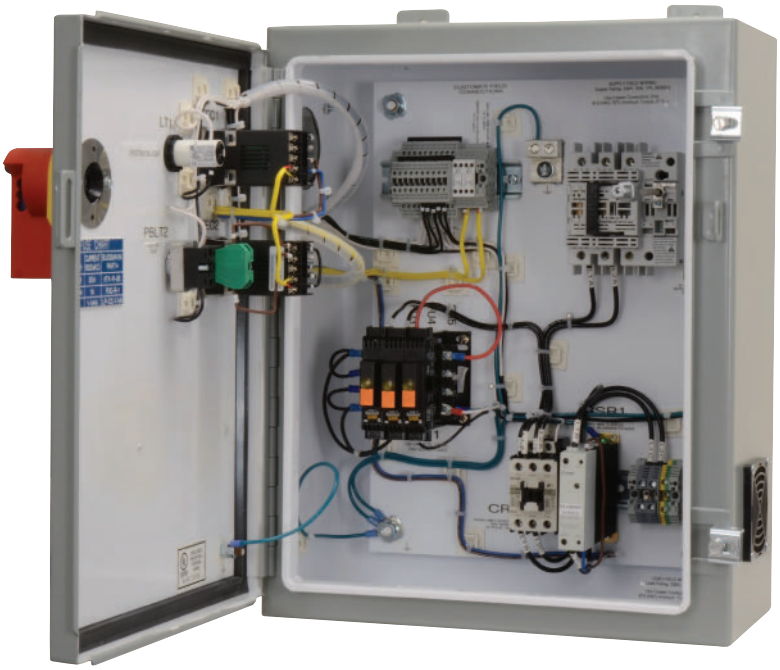
Temperature Control Panels – Designed for Industrial Process Applications



Design Features

- *NEMA 12 enclosure*
- *Model TEC-4400 1/4 DIN or TEC-9400 1/16 DIN temperature control, dual display with auto-tuning and bright LCD displays using NFPA/IEC standard colors*
- *Model TEC-410 1/4 DIN or TEC-910 1/16 DIN high limit control with FM approval and manual reset pushbutton switch*
- *Main Power: 240 or 480 VAC, single or three phase*
- *High limit safety contactor*
- *Fused turn handle disconnect*
- *Class CC & J fusing offers best-in-class current limitation offering reliable interruption of all overcurrents with protection up to 200kA*
- *Power On pilot lamp*
- *Control transformer, fused primary and secondary*
- *Power output connections hardwired to fuse holders*
- *Sensor input connections hardwired to labeled terminal blocks*
- *High quality Hoffman enclosures & components*
- *Ventilation fan and filter standard for SCR & SSR systems*
- *Tagging of door-mounted parts with 2-color, laser-etched, aluminum labels*
- *1 set of wiring schematics and control manuals*
- *Agency Approvals:* c UL us LISTED File #: E307875

Heater Power Output

- SCR output device and fused sub-circuits
- Solid state relays with individual relays per fused sub-circuit
- Mechanical Contactors or optional Mercury relays

These general purpose control panels range in capacity from 4.8KW through 332KW.

They are set up to run process heating systems using circulation heaters, duct heaters or any other resistive load.

All control panels are shipped factory pre-wired according to the National Electrical Code, eliminating the need to design your own control system, purchase separate components and construct your own working temperature control system.

These general purpose temperature control systems are based on SCR power controls, solid state relays or mechanical contactor and are supplied with the standard features listed.

Silicon Controlled Rectifier (SCR) Power Controls are solid state devices that provide infinitely variable power to accurately maintain setpoint temperature and extend heater life by maintaining a stable process temperature.

- Single-phase systems use single-phase zero cross SCRs.
- Three-phase systems use 2-leg zero cross or 3-leg phase-angle SCRs dependant on load type.

Solid State Relays offer many of the benefits of SCRs often at a lower cost, but are limited to an 80 Amp load.

Mercury Relays offer a low-cost alternative to SCRs and SSRs for process heating applications and provide longer life than a mechanical contactor due to their self-renewing mercury contacts.

See page 13-61 for some of the more common control panel options.

See page 13-60 for Custom Control Panels