

PROFIBUS DP Master Network Interface Module for Quantum PTQ-PDPMV1

The PROFIBUS DPV1 Master module is a powerful communication interface for Quantum[®] processors. Developed under license from , the module incorporates proprietary backplane technology that enables powerful data exchange with processors.

The module supports complete Master specifications according to IEC 61158. Acyclic parameter data can be transferred with Class 1 or Class 2 DPV1 services, allowing processors to easily communicate with slave devices supporting PROFIBUS DPV0/V1 protocol.

The module acts as an input/output module between the PROFIBUS network and the processor. Data transfer from the processor is asynchronous with the I/O data transfer on the PROFIBUS network.



| Features | Benefits |
|------------------------------|---|
| Easy to configure and manage | <ul style="list-style-type: none"> ◆ Includes ProSoft Configuration Builder software to design, configure and monitor your PROFIBUS network ◆ Includes PROFIBUS DPV1 Master FDT (Field Device Tool) communication DTM (PROFIBUS comDTM) software to interface between any compliant FDT software container, an FDT device DTM, and applicable PROFIBUS slave devices ◆ Configure PTQ module and PROFIBUS network over Ethernet |
| Industry Recognition | <ul style="list-style-type: none"> ◆ Schneider Electric CAPP (Collaborative Automation Partner Program) Approved ◆ PROFIBUS Trade Organization (PTO) Approved |
| Rugged and reliable | <ul style="list-style-type: none"> ◆ The module is built on Siemens ASIC ASPC2 Step E with Infineon C165 Microprocessor ◆ The firmware is flash-upgradable ◆ Adheres to the Unity HEC Hot Standby Functional Specifications. ◆ Supports up to six PTQ-PDPMV1 modules per rack (up to four for Hot Standby implementations) ◆ Supports extended diagnostic data, alarm indications and confirmations handling, Multicast and Broadcast telegrams (DPV1) |

Configuration

ProSoft Configuration Builder (PCB) provides a PC-based software configuration solution for 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
- 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 the 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) (HSBY only available with Unity Pro environment)
- Quantum data types supported: 3x, 4x
- High speed data transfer across the backplane provides quick data update times
- Sample ladder file available

Functional Specifications

- Easy-to-use drag and drop Busview configuration interface via ProSoft Configuration Builder software (see PSW-PCB Datasheet)
- Monitoring and modification of process data and DPV1 acyclic data with online slave diagnostics
- Supports PROFIBUS PA slaves on the network through DP/PA coupler or link
- Supports up to 125 slave devices with repeaters
- Supports extended diagnostic data (DPV1)
- Supports all standardized baud rates, up to 12 Mbits/s
- Auto baud detection at all valid PROFIBUS DPV1 rates
- Supports PROFIdrive 3.1 compliant parameter read and write operations
- Supports Sync and Freeze commands
- Alarm indications and confirmations handling (DPV1)
- Supports Multicast and Broadcast telegrams (DPV1)
- CRC checksum determination of slave configuration consistency to processor
- FDT/DTM PROFIBUS Master transport communication DTM software included (Product Number PSW-CDTM-PDPM)

Hot Standby

- Hot Standby features support the SE 140 671 CPU
- Supports up to six PTQ-PDPMV1 Hot Standby modules per rack
- Diagnostic and status words are provided for Active Primary and Passive Secondary Master health status
- PROFIBUS switchover time will be nominal 100 ms not to exceed 300 milliseconds
- Cable break detection with segmented network slave quantity information
- PROFIBUS health messages are generated from secondary Master via FDL ping services
- No setup parameters required. Module automatically detects Hot Standby system

Physical

- PROFIBUS DPV1 RS-485 interface with a 9-pin D shell female connector and isolated Opto-Couplers
- Master Status LED Indicators for Operations, Network Drop Communication, Master Token-Hold



Additional Products

ProSoft Technology® offers a full complement of hardware and software solutions for a wide variety of industrial communication platforms.

Compatible products in this product line include:

PROFIBUS DP Slave Communication Module

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:

PROFIBUS DP Master Network Interface Module for Quantum

PTQ-PDPMV1

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
and select Distributors from the menu.

Place your order by email or fax to:

North American / Latin American / Asia Pacific
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fax to +1 661.716.5101

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Specifications subject to change without notice.

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% (with no condensation) |
| Vibration | Sine vibration 4-100 Hz in each of the 3 orthogonal axes |
| Shock | 30 g, 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 LED Serial Activity and Error LED Status Master Status Operations Network Drop Communication Master Token-Hold Master database configuration |
| Debug/Configuration Ports | |
| Configuration Serial Port (PRT1) | DB-9M PC Compatible RS-232 only No hardware handshaking |
| Configuration Ethernet Port | RJ45 Connector Link and Activity LED indicators |
| Application Port | |
| PROFIBUS Master Port | DB-9F Optically Isolated RS-485 Ready, Run, Error and Token LED Indicators |

Agency Approvals and Certifications

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|--------------|--|
| CE | EMC-EN61326-1:2006; EN61000-6-4:2007 |
| cULus | 7R16 Class I Div 2 Groups A,B,C,D |
| CB Certified | IEC61010 |
| ATEX | EN60079-0 Category 3, Zone 2 EN60079-15 |



Example Application

