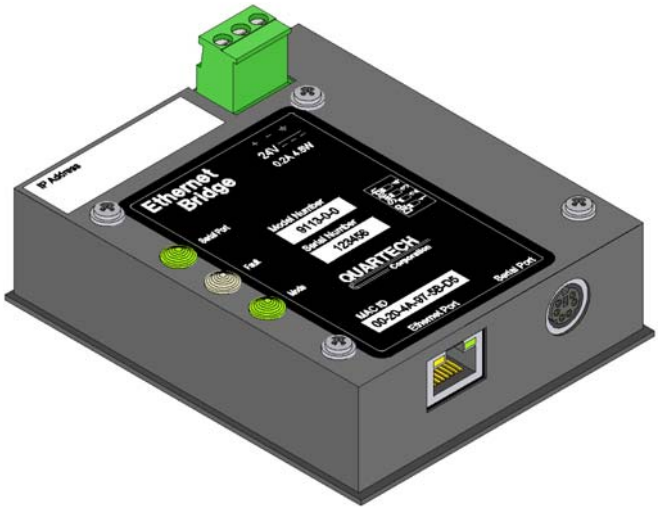
Model 9113
Ethernet Bridge

QSL-901A33-R2



The Quartech Model 9113 Ethernet Bridge allows an Allen-Bradley PLC such as the MicroLogix 1100 to monitor and control an Ultra 3000 Servo Drive over an ethernet connection.

The 9113 connects to the Ultra 3000 CN3 port using a cable provided with the unit and to the PLC via a 10/100 auto sensing ethernet port

The PLC will access the 9113 as though it were another PLC using File/Element addressing. A pre-defined map exists within the 9113 that associates Ultra 3000 Host Command Reference parameters to File/Element numbers.

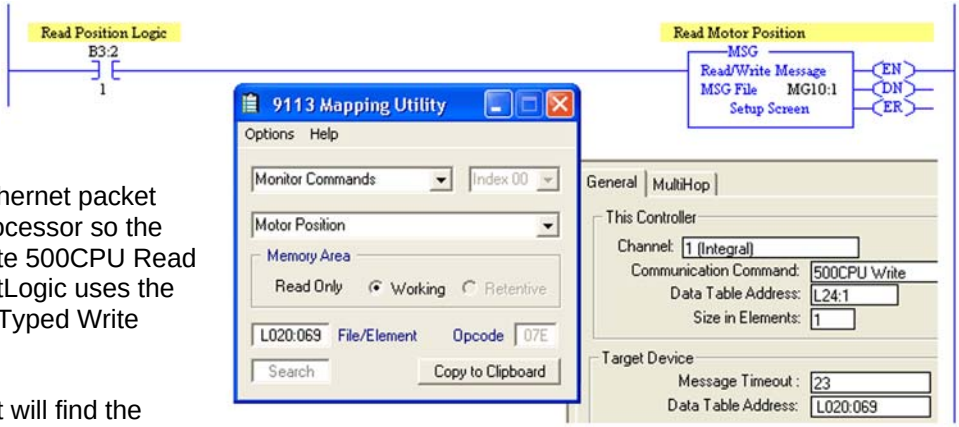
The 9113 can perform scaling that allows your PLC program to work in scaled values such as inches or RPMs. Individual scale values exist for position, velocity, and acceleration type parameters.

The 9113 must be configured with a static IP address that is the target address used within the message instructions in the PLC program. The IP address can be set through the serial communication port or the ethernet port using our Windows based utility programs which are available free of charge at the Quartech web site.

PLC Message Instruction

The 9113 allows the PLC to read and write parameters within the Ultra 3000 using the Message Instruction. In the example below the PLC will read the value from L020:069 in the 9113 and place it into L024:001 in the PLC. L020:069 is the mapped address to the Motor Position parameter in the Ultra 3000. File types have been assigned that reflect the parameter data type within the Ultra 3000.

Bit files, Integer files, Long files, and Float files have been used to map Ultra 3000 parameters.



The 9113 uses the same ethernet packet protocol as the SLC 505 processor so the Message setup must indicate 500CPU Read or 500CPU Write. CompactLogic uses the SLC Typed Read and SLC Typed Write

A free utility is available that will find the File/Element number associated with an Ultra 3000 parameter you select.
The utility will run along with RSLogix and will remain on top unless minimized. This allows you to quickly select a parameter, copy the associated File/Element number to the Windows clipboard then paste the number into the Target Device - Data Table Address box within a Message Instruction setup dialog.

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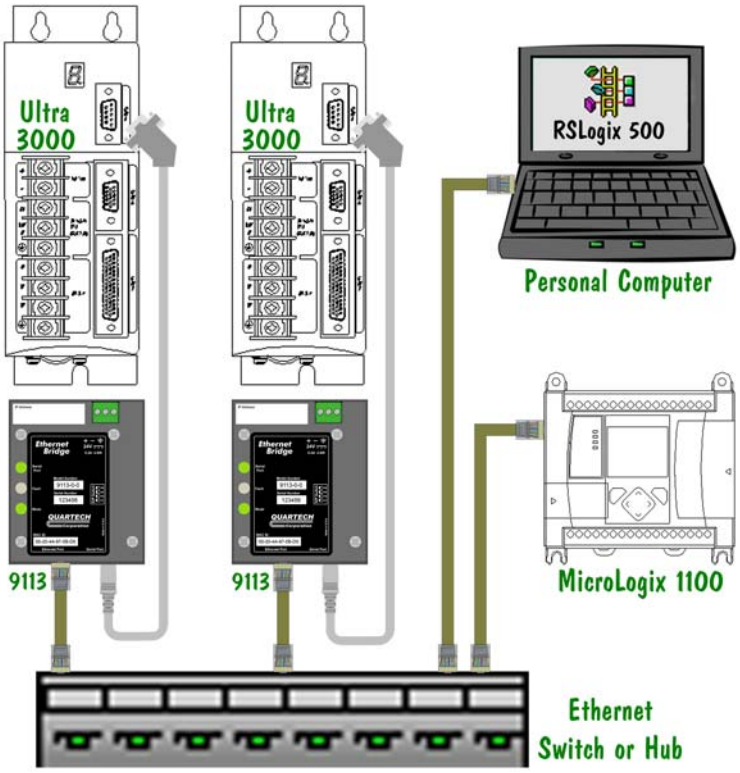
Typical Connection Diagram

A PLC can control a single Ultra 3000 drive using a cross over cable between the PLC and 9113. An ethernet switch or hub is required when multiple Ultra 3000 drives are to be controlled.



Details

The 9113 is enclosed in a rugged steel case and provides a spring loaded DIN rail mounting clip that allows mounting and dismounting without any tools. Twenty four volt source power is provides through a removable terminal block. Five light emitting diodes indicate the operating status of the ethernet and serial ports as well as the fault status .

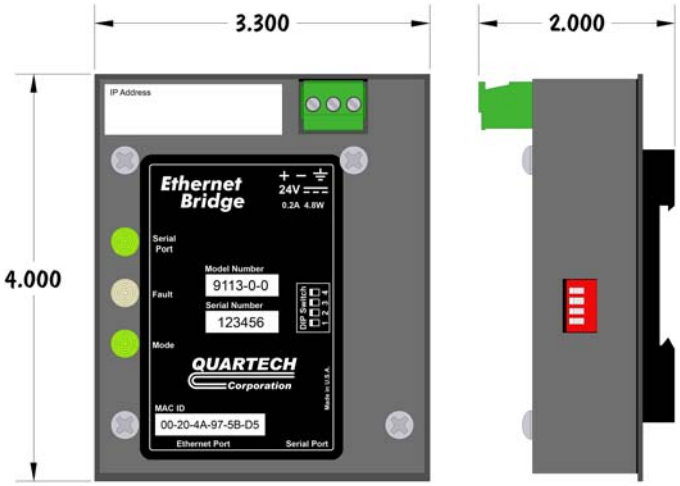
An internal fault register can be read by and reset by the PLC

The internal firmware can be field upgraded through the serial port.

Requires 24VDC at 200ma
Mounts to EN50022-35 DIN Rail.

Part Numbers:
9113-0-0 Ethernet Bridge for Ultra 3000
2181-10 PC to 9113 configuration cable

The serial communication cable between the Ultra 3000 and 9113 is included.



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Visit the Quartech web site for product manuals, cable drawings, sample applications, and software.