

# NGC-30 STANDARD PANELS



## ADVANCED HEAT-TRACING CONTROL SYSTEM



### PRODUCT OVERVIEW

The nVent RAYCHEM NGC-30 standard panel is based on the NGC-30 multi-circuit electronic control, monitoring and power distribution system for process-temperature maintenance and freeze-protection applications. The panels are available to control 20, 30, and 40 electric heat-tracing circuits and include power distribution. The panels use electro-mechanical relays (EMRs) supporting switching to 50A at 480 Vac with single or three-phase power. Up to four Resistance Temperature Detector (RTD) inputs for each heat-tracing circuit allow for a variety of combinations of temperature control, monitoring, and alarming. Systems can be configured for nonhazardous and hazardous locations (with the purge option). The ability to monitor and configure the controller is available both locally and remotely with the User Interface Unit (UIT2) and the optional nVent RAYCHEM Supervisor software.

### CONTROL

The RAYCHEM NGC-30 measures temperatures with 3-wire, 100-ohm platinum RTDs. The temperature information can be transferred to the NGC-30 control panel using hardwired RTDs, or through an optional Remote Monitoring Module (RMM2). Each RMM2 accepts up to eight RTDs that are typically located near the temperature measurement points. Multiple RMM2s may be networked over a single communications cable to the NGC-30, significantly reducing the cost of RTD field wiring. With EMRs the NGC-30 can be configured for On/Off, ambient sensing, and proportional ambient sensing control modes.

### MONITORING

The RAYCHEM NGC-30 can measure up to 12 control parameters including ground fault current, temperature, and heater current variables to ensure system integrity. Configurable alarm settings provide options for local or remote alarms. The system can be set to periodically check for heating cable faults, alerting maintenance personnel of a pending problem, helping to avoid costly down time. System status may be annunciated to a remote Distributed Control System (DCS) or other device using dry contact relays or via the communication ports.

### GROUND-FAULT PROTECTION

National electrical codes require ground-fault equipment protection on all heat-tracing circuits. Heat-tracing circuits equipped with RAYCHEM NGC-30 controllers do not require additional ground-fault detection equipment, simplifying installation and reducing costs.

### LOCAL MONITORING AND CONTROL

The RAYCHEM NGC-30 system is configured with a User Interface Terminal (UIT2) that provides a color touch screen interface for ease of programming.

### COMMUNICATIONS

The NGC-30 units can be networked to a host PC running Windows®-based RAYCHEM Supervisor client-server software for central programming, status review, and alarm annunciation. NGC-30 units support the Modbus® protocol and are available with an RS-232/RS-485 or 10/100Base-T Ethernet communication interface.



## STANDARD CONFIGURATION

- 72"H x 36"W x 24"D (includes 12" floor stands) Type 4X Enclosure with drip shield
- 42 Space 225A Cutler Hammer Panel Board, Copper bus
- NGC-UIT2 installed on front of panel
- #8 AWG THHN power wire
- Enclosure heater
- Panel drawing set

### Nonhazardous Locations



### Hazardous Locations (purged version)



## CONFIGURATION OPTIONS

- 20/30/40 Control Points
- 120/208 VAC (1, 2 and 3-pole available) or 277/480 VAC (1-pole switching only)
- Z-Purge

## ORDERING INFORMATION

Description	Catalog Number	Part Number
120/208VAC Panel, 20 Control Circuits	NGC30-S-20	10721-010
120/208VAC Panel, 30 Control Circuits	NGC30-S-30	10721-011
120/208VAC Panel, 40 Control Circuits	NGC30-S-40	10721-012
120/208VAC Panel, 20 Control Circuits, Purged	NGC30-S-20-P	10721-013
120/208VAC Panel, 30 Control Circuits, Purged	NGC30-S-30-P	10721-014
120/208VAC Panel, 40 Control Circuits, Purged	NGC30-S-40-P	10721-015
277/480VAC Panel, 20 Control Circuits	NGC30-S-20-4	10721-016
277/480VAC Panel, 30 Control Circuits	NGC30-S-30-4	10721-017
277/480VAC Panel, 40 Control Circuits	NGC30-S-40-4	10721-018
277/480VAC Panel, 20 Control Circuits, Purged	NGC30-S-20-4-P	10721-019
277/480VAC Panel, 30 Control Circuits, Purged	NGC30-S-30-4-P	10721-020
277/480VAC Panel, 40 Control Circuits, Purged	NGC30-S-40-4-P	10721-021

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