



# DATASHEET

## IEC 60870-5-103 Master Network Interface Module for Quantum PTQ-103M

The PTQ IEC 60870-5-103 Master Communication Module allows backplane I/O compatible processors to interface easily with IEC 60870-5-103 compatible devices. Devices commonly supporting the protocol include relays, breakers, sub-station Communication Modules and other serial communication devices used in power monitoring.

The PTQ-103M supports up to 32 total field devices between the module's two IEC 60870-5-103 Master ports. The module's communication ports can each be independently configured, allowing two separate field networks to be implemented. The field device data is exchanged between the PTQ module and the processor over the backplane.



Features	Benefits
Rockwell Automation software supported	◆ Rockwell Automation's RSNetWorx for DeviceNet Configuration Software is supported (Available from ProSoft Technology as Part Number PSW-RSNetWorx-DNET)
Compatibility	◆ Compatible with common Quantum programming tools
Backed by ProSoft Technology®	◆ Industrial data communications experts who understand your protocols, devices, and applications
	◆ Three year standard warranty

### Configuration

The configuration file is a fully commented, easy-to-understand text file, which can be opened with NotePad or any text editor. A sample configuration file is included on the module, on the product CD, or from [www.prosoft-technology.com](http://www.prosoft-technology.com). Download configuration file directly to module through the Config/Debug port using HyperTerm or any similar terminal emulation software.



### 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
- Up to six modules can be placed in a rack
- Local rack - The module must be placed in the same rack as processor.
- Quantum data types supported: 0x, 1x, 3x, 4x
- High speed data transfer across backplane provides quick data update times.
- Sample function blocks available.

## Functional Specifications – PTQ-103M

The PTQ-103M module supports the IEC 60870-5-103 protocol to the following specifications:

- The IEC 60870-5-103 communication driver is built in accordance to the approved IEC specification
- User-definable module memory usage
- The module has two independent master ports, each configurable via a simple configuration file
- Supports up to 32 sessions (controlled devices) between the two ports
- Supports up to five sectors (separate databases) for each session, with individual database definition for each sector
- Total of 1000 user configurable commands to control data transfer to/from devices (controlled devices)
- Supports clock synchronization from/to the processor
- Event data received from the Control Devices updates the module database (Date and Time stamping is not stored or used by module)
- Class 1 and Class 2 delay parameter are configurable for each session
- An IEC Interoperability Document for the module is available from the web site, which fully documents data types supported by the module

## Hardware Specifications

Specification	Value
Backplane Current Load	1100 mA maximum @ 5 Vdc ± 5%
Operating Temperature	0°C to 60°C (32°F to 140°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Relative Humidity	5% to 95% (without condensation)
Vibration	Sine vibration 4-100 Hz in each of the 3 orthogonal axes
Shock	30g, 11 msec. in each of the 3 orthogonal axes
Dimensions (HxWxD), Approx.	250 x 103.85 x 40.34 mm 9.84 x 4.09 x 1.59 in
LED Indicators	Module Status Backplane Transfer Status Serial Port Activity Serial Activity and Error Status

### Debug/Configuration Port (Debug)

CFG Port (DEBUG)	DB-9M PC Compatible RS-232 only No hardware handshaking
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### Application Ports

Application Serial Ports (PRT1, PRT2)	DB-9M PC Compatible RS-232/422/485 jumper selectable RS-422/485 screw termination included RS-232 handshaking configurable 500V Optical isolation from backplane
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## Agency Approvals & Certifications

CSA/cUL	C22.2 No. 213-1987
CSA CB Certified	IEC61010
ATEX	EN60079-0 Category 3, Zone 2 EN60079-15



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## Additional Products

ProSoft Technology® offers a full complement of hardware and software solutions for a wide variety of industrial communication platforms. For a complete list of products, visit our web site at: [www.prosoft-technology.com](http://www.prosoft-technology.com)

## Ordering Information

To order this product, please use the following:

## IEC 60870-5-103 Master Network Interface Module for Quantum

PTQ-103M

To place an order, please contact your local ProSoft Technology distributor. For a list of ProSoft Technology distributors near you, go to: [www.prosoft-technology.com](http://www.prosoft-technology.com) and select Distributors from the menu.

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