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# PROFIBUS® DP Master/Slave

## For the Rockwell ControlLogix® Controller



**Class I, Div 2**

## Features

- **New!** Conformal coating module version; improves and extends the working life and ensures security and reliability of performance

- Enhanced design!
  - ☐ 100% backward compatible with SST-PFB-CLX
  - ☐ Up to 2 times faster
  - ☐ Easier to change module's configuration with PLC in RUN mode
  - ☐ Runs without ladder code
  - ☐ Module can "Set Slave" address
  - ☐ Dynamically add/remove Profibus slaves from scan list

- Remote configuration and diagnostic through RSLinx®

- Profibus modules can be used in Local or Remote (through CIP networks) Racks

- Certified PROFIBUS CommDTM driver for FDT Frame engineering tools

- Provides user-defined data space up to 1984 Bytes Input and 1968 Bytes Output

- Supports all PROFIBUS baud rates including 45.45 kbps

- Simultaneous operation of PROFIBUS DP Master and Slave

- Multiple SST-PB3-CLX-RLL modules can be used in one CLX rack

## Protocols

- PROFIBUS DP-V0 Master Class 1&2
- PROFIBUS DP-V1 Master Class 1&2
- PROFIBUS DP-V0 Slave

## Typical Applications

- Chemical or pharmaceutical application running PROFIBUS PA
- Machine builder application with high-speed control requirements

## Overview

The BradCommunications™ SST™ Profibus® module connects your Rockwell ControlLogix® controller to Profibus as a master or slave to scan or emulate PROFIBUS DP I/O. With the new user-defined data space of 1984 Bytes Input and 1968 Bytes Output, the BradCommunications™ SST™ Profibus module provides a cost efficient solution to connect the ControlLogix CPU with large PROFIBUS networks.

## Remote Link Library

The Remote Link Library software provides added functionality to the BradCommunications SST Profibus module by allowing you to remotely monitor or download changes to your Profibus configuration. This is done by routing data from the BradCommunications SST Profibus DP Master Configuration software through Rockwell Automation®'s RSLinx software via Ethernet to the Allen-Bradley ControlLogix backplane. The Profibus Scanner can be used on a Local Rack or on a Remote Rack through CIP networks like EtherNet/IP or ControlNet
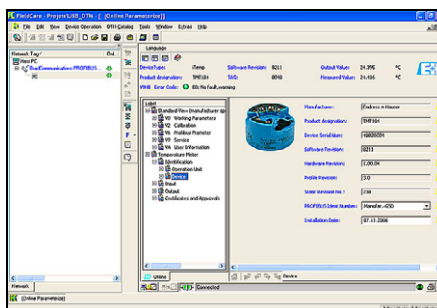
## CommDTM Driver for FDT Tools

By purchasing SST-PB3-CLX-DTM part number, you will get the driver license to use the certified CommDTM driver conforms to FDT v1.2 specifications. It is the ideal solution for connecting FDT engineering tools such as PACT*ware*™ or FieldCare™ to PROFIBUS. It allows the linking with Device DTMs for the configuration and diagnostics with DP-V1 devices including Profibus PA field instruments.



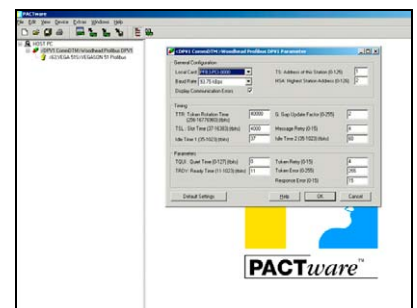- Fieldcare Screenshot -



- Pactware Screenshot -

Woodhead

BradCommunications™

# PROFIBUS® DP Scanner

## Diagnostic & Software Tools

### Configuration Software

- Supports downloading and uploading configuration files through Serial or Ethernet port
- Browse your DP network for slave devices you want to include in your DP Master configuration using the DPView component

### Scanner Software

- Maintains slave status, diagnostic status information on all slaves, network diagnostic counters, and DP Master diagnostic counters
- Maintains network and I/O module status information including:
  - Active Slave Station Bit table
  - Configured Slave Station Bit table
  - Network diagnostic counters
  - DP Master diagnostic counters

### Diagnostic

- Built-in 4 character display
- COMM, SYS and OK LEDs provide immediate notification of network and system errors

### Other PROFIBUS® Products

- PROFIBUS modules for Allen-Bradley® SLC™ 500
- PROFIBUS USB Adapter supporting CommDTM / FDT Version 1.2
- PROFIBUS network interface cards (PCIe, PCI, C-PCI, PC/104, ISA, VME) inclusive DLL, OPC, ActiveX...
- Full metal PROFIBUS connector
  - IDC-technique provides quick and error-free connection
  - Optional diagnostic LED reduces downtime

## Network Specifications

| | |
|---|---|
| **Protocol** | • PROFIBUS DP-V0 Master, class 1&2<br>• PROFIBUS DP-V1 Master, class 1&2<br>• PROFIBUS DP-V0 Slave (up to 122 words of input data and 122 words of output data as slave) |
| **LAN Controller** | • Siemens ASPC2 |
| **Slaves Supported** | • Maximum of 125 |
| **I/O per Slave** | • Maximum of 244 bytes in/out |
| **I/O Mapping (for ControlLogix)** | • Maximum 1984 bytes input data<br>• Maximum 1968 bytes output data<br>• 250 words status |
| **Data Rate** | • All Profibus data rates up to 12 Mbps |
| **Cable** | • Belden 3079A<br>• Brad Harrison® 85-0001 PVR2 conductor with shield, UL-listed |
| **Connector** | • DB9 female connector |

## Hardware Specifications

| | |
|---|---|
| **Bus Interface** | Allen-Bradley® ControlLogix® 5000 |
| **Processor** | Freescale MCF5272 |
| **Memory** | • 8MB of local MCF5272 RAM<br>• 512 KB of onboard shared memory<br>• 512 KB of sectored flash memory for storage of program and configuration data |
| **Diagnostics** | Built-in 4 character display<br>3 LEDs indicate:<br>1. Health of the Profibus network (COMM)<br>2. Communication status with Profibus slaves (SYS)<br>3. that initialization is complete and the module is ok (OK) |
| **Backplane Current Consumption** | 850 mA @ 5V or 1.75 mA @ 24V |
| **Operating Temperature** | 0ºC (32ºF) up to +60ºC (140ºF) |
| **Storage Temperature** | -40ºC (-40F) up to +85ºC (185F) |
| **Reglatory Approvals** | • CE<br>• Class 1, Div 2, Groups A,B,C & D Hazardous (Classified) locations |
| **RoHS Compliant** | Yes |
| **MTBF** | 81.2 years |

## Ordering Information

| Part Number | SAP | Description |
|---|---|---|
| SST-PB3-CLX-RLL | 1120160018 | SST™ PROFIBUS Scanner for AB ControlLogix, includes RLL |
| SST-PB3-CLX-RLL-CC | 1120160023 | SST™ PROFIBUS Scanner for AB ControlLogix, coated version, includes RLL |
| SST-PB3-CLX-DTM | 1120160019 | SST™ PROFIBUS Scanner for AB ControlLogix, includes RLL and CommDTM driver license |
| SST-PB3-CLX-DTS | 1120160020 | SST™ CommDTM update driver license for PROFIBUS Scanner |

Other related products:

| Part Number | SAP | Description |
|---|---|---|
| SST-PB3-SLC | 1120160022 | SST™ PROFIBUS Scanner for AB SLC 500 |

**Brad** from **molex**®