

Type CM GP Digital Electronic Controller

General Purpose Controllers for Ordinary Locations

cCSAus:
Ordinary Locations

Applications

- The Nelson Type CM GP micro-processor based digital controller has been specifically designed for wall mounted electric heat tracing applications.
- This system provides temperature control of an individual heater segment with sensor monitoring, remote alarm contacts, and ground fault leakage detection.

System Components

- The controller system is housed in a NEMA 4X Fiberglass reinforced, carbon impregnated, UV resistant polymer enclosure designed for wall mounted applications.
- The system is provided with dual pole heater switching and is environmental hardened for use in various plant locations.
- The CM GP can be installed in ordinary locations.
- The system is provided with a common alarm contacts for remote monitoring of the control system.

Features

- Easy to use interface
 - The single line, alphanumeric LCD display enables the use of English language prompts for setpoint entry and operation. There are no cryptic codes or key press combinations to remember.
- Ground Fault Trip function
 - A fixed 30 mA trip level is provided for circuit integrity eliminating the need for separate EPD branch circuit breakers.
- Temperature Input:
 - Range: 0°C to +218°C (32°F to +425°F)
 - Accuracy: +/- 1°C
 - Repeatability: +/- 1°C
 - RTD: 100-ohm platinum, 3-wire, (lead compensated up to 20 ohms)
- Voltage Range: 100 Vac to 277 Vac
- Heater Switching
 - Configuration: Two-pole, EMR
 - Ratings: 100-277 Vac, 30 Amp continuous (resistive load only)
 - Line Frequency: 50 or 60 Hz
- Control Power
 - Power Requirement: Control power from heater voltage, 110-277 Vac, 12 VA max
- User Interface
 - Display: 4-character LCD Alphanumeric display
 - Panel Indicators:
 - Actual Temp LED
 - Setpoint Temp LED
 - Alarm LED
 - Keypad:
 - 4 buttons, glass-reinforced epoxy laminate faceplate
 - Next, Up, Down, Menu
- Environment
 - Ambient Temperature: -40°C to +60°C Starting at -20°C (-4°F)
 - Conformal Coating: Boards conformal coated for hostile environments



- Enclosure
 - Type: NEMA Type 4X Fiberglass reinforced, carbon impregnated, UV resistant polymer
 - Size: 6.5" H x 6.5" W x 4.0" D
 - Features: Captive cover screws
- Mounting
 - Configured for Wall Systems
- Alarm Output
 - Alarm: EMR Form C
 - Alarm Rating: EMR Version 24-277 Vac @ 2.0 Amp Max, 12-30 Vdc
 - Alarm Output: LED Indication
- Alarm Function
 - High Temperature Alarm
 - Low Temperature Alarm
 - Sensor Failure
 - Ground Fault Trip
- User-Definable Options
 - Deadband: Adjustable 1°C to 6°C (2°F to 10°F)
 - Alarm Contacts: NO or NC operation

Certifications and Compliances

- UL Standard: UL60730-1/-2-9; UL1053
- CSA Standard: C22.2 No 24-15; C22.2 No. 144-M91
- cCSAus Certified: LR21208