

Heat-tracing remote module for control

DigiTrace remote modules for control (RMC) provide multiple relay outputs for switching heating cable circuits controlled by the DigiTrace NGC User Interface Terminal (NGC-UIT). RMC units are modular and may be configured with 2 to 40 relay outputs. A single DigiTrace NGC-30-UIT can communicate with up to 10 RMC via a single, twisted pair RS-485 cable to provide distributed control of up to 260 heating cable circuits.

Control and monitoring

The DigiTrace NGC-30 controls and monitors multiple heat-tracing circuits based on pipe or ambient temperatures. These temperatures can be collected locally by DigiTrace remote monitoring modules (RMM2) connected on the same RS-485

network. Based on temperature inputs from the RMM2, the DigiTrace NGC-UIT 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.

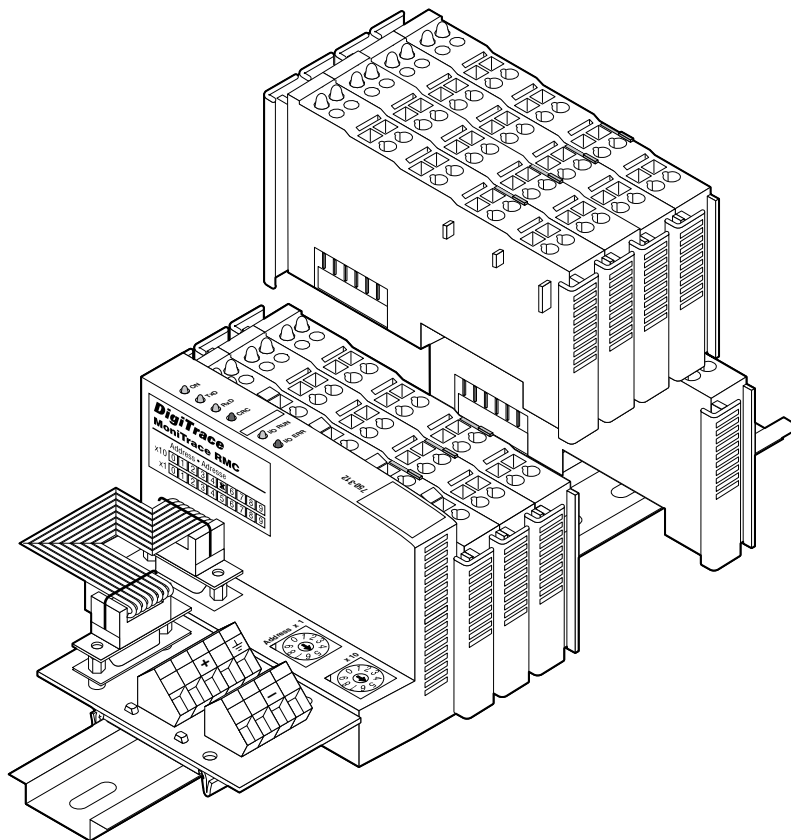
Alarm inputs

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 DigiTrace NGC-UIT if any circuits fail due to earth fault or overcurrent events. Alarms

may be reported remotely through an alarm relay in the DigiTrace NGC-UIT or through an RS-485 connection to DigiTrace Supervisor. Up to 20 MONI-RMC-2DI 2 channel digital input moduls can be added if required.

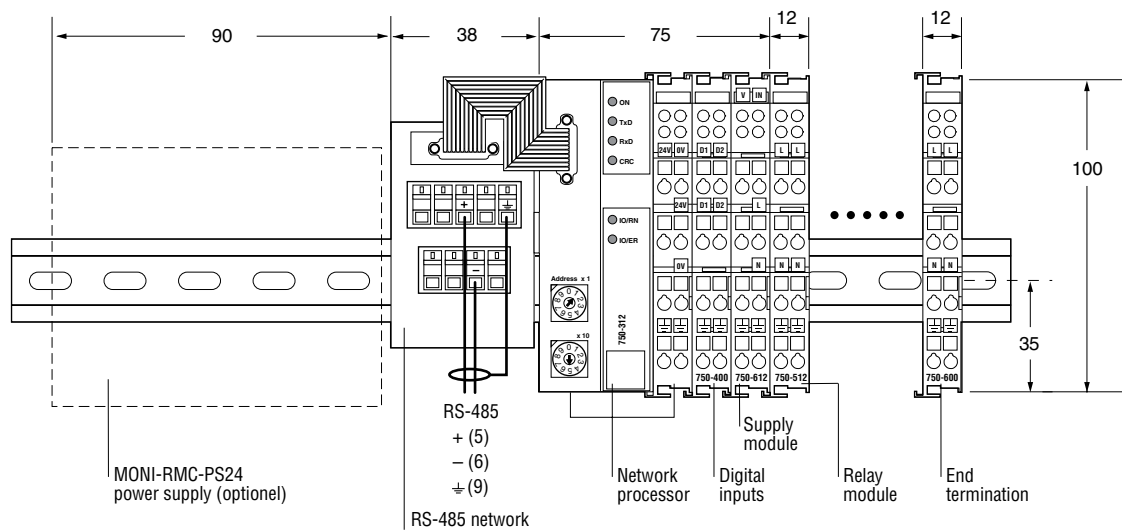
Configurations

The 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)



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 20 two-channel modules (2 to 40 relay outputs)
Total relay outputs via RMCs	260
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 , Spring-type

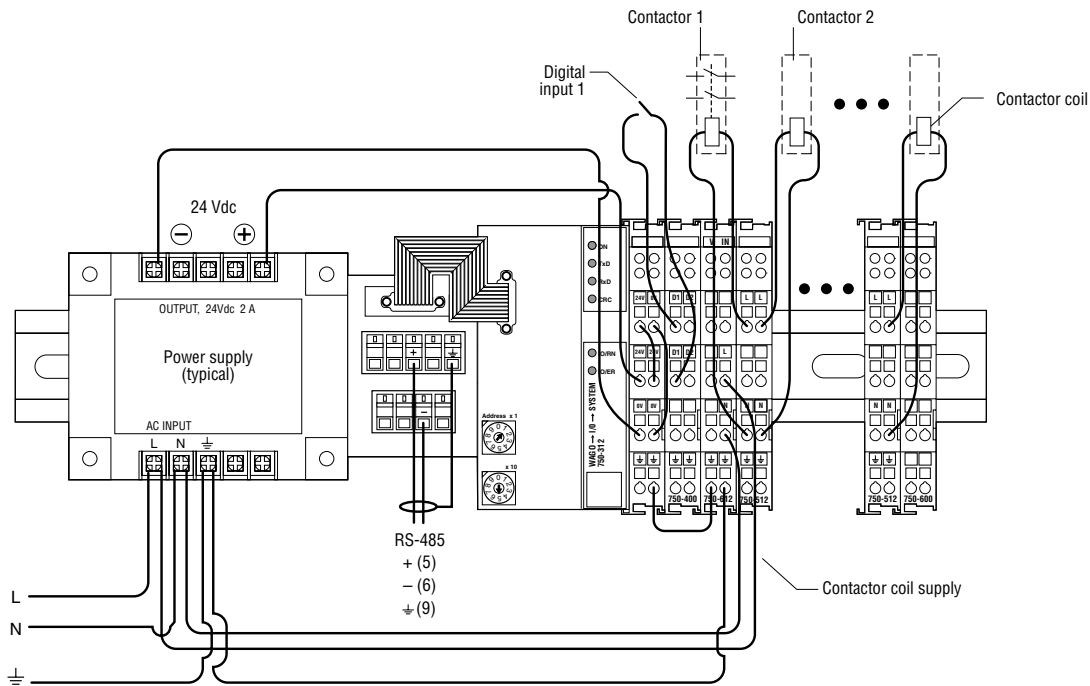
Supply module

Voltage	230 Vac/dc
Current	10 A
Connection terminals	Spring-type for cables from 0.08 mm ² to 2.5 mm ²

Digital inputs

Quantity per RMC	Up to 20 two-channel modules (2 to 40 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 (Spring-type)

Connection details



Communication to DigiTrace NGC-UIT

Type	RS-485
Connection terminals	0.08 mm ² to 2.5 mm ² (Spring-type)
Cable	1 shielded twisted pair
Length	1200 m max.
Quantity	Up to 10 RMC may be connected to one DigiTrace NGC-UIT
Address	Switch-selectable on RMC, 10 addresses, 1-99

Mounting method

Clips to DIN 35 rail

Electromagnetic compatibility

Immunity	Complies with EN 50 082-2 (heavy industrial)
Emissions	Complies with EN 50 081-2 (heavy industrial)

Ordering details & weight	Part description	Product Number	Weight
Remote module for control (RMC)			
Base unit*	MONI-RMC-BASE	309735-000	0.5 kg
Two-channel relay output module**	MONI-RMC-2RO	920455-000	0.05 kg
Two-channel digital input module***	MONI-RMC-2DI	062367-000	0.05 kg
24 Vdc power supply	MONI-RMC-PS24	972049-000	0.7 kg

* Purchase one base for each RMC installation. Includes network processor, two digital inputs, end termination, and RS-485 connection module with ribbon cable.

** Purchase one module for each set of two relay outputs required. Minimum of one module (2 relay outputs), maximum of 20 (40 relay outputs) per RMC base.

*** Purchase one module for each set of two digital inputs required. Minimum of one module (2 digital inputs), maximum of 20 (40 digital inputs) per RMC base. Additional module for each pair of digital inputs required. One MONI-RMC-2DI module is included in each MONI-RMC-BASE unit

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