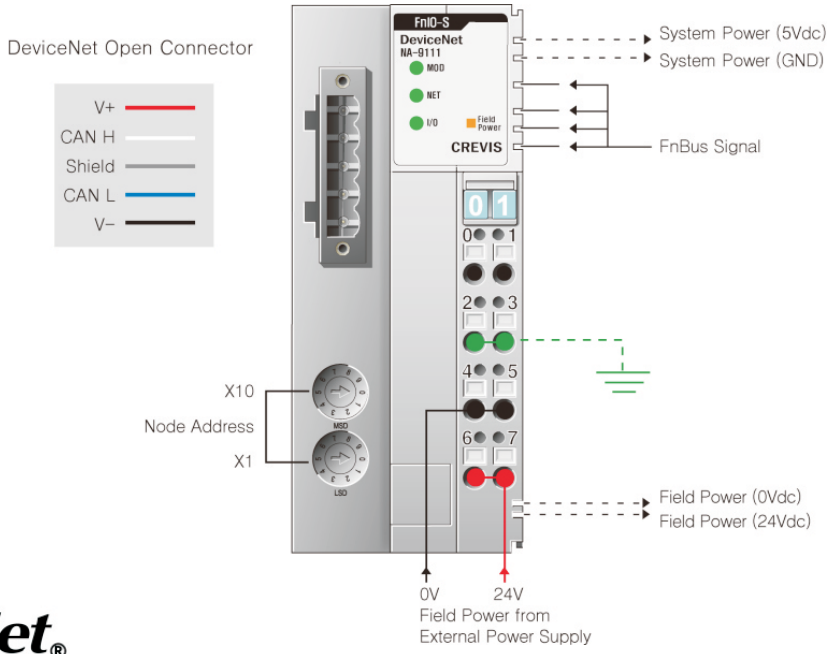
NA-9111, NA-9112

DeviceNet Network Adapter, 32 bytes input and 32 bytes output (NA-9111)
252 bytes input and 252 bytes output (NA-9112)



The Wiring diagram of NA-9111 and NA-9112 are the same.

Item	NA-9111	NA-9112
Interface Specifications		
Adapter Type	Group 2 Only Slave	
Max. Expansion Module	32 Slots	
Max. Input Size	NA-9111 : 32 bytes, NA-9112 : 252 bytes	
Max. Output Size	NA-9111 : 32 bytes, NA-9112 : 252 bytes	
Max. Length Bus Line	Max.100m@500Kbps, Max.250m@250Kbps, Max.500m@125Kbps	
Max. Nodes	64 nodes	
Communication Speed	125Kbps, 250Kbps, 500Kbps, auto baud rate supported	
Network Portocol	Poll, Bit-Strobe, Cyclic, COS	
Interface Connector	5pin Open male connector	
Node MAC ID Setup	2 Rotary Switches	
Module Location	Starter module - left side of FnIO system	
Field Power Detection	About 11Vdc	
General Specification		
System Power (from DeviceNet Cable)	Supply Voltage : 24Vdc nominal Voltage Range : 11~28.8Vdc Protection : Output Current Limit (Min. 1.5A) Reverse Polarity Protection	
Power Dissipation	40mA Typical @24Vdc	
Current for I/O Module	1.2A @ Max. 5Vdc	
Isolation	DeviceNet to internal logic : Non-isolation Internal logic to I/O driver : Isolation	
Field Power	Supply Voltage : 24Vdc nominal Voltage Range : 11~28.8Vdc	
Max. Current Field Power	DC 10A Max	
Weight	155g	
Module Size	42mm x 99mm x 70mm	
Environment Condition	Refer to " Environment Specification"(page : 1-191)	

Status Indicator LED

MOD : Module Status LED

Status	LED is	Description
No Power	Off	No power is supplied to the unit
Device Operational	Green	The unit is operating in normal condition
Device in Standby	Flashing Green	The EEPROM parameter is not initialized yet Serial Number is zero value (0x00000000)
Minor Fault	Flashing Red	The unit has occurred recoverable fault in self-testing - EEPROM checksum fault
Unrecoverable Fault	Red	The unit has occurred unrecoverable fault in self-testing - Firmware fault

NET : Network Status LED

Status	LED is	To indicate
Not Power	Off	Device is not on-line or may not be powered - Not completed the Dup-MAC_ID test yet
On-line, Not connected	Flashing Green	Device in on-line but has no connections in the established state - Passed the Dup-MAC_ID test - Not allocated to a master
On-line, Connected	Green	- Device is on-line and allocated to a master
Connection Time-out	Flashing Red	- One or more I/O connections are in the time-out state
Critical Communication Failure	Red	- Failed communication - Duplicate MAC ID - Bus-off

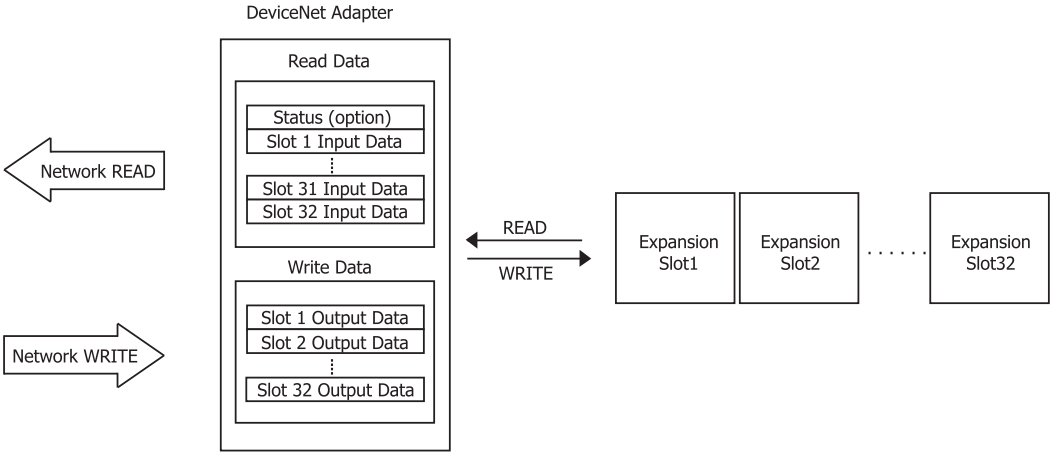
I/O : Expansion Module Status LED

Status	LED is	To indicate
Not Powered Not 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 Normal but does not exchanging I/O data (Passed the expansion module configuration)
Fn-Bus Connection, Run Exchanging I/O	Green	Exchanging I/O data
Fn-Bus Connection Fault during exchanging I/O	Red	One or more expansion module occurred in fault state - Changed expansion module configuration - Fn-Bus communication failure
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

Mapping Data into the Image Table

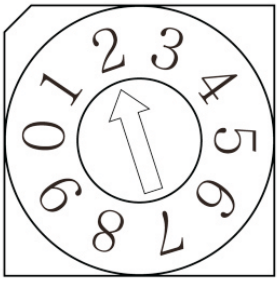


Description of Status byte

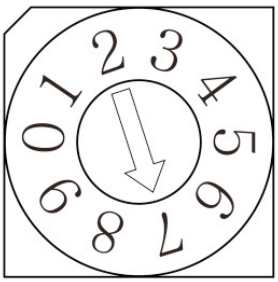
Bit Description	Decimal Bit	Explanation
Explanation	00-03	0 : Exchange I/O data(normal operation) 1 : Stop Exchanging I/O(ready to exchange I/O) 2 : Fn-Bus Communication Fault 3 : Slot Configuration Fault 4 : No Expansion Slot
Reserved	04-06	Reserved
Field Power Status	07	0 : 24Vdc Field Power On 1 : 24Vdc Field Power Off

DeviceNet MAC ID Setup

Each DeviceNet Adapter must have a unique MAC ID (from 0 to 63) so that it can be addressed independently from other nodes.
If value range of 2 rotary switches is 64~99, the MAC ID can be set by from network (software).



x 10 (MSD)



x 1 (LSD)

The above figure shows MAC ID 27(=2*10+7*1)of slave