NA-9187

PROFINET I/O RT Protocol Adapter, 252 bytes input and 252 bytes output
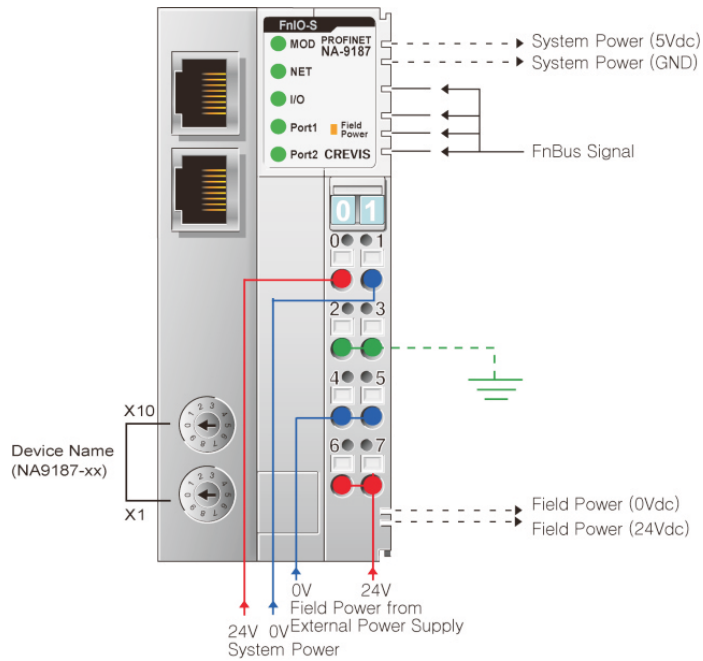
Item	NA-9187
Interface Specification	
Protocol	PROFINET I/O RT, DCP, SNMP, LLDP
Station Type	PROFINET I/O Device
Topology	Line or Star topology
Number of Nodes	Limited by the IP address
Number of Expansion I/O slots	Max. 32 Slots
I/O Data Size	252 bytes Inputs / 252 bytes Outputs
Indicators	1 Green / Red MOD Status Indicator
	1 Green / Red NET Status Indicator
	1 Green / Red I/O Status Indicator
	1 Green Port1 Link / Active Status Indicator
	1 Green Port2 Link / Active Status Indicator
	1 Green Field Power Status indicator
Baud Rate	100 Mbps Full-Duplex
Module Location	Starter module - Left side of FnIO System
General Specification	
System Power	Supply Voltage : 24Vdc nominal
	Voltage Range : 11~28.8Vdc
	Protection : Output Current Limit (Min 1.5A)
	Reverse Polarity Protection
Power Dissipation	115mA Typical @24Vdc
Current for I/O Module	1.5A@5Vdc
Isolation	System power to internal logic : Non-isolation
	System power to I/O driver : Isolation
Field Power	Supply voltage : 24Vdc nominal
	Supply voltage range : 11~28.8Vdc
Current in Jumper Contacts	DC 10A Max.
Weight	150g
Module Size	45mm x 99mm x 70mm
Surrounding Temperature	0 to 55℃
Operating Temperature	0 to 55℃
Storage Temperature	-40℃ to 85℃
Relitective Humidity	90% no condensation
Protection Class	IP 20
Mounting	Din rail
Environment Condition	Refer to " Environment Specification"(page : 1-191)

Network Adapter

Status LED Indicator

MOD : Module Status LED

Status	LED is	To indicate
No Power	Off	No power is supplied to the unit.
OS Handle Error	Flashing Green 0.2s	OS handle unexpected exceptions.
Wrong IP address	Flashing Green 1s	IP address is 0.0.0.0
Device Operational	Green	The unit is operating in normal condition.
OS Fatal Error	Flashing Red 0.2s	OS Fatal error is occurred
Invalid RAM Image	Flashing Red 1s	Invalid RAM Image
User fatal error	Red	Invalid boot image header(Flash), ROM Boot loader

NET : Network Status LED

Status	LED is	To indicate
Not Powered Not On-line	Off	Device is not on-line or may not be powered
On-line, Not connected	Flashing Green 0.2s	PROFINET I/O connection has been established. Wait parameters.
Data Exchange Stop	Flashing Green 1s	PROFINET I/O data exchange stop
On-line, Connected	Green	Device is on-line and allocated to a master
Invalid Configuration	Flashing Red 0.2s	Invalid Configuration
Minor Fault	Flashing Red 1s	PROFINET I/O Connection is aborted after Data exchange
Fault	RED	PROFINET I/O Connection is aborted before a data exchange

I/O : Expansion Module Status LED

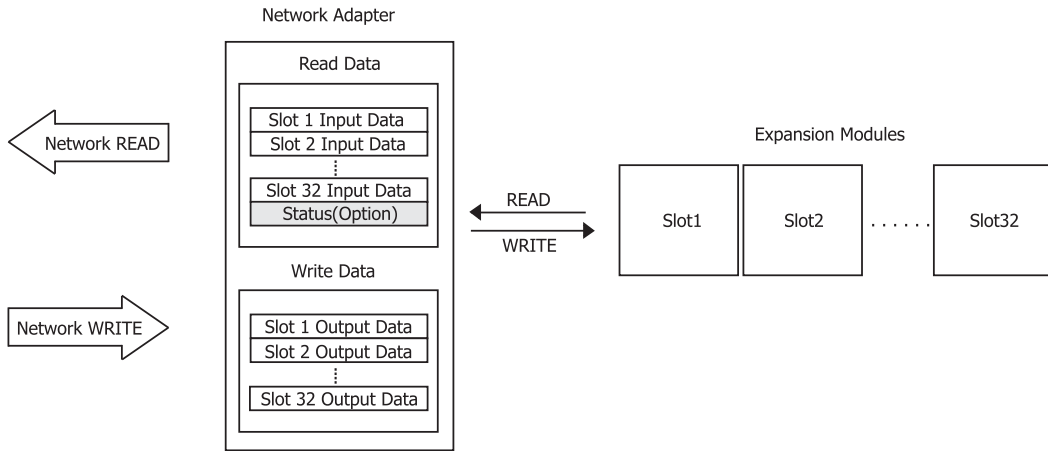| Status	LED is	To indicate
Not Powered No Expansion Module	Off	Device has no expansion module or may not be powered
Fn-Bus On-line, Do not Exchanging I/O	Flashing Green	Fn-Bus is on-line but does not exchanging I/O data - Passed the expansion module configuration.
Fn-Bus connection fault during exchanging I/O	Green	Expansion Slot is connected and run exchange I/O data
Fn-Bus connection fault during exchanging I/O		One or more expansion module occurred in fault state. - Changed expansion module configuration. - Fn-Bus communication failure. - Word data type error - Parameter setting error
Expansion Configuration Failed	Flashing Red	Failed to initialize expansion module - Detected invalid expansion module ID. - Overflowed Input/Output Size - Too many expansion module - Initial protocol failure - Mismatch vendor code between adapter and expansion module.

Field Power : Field Power Status LED

Status	LED is	To indicate
Not Supplied Field Power	Off	Not Supplied 24Vdc Field Power
Supplied Field Power	Green	Supplied 24Vdc Field Power

Port1, Port2 : Link and Activity

State	LED is :	To indicate :
Link Down	Off	Link is down
Active	Flashing Green	Active is present
Link UP	Green	Link is up (Physical connection is established)

Mapping Data into the Image Table

Network Adapter

Read Data

| Slot 1 Input Data |
| Slot 2 Input Data |

Slot 32 Input Data
Status(Option)

Network READ

Write Data

Slot 1 Output Data
Slot 2 Output Data

Slot 32 Output Data

Network WRITE

READ
WRITE

Expansion Modules

Slot1 Slot2 . . . . . . Slot32

PROFINET Parameterization by Rotary Switch

Value	Description	Factory Settings
0	- Name of station will be read from flash memory (For example, NA9187-1)	- Name of station : NA9187
	- IP address will be read from flash memory	- IP address : 192.168.0.100
1~99	- Name of station will be NA9187-xx (xx is the value of Rotary Switch)	- Subnet mask : 255.255.255.0
	- IP address will be read from flash memory	- Gateway : 192.168.0.1

When the rotary switch is not set to non-zero (1~99) :
If the decimal value of the rotary switch is not zero (0), the name of device will be fixed as "NA 9187-xx"(xx : 1~99).
You must put the fixed device name.

x 10 (MSD)

x 1 (LSD)