

MODBUS-GW

Modbus Gateway



Network Systems

General

The Modbus Gateway provides a communication link between networks that use the Modbus/TCP communication protocol and Fire Alarm Control Panels (FACPs) resident on an NFN network.

The Modbus Gateway communicates with the NOTI-FIRE-NET network via the network port on any NCM. The Modbus communication protocol is consistent with Modbus Application Protocol Specification V1.1b.

The Modbus Gateway is designed to need very little configuration; no separate configuration utility is required. In most applications you will only need to enter the TCP/IP settings for your network and the nodes you would like to monitor. The gateway will automatically map all the configured points and supply you with a user friendly comma-separated value report that defines the mapping.

Features

- Compatible with standard and high speed NOTI-FIRE-NET.
- Monitor four compatible NFN or HS-NFN nodes not including the Modbus Gateway node itself.
- Provide data such as event type, active/inactive, enabled/disabled, acknowledged/unacknowledged, device type, analog value (4-20ma modules only) and system troubles.
- Support reads of up to 100 registers at a time. Analog values can be read 10 registers at a time.
- Log diagnostic information.
- Send standard Modbus exception responses.
- Reduce configuration time by auto-discovering and mapping points.

MODBUS MASTERS COMPATIBLE

- The Modbus Gateway was designed to be compatible with standard Modbus/TCP masters.
- Support one-byte Unit IDs.
- Have configurable polling times.
- The Modbus Gateway supports one Modbus Master.

PANEL COMPATIBLE

The Modbus Gateway was designed to be compatible with the following panels:

- NFS-320
- NFS-640
- NFS2-640
- NFS-3030
- NFS2-3030



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Standards and Codes

The Modbus Gateway is recognized by UL as an ancillary (supplementary) reporting device. It complies with the following UL/ULC Standards and NFPA 72 Fire Alarm Systems requirements.

- **UL 864:** Control Units for Fire Alarm Systems, Ninth Edition
- **UL 2017:** General-Purpose Signaling Devices and Systems, First Edition
- **CAN/ULC-S527-99:** Standard for Control Units for Fire Alarm Systems, Second Edition
- **CAN/ULC-S559-04:** Equipment for Fire Signal Receiving Centres and Systems, First Edition

Listings and Approvals

These listings and approvals apply to the modules specified in this document. In some cases, certain modules or applications may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- **UL/ULC Listed:** S635
- **CSFM:** 7300-0028:250
- **FDNY:** COA#6047

System Architecture & Requirements

An Internet or Intranet IP network connection is required to configure the Modbus Gateway, and to connect it with Modbus clients. The Internet or Intranet IP network connection must meet the following requirements.

- Private or Business LAN
- Static IP address required
- Standard 100Base-T connection
- Required Ports(s): 502

REQUIRED EQUIPMENT

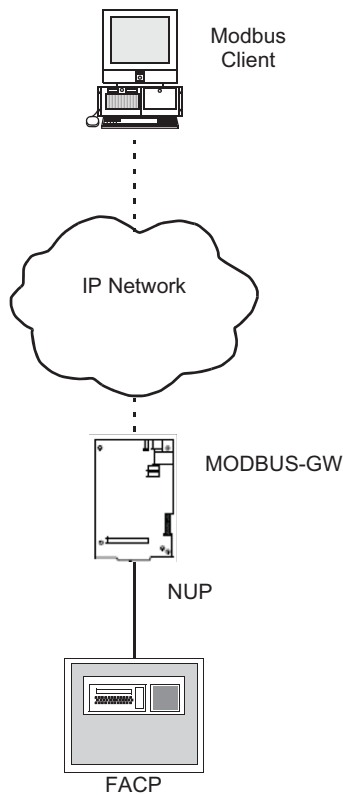
- MODBUS-GW-NFN Modbus Embedded Gateway.
- Network Control Module
- NFN Network - Version 5.0 or above

NETWORK COMPONENTS

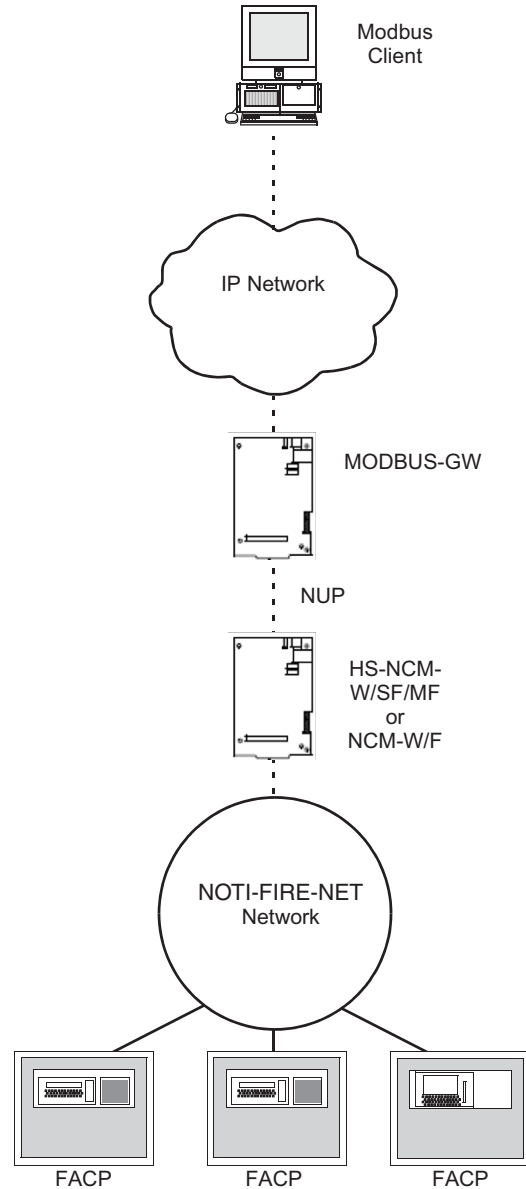
- RJ45 to RJ45 standard Ethernet network cable-customer's internet or intranet connection to Modbus Gateway
- NFN network-version 5.0 or above (sold separately)
- High Speed Network Communication Module: HS-NCM-W/SF/MF board-used to facilitate network communication between the Modbus Gateway and a High Speed NFN network or Network Communication Module: NCM-W/F board-used to facilitate network communication between the Modbus Gateway and an NFN network.
- Cabinet and Hardware (sold separately)
 - CAB-4 series cabinet.
 - CHS-4L chassis.

CUSTOMER SUPPLIED EQUIPMENT

- Windows XP Professional with Internet Explorer running Java version 6 or higher



Sample System: Modbus Gateway Direct to Fire Alarm Control Panel



Sample System: Modbus Gateway on NOTI-FIRE-NET Network

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This document is not intended to be used 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.
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