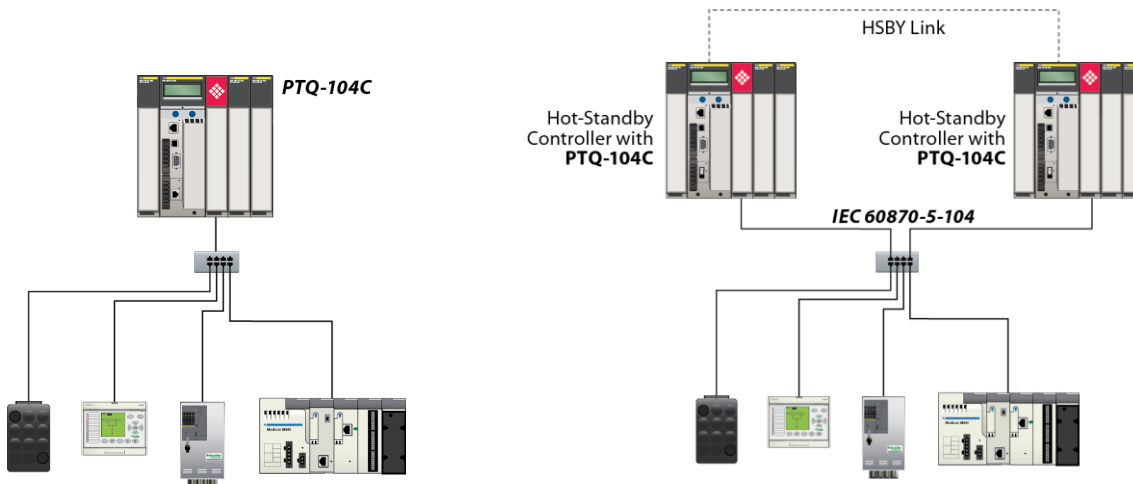


IEC 60870-5-104 Client for Quantum PTQ-104C

The IEC 60870-5-104 Client Communication Module allows compatible processors to interface easily with other IEC 60870-5-104 protocol-compatible servers such as RTU's and IED devices. Developed under license from Schneider Electric, the module incorporates proprietary backplane technology that enables powerful data access to the Quantum processor and can even be used in Quantum Unity Hot-Standby applications.

The PTQ-104C module acts as an input/output module between the IEC-60870-5-104 Ethernet network and the Quantum processor. Data transfer between the module and the processor is asynchronous from the actions on the network. Databases are defined by the user for the module to hold data as required by the protocol, passing this information over the backplane to the Quantum CPU.



Features	Benefits
Hot-Standby	<ul style="list-style-type: none"> Allows module to be controlled by a secondary Quantum processor in the event of a main processor failure
Personality Module	<ul style="list-style-type: none"> Incorporates a non-volatile Compact Flash memory for storing the module's setup and network configuration data (or personality) Allows restoring of a module by simply exchanging the Personality Module with no need to use PC or re-configure
Supports up to 4 clients	<ul style="list-style-type: none"> Ability to poll data from four unique devices at the same time
Event time-stamping configurable by type	<ul style="list-style-type: none"> More accurate information for sequence of events reporting

Configuration

ProSoft Configuration Builder (PCB) provides a PC-based software configuration solution for quick and easy management of module configuration files, as well as viewing communication and network diagnostics.

PCB is not only a powerful solution for new configuration files, but also allows you to import information from previously installed (known working) configurations into new projects.

General Specifications

- Single Slot - Quantum backplane compatible
- The module is recognized as an Options module and has access to PLC memory for data transfer
- Local rack - The module must be placed in the same rack as processor
- Compatible with all common Quantum programming packages, including Concept (version 2.6 or higher), Unity Pro (version 2.2 or higher), ProWORX (version 2.20 or later), and ModSoft
- Compatible with Quantum Unity Hot-Standby systems
- High speed data transfer across backplane provides quick data update times
- Personality Module - a non-volatile industrial-grade Compact Flash (CF) card used to store network and module configuration for easy disaster recovery, allowing quick in-the-field product replacement by transferring the CF card.

Functional Specifications - PTQ-104C

As a Client, the module initiates commands to read/write data between a Server and the PTQ-104C database. This data is easily and continuously transferred between the ProTalk module and the Quantum processor's data registers.

The module has 4000 words of user defined internal register space that are accessible to the protocol driver and to the Quantum processor memory. Any of the supported database types can be individually located (within the total database size limit of 4000 words) and each database point is mapped within the module and can be transferred to/from the Quantum CPU.

Database Type	Description	Point Size
M_SP_NA	Monitored single-point database	1 bit
M_DP_NA	Monitored dual-point database	2 bits
M_ST_NA	Monitored step-point database	1 byte
M_BO_NA	Monitored 32-bit Bitstring database	2 words
M_ME_NA	Monitored normalized-point database	1 word
M_ME_NB	Monitored scaled-point database	1 word
M_ME_NC	Monitored short-float point database	2 words
M_IT_NA	Monitored integrated total database	2 words
C_SC_NA	Command single-point database	1 bit
C_DC_NA	Command dual-point database	2 bit
C_RC_NA	Command step-point database	1 byte
C_BO_NA	Command 32-bit Bitstring database	2 words
C_SE_NA	Command normalized-point database	1 word
C_SE_NB	Command scaled-point database	1 word
C_SE_NC	Command short-float point database	2 words

IEC 60870-5-104 Client Specifications

The IEC 60870-5-104 Client functionality supported by the module includes:

- The IEC 60870-5-104 communication driver is built in accordance to the approved IEC specification
- The module functions as a Client on the network supporting data read/write commands to an IEC 60870-5-104 server on the network
- Supports clock synchronization commands from the Quantum or through SNTP
- Supports connection of up to 4 server devices (sessions) with up to 2 sectors per device.



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

Ordering Information

To order this product, please use the following:

IEC 60870-5-104 Client for Quantum

PTQ-104C

To place an order, please contact a local ProSoft distributor.

A list of ProSoft-authorized distributors is available on our website at:

www.prosoft-technology.com

From the main menu, select Distributors and the Country for region-specific information.

Hardware Specifications

Specification	Value
Backplane Current Load	1100 mA maximum @ 5 Vdc \pm 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 40.34 x 103.85 mm 9.84 x 1.59 x 4.09 in
LED Indicators	Active Status Ethernet port Status Battery Status Debug/Config Port Activity Module 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 Ethernet port	RJ45 Connector Link and Activity LED indicators Electrical Isolation 1500 V rms at 50 Hz to 60 Hz for 60 sec, applied as specified in section 5.3.2 of IEC 60950: 1991 Ethernet Broadcast Storm Resiliency = less than or equal to 5000 [ARP] frames-per-second and less than or equal to 5 minutes duration
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Agency Approvals & Certifications

CSA/cUL

CSA CB Certified

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