Modbus Master/Slave Communication Module
PTQ-MCM

Applications using the Modbus Communication Module can be found in many industrial sectors and in the following applications:
- Foreign device data concentrator
- Pipelines and offshore platforms
- Food processing
- Mining
- Pulp and paper
- SCADA communications
- Supports Enron version of Modbus protocol for floating point data transactions.

How to Contact Us: Sales and Support
All ProSoft Technology products are backed with unlimited technical support. Contact our worldwide Technical Support team directly by phone or email:

Asia Pacific
+603.7724.2080, asiapc@prosoft-technology.com
Languages spoken include: Chinese, Japanese, English

Europe – Middle East – Africa
+33 (0) 5.34.36.87.20, support.EMEA@prosoft-technology.com
Languages spoken include: French, English

North America
+1.661.716.5100, support@prosoft-technology.com
Languages spoken include: English, Spanish

Latin America (Sales only)
+1.281.298.9109, latinam@prosoft-technology.com
Languages spoken include: Spanish, English

Brasil
+55-11.5084.5178, eduardo@prosoft-technology.com
Languages spoken include: Portuguese, English

Modbus Master/Slave Communication Module
PTQ-MCM

The ProTalk Modbus Master/Slave Communication Module allows Schneider Electric Quantum processors to interface easily with other Modbus protocol compatible devices and hosts. The data transfer from the Quantum processor is asynchronous from the actions on the Modbus network. Compatible devices include not only Modicon PLCs (which all support the Modbus protocol) but also a wide assortment of end devices.

Features and Benefits
Many host SCADA packages support the Modbus protocol, while devices commonly supporting the protocol include several PLCs, as well as many other third party devices in the marketplace. (For a partial list of devices that speak Modbus, please visit the ProSoft Tested section of the ProSoft Technology web site).

General Specifications
- Single Slot – Quantum backplane compatible
- The module is recognized as an Options module and has access to PLC memory for data transfer
- Configuration data is stored in non-volatile memory in the ProTalk module
- Configuration software for Microsoft Windows XP, 2000 and NT is included with the module.
- Up to six modules can be placed in a rack
- Local rack – The module must be placed in the same rack as processor.
- Compatible with common Quantum / Unity programming tools.
  - UnityPro XL
  - Concept
  - ProWORX
- Quantum data types supported: 3x, 4x
- High speed data transfer across backplane provides quick data update times.
- Sample ladder file available.
Hardware Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Backplane Current Load</td>
<td>800 mA @ 5 V</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>0 to 60°C (32 to 140°F)</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>-40 to 85°C (~40 to 185°F)</td>
</tr>
<tr>
<td>Relative Humidity</td>
<td>5 to 95% (non-condensing)</td>
</tr>
<tr>
<td>LED Indicators</td>
<td>Module Status</td>
</tr>
<tr>
<td></td>
<td>Backplane Transfer Status</td>
</tr>
<tr>
<td></td>
<td>Serial Port Activity LED</td>
</tr>
<tr>
<td></td>
<td>Serial Activity and Error LED Status</td>
</tr>
<tr>
<td>Configuration</td>
<td>DB-9M PC Compatible</td>
</tr>
<tr>
<td>Serial Port (PRT1)</td>
<td>RS-232 only</td>
</tr>
<tr>
<td></td>
<td>No hardware handshaking</td>
</tr>
<tr>
<td>Application Serial Ports (PRT2, PRT3)</td>
<td>DB-9M PC Compatible</td>
</tr>
<tr>
<td></td>
<td>RS-232/422/485 jumper selectable</td>
</tr>
<tr>
<td></td>
<td>RS-422/485 screw termination included</td>
</tr>
<tr>
<td></td>
<td>RS-232 handshaking configurable</td>
</tr>
<tr>
<td></td>
<td>500V Optical isolation from backplane</td>
</tr>
</tbody>
</table>

Functional Specifications

Some of the general specifications include:

- Support for the storage and transfer of up to 5000 registers to/from the Quantum processor's data files
- Module memory usage that is completely user definable
- Two ports to emulate any combination of Modbus master or slave device
- Configurable parameters include:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protocol</td>
<td>RTU or ASCII</td>
</tr>
<tr>
<td>Baud Rate</td>
<td>110 to 115,200</td>
</tr>
<tr>
<td>Parity</td>
<td>None, Odd and Even</td>
</tr>
<tr>
<td>Data Bits</td>
<td>5 to 8</td>
</tr>
<tr>
<td>Stop Bits</td>
<td>1 or 2</td>
</tr>
<tr>
<td>RTS On and Off Timing</td>
<td>0 to 65535 milliseconds</td>
</tr>
<tr>
<td>Minimum Response Delay</td>
<td>0 to 65535 milliseconds</td>
</tr>
<tr>
<td>Use of CTS Modem Line</td>
<td>Yes or No</td>
</tr>
</tbody>
</table>

Slave Specifications

The PTQ-MCM module accepts Modbus function code commands of 1, 2, 3, 4, 5, 6, 8, 15, 16, 17, 22 and 23 from an attached Modbus Master unit. A port configured as a Modbus slave permits a remote master to interact with all data contained in the module. This data can be derived from other Modbus slave devices on the network, through a master port, or from the Quantum processor.

Master Specifications

A port configured as a virtual Modbus Master device on the PTQ-MCM module actively issues Modbus commands to other nodes on the Modbus network. One hundred (100) commands are supported on each port. Additionally, the master ports have an optimized polling characteristic that polls slaves with communication problems less frequently. The Quantum processor can be programmed to control the activity on the port by actively selecting commands from the command list to execute or issuing commands directly from the ladder logic.

Additional Products


Ordering Information

To order this product, please use the following:

PTQ-MCM Modbus Master/Slave Communication Module

To place an order, please contact your local ProSoft Technology distributor. For a list of ProSoft distributors near you, go to http://www.prosoft-technology.com

Distributors:

Place your order by email or fax to:

North American / Latin American / Asia Pacific
orders@prosoft-technology.com,
fax to +1 661.716.5101

Europe
europe@prosoft-technology.com,
fax to +33 (0) 5.61.78.40.52

January 30, 2007