



CONNECT AND PROTECT

NGC-20
LOCAL CONTROL –
CENTRAL MONITORING

nVENT RAYCHEM NGC-20

THE RAYCHEM NGC-20 IS A FIELD-MOUNTED ELECTRONIC TEMPERATURE CONTROL UNIT PROVIDING LOCAL CONTROL AND CENTRAL MONITORING CAPABILITIES FOR INDUSTRIAL HEAT-TRACING APPLICATIONS.

THE RAYCHEM NGC-20 OFFERS UNIQUE FEATURES PROVIDING THE HIGHEST LEVEL OF SAFETY AND RELIABILITY WHILE ENABLING TRUE COST OPTIMISATION OF YOUR HEAT MANAGEMENT SYSTEM.

Control and monitoring has become increasingly important for industrial heat-tracing installations.

The reduction in the number of on-site maintenance personnel coupled with the demand for safe and reliable operation has increased the need for centralised access to critical information about the integrity of heat-tracing systems.

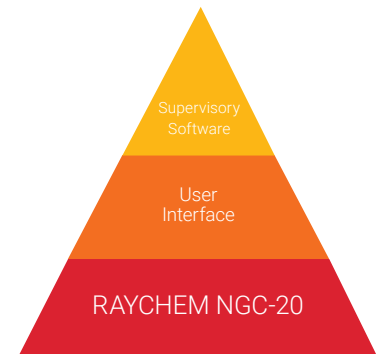
For improved production quality and higher yields, an increased number of circuits need to be controlled while temperature bands become narrower. A centralised control and monitoring system offers the benefits of monitoring and changing parameters from a single location.

The RAYCHEM NGC-20 has been designed to meet these objectives and combines the benefits of a centralised control system with the benefits of local control. Temperatures, ground fault currents, operating currents and other valuable information regarding the integrity of the heat-tracing circuit is monitored and displayed locally and communicated to a central location - to the right person at the right time.

Using the RAYCHEM NGC-20 control unit, the wiring cost of temperature sensors is eliminated since RAYCHEM NGC-20 units are installed in the field near the heating application. Status, disturbances and faults in the heat-tracing system are reported to the user with clear messages and alarms.

Monitoring and configuration of the RAYCHEM NGC-20 can be done remotely via the RAYCHEM User Interface Terminal (RAYCHEM UIT) and/or by using nVent RAYCHEM Supervisor software application. Additionally, a wireless hand held device is available offering a means of configuring and monitoring the electrical heat-tracing system in the field without opening the control unit.

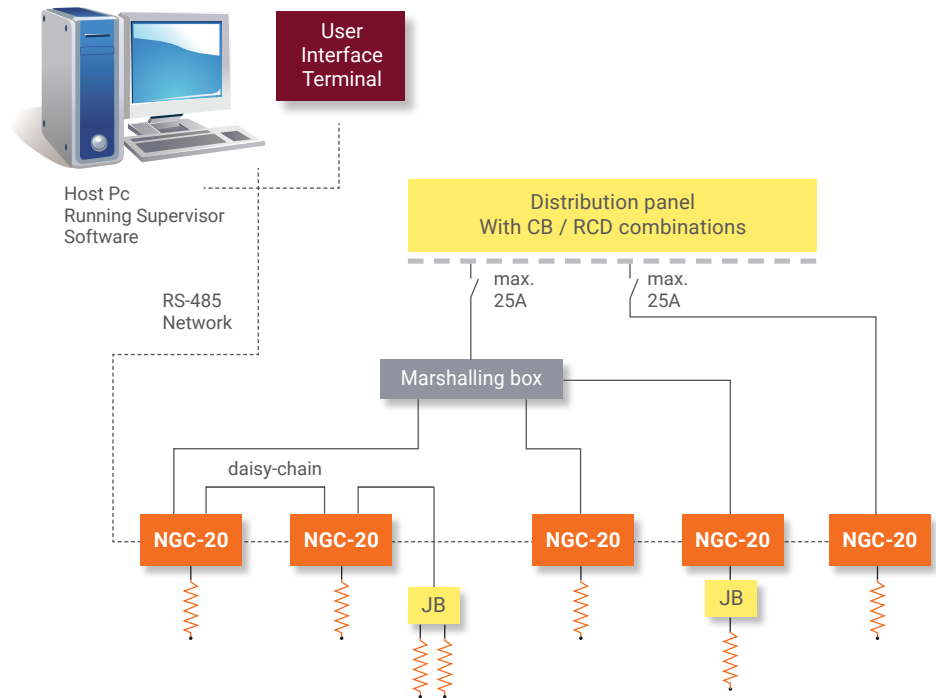
The RAYCHEM NGC-20 heat-tracing temperature control unit complements any Heat Management System and is true to nVent corporate commitment "We manage the heat you need".



Local Control - Central Monitoring

CONSIDERABLE COST SAVING BY LOCAL CONTROL


When selecting a RAYCHEM NGC-20 control unit (available with and without safety temperature limiter), the entire power distribution system benefits from its unique features. The RAYCHEM NGC-20 control unit provides considerable cost savings in power distribution cabling and eliminates RTD wiring without compromises in safety and reliability. For shorter circuits, multiple RAYCHEM NGC-20 control units can be daisy-chained to the same circuit breaker, significantly reducing the amount of power distribution cables required to feed the system. By having the control local in the field the size and complexity of the required power distribution panels can be significantly reduced. The panel specification can be standardised early in the engineering phase reducing the overall project schedule and costs.



RAYCHEM NGC-20 FEATURES

- Local control and central monitoring
- Control unit approved for hazardous areas, safety temperature limiter approved as SIL 2 device
- Central monitoring and configuration via user interface terminal (UIT) and/or RAYCHEM Supervisor client-server software
- User interface through portable handheld programming device
- Monitoring of status information, temperatures, supply voltage, ground fault and operating current; with fully configurable alarms
- Heating cable can be directly connected
- Dedicated control electronics per heating circuit and high current capacity of 25 A with hybrid switch

RAYCHEM NGC-20 BENEFITS

- Centralized access to critical heat-tracing information while having considerable cost savings by reduction of power cabling, RTD wiring and simplified power distribution panel design
- Unit can be directly installed in the field, closest to the heat-tracing circuit (Zone 1, 2, 21, 22 areas) and meets highest safety requirements 
- User interface terminal (UIT) and RAYCHEM Supervisor provide information for analysis leading into predictive maintenance. Heat-tracing control becomes integral part of Heat Management System
- Hand held device offering a means of monitoring the electrical heat-tracing system in the field without opening the control unit
- Permanent supervision of the integrity of the heat-tracing circuit. Detailed problem reporting simplifies maintenance and increases personnel safety
- Direct heater connections reduce the number of field junction boxes, lowering power cable costs and maintenance cost
- Highest reliability and long lifetime, even at elevated circuit loads by dedicated electronics and hybrid switch

UPGRADING FROM LOCAL THERMOSTATS TO AN INTEGRATED CONTROL SYSTEM HAS NEVER BEEN EASIER

A great feature of the RAYCHEM NGC-20 is that it offers the option to upgrade local thermostats with minimal disruption to an integrated control & monitoring system. By replacing local thermostats with RAYCHEM NGC-20 control units all previously unavailable heat-trace information will now be available in the control room, maintenance room or wherever required.

RAYCHEM NGC-20 INTEGRATED INTELLIGENT SAFETY TEMPERATURE LIMITER APPROVED AS SIL 2 DEVICE



The RAYCHEM NGC-20 control unit is available with an integrated safety temperature limiter. The RAYCHEM NGC-20 safety temperature limiter meets the requirements of IEC 61508: 2000 and is approved as SIL 2 device.

The safety temperature limiter has been equipped with a feature that can eliminate false alarms or trips caused by the process operating temperature exceeding the area classification.

RAYCHEM SUPERVISOR SOFTWARE BRINGS IT ALL TOGETHER

The RAYCHEM Supervisor (DTS) software package provides a graphic interface for the RAYCHEM NGC-systems. The software allows the user to configure and monitor various systems from a central location. Alarms can be acknowledged and cleared, as well as other advanced features such as data logging, trending, recipes and batching.

Users can access all information from anywhere in the world, making RAYCHEM Supervisor a powerful management tool for the entire Heat Management System.

The software is multi lingual and supports multi-client and multi-server architecture based upon Microsoft's .NET architecture and SQL server, a proven enterprise-class database system.



USER INTERFACE TERMINAL FOR EASY ACCESS ON SITE

The RAYCHEM User Interface Terminal (UIT) uses a state-of-the-art colour touch-screen and allows convenient access to all heat-tracing circuits. The UIT can be installed either in the local power distribution panel or remotely and supports both the RAYCHEM NGC-20 and RAYCHEM NGC-30. The UIT is available in two versions and can be used indoors and outdoors.

WIRELESS BLUETOOTH CONFIGURATION AND MONITORING DEVICE

An easy-to-use wireless handheld configuration and monitoring device enables local access to the RAYCHEM NGC-20 control units. The handheld device provides wireless communication to the RAYCHEM NGC-20 via Bluetooth and has an intuitive user interface for operators. The handheld device has an intuitive user interface eliminating needs for extensive training. The handheld programmer is available for hazardous (Zone 1, 2, 21, 22) and non-hazardous areas.

GROUND FAULT MONITORING SIMPLIFIES MAINTENANCE

Ground fault current monitoring offers a very good indication of the electrical integrity of the heat-tracing circuits.

The RAYCHEM NGC-20 control unit offers continuous monitoring of ground fault levels for each circuit. Increased ground-fault values and their reported status indicate potential maintenance needs and can be used to raise alarms long before an ELCB trips. The system identifies which branch circuit has the increased ground-fault current and action can then be taken before the circuit stops operating. This can significantly simplify maintenance activities.



The RAYCHEM NGC-20 System Overview



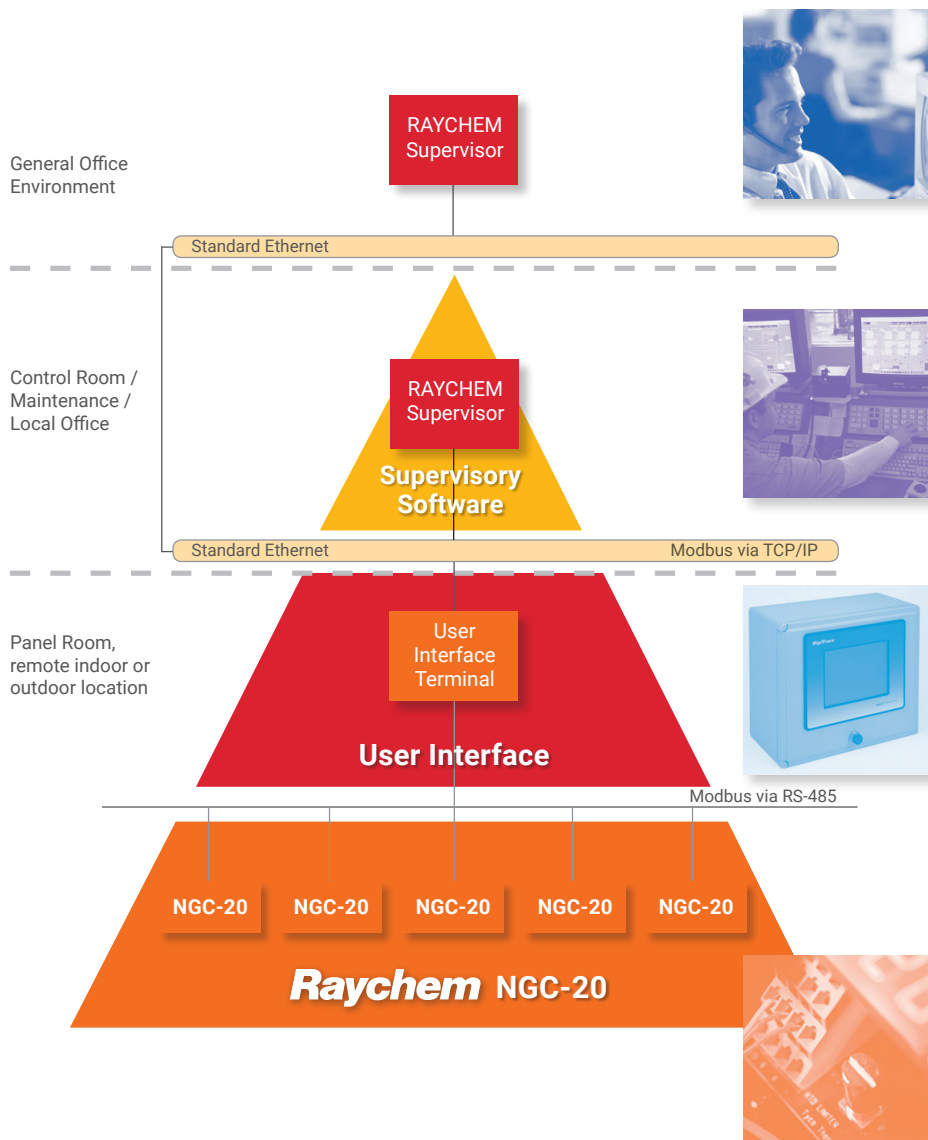
TRACING APPLICATIONS.

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THE RAYCHEM NGC-20 IS AVAILABLE WITH INTEGRATED INTELLIGENT SAFETY TEMPERATURE LIMITER.

The RAYCHEM NGC-20 offers unique features providing the highest level of safety and reliability while enabling true cost optimisation of your Heat Management System. Temperatures, ground fault currents, operating currents and other valuable information regarding the integrity of the heat-tracing circuit is monitored locally and communicated to a central location - to the right person at the right time.

The alarms and status information are displayed on the RAYCHEM User Interface Terminal (RAYCHEM UIT) and/or remotely using nVent RAYCHEM Supervisor software application. A wireless handheld device is available to configure and interrogate the electrical heat-tracing system locally in the field.



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Our powerful portfolio of brands:

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