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NC-100 and NC-100R
Control and Relay Modules for the FireWarden-100

Section: Addressable

GENERAL

The **NC-100 Addressable Control Module** provides NOTIFIER's **FireWarden-100** intelligent control panels a supervised Class B (Style Y) or Class A (Style Z) circuit for Notification Appliances (horns, strobes, etc.). Addressability allows the NC-100 to be activated, either manually or through panel programming, on a select (zone or area of coverage) basis.

The **NC-100R Addressable Relay Module** provides the FireWarden-100 system with two isolated sets of Form-C dry-contact outputs for activating a variety of auxiliary devices, such as fans, dampers, door holders, control equipment, etc. Addressability allows the dry contact to be activated, either manually or through panel programming, on a select basis.

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California State Fire Marshal
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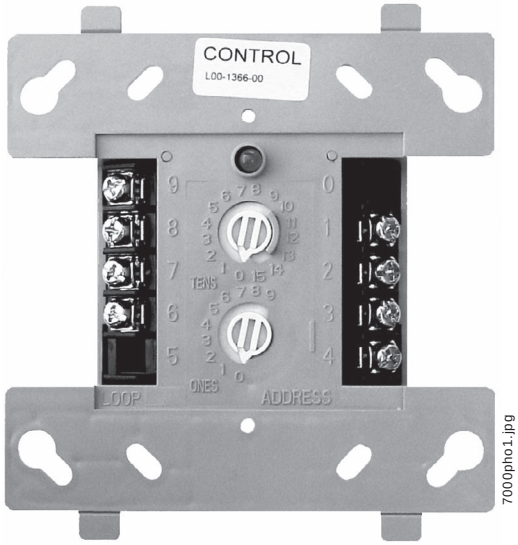

NC-100 and NC-100R module

FEATURES

- Built-in type identification automatically identifies these devices to the control panel.
- Internal circuitry and relay powered directly by two-wire SLC loop. The NC-100 module requires power (for horns, strobes, etc.).
- Integral LED "blinks" green each time a communication is received from the control panel and turns on steady when activated.
- High noise immunity (EMF/RFI).
- The NC-100 may be used to switch 24-volt NAC power.
- Wide viewing angle of LED.
- SEMS screws with clamping plates for wiring ease.
- Direct Decade 01-99 (FireWarden-100) entry of address.

APPLICATIONS

The NC-100 is used to switch 24 VDC audible/visual power. The NC-100R may be programmed to operate dry contacts for door holders, Air Handling Unit shutdown, etc.

CONSTRUCTION

- The face plate is made of off-white Noryl®.
- Controls include two rotary switches for direct-dial entry of address (01-99 on the FireWarden-100).
- The NC-100 is configured for a single Class B (Style Y) or Class A (Style Z) Notification Appliance Circuit.
- The NC-100R provides two Form-C dry contacts that switch together.

OPERATION

Each NC-100 or NC-100R uses one of 99 (FireWarden-100) possible module addresses on a SLC loop. It responds to regular polls from the control panel and reports its type and status, including the open/normal/short status of its Notification Appliance Circuit (NAC). The LED blinks with each poll received. On command, it activates its internal relay. The NC-100 supervises Class B (Style Y) or Class A (Style Z) notification or control circuits.

Upon code command from the panel, the NC-100 will disconnect the supervision and connect the external power supply in the proper polarity across the load device. The disconnection of the supervision provides a positive indication to the panel that the control relay actually turned ON. The external power supply is always relay isolated from the communication loop so that a trouble condition on the external power supply will never interfere with the rest of the system.

Rotary switches set a unique address for each module. The address may be set before or after mounting. The built-in TYPE CODE (not settable) will identify the module to the control panel, so as to differentiate between a module and a sensor address.

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SPECIFICATIONS *FOR NC-100*

Normal operating voltage: 15 to 32 VDC.

Maximum current draw: 5.1 mA (LED on).

Average operating current: 390 µA (LED flashing).

External supply voltage *(between Terminals T3 and T4):* maximum 80 volts (RMS or DC).

Drain on external supply: 2 mA maximum (using internal EOL relay).

EOL resistance: 47K ohms.

Temperature range: 32°F to 120°F (0°C to 49°C).

Humidity range: 10% to 93% noncondensing.

Dimensions: 4.5" (11.43 cm) high x 4.0" (10.16 cm) wide x 1.25" (3.175 cm) deep. Mounts to a 4.0" (10.16 cm) square x 2.125" (5.398 cm) deep box.

SPECIFICATIONS *FOR NC-100R*

Normal operating voltage: 15 to 32 VDC.

Maximum current draw: 5.1 mA (LED on).

Average operating current: 270 µA (LED flashing).

EOL resistance: not used.

Temperature range: 32°F to 120°F (0°C to 49°C).

Humidity range: 10% to 93% noncondensing.

Dimensions: 4.5" (11.43 cm) high x 4.0" (10.16 cm) wide x 1.25" (3.175 cm) deep. Mounts to a 4.0" (10.16 cm) square x 2.125" (5.398 cm) deep box.

PRODUCT LINE INFORMATION

NC-100 Intelligent addressable control module.

NC-100R Intelligent addressable relay module.

SMB500 Optional surface-mount backbox.

CB500 Control module barrier — required by UL for separating power-limited and non-power limited wiring in the same junction box as NC-100.

RELAY CONTACT RATINGS *for both control and relay models*

Load Description	Application	Maximum Voltage	Current Rating
Resistive	Non-Coded	30 VDC	3.0 A
Resistive	Coded	30 VDC	2.0 A
Resistive	Non-Coded	110 VDC	0.9 A
Resistive	Non-Coded	125 VAC	0.9 A
Inductive (L/R = 5 ms)	Coded	30 VDC	0.5 A
Inductive (L/R = 2 ms)	Coded	30 VDC	1.0 A
Inductive (PF = 0.35)	Non-Coded	125 VAC	0.5 A

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MOUNTING DIAGRAMS

Note CB500 Module Barrier, which creates isolated quadrant.