MAXIFLEX Serial Network Interface Module

Model M1592A RS232/485 Programmable Network Interface Module

DATASHEET

FEATURES

- **Integral RS232/485 Serial Port**
- **Serial Port isolation to 1500Vac**
- **Built in Modbus® and Conet/s protocols.**
- **Programmable for custom protocols**
- **Easy configuration using free software utility.**
- **Check availability of protocol of your choice**
- **Integrates any serial device into standard SCADA or DCS or PLC systems.**
- **Replaces M1585A with improved DB9 connections. No internal linking required to select RS232/RS485**

The M1592A Serial Network Interface Module (Serial NIM) is designed specifically to allow serial access to a wide range of third party serial devices in either point-to-point or multi-drop configuration using RS485.

The Serial NIM comes equipped with the Conet/s protocol for peer-to-peer applications, or with Modbus Master and Slave protocols for access to a wide range of third party devices.

In addition, the Serial NIM supports the development of custom protocol drivers in the EziFORTH programming language. Custom protocols maybe downloaded to the module to communicate with any device equipped with a RS232 or RS485 serial port.

All data is accessible by a SCADA, DCS or PLC via the Maxiflex system CPU through a 4000 register Data Interchange Table.

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 SCADA communications.

Through the use of network routing capability built into the Conet/s protocol, this NIM may form part of a larger network of networks, passing data seamlessly across different network segments transparently to the supervisory computer.

The M1592A is the recommended replacement for the M1585A is in all new installations. The M1592A is functionally identical to the M1585A except that the DB9 serial connector pin out has been changed to the revised Omniflex standard pin out that requires no internal link selection when choosing RS232 or RS485

APPLICATIONS

- **Communicate with any device that has a serial port, and integrate the data from this device into a DCS, PLC or SCADA system.**
- **Point-to-Point Telemetry systems with analog and digital data in both directions over a serial link.**
- **Remote I/O for SCADA software packages incorporating third party devices.**
- **Use MODBUS to communicate with many third party devices to integrate these devices into the SCADA, DCS or PLC system**
- **Use the Conet/s protocol for full duplex peer-to-peer communications with RTU's over a serial link including fibre optic.**
- **Communicate over wide area networks, integrating remote RTU's into local systems.**

MAXIFLEX Serial Network Interface Module

Model M1592A RS232/485 Programmable Network Interface Module

Specifications

Serial Port	
Type	Asynchronous RS232/485 serial port
Protocols	Modbus Master (ASCII or RTU) Modbus Slave (ASCII or RTU) Conet/s (peer-to-peer) Custom and other 3rd party protocols
Baud Rate	300 – 38,400 baud.
Maximum cable length	5 meters (50ft) in RS232 mode 1200m (4000ft) in RS485 mode
Connection	9 pin sub-miniature DB9 (male).
Isolation to Logic	Tested to 1500Vac
Memory	
User Program	10k EEPROM
User Variables	10k Battery Backed 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
Tx (Red)	On = Data is being sent out the serial port.
Rx (Amber)	On = Data is being received on serial 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 Serial NIM	M1592A

Serial Port Connection Details

The selection of either RS232 or RS485 is accomplished by specific wiring of the serial port connector. No internal links need be changed to select between RS232 and RS422/485.

Pin number	*Communication Standard*	
	RS232	***RS485***
1	Do not connect	Rx Data + (In)
2	Rx Data (In)	Rx Data – (In)
3	Tx Data (Out)	Do not connect
4	Do not connect	Tx Data+ (Out)
5	Ground	Ground
6	Do not connect	+5V
7	RTS (Out)	Do not connect
8	CTS (In)	Do not connect
9	Do not connect	Tx Data – (Out)

Pin allocation of serial port connector.

NOTE1: The RTS and CTS handshaking lines are available for applications that require it. It is not a requirement of the CPU to use handshaking. In most applications connecting handshaking lines is not a requirement.

NOTE2: The M1592A is the recommended replacement for the M1585A in all new installations. The only difference between the M1592A and M1585A is the DB9 pinout. On the M1592,the pin out has been changed in line with the standard DB9 pin-out being adopted for all serial ports in the Omniflex product ranges, and removes the need for internal linking when selecting RS485.