MAXIFLEX Ethernet NIM

Model M1591B Ethernet TCP/IP Programmable Modbus Network Interface Module

DATASHEET

FEATURES

- **Integral Ethernet Port (10/100BaseT)**
- **Built in Modbus/TCP® Master and Slave protocols.**
- **Programmable for custom data mapping**
- **Easy configuration using free software utility.**
- **Integrates Maxiflex into any Modbus/TCP network.**
- **Communicate with 3rd Party Modbus/TCP Slave Devices**
- **Create additional/redundant Modbus/TCP connections to your SCADA/DCS system**

The Maxiflex M1591B Ethernet Modbus Network Interface Module (Ethernet NIM) is designed specifically to allow access from Modbus and Modbus/TCP Master or Slave devices to a Maxiflex system.

The Ethernet NIM comes equipped with the Modbus over Ethernet and Modbus/TCP protocols (selectable in the configuration), for a wide range of applications.

In addition, the Ethernet NIM supports the development of custom programs in the EziFORTH programming language. This allows extremely flexible data mapping and data format conversion and scaling between the Maxiflex system and the Modbus Device.

All data is interchanged between the SCADA, DCS or PLC and the Maxiflex system CPU through a 4000 register Data Interchange Table in the Ethernet NIM.

All system configuration data and dynamic data can be read and written through this convenient table interface.

Using the supplied Omniset configuration utility, advanced polling schemes may be easily set up without the need for programming. All polling and communications processing is performed in the module, unloading the Maxiflex CPU module for the more important system tasks such as control and other SCADA communications.

APPLICATIONS

- **Communicate with any Modbus Master or Slave device over Ethernet.**
- **Exchange data over Ethernet with third party devices equipped with Modbus communications ports.**
- **Create redundant Ethernet communications paths to your SCADA system from a single Maxiflex system.**
- **Communicate over wide area networks, integrating remote RTU's into local systems.**
- **Communicate with more than one SCADA system over independent Ethernet networks from a single Ethernet network**

Specifications

Ethernet Port	
Type	10/100BaseT Interface (UTP via RJ45)
Network Protocol Support	TCP/IP, BOOTP, ICMP, ARP
Number of simultaneous TCP/IP Connections	4
Protocols supported	• Modbus Master (accessing RS232C Modbus slaves through compatible Ethernet/Serial Port interfaces. • Modbus Slave (using serial port redirector software from Modbus Master equipped PC softtware) • Modbus/TCP Modbus (Class 0) • Modbus/TCP Slave (Class 0)
Memory	
User Program	16k EEPROM
User Variables	10k RAM
Data Interchange Table	4000 16 bit Registers
Front Panel Indicators	
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.
Tx (Red)	On = Data is being sent out the Ethernet port.
Rx (Amber)	On = Data is being received on Ethernet port.
Environmental	
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
Logic Power Consumption	
From Logic Power Supply	250mA from 5Vdc max.
Mass	
Excluding Packaging	390g (13.8oz)
Including Packaging	480g (16.9oz)
Ordering Information	
Description	**Order Code**
Maxiflex Ethernet NIM	M1591B