



**CONNECT AND PROTECT**

NGC-30 POWER CYCLE TEST

  
nvent

**RAYCHEM**

# POWER CYCLE TEST

## TECHNICAL INFORMATION SHEET

### NGC-30 POWER CYCLE FEATURE

---

During warm weather months, a heat trace system may not energize the heating cable for extended periods, even months. If any heat trace cable is damaged during warm weather periods, you might not know it until cold weather sets in and the affected pipe freezes. The Power Cycle Test feature allows the user to program an automatic test of the heat trace system so that any faults due to damage or other causes can be discovered before cold weather sets in. This is a very powerful tool for any preventive maintenance program.

The Power Cycle Test feature will independently energize each heat trace cable connected to the NGC-30 system and will monitor it for overcurrent\* and undercurrent\* and will also check that the RTD resistance is within its expected range. If any of these parameters are outside of the expected range, the NGC-30 System will issue a fault alarm. The NGC-30 System will display the fault on the User Interface Terminal and report it through nVent RAYCHEM Supervisor. Periodic check of the NGC-30 User Interface Terminal or RAYCHEM Supervisor by maintenance personnel will warn of the fault and allow it to be fixed before it the cable needs to apply heat to the pipe again.

Details of setup times and interval setting are discussed on the following page.

\* Alarm thresholds must be set for these parameters.

# POWER CYCLE TEST

The Power Cycle Test start time and test interval are set in the Setup/Maint. screen of the NGC-30 User Interface Terminal. The screen is shown in the figure below.

Main	Setup	Status	Events	Network	System	
1 ID 1-Relay Output 01-1						
Power Cycle Start Time		6	:	00		
Power Cycle Test Interval		24	Hours			
Heater Time Alarm		100000	Hours			
Relay Cycle Alarm		1000000				
Loop	RTDs	Temp	G.F.	Current	PASC	Maint.

## POWER CYCLE TEST INTERVAL ENTRY WINDOW

The default interval is 24 hours. The example in the screen in the previous page schedules a one-minute test every morning at 6:00 a.m. Other entries are possible, but multiples of 24 hours are recommended to preserve the predictable start-time. For instance, 48 hours will run the test at 6:00 a.m. every other day. 168 hours will run the test once a week starting with the first occurrence of 6:00 a.m. after the set-up procedure. To run the test twice a day, enter 12 hours etc.

Range: 1–1000 hours

Default: 24 hours

## POWER CYCLE START TIME ENTRY WINDOW

After entering a start time, the Power Cycle Test feature turns on the heat tracing for a one minute period starting at the indicated time and based on the programmed Test Interval. If the heater system is damaged during a season when the system would normally be turned off, the daily Power Cycle test can help detect the problem quickly, even within 24 hours. This is particularly helpful in warm months when heat tracing may not be energized.

Range: Any time selected from the 24-hour clock (00:00–23:59, where 00:00 is off)

### **North America**

Tel +1.800.545.6258  
Fax +1.800.527.5703  
thermal.info@nvent.com

### **Europe, Middle East, Africa**

Tel +32.16.213.511  
Fax +32.16.213.604  
thermal.info@nvent.com

### **Asia Pacific**

Tel +86.21.2412.1688  
Fax +86.21.5426.3167  
cn.thermal.info@nvent.com

### **Latin America**

Tel +1.713.868.4800  
Fax +1.713.868.2333  
thermal.info@nvent.com

Our powerful portfolio of brands:

**CADDY ERICO HOFFMAN RAYCHEM SCHROFF TRACER**



**nVent.com**