NOTIFIER® by Honeywell

HS-NCM

High-Speed Network Communication Modules



HS-NCM

General

The **High-Speed Network Communications Module (HS-NCM)** provides NOTIFIER's **AFP-2800,** and **AFP-3030** Fire Alarm Control Panels, **NCA-2** Network Control Annunciators, and **DVC** Digital Voice Command with a means to connect to **High-Speed NOTI•FIRE•NET™**. Six types of **HS-NCM** are available: **HS-NCM-W** for connecting nodes with twisted-pair wire, **HS-NCM-MF** for connecting nodes with multi-mode fibre-optic cable, **HS-NCM-SF** for connecting nodes with single-mode fibre-optic cable, **HS-NCM-WMF** for connecting wire and multi-mode fibre-optic medium on the same network, **HS-NCM-WSF** for connecting wire and single-mode fibre-optic mediums on the same network and **HS-NCM-MFSF** for connecting multi-mode and single-mode fibre optic mediums on the same net-work.

Each **HS-NCM** can accommodate up to two node addresses. For example, one **HS-NCM** can provide network communication for both an **AFP-3030** and an **NCA-2**.

When not connected to a fire alarm panel, the **HS-NCM** defaults to repeater mode and can be used to boost signal distances or to pass data transmissions between two differently configured network segments when wire and fibre co-exist on a network.

Wire Medium Features

- Supports twisted-pair wire medium.
- Open or Closed network operation.
- Transformer coupling provides electrical isolation between nodes.
- Pluggable terminal wiring with strain relief.
- Pluggable service connector (feeds signal directly through) in the event that power must be removed from a node.
- 12 Mb transmission rate.
- Data is regenerated at each node.
- Two network ports to allow simultaneous connection to fire alarm control panel and to programming computer.
- Enables software and database upload/ download over **High-Speed NOTI•FIRE•NET™.**
- Up to 915 m between nodes in a point-to-point fashion (actual distance varies with wire quality).

HS-NCM-W Interconnections: When wiring consecutive HS-NCM-W boards, wiring may enter or exit at Port A or Port B. HS-NCM-W port-to-port wiring is polarity sensitive; use of Port A or Port B is not arbitrary. An **HS-NCM-W** may be connected to any of the following devices: **HS-NCM-W** (in another panel), **HS-NCM-WMF, HS-NCM-WSF.**

HS-NCM-W Switch Functions: The **HS-NCM-W** provides one set of switches to simplify network setup. Enable **ground fault detection** by setting "ON" switch SW4-1 (Channel A); switch SW4-2 (Channel B). NOTE: Correct configuration is dependent on network design; refer to the **High-Speed NOTI•FIRE•NET™** manual, PN 54013).

For further information and diagrams, refer to the HS-NCM Installation Document, 54014.

Fibre Medium Features

- Supports fibre-optic medium.
- Open or closed network operation.
- Data is immune to all environmental noise.
- Optical isolation prevents ground loops.
- **High-Speed NOTI•FIRE•NET™** fibre-optic medium.
- Fibre type: 62.5/125 micrometers (multi-mode); 50/125 micrometers (multimode), or 9/125 micrometers (single-mode).
- Maximum attenuation is 10 dB with 62.5/125 µm cable, and 6.5 dB with 50/125 µm cable, and 30 dB with 9/125 µm cable.
- Wavelength (1): 1310 nanometers.
- Connectors: LC style.
- 100 Mb baud transmission rate.
- Data is regenerated at each node.
- Two network ports to allow simultaneous connection to fire alarm control panel and to programming computer.
- Enables software and database upload/download over **High-Speed NOTI•FIRE•NET™.**

HS-NCM-MF/SF Interconnections: When wiring consecutive nodes/repeaters, fibre cable must exit one board on Transmit (TX) and enter the next node/repeater on Receive (RX). The fibre-optic pair (RX, TX) from Port A of one node/repeater connects to Port B of another node/repeater. A **HS-NCM-MF/SF** may be connected to any of the following devices: HSNCM-MF/SF (respectively) on another panel, **HS-NCM-WMF**, **HS-NCM-WSF**, **HS-NCM-MFSF**.

Common Specifications

Temperature and humidity ranges: This system operates at 0°C to 49°C; and at a relative humidity (noncondensing) 93% ± 2% at 32°C ± 2°C. However, the useful life of the system's standby batteries and the electronic components may be adversely affected by extreme temperature ranges and humidity. Therefore, it is recommended that this system and all peripherals be installed in an environment with a nominal room temperature of 15°C to 27°C.
Weight: 147.4 g
Power supply: 24 VDC @ 400 mA

Mounting

All models of the HS-NCM can be installed in any standard chassis such as the CHS-4L, CHS-3L chassis. Additionally, the HS-NCM can be mounted on AFP-3030 and NCA-2 CPU.

Product Line Information

Product Odering

HS-NCM-W:	High-Speed Network Communications Module, twisted-pair wire interface.
HS-NCM-MF:	High-Speed Network Communications Module, fibre-optic cable interface (multi-mode).
HS-NCM-SF:	High-Speed Network Communications Module, fibre-optic cable interface (single-mode)
HS-NCM-WMF:	High-Speed Network Communications Module, wire and fibre-optic cable interface (wire/multi-mode).
HS-NCM-WSF:	High-Speed Network Communications Module, wire and fibre-optic cable interface (wire/single-mode).
HS-NCM-MFSF:	High-Speed Network Communications Module, fibre-optic cable interface (multi-mode/single-mode).

Agency Listings and Approvals

The following listings and approvals apply to the HS-NCM. In some cases, certain modules or applications may not be listed by certain approval agencies, or listing may be in process. HS- NCM is listed as compatible component of the stated Control and Indicating Equipment (CIE). Consult CIE approvals for listing status.

This document is not intended for installation purposes. We try to keep our product information up-to-date and accurate. We cannot cover all specific applications or anticipate all requirements. All specifications are subject to change without notice.

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