



# INSTALLATION GUIDE

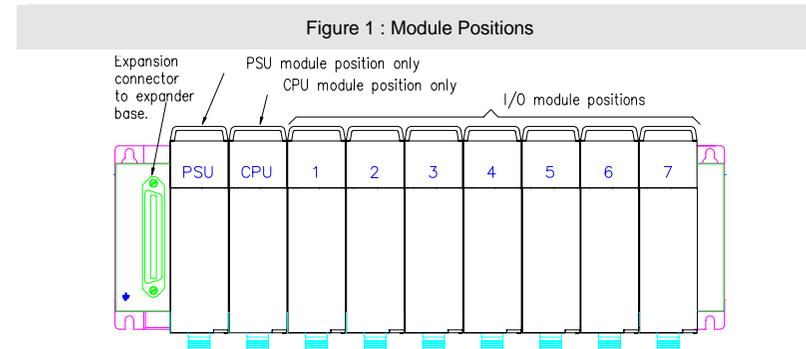
Maxiflex Ethernet NIM

M1591B

## Introduction

This Installation Guide is intended to aid the fitment of the M1591B in the field. For operating details of this product, refer to the User's Manual. Please read this Installation Guide **first** before installing this unit.

The M1591B is always fitted to any I/O slot of the Maxiflex base. See figure 1. This NIM provides a standard UTP interface utilising a RJ45 connector suitable for direct connection to a 10/100 Mbit/s hub/switch in an Ethernet system. Consult your network administrator/consultant for further installation information for the Ethernet network.



Note: The exact position of the I/O module will depend on the system configuration.

## Hardware Installation Procedure

1. If the NIM is going to be programmed use Programming port cable M1831 which is available as an accessory (Model No. M1831). Connect this cable into the programming port of the Maxiflex CPU.
2. Plug the NIM into the required I/O slot (as per Figure 1).

## Software Requirements

Omniset is the PC utility used to configure the M1591B.

\*Note: Always ensure that you have the latest template library from the Omniflex website([www.omniflex.com](http://www.omniflex.com)). To get updates from the web, simply open Omniset and click on File->Update Template Library from Web.

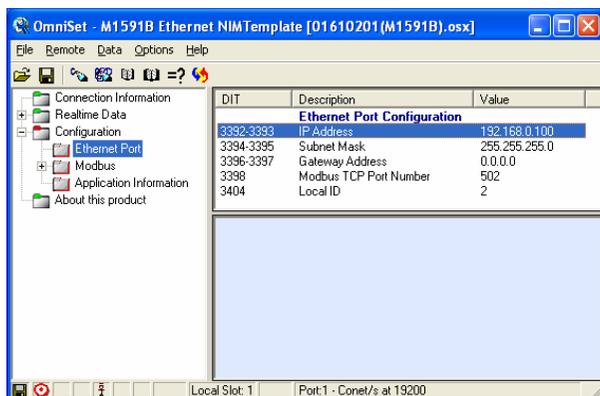
## Ethernet Default Settings

1. The default IP Address is 192.168.0.100.
2. The default Subnet Mask is 255.255.255.0
3. The default Gateway Address is 0.0.0.0
4. The default Modbus TCP Port Number is 502, this must not be changed.
5. The default Local ID is 2.

## Changing Ethernet Settings

1. Assemble the Maxiflex base as shown in Figure 1 with the M1591B fitted into slot1, CPU in CPU slot and a suitable Maxiflex PSU in the PSU slot
2. Connect power to your system.
3. Connect the M1831 programming cable between the COM port of your PC/laptop and the programming port of the Maxiflex CPU.
4. Open Omniset and click on File->Connect->Maxiflex NIM TAB.

5. Select the GROUP Configuration->Ethernet Port which is found in the left hand pane.
6. Change your Ethernet settings by clicking on the right mouse button and selecting the New Value option that pops up. Enter you new setting when prompted.



7. Click on the Write Current Group to Target TAB to invoke the new settings.

**Table 1: M1591B Front Panel Diagnostics**

LED Legend	LED Colour	Description
OK	Green	ON - NIM is healthy OFF or Flashing – No power applied or NIM Faulty
RUN	Green	ON – user application software is running OFF – No user application software is running Flashing – Terminal interaction with NIM
LINK	Green	ON – Ethernet link established, blinking with ethernet communication. OFF – No Ethernet Link present.
100	Yellow	ON – 100 BaseT Ethernet interface. OFF – 10 BaseT Ethernet interface.

Specifications	
<b>Ethernet Port</b>	
Type	10/100BaseT Interface (UTP via RJ45)
Network Protocol Support	TCP/IP, ICMP, ARP
Number of simultaneous TCP/IP Connections	4 (Modbus Master queries take up 1 connection when running, leaving 3 for slave operation)
Protocols supported	<ul style="list-style-type: none"> <li>• Modbus/TCP Modbus (Class 0)</li> <li>• Modbus/TCP Slave (Class 0)</li> </ul>
<b>Memory</b>	
User Program	16k EEPROM
User Variables	16k RAM
Data Interchange Table	4000 16 bit Registers (3000 volatile, 1000 non-volatile)
<b>Front Panel Indicators</b>	
OK (Green)	On = Healthy Flashing or Off = NIM faulty
RUN (Green)	On = Application Program Running Off = No application program or application program not running
Link (Green)	On = Ethernet network link is good, blinking with Ethernet activity
100 (Yellow)	On = 100MHz connection Off = 10MHz connection
<b>Environmental</b>	
Operating Temperature	-25°C to +50°C (-13°F to +140°F)
Storage Temperature	-40°C to +70°C (-40°F to +158°F)
Humidity	95% max. at 40°C (104°F) non-condensing.
Protection	Electronics conformal coated
<b>Logic Power Consumption</b>	
From Logic Power Supply	250mA from 5Vdc max.
<b>Mass</b>	
Excluding Packaging	232g (13.8oz)
Including Packaging	312g (10.9oz)
<b>Ordering Information</b>	
<b>Description</b>	<b>Order Code</b>
Maxiflex Ethernet NIM	M1591B