

Control Panels

- NEMA 4X Enclosure • Temperature Control
- Customized



Description

TAD control panels are custom built according to job design & specifications. All control panels feature solid state programmable controls and solid state relays for efficient & reliable control of heating cables. A heavy duty NEMA 4X rain tight enclosure protects against the harshest environments ensuring that all electrical is safely protected. Whether it be process temperature maintenance or simple freeze protection, control panels offer versatility and precise monitoring over mechanical thermostats. TAD control panels are a one stop solution in complex heat trace environments and provide energy efficiency.

Features

Controller Specifications: Auto-tuning/manual PID control, or ON/OFF control with hysteresis adjust, manual P, PI.

Inputs: Field selectable J, K, S, T, E, N, and R type thermocouples or RTD 100Ω DIN (.1°C or 1°C)

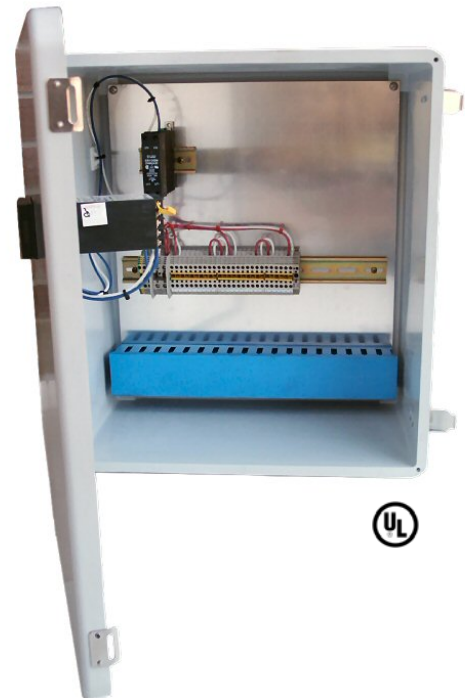
Outputs: Solid State Relay

Accuracy: Type K (standard) thermocouple 0.2% of span, ±1°C, ±1 digit.

Display: Dual display: Process Variable (red), Setpoint Variable (green); Selectable °F or °C

Operating Environment Range: 32°F to 122°F (0 to 50°C).

Supply Voltage: 90 to 260VAC, 50/60Hz, single phase.



Specifications

TYPICAL RELAY MODEL NUMBERS	CMRD2420	CMRD2430	CMRD4820	CMRD4830
	CMRA2420	CMRA2430	CMRA4820	CMRA4830
Operating Voltage (47-63 Hz) [Vrms]	24-280	24-280	48-530	48-530
Max. Load Current @ 25°C Ambient Temperature [Arms]	20	30	20	30
Min. Load Current [Arms]	0.15	0.15	0.15	0.15
Transient Overvoltage [Vpk]	600	600	1200	1200
Max. Surge Current (16.6ms) [Apk]	250	625	250	625
Max. On-State Voltage Drop @ Rated Current [Vpk]	1.6	1.6	1.6	1.6
Thermal Resistance Junction to Case (R θ JC) [°C/W]	—	—	—	—
Max. I ² t for Fusing (8.3msec.) [A 2sec]	260	1620	260	1620
Max Off-State Leakage Current @ Rated Voltage [mArms]	10	10	10	10
Min. Off-State dv/dt @ Max. Rated Voltage [V/ μ sec]	500	500	500	500
Max. Turn-On Time	1/2 Cycle (DC Control), 10.0 ms (AC Control)			
Max. Turn-Off Time	1/2 Cycle (DC Control), 40.0 ms (AC Control)			
Power Factor (Min.) w/ Max. Load	0.5	0.5	0.5	0.5

INPUT SPECIFICATIONS	DC CONTROL	AC CONTROL
Control Voltage Range	4-32 Vdc	90-280 Vrms
Max. Reverse Voltage	32 Vdc	—
Max. Turn-On Voltage	4 Vdc	90 Vrms
Min. Turn-Off Voltage	1.0 Vdc	10 Vrms
Typical Input Current Range	8-12mA	2mA@120 Vrms, 4mA@240 Vrms

GENERAL RELAY SPECIFICATIONS	
Dielectric Strength 50/60Hz Input/Output	4000 Vrms
Insulation Resistance (Min.) @ 500Vdc	10 ⁹ Ω
Max. Capacitance Input/Output	8 pF
Ambient Operating Temperature Range	-40°F to 80°F
Ambient Storage Temperature Range	-40°C to 125°C
Status Indicating Display	Green LED

Note: Specifications subject to change.