

DC-M9420

Synchronized Function Module



Description

The Synchronized Function Module (SFM) is designed to allow Non-Addressable Horns, Strobes, and Audible/Visible units to be put on the same Notification Appliance Circuit (NAC). This allows the silencing of the Horns without deactivation of the Strobes. The SFM connects to and derives power from a reverse polarity Notification Appliance Circuit (NAC). It activates the visible appliances when the NAC is in the forward polarity (alarm state), and uses energy from this circuit to power the attached Non-Addressable (or other) notification appliances.

When the NAC is in the reverse polarity, or supervision state, the SFM is off, and connects the NAC to the units wiring for traditional appliance supervision.

The SFM uses a 2nd circuit from the panel to control operation of audible appliances connected to the SFM output. The SFM also supports Class A wiring configurations, and synchronization across multiple Non Addressable NACs.

Features

The SFM requires a signal from FACP notification appliance circuits to control Horns and strobes on a Non Addressable NAC. The SFM uses these circuits to power attached Notification Appliances, and control Horn and Strobe operation. A once-a-second pulse on the NAC output synchronizes the flashing of Strobes. The Horn appliances on SFM enabled devices are controlled via SFM signals transmitted from the SFM output during certain strobe synchronization pulses. The SFM have three signaling output outputs:

- DC signaling
- Sync pulse only,
- Sync for multi-tone applications.

• DC Input

The DC Input connection on the SFM provides power for this device and attached NAC appliances. The DC input must be driven by a fully functioning reverse polarity non-coded NAC output from the FACP or DC power. The module is not powered when this circuit is in the reverse polarity state, if powered by the FACP, supervision of SFM

wiring is performed; if powered by external DC power, SFM rather than the FACP supervise the SFM wiring.

• Horn Input

The Horn input is driven by a non-coded FACP output. A positive voltage commands the horn appliances attached to the module's NAC OUT wiring to operate. A reverse polarity voltage, or a zero voltage condition, will turns the horn appliances off.

• Sync Input

Synchronous signal input port, if the module is working in slave mode, its NAC OUT port is synchronization with SYNC IN port. Maximum 8-SFMs connected together for multiple synchronized operation in same zone.

• Multi-Sync Feature

Groups of SFMs can synchronize appliances across multiple NACs. Each SFM has a Multi-Sync port with input and an output connection. These ports can be daisy-chained together. The first SFM in the chain is set via DIP switch to be the Multi-Sync "master", it generates the sync signals. The other SFMs have their DIP switches set for slave operation: they follow the sync signals.

• Supervision

Supervision of SFM wiring is performed by the attached FACP (if powered by FACP), or by itself (if powered by external DC supply). The NAC output from the panel connected to the NAC IN monitors the wiring through the SFM and out to the EOL resistor after the last appliance on the Non-Addressable NAC. If the SFW is powered by external power supply, SFM will monitor the wiring through the EOL resistor after the last appliance, which will not be transmitted to FACP.

• Class A

The SFM supports Class A wire run configurations extending from the module, through the appliances, and back to the EOL resistor at the SFM Class A. The EOLR at the Class A terminal is internal to the SFM.

Technical Specification

Input Voltage	DC(16~33)V
NAC Output	16-33V
Nominal Voltage	Regulated 24 VDC
Positive Polarity Current Consumption	35mA @ 33V
Circuit Load	4.0 Amp maximum
Terminal Wiring	18AWG~12AWG(0.82mm ² ~3.31mm ²)
Temperature Range	0° C~+49° C
Humidity Range	10%~93%RH, non-condensing @ 38° C
Dimensions (h×w×d)	(114×114×29)mm
Ingress Protection Rating	IP22
Mounting Box	4×4 inch Double Gang Box

Certification and Compliance

- UL Listed
- WEEE & RoHS compliant

Order Information

Part No.	DC-M9420
Device Name	Synchronized Function Module
Product No.	61401100
Compatible Products	DC-M9428 Mini Horn DC-M9430 Lower Consumption Wall Mount Multitone/Strobe DC-M9431 Wall Mount Multitone DC-M9432 Wall Mount Strobe DC-M9433 Wall Mount Multitone/Strobe DC-M9435 Wall Mount Chime/Strobe DC-M9439 Wall Mount Chime