

FX-NAC Analog NAC Module Installation Sheet

Operation

The module is an analog addressable device used to connect a supervised output circuit to a signal riser. The output wiring is monitored for open and short circuits. A short circuit causes the module to inhibit the activation of the audible/visual signal circuit so the riser is not connected to the wiring fault. Upon command from the control panel, the module connects the output circuit to the riser input. The output circuit energizes a riser to operate polarized audible and visual signals. The module can be used for connection of a Class A or Class B (with EOL) output notification appliance circuit (NAC).

The device address is set using the two rotary switches located on the front of the module. One device address is required.

The module is configured to operate as a Genesis Audible/Visual/Silence device type from the factory. The module can also be configured for other device types through front panel programming or the configuration utility. Refer to the applicable control panel technical reference manual for a list of available device types.

Genesis Audible/Visual/Silence: Used with Genesis and Enhanced Integrity horns and strobes. Genesis and Enhanced Integrity appliances maintain synchronization per UL 1971. For Genesis devices, this configuration allows connected horns to be silenced while strobes on the same two-wire circuit continue to flash until the panel is reset.

LED operation

The module provides a bicolor LED that shows its status.

Normal: Green LED flashes

Active: Red LED flashes

Installation

Install and wire this device in accordance with applicable national and local codes, ordinances, and regulations.

WARNINGS

- This module will not operate without electrical power. As fires frequently cause power interruption, you should discuss further safeguards with your local fire protection specialist.

Note: The module is shipped from the factory as an assembled unit; it contains no user-serviceable parts and should not be disassembled.

To install the module:

- Verify that all field wiring is free of opens, shorts, and ground faults.
- Make all wiring connections as shown in "Wiring" and Figure 3.
- Set the module address. Refer to the panel technical reference manual for a list of valid addresses.

Use a screwdriver to adjust the two rotary switches on the front of the module. Set the TENS rotary switch (0 through 12) for the 10s and 100s digit and the ONES rotary switch for the 0 through 9 digit. For example: device address 21, set TENS rotary switch to 2 and set the ONES rotary switch to 1 (see Figure 1).

- Mount the module on the electrical box using screws provided with the electrical box.
- Mount the wall plate on the module using #4-24 x 1/2 in. (13 mm) self-tapping screws.

Figure 1: Module address

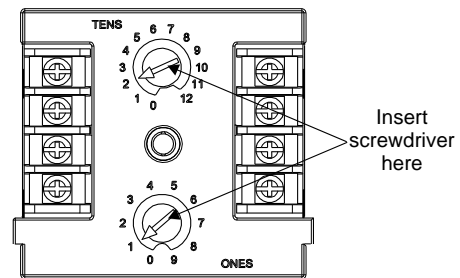
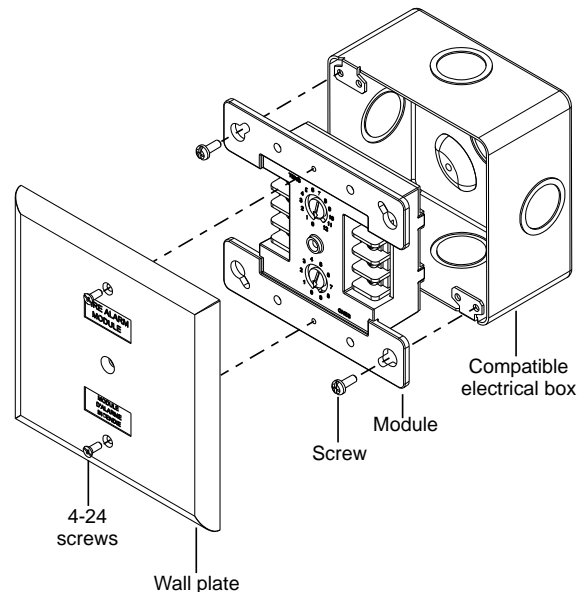


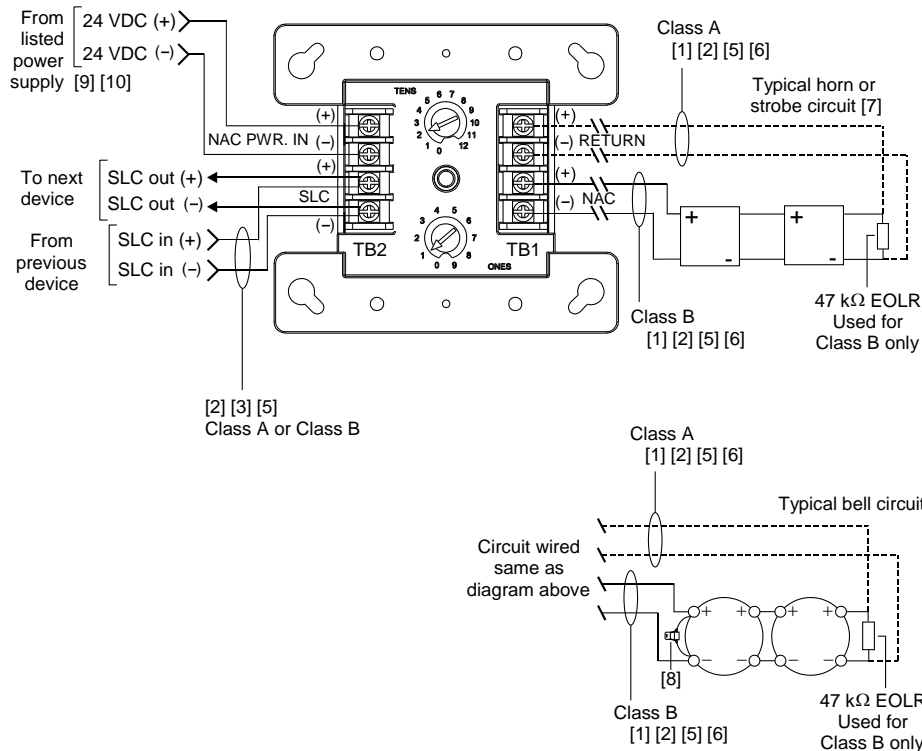
Figure 2: Module installation



Wiring

Wire the device as shown in Figure 3. Be sure to observe the polarity of the wires.

Figure 3: Module wiring



Notes

- [1] Maximum 25 Ω resistance per wire. Maximum circuit capacitance of 0.1 μF.
- [2] Maximum 12 AWG (2.5 sq. mm) wire; minimum 18 AWG (0.75 sq. mm) wire
- [3] Refer to the control panel technical reference manual for wiring specifications
- [4] If the NAC power riser is used for more than one notification zone, install in accordance with the survivability from attack by fire requirements in NFPA 72
- [5] Supervised – Class A or Class B
- [6] Polarity shown in active condition. Polarity reverses on supervisory condition
- [7] Typical synchronized temporal horn/strobe circuit when configured as Class A/B auto sync signal output module through programming
- [8] Transient protection (see “Transient protection caution” below)
- [9] Supervised, 16.5v trouble threshold. Approximately 20 second delay fault reporting
- [10] In order to have a Class A output of the FX-NAC the SLC inputs must be Class A and the power input circuit needs to be in same cabinet or contained within the same room by no more than 20' in conduit.
- [11] For further wiring information, refer to panel documentation

Transient protection caution

The module requires transient protection for installations that connect electromechanical bells or horns to output circuits. The module's circuitry requires a bipolar transient protector (P/N 235196P) for protection against transient spikes caused by the inductive load of bells or horns.

Connect the bipolar transient protector assembly across the terminals of the bell or horn electrically closest to the module. The bipolar transient protector is not polarity-sensitive.

Locate bells and horns at least 6 ft. (1.83 m) from the module.

Specifications

Communication line voltage	Maximum 20.6 V peak-to-peak
Current	
Standby	280 μA
Activated	100 μA
Ground fault impedance	10 kΩ
Operating environment	
Temperature	32 to 120°F (0 to 49°C)
Relative humidity	0 to 93% noncondensing at 90°F (32°C)

Output ratings

Circuit current	24 VDC at 2 A max.
EOL resistor value	47 kΩ UL listed

Storage temperature range	-4 to 140°F (-20 to 60°C)
---------------------------	---------------------------

Compatible electrical boxes	North American 4 inch square x 2-1/2 in. (64 mm) deep 2 gang box Standard 4 in. square box 1-1/2 in. (38 mm) deep
-----------------------------	--

Wire size	12, 14, 16, or 18 AWG wire (2.5, 1.5, 1.0, or 0.75 mm ²) (Sizes 16 and 18 AWG are preferred)
-----------	---

Contact information

For contact information, see www.kiddelifesafety.com

© 2018 United Technologies Corporation
All rights reserved.