

NR&D

MEBII

Modbus Plus ↔ Modbus / TCP Ethernet Bridge

Description

The MEBII is a Unity Pro compatible, fully functional, bi-directional Modbus Plus to Ethernet bridge. Devices on either network can access devices on the other network. This network traffic can be I/O and register data or programming commands from Unity Pro or any other programming package.

The Modbus Plus port provides redundant cable connections and may also be used in standard single cable networks. The MEBII supports the full five drop MB+ routing allowing support for downstream Bridge Plus and Bridge Mux networks.

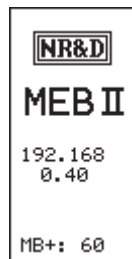
The MEBII includes two isolated serial ports that support 18 different protocols including Modbus RTU and ASCII (Master and Slave). Serial devices may access or be accessed from devices on Ethernet, Modbus Plus, or the other serial port.

The MEBII is a stand-alone version of Niobrara's popular MEB-RT with the following features:

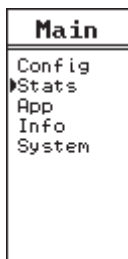
- DIN rail mount
- 24VDC Operation
- Dual Cable Modbus Plus
- 100BaseT RJ45 Ethernet port
- Two Isolated serial ports switchable between RS-232 (RJ45) and RS-485 (5-position screw terminal)
- LCD and keypad for configuration and status
- Automatic Modbus/TCP and serial routing table configuration
- Ethernet, Serial, and MB+ I/O Scanning
- MB+ Global Data support

Front Panel Operation

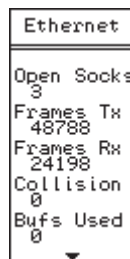
The MEBII's front panel LCD and keypad make configuration a snap. The basic Ethernet, MB+, and serial port settings may all be inspected and modified from the front panel. The arrow keys allow quick access to the device's firmware versions, serial number, MAC address, MB+ station list, and port communication statistics. The front panel may be password protected to prevent unauthorised activity.



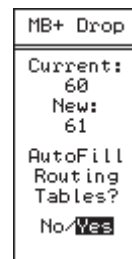
Default Screen



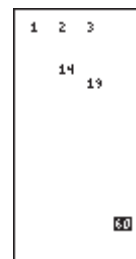
Main Menu



Statistics



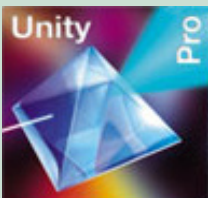
MB+ Config



MB+ Stations

"...bi-directional communication between devices on the Modbus Plus network and devices on the Ethernet network."

"...front panel LCD and keypad makes configuration a snap."



Collaborative Automation
by
Schneider
Electric

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Modbus Router

The MEBII can route messages between Modbus/TCP Ethernet, Modbus Plus, and Modbus Serial (RTU or ASCII); all at the same time. The Ethernet port may be a client and server. The serial ports may be connected to masters or slaves. Any master can communicate with any slave on any other port. These masters may be a programming package such as Unity Pro, Concept, or ProWORX.

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Legacy SY/MAX Operation

The MEBII supports legacy Square D SY/MAX communication including Ethernet and serial. The Ethernet port may be configured to operate in a combined Modbus/TCP and SY/MAX mode providing high speed bridging between Quantum NOEs and Model 650 and 450 PLCs. SY/MAX serial, PNIM, Net-to-Net, and RNIM protocols are all supported to tie in older SY/NET equipment with a newer Modbus system.

Ordering Information

The MEBII is available as:

- **MEBII+001** with 100BaseT Ethernet, Dual cable MB+, and 2 serial ports

Related Products

- **MM1** RS-232 cable for connecting to 9-pin PC serial port.
- **MU7** RS-422 cable for connecting to 9-pin SY/MAX port.
- **TR121ST** 110VAC (US) wall mount transformer.

Specifications

Warranty / Manual	The MEBII is furnished with a user manual on CD and carries a one-year warranty from the date of shipment. During the warranty period, free firmware upgrades are available. See Niobrara's Standard Terms and Conditions of Sale for additional warranty information.
Dimensions	DIN rail mount 4.4" wide by 4.4" tall by 3.5" deep. Approximately 1.2 pounds net.
Power Requirements	9-30VDC 6W - 3 position removable connector is provided
Indicators	Module: LCD with backlight and two red LEDs for error Serial Ports: Transmit and Receive for each port Ethernet: Link/Activity, 10/100 Modbus Plus: Active, Channel A Error, Channel B Error
Modbus Plus Ports	Dual cable Modbus Plus port with two DB9 female connectors with screw-lock posts. Standard MB+ pinout. Global Data compatible.
Ethernet Port	10/100BaseT port with RJ45 connector on bottom of unit. Modbus/TCP and/or SY/MAX 802.3 protocols. E-Peer compatible.
Serial Ports	Two isolated ports selectable between RS-232 (RJ45 connector) and RS-485 (5 position removable screw terminal is provided). Independently configurable for baud rate, data bits, parity, stop bits, and protocol. RS-485 mode is 2- and 4-wire compatible.
Serial Port Modes	Each serial port can independently operate in any of the following modes: Modbus (RTU or ASCII, master or slave), SY/MAX; Net-to-Net; Peripheral; PLogic; Multidrop; IDEC; Gateway; Transparent; Share; PNIM; RNIM (master or slave); Transfer; Chevron; Dual Slave.
Setup Registers	Module configuration is stored in internal registers and is compatible with older MEB-RT models. These setup registers can be accessed through any of the MEB's ports (in most modes). Configuration is restored from FLASH memory after a power cycle.
Environmental	Operating conditions are 0-50C; humidity up to 90% noncondensing; pressure altitude -200 to +10,000 ft MSL.



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