

Trace-heating remote module for control

MoniTrace remote modules for control (RMC) provide multiple relay outputs for switching heating cable circuits controlled by the MoniTrace 200N trace-heating control and monitoring unit. RMC units are modular and may be configured with 2 to 32 relay outputs. A single MoniTrace 200N unit communicates with up to 10 RMC via a single, twisted pair RS-485 cable to provide distributed control of up to 128 heating cable circuits.

Control and monitoring

The MoniTrace 200N controls and monitors multiple trace-heating circuits based on pipe or ambient temperatures. These temperatures are collected locally by MoniTrace remote monitoring modules (RMM) connected on the same RS-485 network. Based on temperature inputs

from RMM, the MoniTrace 200N determines which heating cable circuits are to be energised and sends this information to RMC, which then turn on or off the heating cable power contactors. Because temperature inputs and control outputs are located near equipment to be sensed or controlled, wiring costs are reduced significantly.

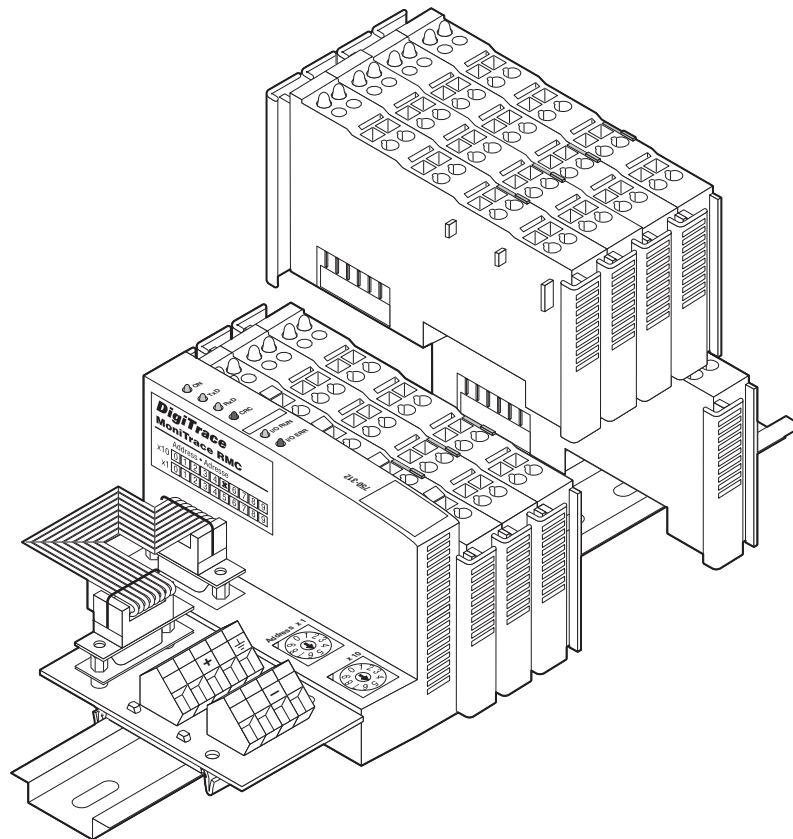
Alarm inputs

Each RMC unit includes two inputs to monitor the status of circuit breakers or power contactors. For example, one input may be used for a common circuit breaker trip alarm, providing an alarm indication at the MoniTrace 200N panel if any circuits fail due to earth fault or over-current events. Alarms may be reported remotely through an alarm relay in the

MoniTrace 200N or through an RS-485 connection to a host computer supporting the Modbus protocol. Up to 16 MONI-RMC-2DI 2 channel digital input moduls can be added if required.

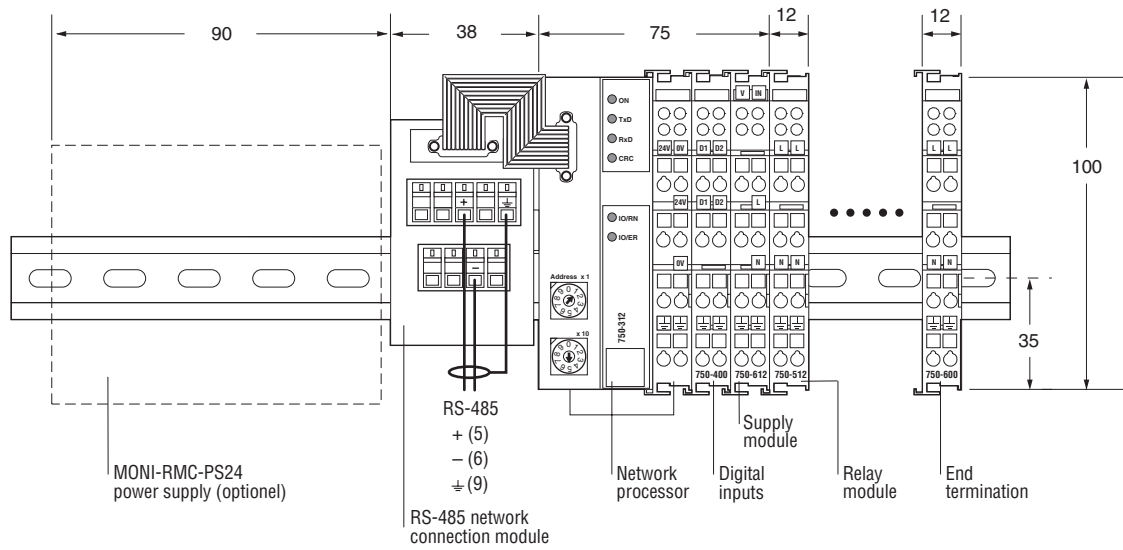
Configurations

The MoniTrace RMC are modular, electronic devices that mount on a DIN 35 rail. RMC units must be installed in panels or enclosures suitable for the area classification and environment. For each RMC installation, purchase one MONI-RMC-BASE kit, which includes the network processor, digital inputs, and end terminator; one MONI-RMC-PS24 24-Vdc power supply; and up to 16 MONI-RMC-2RO 2-channel relay output modules, as required.



**MONI-RMC-BASE unit with four
MONI-RMC-2RO modules removed**

Dimensions (in mm)



Overall width = 125 mm + 12 mm per relay module (+90 mm for optional power supply)

General

Area of use	Ordinary areas
Ambient operating temperature range	0°C to 55°C
Ambient storage temperature range	-40°C to 70°C
Relative humidity	Max. 95%, noncondensing
Protection	IP2X per IEC 529
Supply voltage	24 VDC
Supply current	< 2 A

Relay outputs

Quantity per RMC	1 to 16 two-channel modules (2 to 32 relay outputs)
Total relay outputs via RMCs	128
Type	Mechanical, normally open, non-floating
Voltage, maximum	250 VAC, 30 VDC
Current, maximum	AC/DC 2 A
Maximum power	60 W/500 VA (resistive)
Isolation	4 kV
Life (operations)	1 x 10 ⁶ at 0.35 A to 0.2 x 10 ⁶ at 2 A
Connection terminals	0.08 mm ² -2.5 mm ² (cage clamp)

Supply module

Voltage	230 V AC/DC
Current	10 A
Connection terminals	Cage clamp type for cables from 0.08 mm ² to 2.5 mm ²

Digital inputs

Quantity per RMC	Up to 16 two-channel modules (2 to 32 digital inputs)
Type	Solid-state, 24 VDC source
Current consumption	5 mA
Isolation	500 V
Connection terminals	0.08 mm ² -2.5 mm ² (cage clamp)

