Communications Options

US Drives offers many different Communication Cards to interface our AC Drives to a wide variety of industrial networks.

USB/RS-485 Communications Interface with Cable – All Phoenix DS and Phoenix ES AC Drives include a built in RS-232 serial communications port. A Removable USB/RS-485 Communications Cable with Isolator (P/N 3000-4226-USB) is available to allow the direct connection of a laptop or other PC to the drive. All drive parameters are accessible via Modbus RTU protocol.

Modbus RTU RS-232/422/485 - Modbus RTU is a simple, easy to use serial communications protocol. This plug-in Communications Card (P/N 3000-4135) mounts directly on the drive and connects to the customer's network via a removable screw terminal connector. The hardware can be configured for RS-232, RS-422, or RS-485 communications at data rates of 4,800 baud, 9,600 baud, and 19,200 baud. When configured for RS-485 multi-drop, up to 32 devices can be connected on the network. All drive parameters, are accessible via Modbus RTU protocol.

Ethernet/Modbus TCP - Ethernet/Modbus TCP extends commercial off-the-shelf Ethernet to the factory floor while making use of the popular Modbus protocol. Modbus TCP is the most commonly used protocol for Industrial Ethernet applications. This Communications allows one or more drives to be connected to any Ethernet network using standard Ethernet cables and an RJ45 type Ethernet connector. Up to 32 drives can be connected to an Ethernet network using one Ethernet/Modbus TCP Communications Card. A Modbus RTU RS-232/422/485 Communications Card (P/N 3000-4135) is also required for each drive. All drive parameters, are accessible via the Ethernet using Modbus TCP protocol.

Ethernet/IP - Ethernet/IP extends commercial off-the-shelf Ethernet to the factory floor using the same upper-layer protocol and object model found in DeviceNet and ControlNet. This Communications Module allows one or more drives to be connected to any Ethernet network using standard Ethernet cables and an RJ45 type Ethernet connector. Up to 32 drives can be connected to an Ethernet network using one Ethernet/IP Communications Module. A Modbus RTU RS-232/422/485 Communications Card (P/N 3000-4135) is also required for each drive. All drive parameters, are accessible via the Ethernet using Ethernet/IP protocol. This Communications Module complies with the Ethernet/IP specification.
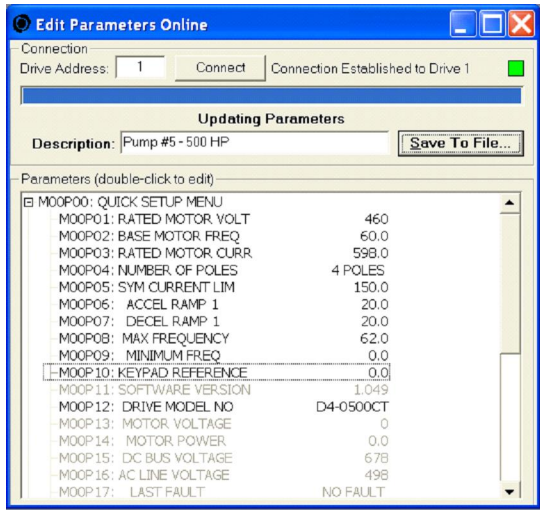
DeviceNet - DeviceNet serves as a communications link between industrial controllers and I/O devices including drives. This Communications Module allows one or more drives to be connected to any DeviceNet network using a standard DeviceNet connector. Up to 32 drives can be connected to a DeviceNet network using one DeviceNet Communications Module. A Modbus RTU RS-232/422/485 Communications Card (P/N 3000-4135) is also required for each drive. All drive parameters, can be accessed via the DeviceNet network. This module complies with the ODVA DeviceNet specification.

Profibus DP - Profibus is the leading industrial communication network for manufacturing automation in Europe. This Communications Module allows one or more drives to be connected to any Profibus network through a Phoenix-type connector using twisted-pair wiring. Up to 32 drives can be connected to a Profibus network using one Profibus Communications Module. A Modbus RTU RS-232/422/485 Communications Card (P/N 3000-4135) is also required for each drive. All drive parameters, can be accessed via the Profibus network using Profibus DP protocol. This module complies with standards developed by the Profibus User Organization (PNO).
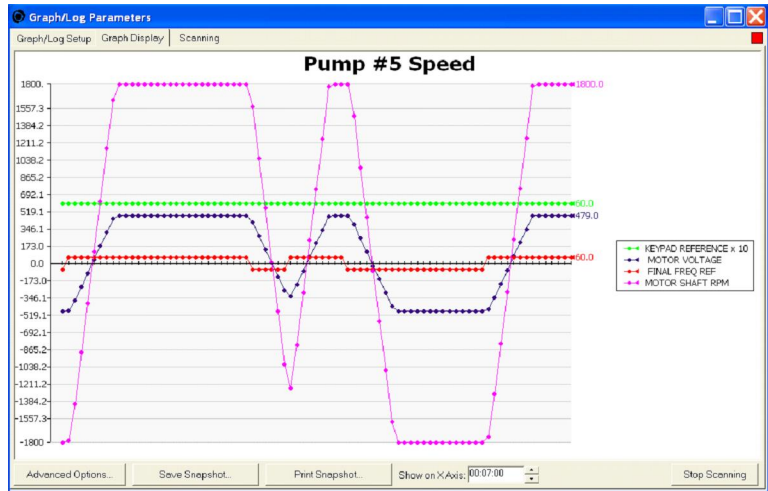
Other Networks - Communications Interface Modules are also available for Modbus Plus, CANopen, Interbus, ControlNet, ProfiNet, and selected other networks. Consult your US Drives' Sales Representative for details.
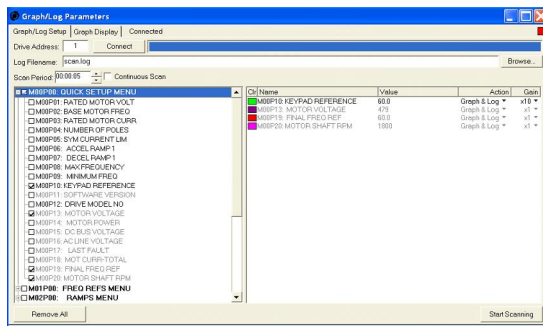
Drivemaster

Drivemaster is a Windows based program designed to make drive set-up, record keeping, and trouble-shooting easy. Drive parameters can be extracted from a drive, reviewed, modified, printed, stored on disk, reloaded back into the same drive, or copied to another drive. Data Logging and Graphing of drive parameters is also possible. Offline and Online Editing is supported. Drivemaster supports both Modbus Serial Communications and Ethernet / Modbus TCP Communications.
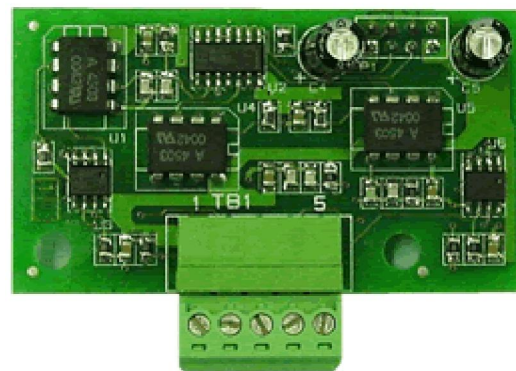
Edit and Save Drive Parameters

Graph

Data Logging

**USB/RS-485
Communications Interface with Cable**

Serial Communications Card