MAXIFLEX Ethernet NIM Module

Model M1595A Ethernet Network Interface Module

DATASHEET

FEATURES

- **Built-in Modbus/TCP® Master and Slave protocols**

- **Built-in Cone/e protocol for peer-to-peer support**

- **Programmable in the standard IEC61131-3 programming languages**

- **Expand I/O to Maxiflex Systems to 4000 I/O**

- **Connect Remote I/O to Maxiflex CPU's using Ethernet**

- **Implement Remote I/O Control Systems**

- **Connect up to 7 Remote Slave I/O Bases**

The M1595A Ethernet NIM module is a standard Ethernet NIM which allow access from Modbus/TCP Master or Slave devices, and other Conet/e supported devices to a Maxiflex system over a 10/100BaseT Ethernet connection. Up to 15 of these modules can be installed in a system to expand Ethernet network connectivity.

The M1595A Ethernet NIM Module also acts as a remote I/O Ethernet Link which allows up to seven Maxiflex remote I/O Bases to be connected to a Maxiflex Master Base. The Remote I/O Bases can be in the same panel or distributed across the site, using Ethernet.

As a Remote I/O Link, the M1595A Ethernet NIM module fits in Slot 1 of a Maxiflex Master Base, and connects to up to 7 Maxiflex M1262F P3e Remote I/O

Processors. Each Remote I/O Processor can scan up to 15 I/O modules.

This Maxiflex Ethernet NIM as a Remote I/O Link Module is designed to operate in conjunction with a Maxiflex P3 Maxiflex CPU module in the Master System. The module scans the I/O from the remote bases and transfers the I/O data into the P3 CPU's Data Interchange Table for program or SCADA access.

The data link to the Maxiflex modules operates on the Ethernet Network.

The module is also programmable in the standard IEC61131-3 programming languages using ISaGRAF.

APPLICATIONS

- **Communicate with any Modbus TCP Master or Slave device over Ethernet.**

- **Exchange data over Ethernet with third party devices equipped with Modbus communications ports.**

- **Communicate to other Maxiflex Systems in a peer-to-peer fashion using the Conet/e protocol.**

- **Create Maxiflex Systems larger than 15 I/O modules using remote I/O Processors. Up to fifteen additional Maxiflex Bases can be**

    integrated as Remote I/O into a Master Maxiflex System allowing systems up to 4000 I/O to be created.

- **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**

- **Connect existing Maxiflex systems to Ethernet networks.**

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Specifications

Ethernet Port

Type	10/100 BaseT (UTP via RJ45)
Network Protocol Support	TCP/IP, UDP
Protocols	• Modbus/TCP Modbus (Class 0) • Modbus/TCP Slave (Class 0) • Conet/e. Peer to Peer Protocol for Remote Programming, Network Routeing and Data Telemetry

Memory

User Program	32k FLASH
User Variables	8k RAM
Data Interchange Table	4000 16 bit Registers

Front Panel Indicators

OK (Green)	On = Healthy Flashing or Off = Module faulty
RUN (Green)	On = Application Program Running Off = No application program or application program not running
Link (Green)	On = Ethernet network link is good Flashing = Data is being transmitted/received on Ethernet port.
100 (Amber)	On = 100 Mbps connection

Modbus Master Support

No. of Modbus Master Queries	128

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 Standard Ethernet NIM Module.	M1595A
ISaGRAF option	CC030A-URTT

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Typical Remote I/O Configuration

SCADA

Ethernet SCADA Network

Central Controller

Remote I/O Master Base Rack 1
(up to 15 I/O modules)

Ethernet Remote I/O Links

Remote I/O Master Base Rack 2
(up to 15 I/O Modules)

Remote I/O Master Base Rack 3
(up to 7)
(up to 15 I/O Modules)