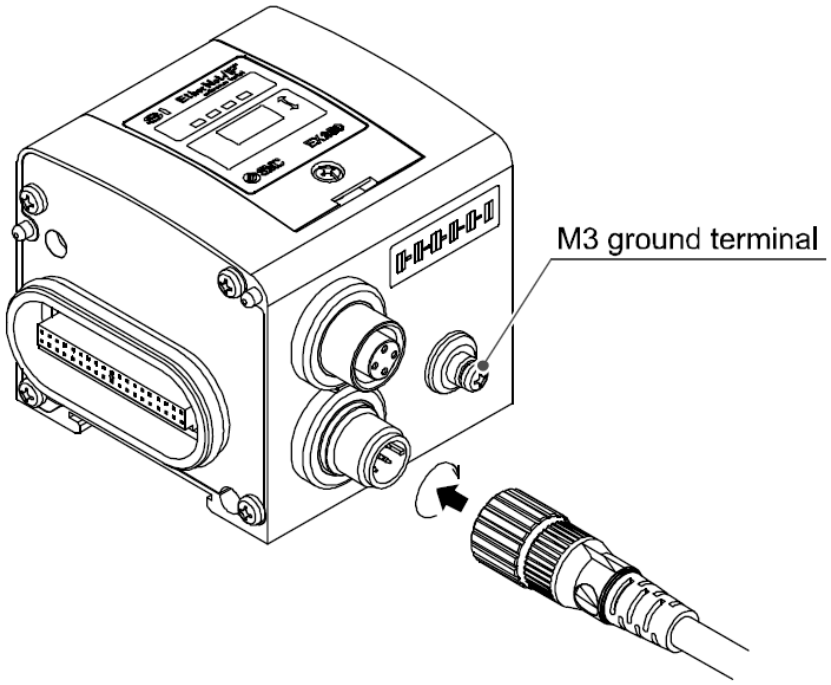
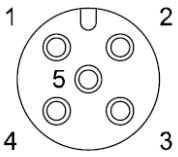
QUICK START FOR EX250-SEN1 Using RSLogix5000

POWER WIRING FOR SMC EX250-SEN1

EX250-SEN1 Power Wiring in NOT the same as the EX260-SEN1 or EX500-GEN1.





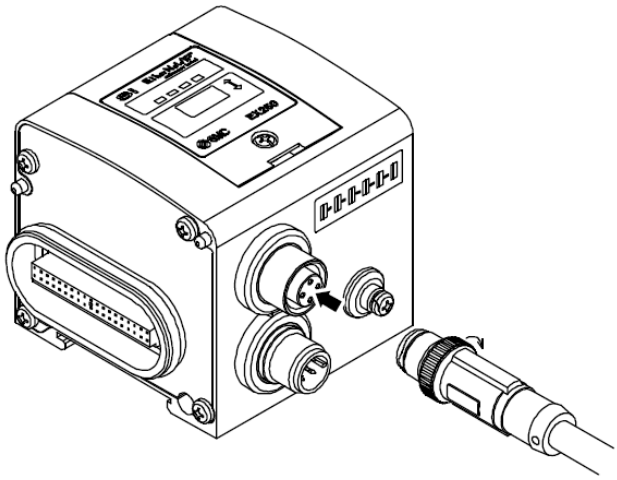
Socket connector pin layout

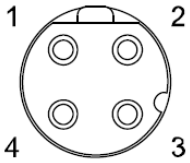
Pin No.	Cable color: Signal name
1	Brown: 24 VDC +10%/-5% (for solenoid valves/output)
2	White: 0 V (for solenoid valves/output)
3	Blue: 24 VDC ±10% (for input and control)
4	Black: 0 V (for input and control)
5	Gray: Not connected

Typical Cordset color code (M12 female 5 pin A code standard key):

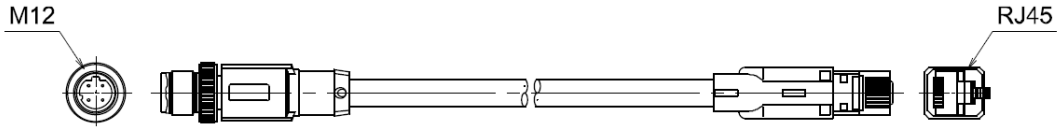
Brown => +24 (Valves)
White => 0 (Valves)
Blue => +24 (Node and Inputs)
Black => 0 (Node and Inputs)
Grey => Ground (either ground here or ground on M3 lug. Not both)

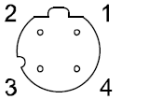
Ethernet Wiring:



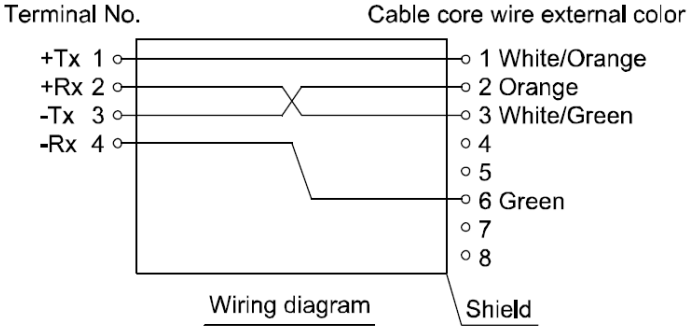


SI unit communication connector pin layout

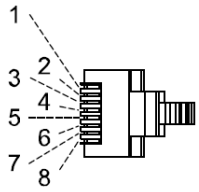




Pin assignment of plug connector



Wiring diagram

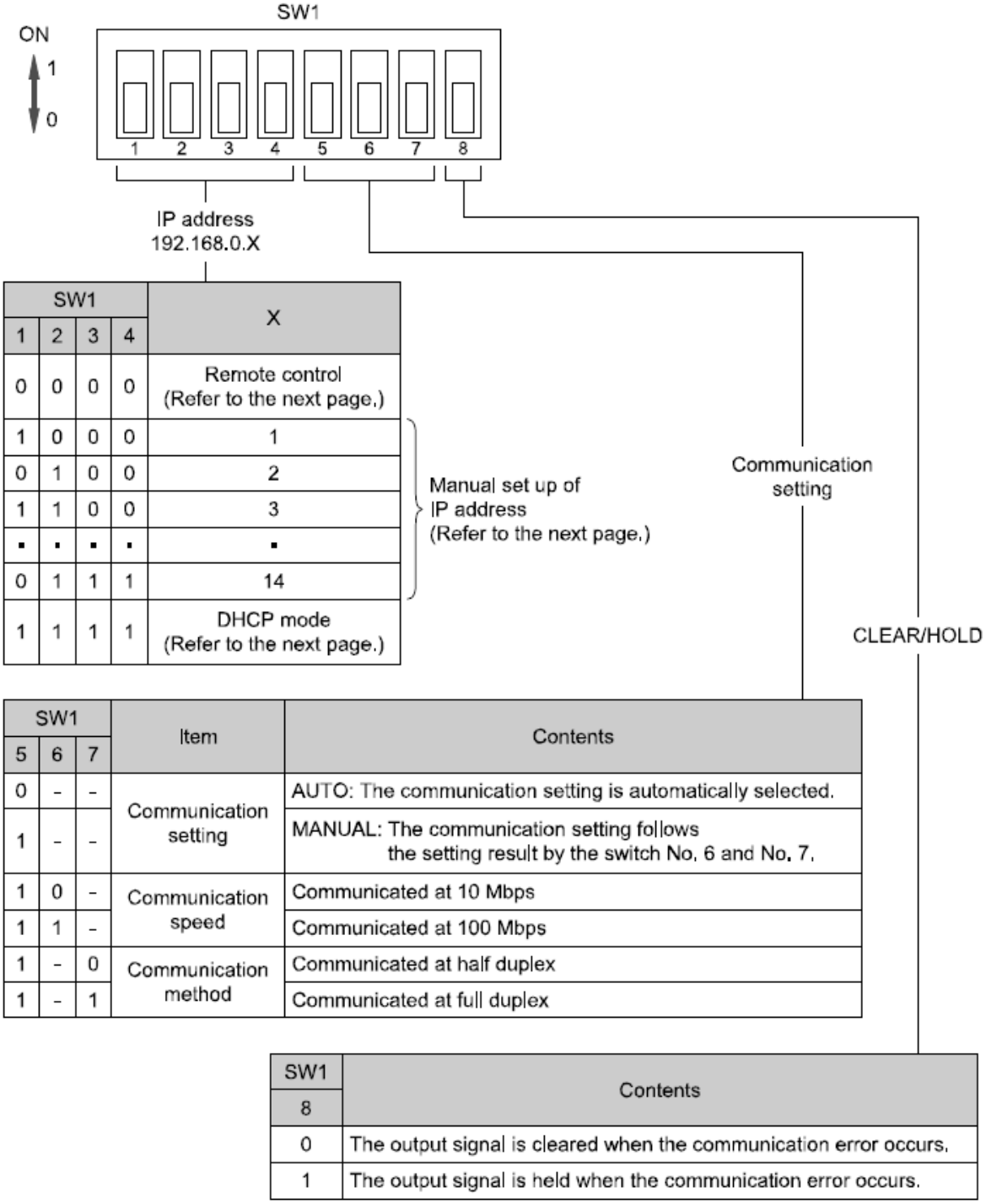


Pin assignment of plug connector

SETTING UP IP ADDRESS FOR SMC EX250-SEN1

OPTION 1: Through Switches on Unit:

- Remove power.
- Set Dip Switch 1 to 4 to select 192.168.0.X.
- X can be 1 to 14
- Apply Power.



SW1				X
1	2	3	4	
0	0	0	0	Remote control (Refer to the next page.)
1	0	0	0	1
0	1	0	0	2
1	1	0	0	3
▪	▪	▪	▪	▪
0	1	1	1	14
1	1	1	1	DHCP mode (Refer to the next page.)

SW1			Item	Contents
5	6	7		
0	-	-	Communication setting	AUTO: The communication setting is automatically selected.
1	-	-		MANUAL: The communication setting follows the setting result by the switch No. 6 and No. 7.
1	0	-	Communication speed	Communicated at 10 Mbps
1	1	-		Communicated at 100 Mbps
1	-	0	Communication method	Communicated at half duplex
1	-	1		Communicated at full duplex

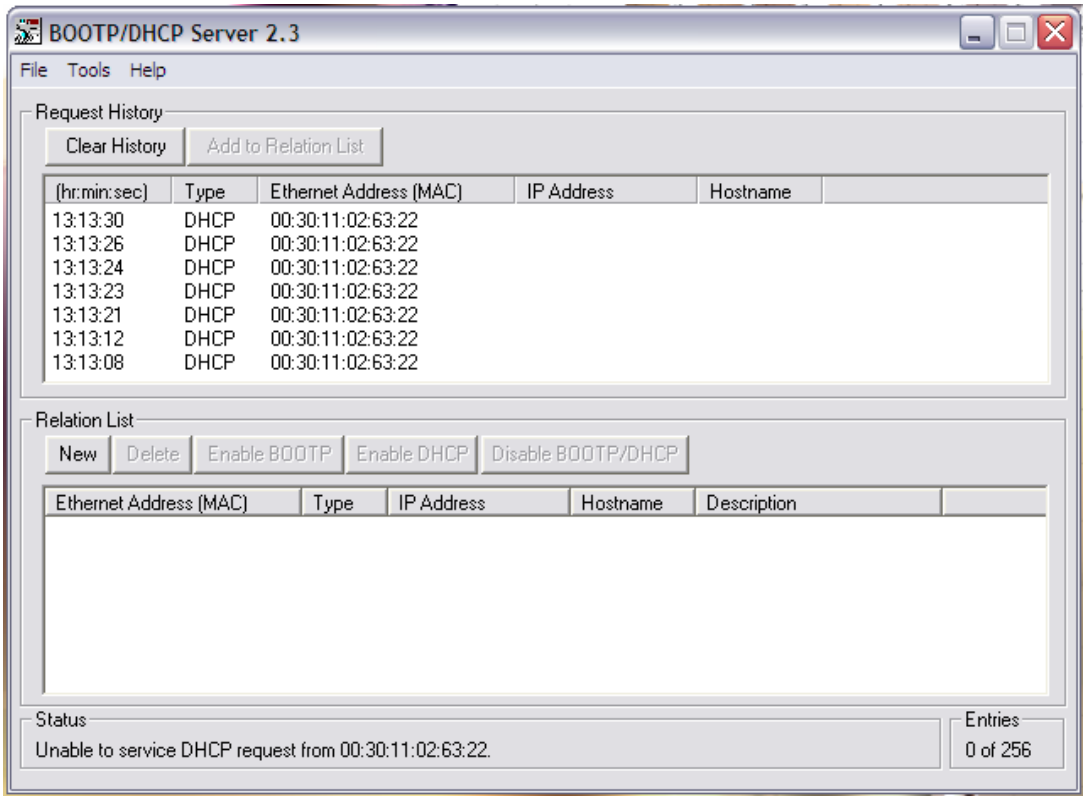
SW1	Contents
8	
0	The output signal is cleared when the communication error occurs.
1	The output signal is held when the communication error occurs.

Option 2: Using Rockwell BOOTP/DHCP Server Utility

USING ROCKWELL BOOTP/DHCP SERVER UTILITY WITH SMC EX250-SEN1

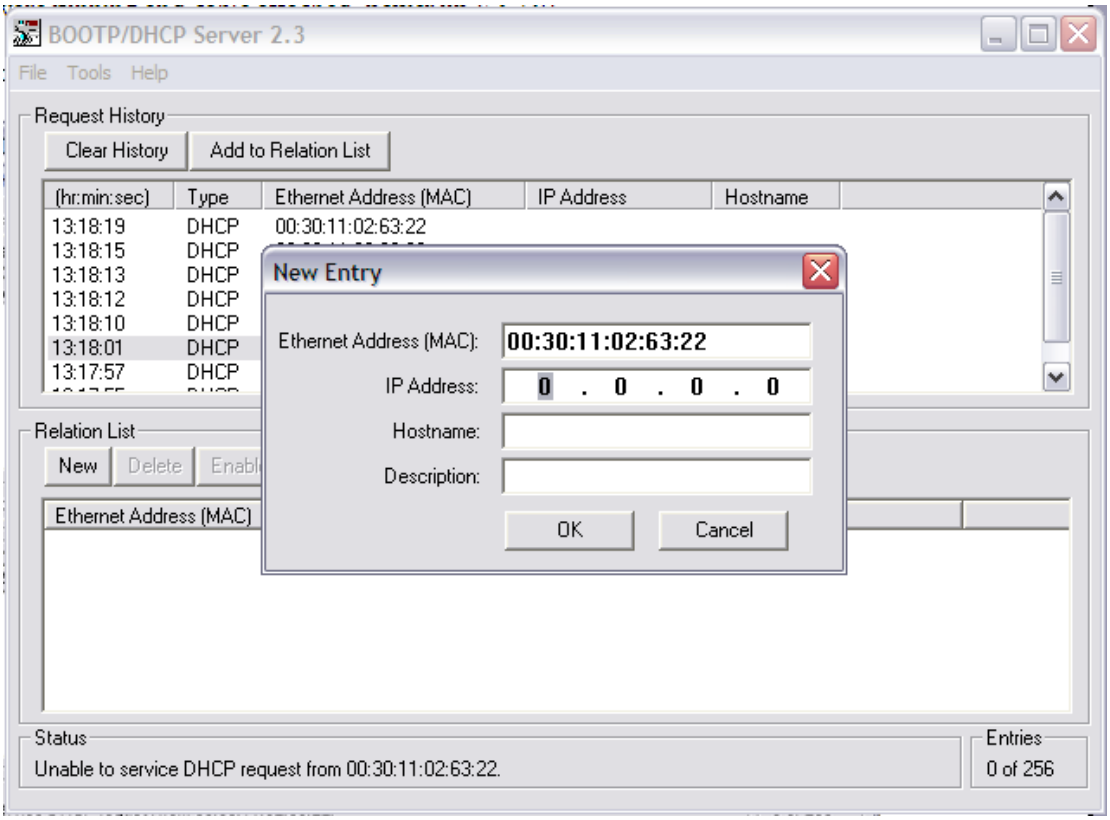
- Remove power and set Dip Switch 1-4 to ON.
- Apply power for 15 seconds, then remove power.
- Set Dip Switch 1-4 to OFF.
- Start Rockwell BOOTP/DHCP software and attach to EX250 via Ethernet port.
- With Software running and cable attached, apply power to EX250. **You must have the software ready and the Ethernet cable connected, then cycle power to the EX250**. The EX250's MAC address will start to show up on the screen but only for a few seconds so you must be ready to catch it.

You should see following screen:



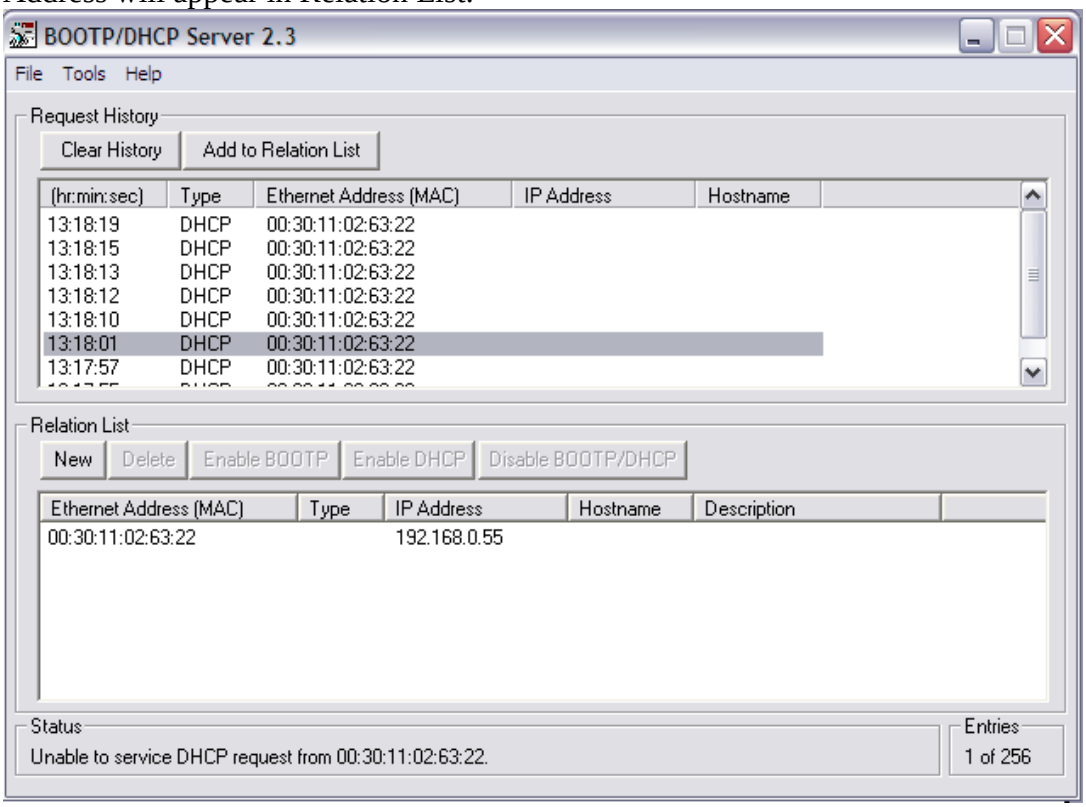
Note: If an IP Address has already been set via BOOTP Server, you may select it from the Relation List and "Enable BOOTP" to set a different address.

Double Click on MAC address and IP window will pop up.

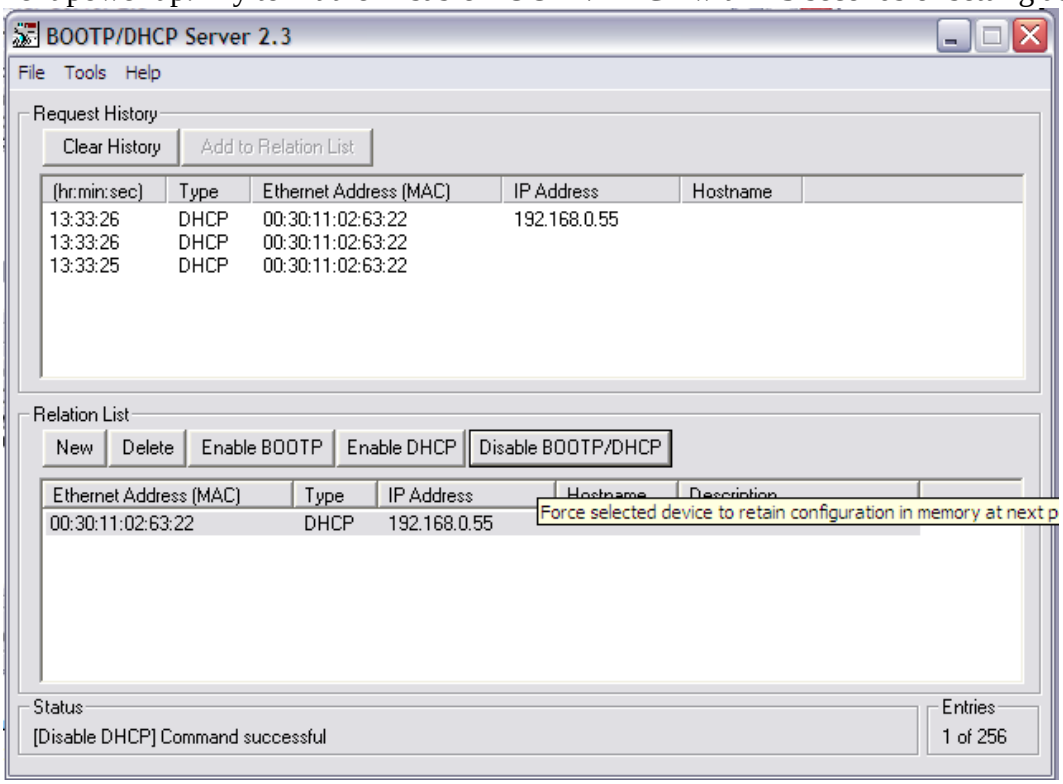


Fill in desired IP address and hit OK.

Address will appear in Relation List.



Click on that IP Address and select “Disable BOOTP/DHCP” to retain that IP address during the next power up. Try to hit the Disable BOOTP/DHCP within 5 seconds of setting address.



If the Disable BOOTP/DHCP Command is NOT successful (see message in lower left hand corner):

- Cycle Power to EX250
- Wait for the **MAC address along with the IP Address** to appear in the REQUEST HISTORY list
- Select the device in the RELATION LIST and click DISABLE BOOTP/DHCP.
- You should see Command Successful
- Use Dos prompt (Run CMD) to ping device.

Once Disable Command is successful, Setup is complete.

To clear an existing IP Address, turn off power to EX250-SEN1 and set Dip Switch 1-4 to ON. Then power up EX250. Power down EX250 and set Dip Switch 1-4 to OFF and start procedure from beginning.

HARDWARE CONFIGURATION IN RSLOGIX

The EX250 can be set up manually as a GENERIC MODULE or you can use our ADD ON PROFILE.

This is what is required for manual configuration:

Connection Parameter

Assembly Instance values:

Description	Decimal	
Comm Format	"Data-INT"	"Data-SINT"
Input	100	100
Output	150	150
Configuration	1	1

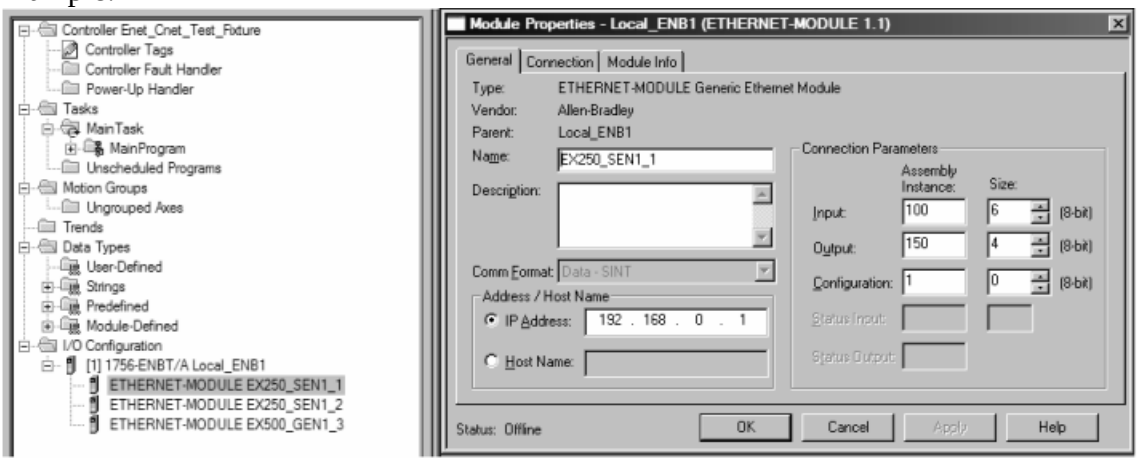
Size:

Description	Size	
Comm Format	"Data-INT"	"Data-SINT"
Input	3 words	6 bytes
Output	2 words	4 bytes
Configuration	0 word	0 byte

When you go to Add a New Module, you select
ETHERNET_MODULE Generic Ethernet Module

Select Data-INT or Data-SINT and fill in the Assembly Instance and Size as shown above.

Example:

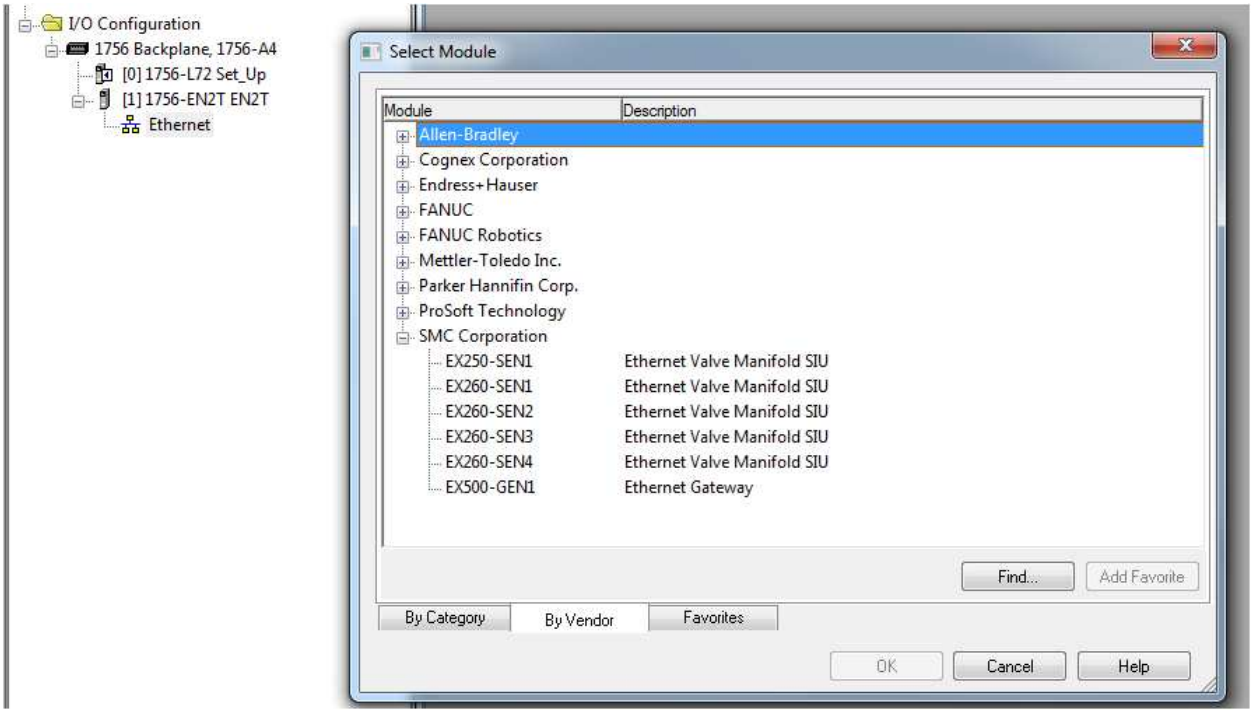


To use SMC's ADD ON PROFILE, click on the "Add-on Profile" link under the Remarks column to download the file from the following web page:

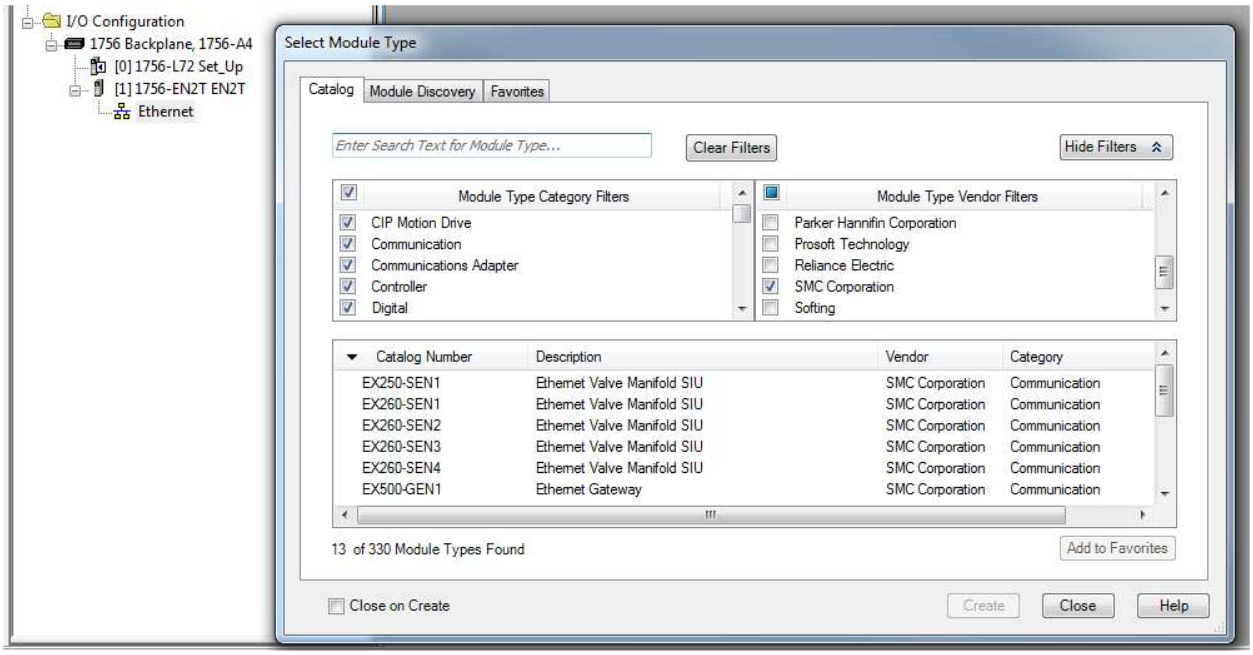
http://www.smcusa.com/top-navigation/products/instruction-manuals/fieldbus-and-serial-transmission-system.aspx

After you have installed the AOP, you will find SMC as a choice under Vendors when you go to Add a New Module.

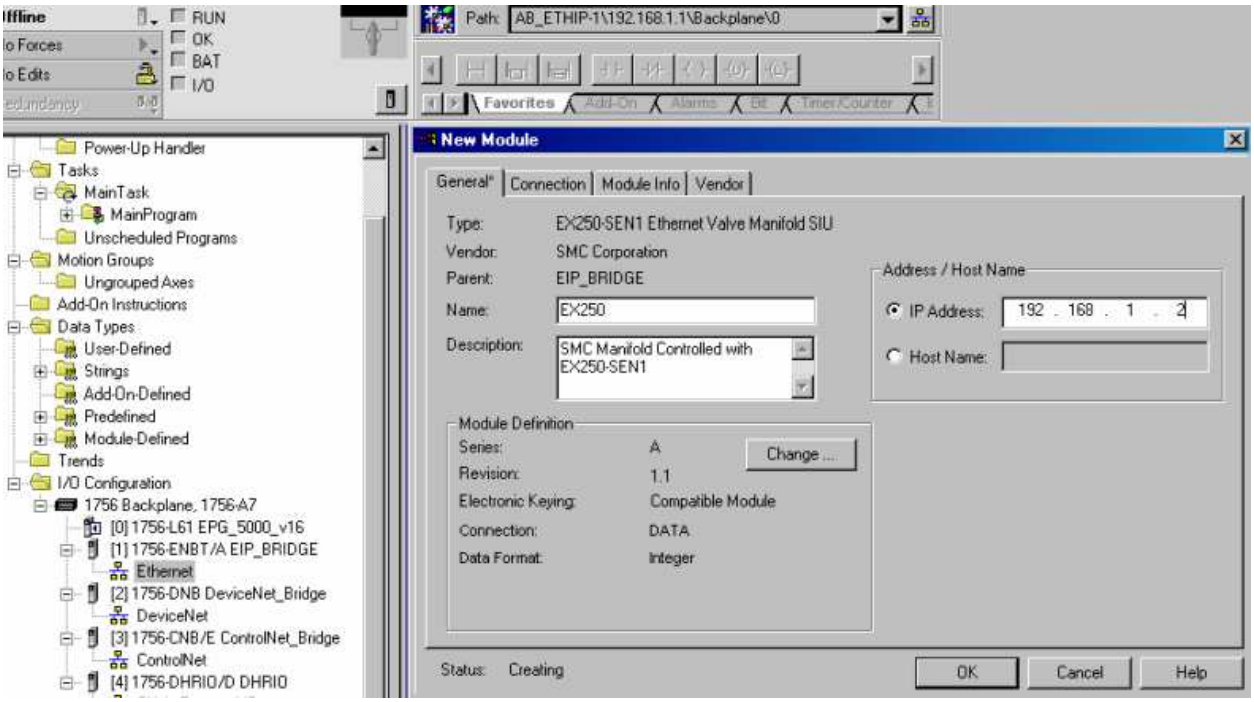
RSLogix5000 Version 19 or lower.



RSLogix5000 Version 20 or higher.



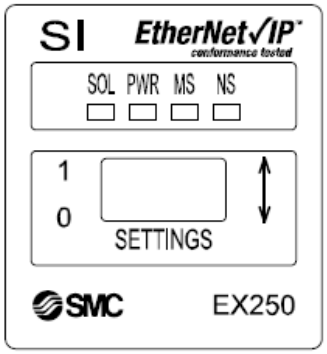
Once you select EX250, you only need to fill in the IP address and the tag name.



LED DISPLAY:

LED Indication and Settings

○LED indication



Display	Contents	
SOL	OFF	Insufficient power supply for solenoids
	Green light ON	Normal power supply for solenoids
PWR	OFF	Insufficient power supply for input and control
	Green light ON	Normal power supply for input and control
MS	OFF	The power supply for control is OFF
	Green light ON	Operating normally
	Green flashes	Setting error (Device has not been configured)
	Red flashes	Recoverable internal error
	Red light ON	Unrecoverable internal error
NS	OFF	The power supply for control is OFF or IP address not set
	Green flashes	EtherNet/IP™-level communication not established
	Green light ON	Multiple EtherNet/IP™-level communications established
	Red flashes	Multiple EtherNet/IP™-level communications time out
	Red light ON	IP address duplicated

The complete manual may be downlowded from the following web page.

http://www.smcusa.com/top-navigation/products/instruction-manuals/fieldbus-and-serial-transmission-system.aspx

For Technical Assistance, please use the phone number or email listed below.

SMC North America Support: 1-800-762-7621
Or
Applications Engineering at aeg@smcusa.com