CAT II  
 • Contact rating: 2A, 230Vac ±15% resistive  
 NOTE: In FM versions, this output is FM approved and activated by Alarm 2.

<sup>1</sup>Refer to manual for more details.

## For Temper/Draw Furnaces:

- Built-In Timer
- Logic Start/Hold/Reset
- Band/Deviation Alarms
- Guaranteed Soak
- End Timer Options



SuperSystems  
 incorporated

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