CT424 Temperature Alarm/Monitor

User-programmable three input temperature monitor system

Overview

Minco's CT424 consists of a 3-channel temperature monitor and alarm system that controls three relay outputs based on user-programmable set points to help safeguard expensive machinery.

Features

The CT424 offers users a completely programmable monitor and alarm with improved measurement range and universal inputs. The microprocessor-based design maintains accuracy over a wide range of temperatures and conducts regular self-checks to ensure correct operation. Additionally, one of the relay outputs is specifically designed for control of a cooling fan, and the user-configurable fan exercise option extends the fan life and reduces bearing lock-up. Other key features include:

• Universal inputs of 100 and 1000 Ω platinum RTDs and Types E and K thermocouples

• Configurable through the front-panel interface, MODBUS over USB or the isolated RS-485, PC software included for data logging and configuration

• User-configurable measurement range to Celsius or Fahrenheit scale

• Large, dimmable 7-digit LED display allows easy programming and visibility at various distances and lighting conditions

• Dual password design allows certain users to have full configuration access and others, set points only

• Non-volatile memory storage of per-channel min/max temperatures for recall in the event of power-loss

• Electrically isolated 4-20mA output signal allows for connection to PLCs or remote displays

• UL/cUL recognition (CT424A and CT424B) and CE certification (CT424A)

Applications

Minco's CT424 temperature monitor and alarm is designed with the specifications for dry-type transformer monitoring }and protection. Additional applications include use in pumps, compressors and motors.

Specification and order options

CT424	Model number
CT424A	AC power, 120-240VAC 50-60Hz, 120-240VDC
CT424B	DC power: 21-36VDC

▼ = STANDARD OPTIONS
Specifications subject to change

Technical Specifications

Performance	Measurement Range	-50°C to 300°C (-58°F to 572°F), 1°C resolution, 2°C full-range accuracy
	Relay Contact Ratings	Voltage: 240V AC Fan Relay: 30A or 1.5HP @ 55°C, derates to 22A or 1.5HP @ 72°C Trip/Alarm Relays: 10A
	Current Loop Outputs *Isolated, industry-standard 4-20mA current-loop output for forwarding of reading to PLC or remote indicator.*	Configuration: high value, low value, specific channel selection. Scaling: Offset from -50°C to 250°C, span from 50°C to 350°C Error signaling: 3.5mA or 23mA output during sensor failure. Power: isolated loop power –or– non-isolated self-power
	Communications	MODBUS over USB or isolated RS-485, RTU, 300-38400bps
	Certifications	UL/cUL recognized (CT424A and CT424B) and CE certification (CT424A)
Environment	Sensor Inputs *Note: "Universal" inputs are standard and are electrically isolated from control logic and communications.*	RTD: 100Ω or 1000Ω Platinum, 0.00385Ω/Ω/°C TCR, 2- or 3-wire connection, Open and shorted sensor detection Thermocouple: Type K or Type E thermocouple, open detection.
	Temperature Range	-30°C to 72°C (-22°F to 162°F), 95% humidity, non-condensing
	Output Relays	Connection: terminal block, 30 AWG to 10 AWG wire
Mechanical	User Interface	Display: LED, 7-segment, red, 0.56" height, dimmable Indicators: LED, red: Fan, Trip, Alarm, Peak, Manual Fan, Test
	Dimensions	Front-panel: 6.3" x 9.9" Cut-out: 5.67" x9.17" Depth: 1.9"
	Enclosure	Metal, corrosion-resistant

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