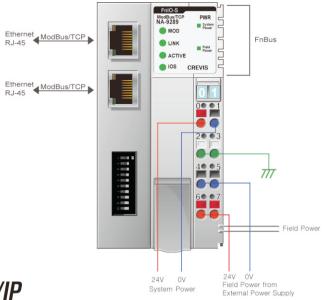
# MODBUS TCP/IP Network Adapter, 252 bytes input and 252 bytes output



# **MODBUS TCP/IP**

	NA-9289		
Interface Specification			
Adapter Type	Slave node (MODBUS/TCP, MODBUS/UDP Server)		
Max. Expansion Module	63 Slots		
Max. Input Size	252 bytes		
Max. Output Size	252 bytes		
Max. Length Bus Line	Up to 100m from Ethernet Hub/Switch with twisted CAT 3 UTP/STP		
Max. Nodes	Limited by Ethernet Specification		
Baud rate	10/100 Mbps, Auto-negotiation, Full duplex		
Protocol	MODBUS/TCP, MODBUS/UDP, HTTP, DHCP 10 TCP Connections		
Interface Connector	RJ-45 socket x 2 pcs		
IP-Address Setup	Via DHCP/BOOTP or IOGuide (Crevis Configuration Software)		
IP-Address range	xxx.xxx.xxx.1 ~ 253 (User area)		
	xxx.xxx.xxx.254 ~ 255 (Reserved for IAP Function)		
Serial Configuration	Node: 1 (Fixed)		
(Rs232)	Baud Rate : 115200 (Fixed)		
	Data bit: 8 (Fixed)		
	Parity bit: No parity (Fixed)		
	Stop bit: 1 (Fixed)		
Indicator	5 LEDs		
	1 Green/Red, Module Status (MOD)		
	1 Green, Physical Connection (LINK)		
	1 Green, Exchange Data/Traffic Present (Active)		
	1 Green/Red Expansion I/O Module Status (I/O)		
	1 Green, Field Power Status		
Module Location	Starter module left side of FnIO system		
Field Power Detection	About 11Vdc		
General Specification			
System Power	Supply Voltage: 24Vdc nominal		
	Supply Voltage Range: 11~28.8Vdc		
	Protection: Output Current Limit (Min 1,5A)		
	Reverse Polarity Protection		
Power Dissipation	100mA 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		
Max. Current Field Power Contact	DC 10A Max.		
Weight	167g		
Module Size	54mm x 99mm x 70mm		
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.
Device Operational	Green	The unit is operating in normal condition.
Device in Standby	Flashing Green	The device needs commissioning due to configuration missing,
		incomplete or incorrect.
MODBUS Error	Green / Red Toggle	MODBUS error such as watchdog error, etc.
Minor Fault	Flashing Red	Recoverable Fault
		- EEPROM sum check error.
Unrecoverable Fault	Red	The device has an unrecoverable fault.
		- Memory error or CPU watchdog error.

## LINK: Physical Connection LED

Status	LED is	To indicate
Not Powered or Not Linked	Off	Device may not be powered
Adapter physical connected	Green	Adapter Ethernet Controller Physically connected

## ACTIVE: Exchange Data / Traffic Present LED

Status	LED is	To indicate
Not Powered	Off	Device is idle or may not be powered
Adapter Exchange data	Flashing Green	Adapter(Slave) exchange data/Traffic present.
		About 10msec flashing.

#### IOS: Expansion Module Status LED

Status	LED is	To indicate
Not Powered	Off	Device has no expansion module or may not be powered
No Expansion Module		
Fn-Bus On-line,	Flashing Green	Fn-Bus is normal but does not exchanging I/O data
Do not Exchanging I/O		(Passed the expansion module configuration).
Fn-Bus Connection,	Green	Exchanging I/O data
Run Exchanging I/O		
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.
Fn-Bus connection fault	Red	One or more expansion module occurred in fault state
during exchanging I/O		- Changed expansion module configuration
		- Fn-Bus communication failure

#### Field Power: Field Power Status LED

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

## Indicator states and flash rates

