Temperature Controllers

Console Systems



Benchtop Point-of-Use Temperature Control Consoles

2

CONSOLE TYPES

Type 1—Self-Powered "Plug & Play" Output
Heater power is drawn from console input power.

Maximum current available for heaters: 12 Amps/console
Optional models available to 16 Amps

Construction Characteristics

Tempco TPC Portable Temperature Control Consoles are quality built self-contained systems for monitoring and controlling process temperatures in a wide range of fixed or portable applications.

These 1- to 4- zone units use our reliable next generation TEC-9400 1/16 DIN auto-tuning fuzzy logic PID temperature controllers with user-friendly programming and bright LCD displays using NFPA/IEC standard colors.



Model TPC-1000 1-Zone Control Console 4-7/8" H × 9" D × 5" W



Model TPC-3000 3-Zone Control Console 4-7/8" H × 9" D × 11-1/4" W

Type 2—Switched Plug Output

Heater power is independent of console input power. Maximum current available for heaters: 12 Amps/zone

Design Features

- * Front-mounted rocker panel switch
- * Retractable legs for easy benchtop viewing
- * Carrying handle
- * 60-inch-long power cord with standard U.S. straight-blade plug configuration for 120V or 240V. Other country standards available.
- * Miniature jack and plug for temperature sensor input (one per zone)
- * Power output plug (one per zone)
- * Can customize with high limits, alarms, etc.
- * Fast cycling solid state relay

Console Advantages

- * Cost Effective
- * Safe to Operate
- * Compact Size
- * Portable
- * Easy to Use
- * Three Year Warranty



Model TPC-2000 2-Zone Control Console

4-7/8" H × 9" D × 8-1/4" W

Typical Applications

- **→** Dryers
- → Platen Heating
- Ovens and Furnaces
- → Heating of Tanks



Model TPC-4000

4-Zone Control Console

4-7/8" H × 10" D × 14-13/16" W

- → R & D Laboratory
- **→** Educational Facilities
- → Packaging Sealing Equipment
- → Semiconductor Processing Equipment



- → Plastics Sprue or Nozzle Bushings
- → Freeze and Moisture Protection
- **→** Sterilizers/Pasteurizers
- → Food Processing Equipment



Extra Rugged 16 Amp Unit with Mechanical Relay and 12 Gauge 3-Wire Cord



Design Features

- * 16 Amp Rated, 20 Amp Fused
- * 1920W/120V, 3840W/240V Maximum load capacity
- * Ideal for Race Teams & Construction Site Heaters
- * Hooded overhang front and rear for protection
- * Plug & Play
- * Agency Approvals: cULus Listed, File #E307875

| Zones | Voltage | Controlled | Watts | Part Number | Part Number |
|-------|---------|------------|-------|--------------|--------------|
| | Input | Amps | Max. | Type J Input | Type K Input |
| 1 1 | 120 | 16 | 1920 | PCM10084 | PCM10085 |
| | 240 | 16 | 3840 | PCM10086 | PCM10087 |



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TYPE

Self-Powered Output (True Plug & Play Operation)

Heater power is drawn directly through the console's 15 amp line cord. Our standard TPC is also fused at 15 amps (12 amps useable). Units fused at 20 amps (16 amps useable) are also available. For these consoles the customer must have access to receptacles rated at 20 amps. For 120 volt operation these are NEMA 5-20, for 240 volt operation these are NEMA 6-20.

True Plug & Play Operation: The heater is simply wired to the supplied plug and plugged in to the rear mounted receptacle.

Self-Powered Output Consoles **Heater Power is Drawn from Console Input Power**

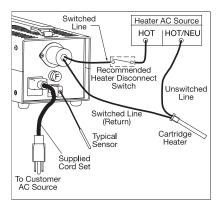
| Zones | Console Voltage Input | Controlled Voltage per Zone | Output per Zone Amps (max) | Watts per Zone (max) | Part Number and Sensor Input Type J Input Type K Input RTD Input | | |
|-------|-----------------------------|-----------------------------------|-------------------------------------|-------------------------------|--|----------|------------|
| 1 | 120 | 120 | 12 | 1440 | TPC10062 | TPC10063 | TPC10064 |
| 1 | 240 | 240 | 12 | 2880 | TPC10065 | TPC10066 | TPC10067 |
| 2 | 120 | 120 | 6 | 720 | TPC20051 | TPC20052 | TPC20053 |
| 2 | 240 | 240 | 6 | 1440 | TPC20054 | TPC20055 | TPC20056 |
| 3 | 120 | 120 | 4 | 480 | TPC30024 | TPC30025 | TPC30026 |
| 3 | 240 | 240 | 4 | 960 | TPC30027 | TPC30028 | TPC30029 |
| 4 | 120 | 120 | 3 | 360 | TPC40031 | TPC40032 | TPC40033 |
| 4 | 240 | 240 | 3 | 720 | TPC40034 | TPC40035 | TPC40036 / |
| | | | | | | | |

Stock Items Are Shown In RED

Supplied by Customer, 2- or 3-Wire (W/GND) Typical Cartridge Supplied To Customer

Heater Wiring





Switched Plug Output Only

The heater power is independent of the console controller input power. A Solid State Relay closure is provided per zone for external control switching. Each zone is fused at 15 Amps. External 120, 208 or 240 VAC must be provided to the heater power circuit.



You must install a switch into the heater circuit to disconnect power to the heater output when the console is not in use. The internal solid-state relay should not be relied on to disconnect heater power.

Switched Plug Output Consoles Heater Power is Independent of Console Input Power

| Zones | Console Voltage Input | Controlled Voltage per Zone (max) | Output per Zone Amps (max) | Watts per Zone (max) | Part Number and Sensor Input Type J Input Type K Input RTD Input | | |
|-------|-----------------------------|--|-------------------------------------|-------------------------------|--|----------|----------|
| 2 | 120 | 240 | 12 | 2880 | TPC20057 | TPC20058 | TPC20059 |
| 2 | 240 | 240 | 12 | 2880 | TPC20060 | TPC20061 | TPC20062 |
| 3 | 120 | 240 | 12 | 2880 | TPC30030 | TPC30031 | TPC30032 |
| 3 | 240 | 240 | 12 | 2880 | TPC30033 | TPC30034 | TPC30035 |
| 4 | 120 | 240 | 12 | 2880 | TPC40037 | TPC40038 | TPC40039 |
| 4 | 240 | 240 | 12 | 2880 | TPC40040 | TPC40041 | TPC40042 |

Stock Items Are Shown In RED

Specifications

Output Power Switching: Solid State Relay with heat sink

Optional Sensor Inputs: Consult Tempco

Power Input: Rear panel mounted fused power inlet, cord supplied **Control Options:** FM High Limit Controller, 2nd Output, Alarm,

Data Communications or other special

requirements; consult Tempco.

Ordering Information

Standard Consoles – Order by specifying part number. Standard lead time is Stock to 2 weeks.

Custom Made Consoles. Custom consoles can be manufactured with electrical components to meet your specific requirements. Consult Tempco.

WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov.