Remote monitoring of server and network peripheral devices

**Server Room**

The NHL-FV supports various protocols to communicate with network devices and is able to notify local personnel of issues on the network via visual and audible signals and remote personnel via email.

- **SNMP**
- **Monitor HDD**
- **LAN**
- **Server Problem**
- **PING**
- **Power Supply**
- **Network device issue detected**

**Customer Support**

The NHL monitors nodes on multiple call center networks. If ping responses fail from certain nodes, the NHL will notify an administrator by visual or voice alert indicating which call center has gone down and needs call rerouting.

- **Call Center 1**
- **Support Center**
- **Call Center 2**

**Remote tank level monitoring**

Without warning, remotely located tanks run dry, leading to extended downtime. The LA6 is a visual level meter, able to notify remote personnel of level statuses in real-time.

- **Building 1**
- **Interface Converter**
- **Annexation Building**
- **NH-FV**
- **NHL SERIES**
- **Signal Towers**
- **E-mail sent to remote personnel**

**Mirroring display of production facility**

A master LA6-POE located at the production site is able to mirror status of up to 8 LA6-POE devices, notifying personnel of production issues located in remote locations.

- **Manufacturing Site**
- **LA6-POE**
- **Mirror on up to 8 devices**
- **Notify remote personnel of issues at the production site**
- **Call production line**
- **Automation processing line**

**Network existing equipment**

Improve response time by converting your existing equipment to network-enabled devices capable of notifying remote personnel via e-mail.

- **Manufacturing Site**
- **On-Site Manager**
- **Equipment Manager**
- **Remote monitoring of server and network peripheral devices**

**IoT solution from the Factory to the Office**

**Surveillance system monitoring**

The LA6-POE and NH-FV are able to detect network events and notify remote personnel over the network.

- **Area A**
- **PAE-NDB**
- **LA6-POE**
- **Area B**
- **NFR**
- **NH-FV**

**Address camera failures immediately!**

**Public facility**

Detect camera issues over the network

**Traceability management**

**TNIS**

Network Video Recorder

**Surveillance System**

**Manufacturing Facility**

**Remote tank level monitoring**

**Customer Support**

**Mirroring display of production facility**

**Network existing equipment**

**IoT solution from the Factory to the Office**
Programmable LED Signal Tower Series with PoE

What is PoE (Power over Ethernet)?
System that passes electric power along with data on twisted pair Ethernet cabling. This allows a single cable to provide both power and data to devices.

What is PoE (Power over Ethernet)?
• Ethernet connection with PoE (Power over Ethernet) support, enabling single cable installations
• Features 21 LED colors and 11 alarm types, all in a single part number
• Programmable, multi-color signal towers designed to replace standard stack lights

Product Features
• Supports a range of communication protocols
• Built-in web interface for quick and easy configuration
• Supports a range of communication protocols

Options
Assembly Type / Pole Mount Bracket
- SFP-006W Upper Bracket
- SZP-015A Mounting Bracket
- SZP-010 Mounting Bracket

Dimensions
LAF-5DTNWB-POE
- Mounting surface (horizontal drawing)
- Mounting surface (vertical drawing)
- Mounting surface (diagram)
- Mounting surface (front)
- Mounting surface (side)
- Mounting surface (top)
- Mounting surface (bottom)
- Mounting surface (back)
- Mounting surface (rear)

Terminal Block Connector
- Recommended specification for lead wire

Select a Smart Mode Type
The EDITOR for LA Series software allows you to quickly configure your LA6 Signal Tower. Each smart mode uses different methods to trigger Animations and Patterns allowing you to customize unique indication solutions.

Animations:
- Light color cycling resembling flashing, pulsing, running lights, etc.; can also include an audible alarm.

Patterns:
- Any combination of solid colors and/or audible alarm.

Select method(s) for triggering LA6 alert functions
The LA6-POE supports a variety of communication protocols and can be triggered through the terminal block.

HTTP (Hypertext Transfer Protocol)
HTTP is an application-layer protocol designed within the framework of the Internet protocol suite.

SOCKET Communication
Socketij allows communication between PCs and is used in a client-server application framework.

Modbus TCP/UDP
Modbus TCP/UDP is a variant of the Modbus family of vendor-neutral communication protocols intended for control of automation devices.

Real-time remote monitoring and control
Network Monitor
Signal Tower Series
with MP3 Voice Alerts

NH-FV Smart Signal Towers

• Supports Microsoft Azure directly
• Audible alarm and MP3 voice alert functions
• Built-in digital output and contact inputs
• Able to send email alerts
• Monitor network device status using SNMP protocol

The NH-FV series can connect directly to Microsoft Azure. Information can be transmitted anywhere in the world as long as you have an Internet environment.

LR4 & LR6 Series LED Units

Easily Reconfigure LED Colors (Only NH-FV2/FB2)

No tools are required to reconfigure the LED units. Simply twist the LED units to lock or release the units from one another. Standard stack lights are generally glued together or require tools to reconfigure modules.

Monitoring network device status using SNMP protocol

In addition to PING monitoring, the NH Signal Towers are equipped with an SNMP monitoring function. It actively obtains MIB information from supported SNMP network devices and is able to notify personnel with visual, audible, and/or email notifications when changes occur.

Control Interface (NH-FV2 Series)

How to Order

Dimensions (Unit: mm)

Options

NRH-402T Wall Mount Bracket
NRH-TF (NH-FV2/FB2) Dimmer Film

Audible Alarm Functions

The NH Series comes pre-loaded with four audible alarm tones and three chime tones. The NH-FV comes also pre-loaded with three MP3 voice alerts and stores up to 60 MP3 messages.

MP3 Voice Alerts

Load the NH-FV with custom MP3 messages to give your network and/or machines a voice.

Loud Alarm

The audible alarm horn is designed with a unique structure that achieves a sound pressure of 88 dB.

Line Out

A digital output can be linked to the Line Out output so that another device, such as an amplifier or beacon, can be activated while the sound plays back. A delay can also be set to the sound trigger.

Digital Input / Digital Output

Contact Monitoring

The NH-FV is equipped with four digital contact inputs and one digital output.

Example:

An input from a switch relay can trigger a timer function. At preset time intervals, alert functions trigger and send an output to trigger an external device.

USB Flash Drive

A USB flash drive may be used for the following operations:
• Update Firmware
• Download Event Log
• Import/Export Operation Settings
• Edit MP3 Voice Alerts

Settings and MP3 files can be modified via web interface

“Irregularities detected on the network”

Volume adjustable up to 88dB

Volume adjustable up to 88dB

CIN / OFF

Set Time Delay

Start Amplifier

“15 seconds have passed”
Network Monitor Signal Tower Series
with Audible Alarm

NH-FB Smart Signal Towers
- Designed to compliment office spaces
- Up to 5 LED units with 2 types of flashing patterns
- 4 audible alarm sound types

How to Order
NH-LFB2-RYG
- LED unit Colors
- with Audible Alarm
- Signal Tower Series
- Network Monitor
- Options
- Cycles through all segments
- 3) Test Switch
- Reboots the NHL device
- 2) Reset Switch
- NHL to the "normal status"
- Clears visual or audible alerts and returns the
- • 4 audible alarm sound types
- • Up to 5 LED units with 2 types of flashing patterns
- • Designed to compliment office spaces
- LR Series supports up to 5 LED units on a single signal tower.

LR4 and LR6 Series LED Units
The LR Series supports up to 5 LED units on a single signal tower.

* LED units (LR*-E-*) of the same color cannot be connected on the same unit.

How to Order
NHL-3FB2N-RYG
- NH-FB and NH-FV Series
- Monitoring Functions for
- NHL Series visual and audible alert functions.

PING Monitoring
Ping up to 24 nodes simultaneously. While Ping is a basic diagnostic tool, the NH Signal Towers is able to notify you based on your priorities. For example, low priority ping response failures may trigger a flashing light, while higher priority failures will trigger an MP3 voice alert and send an email report, in addition to the flashing light.

Application Monitoring
Gain control over your applications and earlier problem detection. Evaluate the performance of standard software and web applications and if an error occurs, the NH Signal Towers promptly alerts you before problems become worse.

Installation image
- HTTP Command
- RSH Command
- SOCKET Communication

Compatible with various monitoring functions
- Laptop & PC
- Printers
- Routers
- Machinery
- Assembly lines
- Data Storage

Trap Monitoring
As one of the oldest standards for network equipment fault notification, most network devices support SNMP traps. The NH Signal Towers are able to send, receive and analyze trap information and responds and/or notifies you appropriately.

Email Transmission
Send email reports of various network events to up to 8 addresses. The subject and body can be customized and can be automated to be sent in a variety of situations.

Network Monitor Signal Tower Series with Audible Alarm

NH-FB Smart Signal Towers
- Designed to compliment office spaces
- Up to 5 LED units with 2 types of flashing patterns
- 4 audible alarm sound types

How to Order
NH-LFB2-RYG
- LED unit Colors
- with Audible Alarm
- Signal Tower Series
- Network Monitor
- Options
- Cycles through all segments
- 3) Test Switch
- Reboots the NHL device
- 2) Reset Switch
- NHL to the "normal status"
- Clears visual or audible alerts and returns the
- • 4 audible alarm sound types
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- NH-FB and NH-FV Series
- Monitoring Functions for
- NHL Series visual and audible alert functions.

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Email Transmission
Send email reports of various network events to up to 8 addresses. The subject and body can be customized and can be automated to be sent in a variety of situations.
Interface Converter for Networking PATLITE signaling devices

NBM-D88NN Interface Converter

- 8 discrete input and output channels to add non-networking PATLITE signaling devices to an equipment network.
- Supports SNMP, HTTP, PNS (Developed by PATLITE), Socket Transmission command protocols.
- Email Alerts – Send emails to up to 8 addresses per alert notification.
- Use a web browser to send commands via the Hypertext Transfer Protocol (HTTP).
- Ping up to 24 nodes or devices on your network.
- Built-in “Clear” button for quickly reverting the NBM to its initial status once an alert is confirmed.

Easy to Setup/Update

Access the NBM setup interface by remotely logging into the device’s IP address through a web browser.

Users can remotely setup a static IP address, automate digital outputs, update firmware, just to name a few.

Options

NBM-ANG Option
Angle mounting bracket for server racks

Mounts directly to server racks

Dimensions (Unit: mm)

<table>
<thead>
<tr>
<th>Feature</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height</td>
<td>211 mm</td>
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<tr>
<td>Width</td>
<td>428 mm</td>
</tr>
<tr>
<td>Depth</td>
<td>214 mm</td>
</tr>
</tbody>
</table>

Input and Output Setting Functions

- **DURATION**: An output is triggered based on the length of time an input is triggered.
- **NUMBER**: An output is triggered based on how many times an input is triggered within a time period.
- **AND**: An output is triggered based on a combination of preset inputs being triggered.

Digital Outputs

- **Compatible with PHN command**: Control digital output with a 2-byte command
- **Compatible with PNS command**: Control digital output by using a PNS command
- **Compatible with HTTP command**: Control digital output with HTTP commands. Execute command (port 1: ON, port 3: OFF, Other: no operation) http://192.168.10.1/api/control?/alert=1909999

Command Protocols

- **Send RSH command (8 commands)**
- **Create RSH commands for each event**
- **SNMP TRAP transmission (8 transmissions)**
- **Send an SNMP TRAP for each event**
- **SOCKET transmission**

NBM-D88NN features

- Application monitoring in server / PC, etc
- Printer problem detection
- Command control from a network camera
- Command control from a server
- Control using contact output, etc
- Event notification to the monitoring server
- Transmission of PHN / PNS commands, etc.
- Contact input from sensor, etc
- Contact output to notification devices, etc
- Obtain / reflect settings with USB memory

01 Monitoring Functions

- **PING Monitoring**: Monitor up to 24 nodes on the network
- **TRAP Monitoring**: Equipped with a SNMP manager, Can distinguish variable bindings, Registers 16 groups (1 group, 4 nodes)

02 Command Protocols

- **Send RSH command (8 commands)**
- **Create RSH commands for each event**
- **SNMP TRAP transmission (8 transmissions)**
- **Send an SNMP TRAP for each event**
- **SOCKET transmission**

03 Digital Outputs

- **Compatible with PHN command**: Control digital output with a 2-byte command
- **Compatible with PNS command**: Control digital output by using a PNS command
- **Compatible with HTTP command**: Control digital output with HTTP commands. Execute command (port 1: ON, port 3: OFF, Other: no operation) http://192.168.10.1/api/control?/alert=1909999

04 Command Protocols

- **Send RSH command (8 commands)**
- **Create RSH commands for each event**
- **SNMP TRAP transmission (8 transmissions)**
- **Send an SNMP TRAP for each event**
- **SOCKET transmission**
- **Control each device with 8 input terminal blocks, 8 output terminal blocks, and contact inputs independently**
- **Equipped with one 24V DC output**
- **Contact diverse notification devices such as revolving warning lights and audio equipment**
- **Obtain logs with USB memory**
- **Obtain / reflect settings with USB memory**
**USB Powered and Controlled LED Signal Tower Series**

**LR6-USB 60mm USB Signal Towers**

- PC or HMI controlled
- Powered over USB for single cord installation
- Open architecture for custom programming
- Compatible with Windows® and Linux

**Product Features**

Simple to Program

Use the included DLL software library to easily develop software to control the LR6-USB Series various signaling functions.

No dedicated driver required

Dedicated driver is not required as it is USB HID class compatible.

Compatible LED units

The LR6-USB Series supports solid color, clear globe, and multi-color LED units.

**Options**

- Assembly Type / Pole Mount Bracket
- Mounting Pole - 100 / 300 / 800 mm
- D-sub 9 pin female, inch threading
- D-sub 9 pin female, metric threading

**Specifications**

- LED Unit Color
  - Blank = Body Unit
  - RYG = Red, Amber, Green
- Body Color
  - W = Off-white
  - K = Black

**How to Order**

LR6-USB-W/K-RYG

- 3 tiers*
- Blank = Base Unit
- RYG = Red, Amber, Green

**Dimensions (Unit: mm)**

**USB / RS-232C Controlled Signal Tower**

**PHE-3FB3N-RYG 40mm Interface Converter Signal Tower**

- Signal tower features 3 LED colors and 2 flashing patterns
- Send ASCII commands over USB or RS-232C to control built-in signal tower
- Receive power over USB or a 24V DC supply source
- 4 built-in alarm sounds with adjustable volume up to 80 dB
- Built-in “Clear” button for quickly reverting the PHE to “default state” once an alert is confirmed

**Dimensions (Unit: mm)**

**PHC-D08N Interface Converter**

- Send ASCII commands over USB or RS-232C to control PATLITE signaling devices
- Receive power over USB or a 24V DC supply source
- Built-in “Clear” button for quickly reverting the PHC to “default state” once an alert is confirmed

**Dimensions (Unit: mm)**

---

*Pre-assembled model is not available in North America.

**Options**

- Assembly Type / Pole Mount Bracket
- Mounting Pole - 100 / 300 / 800 mm
- D-sub 9 pin female, inch threading
- D-sub 9 pin female, metric threading

**Specifications**

- LED Unit Color
  - Blank = Body Unit
  - RYG = Red, Amber, Green
- Body Color
  - W = Off-white
  - K = Black

**How to Order**

LR6-USB-W/K-RYG

- 3 tiers*
- Blank = Base Unit
- RYG = Red, Amber, Green

**Dimensions (Unit: mm)**

**USB Cable Dimensions**

USB connector position

- USB 2.0 Full Speed
- USB 2.0 Full Speed
- USB 2.0 Full Speed

**Mounting Dimensions**

- Max. 100
- Max. 150
- Max. 200

---

*RS-232C straight cable is not included in this product.
### Network Compatible Products

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<tr>
<th>LAG-POE</th>
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</tbody>
</table>

**Rated Voltage**
- 48V DC (PoE) / 24V DC
- 100V AC - 240V AC

**Outer Dimension (mm) W x D x H**
- 232 x 124.5 x 42
- 117 x 104 x 28

**UL or CSA**
- o

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### NBM-D68N

<table>
<thead>
<tr>
<th>Interface Converter</th>
<th>Interface Converter</th>
</tr>
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<tbody>
<tr>
<td><strong>Input Interface</strong></td>
<td>Ethernet</td>
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<tr>
<td><strong>Monitor</strong></td>
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<td>RSH Command</td>
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<td>Main Unit: 24V DC</td>
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<td>AC Adaptor: 100V AC - 240V AC (ADP-001)</td>
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<td></td>
<td>AC Adaptor: 100V AC - 240V AC (ADP-001)</td>
</tr>
</tbody>
</table>

**Outer Dimension (mm) W x D x H**
- 232 x 124.5 x 42
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**UL or CSA**
- o

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4.2 Contact input detection function can be used only when using command control method. Please see the web manual for details.