

NBM-D88NN



8 discrete input and output channels to add non-network PATLITE signaling devices to an equipment network

Email Alerts – Send emails to up to 8 addresses per alert notification

Supports SNMP, HTTP, PNS (Developed by PATLITE), Socket Transmission command protocols

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 state once an alert is confirmed



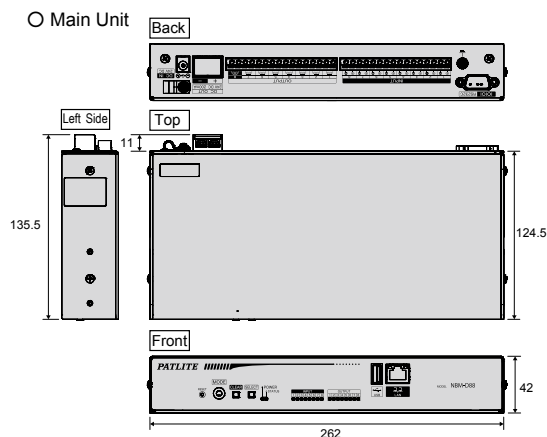
Optional Parts

Optional Parts	Model
Server Rack Angle Mount	NBM-ANG
AC Adaptor	ADP-001

Specifications

Item	Specifications	
Model	NBM-D88NN	
Main Unit Rated Voltage	24V DC	
AC Adaptor	Rated Voltage	100 - 240V AC (50/60Hz)
	Operating Voltage Range	90 - 264V AC (50/60Hz)
Power Consumption	14W	
Operation Temperature Range	0 to 40°C (no freezing, no condensation)	
Storage Temperature Range	- 20 to 65°C (no freezing)	
Operation Humidity	20 - 80% RH (no condensation)	
Insulation Resistance	Between current carrying metallic part and non-current carrying metallic part: 500V DC 10MΩ or more	
Withstand Voltage	Between current carrying metallic part and non-current carrying metallic part: 1500V AC 10mA or less (for one minute)	
Vibration Resistance	9.8m/s ²	
Communication method	LAN communication	
	Physical Layer: Ethernet (IEEE 802.3 compliant) 10BASE-T / 100BASE-TX (auto-negotiation) Connector type RJ-45 8-pin	
	Data Link Layer: CSMA/CD method	
	Network Layer: IP, ARP, ICMP	
	Transport Layer: TCP, UDP	
Non-Voltage Contact Output (Normally Open Contact)	Number of Contacts	8 points
	Contact rating	Port 1-7: 125V AC, 3A/30V DC, 3A Inrush Current 5A or less Minimum current 1mA (reference value) Minimum voltage 5V DC (reference value)
		Port 8: 125V AC, 3A/30V DC, 3A Inrush Current 78A or less (TV-5 rating) Minimum current 10mA, Minimum voltage 5V DC
	Supported Wire Diameter	Solid Wire: φ0.4 - 1.2mm (AWG26-16) Stranded Wire: 0.2 - 1.25mm ² (AWG24-16)
	Wire connection method	Screwless Terminal Block
Contact input (Normally Open Contact)	Input specifications	D88N (NPN model)
	Supported number of input contacts	Non-Voltage Contact, NPN transistor
	Number of Contacts	8 points
	Contact rating	Output ON current 6mA or less per port Voltage between terminals when OFF: 24V
	Supported Wire Diameter	Solid Wire: φ0.4 - 1.2mm (AWG26-16) Stranded Wire: 0.2 - 1.25mm ² (AWG24-16)
Wire connection method	Screwless Terminal Block	
USB (host)	USB2.0/1.1 TYPE-A 1 port for log data storage, firmware update For config data upload / download	
Power output	Screw terminal block, 1 point, 24V DC±10% Maximum 200mA Extended Functionality	
LED Display Area	Green LED 18 points (1 point for power, 1 point for status, DO 8 points, DI 8 points)	
Operation	Select Switch, Reset Switch, Clear Switch, Mode Switch	
Standard	EMC Directives (EN55032 (Class A), EN55024), RoHS Directive EN50581, FCC Part15 Sub part B Class A	
Mounting location	Indoors	
Mounting Methods	Stationary, EIA rack mount (optional part)	
Mounting direction	Upright	
Mass	Main Unit	1150g
	AC Adaptor	165g
Protection Rating	IP20	
Accessory	AC Adaptor, Instruction Manual, 4 rubber feet	
Optional Parts	Server Rack Angle Mount	

Dimensions (mm)



Server Rack Mounting



Server Rack Angle Mount
NBM-ANG (optional)

AC Adaptor



AC Adaptor
ADP-001 (optional)

Monitoring Function

Ping 24 **PING monitoring**
Active/inactive monitoring of up to 24 nodes.

SNMP v1.v2c **TRAP monitoring**
SNMP Manager function is included.

- The unit can determine down to variable-bindings.
- You can register 16 groups (4 nodes per group).

Application Monitoring

You can run active/inactive monitoring with the application's send command. (Maximum 4 nodes)

- Server monitoring
- Printer problem detection
- Server/PC application monitoring

Command Transmission

RSH **RSH command transmission (8)**
You can create RSH commands suitable for events.

SNMP v2c **SNMP, TRAP transmission (8)**
You can send SNMP / TRAP suitable for events.

SOCKET Communication **SOCKET Transmission**
You can send commands of up to 30 bytes

Send up to 8 emails
You can create titles and body text suitable for events. POP / SMTP authentication supported.

- Control network equipment
- Event notifications to monitoring server
- Send PHN / PNS commands, and so on.

Command Control

RSH You can control digital output with the generic protocol RSH.

SOCKET Communication **PHN compatible commands supported**
Control of digital output possible with 2-byte commands.

PNS commands supported
By using PNS commands, you can control digital output.

HTTP Command You can 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=19099999`

Contact Input/Output

Digital Input 8 Digital input: 8 points

Digital Output 8 Digital output: 8 points

With 8 input terminals and 8 output terminals, you can independently control various equipment that have input contacts.

24V Output The converter has one 24V output. You can connect the converter with various notification equipment, such as Revolving Lights and audio equipment.

USB You can get the log from USB memory. You can get settings from USB memory, or apply settings to USB memory.

- Server command control
- Receive PHN/PNS Commands
- Control commands from network camera

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USB You can get the log from USB memory. You can get settings from USB memory, or apply settings to USB memory.

- Contact inputs from sensors
- Contact outputs to notification equipment
- Control with contact outputs, and so on.

* PHN/PNS commands are proprietary control commands.

Condition Setting function

It can be set up with a detection condition of a digital input.

Duration Condition The output condition setup is combined with input signal time progression.

AND condition The output condition setup is combined with the number of input channels for a logical condition.

Input Frequency Condition The output condition setup is combined with the increase of frequency signal inputs.

By setting up the operation when detection conditions are met, it can be used for various environments and applications. (Notifications according to preset temperatures, using a temperature sensor; notification of the infrared sensor, specified by area, etc.)

- The duration condition, AND condition and number condition can be set.

Available condition setting function operations

Digital Output Control	The digital output will be ON or OFF.
RSH Command Transmission	Sends the remote shell command to the device at the set address
Socket Transmission	Sends the PHN/PNS Command to the device at the set address
Trap Transmission	Sends the SNMP trap to the device at the set address
E-mail Transmission	Sends the E-mail to the set mail server.