Type AXPC100 CM GP Combination Power Connection and Digital Electronic Controller

General Purpose Controllers for Ordinary Locations

NELSON™

CONTROL AND MONITORING SYSTEMS: CIRCUIT MANAGEMENT SYSTEMS

Applications

- The Nelson AXPC100 CM GP micro-processor based digital controller has been specifically designed for stand-alone pipe 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 pipe mounted applications.
- The system is provided with dual pole heater switching and is environmental hardened for use in various plant locations.
- The AXPC100 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, (sold separately)(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 Piping Systems
  - AX Series Connection System
- 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

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