

The BradCommunications<sup>™</sup> SST<sup>™</sup> PROFIBUS<sup>®</sup> scanner connects your Allen-Bradley<sup>®</sup> SLC<sup>™</sup> 5/03 or higher controller to PROFIBUS DP.

30 Oct. 09 DW2006134

#### **Features**

#### • Enhanced design!

- 100% backward compatible with previous generation (SST-PFB-SLC)
- Manages DP-V1 Services including SLC ladder logic samples
- Doubling of M0 and M1 data area up to 1000 words
- Module can "Set Slave" address
- PROFIBUS DP Master Configuration Software
- Supports all PROFIBUS baud rates including 31.25 and 45.45 kbps
- Simultaneous operation of PROFIBUS DP Master and Slave
- Flash memory for storage of DP Master I/O configuration
- Fast, easy set up into SLC backplane, PROFIBUS I/O data is automatically mapped into the SLC's processor's I, O files and into MO and MI files residing on PB3-SLC
- Supports exported configuration files from the SST DP configuration software and Siemens COM PROFIBUS
- Multiple SST-PB3-SLC modules can be used in one SLC rack

#### **Protocols**

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

#### **Typical Applications**

- Packaging machinery
- Conveyor & handling systems
- Food products machinery

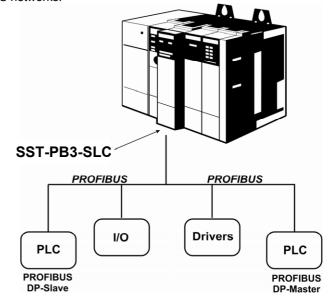


#### For the Allen-Bradley SLC 500 Controller



### Overview

The BradCommunications SST PROFIBUS scanner connects your Allen-Bradley SLC 5/03 or higher controller to PROFIBUS as a master or slave to scan or emulate PROFIBUS DP I/O. With the new user-defined data space of 2064 Bytes Input and 2064 Bytes Output, the BradCommunications<sup>™</sup> SST<sup>™</sup> Profibus module provides a cost efficient solution to connect the SLC CPU with large PROFIBUS networks.



A 9-pin serial port included on the scanner provides for firmware upgrades in the field and the upload of I/O configurations.

The SLC's processor logic scan and the PROFIBUS I/O scan are independent of each other. The SLC processor reads the scanner input data during its input scan and writes the output data during its output scan. The scanner reads input data from the slaves and writes output data to the slaves independent of what the SLC is doing. Slave status, diagnostic status information on all slaves, network diagnostic counters and DP Master diagnostic counters are maintained by the scanner. The scanner does not require the set up of a G-file in the SLC.

Woodhead

## **Brad**Communications<sup>™</sup>

# **PROFIBUS® DP Scanner**



## **Diagnostic & Software Tools**

## **Configuration Software**

 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:
  - DP Master Slave status table
  - Network diagnostic counters
  - DP Master diagnostic counters

## **Diagnostic LEDs**

• COMM and SYS LEDs provide immediate notification of network and system errors

## **Other PROFIBUS Products**

- PROFIBUS modules for Allen-Bradley<sup>®</sup> ControlLogix<sup>®</sup>
- PROFIBUS network interface cards (USB, PCI, CompactPCI, PC/104, ISA, VME64) with many user interfaces (DLL, OPC, ActiveX...)
- PROFIBUS gateways to Serial and Ethernet networks
- IP67 PROFIBUS I/O modules (M8/M12 connectors)
- Full metal PROFIBUS connector
- Cable, cordsets, receptacles

## **Network Specifications**

Protocol       • PROFIBUS DP-V0 Master, class 1&2         • PROFIBUS DP-V1 Master, class 1&2       • 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 and O files: 32 words input + 32 words output         • N1 and M0 files: 1000 words input + 1000 words output (128 words in / out if configuring with COM PROFIBUS)         • Slave data is mapped into I, O, M0, M1 files in the SLC. Mapping depends on addresses assigned in the configuration created         Data Rate       • 9600, 19200, 31.25k, 45.45k, 93.75k, 187.5k, 500k, 1.5M, 3M, 6M, 12M         Cable       • Belden 3079A         • DB9 female connector       • DB9 female connector			
Protocol       •       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 per Slave       •       Maximum of 244 bytes in/out         I/O per Slave       •       Maximum of 244 bytes in/out         I/O Mapping (for SLC <sup>™</sup> )       •       I and O files: 32 words input + 32 words output         •       I and O files: 1000 words input + 1000 words output (128 words in / out if configuring with COM PROFIBUS)         •       Slave data is mapped into I, O, M0, M1 files in the SLC. Mapping depends on addresses assigned in the configuration created         Data Rate       •       9600, 19200, 31.25k, 45.45k, 93.75k, 187.5k, 500k, 1.5M, 3M, 6M, 12M         •       Belden 3079A       •         •       Belden 3079A       •         •       BradConnectivity <sup>™</sup> Brad Harrison <sup>®</sup> 85-0001 PVR2 conductor with shield, UL-listed	Protocol	<ul> <li>PROFIBUS DP-V0 Master, class 1&amp;2</li> </ul>	
<ul> <li>PROFIBUS DP-V0 Slave (up to 122 words of input data and 122 words of output data as slave)</li> <li>LAN Controller</li> <li>Siemens ASPC2</li> <li>Slaves Supported</li> <li>Maximum of 125</li> <li>I/O per Slave</li> <li>Maximum of 244 bytes in/out</li> <li>I and O files: 32 words input + 32 words output</li> <li>M1 and M0 files: 1000 words input + 1000 words output (128 words in / out if configuring with COM PROFIBUS)</li> <li>Slave data is mapped into I, O, M0, M1 files in the SLC. Mapping depends on addresses assigned in the configuration created</li> <li>Data Rate</li> <li>9600, 19200, 31.25k, 45.45k, 93.75k, 187.5k, 500k, 1.5M, 3M, 6M, 12M</li> <li>Belden 3079A</li> <li>BradConnectivity<sup>™</sup> Brad Harrison<sup>®</sup> 85-0001 PVR2 conductor with shield, UL-listed</li> </ul>		<ul> <li>PROFIBUS DP-V1 Master, class 1&amp;2</li> </ul>	
LAN Controller       • Siemens ASPC2         Slaves Supported       • Maximum of 125         I/O per Slave       • Maximum of 244 bytes in/out         I and O files: 32 words input + 32 words output         • I and O files: 32 words input + 32 words output         • M1 and M0 files: 1000 words input + 1000 words output (128 words in / out if configuring with COM PROFIBUS)         • Slave data is mapped into I, O, M0, M1 files in the SLC. Mapping depends on addresses assigned in the configuration created         Data Rate       • 9600, 19200, 31.25k, 45.45k, 93.75k, 187.5k, 500k, 1.5M, 3M, 6M, 12M         • Belden 3079A       • BradConnectivity <sup>™</sup> Brad Harrison <sup>®</sup> 85-0001 PVR2 conductor with shield, UL-listed			
Slaves Supported       Maximum of 125         I/O per Slave       Maximum of 244 bytes in/out         I and O files: 32 words input + 32 words output         I and O files: 32 words input + 32 words output         Maximum of 244 bytes in/out         I and O files: 32 words input + 32 words output         Maximum of 244 bytes in/out         I and O files: 32 words input + 32 words output         Maximum of 244 bytes in/out         I and O files: 32 words input + 32 words output         Maximum of 244 bytes in/out         I/O Mapping         (for SLC <sup>™</sup> )         Slave data is mapped into I, O, M0, M1 files in the SLC. Mapping depends on addresses assigned in the configuration created         Data Rate       9600, 19200, 31.25k, 45.45k, 93.75k, 187.5k, 500k, 1.5M, 3M, 6M, 12M         Belden 3079A       Belden 3079A         BradConnectivity <sup>™</sup> Brad Harrison <sup>®</sup> 85-0001 PVR2 conductor with shield, UL-listed		data and 122 words of output data as slave)	
I/O per Slave       Maximum of 244 bytes in/out         I and O files: 32 words input + 32 words output         I/O Mapping (for SLC <sup>™</sup> )       I and O files: 32 words input + 32 words output         Slave data is mapped into I, O, M0, M1 files in the SLC. Mapping depends on addresses assigned in the configuration created         Data Rate       9600, 19200, 31.25k, 45.45k, 93.75k, 187.5k, 500k, 1.5M, 3M, 6M, 12M         Belden 3079A       BradConnectivity <sup>™</sup> Brad Harrison <sup>®</sup> 85-0001 PVR2 conductor with shield, UL-listed	LAN Controller	Siemens ASPC2	
I/O Mapping (for SLC <sup>™</sup> ) <ul> <li>I and O files: 32 words input + 32 words output</li> <li>M1 and M0 files: 1000 words input + 1000 words output (128 words in / out if configuring with COM PROFIBUS)</li> <li>Slave data is mapped into I, O, M0, M1 files in the SLC. Mapping depends on addresses assigned in the configuration created</li> </ul> Data Rate <ul> <li>9600, 19200, 31.25k, 45.45k, 93.75k, 187.5k, 500k, 1.5M, 3M, 6M, 12M</li> <li>Belden 3079A</li> <li>BradConnectivity<sup>™</sup> Brad Harrison<sup>®</sup> 85-0001 PVR2 conductor with shield, UL-listed</li> </ul>	Slaves Supported	Supported • Maximum of 125	
I/O Mapping (for SLC <sup>™</sup> )       • M1 and M0 files: 1000 words input + 1000 words output (128 words in / out if configuring with COM PROFIBUS)         • Slave data is mapped into I, O, M0, M1 files in the SLC. Mapping depends on addresses assigned in the configuration created         • 9600, 19200, 31.25k, 45.45k, 93.75k, 187.5k, 500k, 1.5M, 3M, 6M, 12M         • Belden 3079A         • BradConnectivity <sup>™</sup> Brad Harrison <sup>®</sup> 85-0001 PVR2 conductor with shield, UL-listed	I/O per Slave	Maximum of 244 bytes in/out	
I/O Mapping (for SLC <sup>™</sup> )       output (128 words in / out if configuring with COM PROFIBUS)         Slave data is mapped into I, O, M0, M1 files in the SLC. Mapping depends on addresses assigned in the configuration created         Data Rate       9600, 19200, 31.25k, 45.45k, 93.75k, 187.5k, 500k, 1.5M, 3M, 6M, 12M         Belden 3079A       Belden 3079A         PROFIBUS)       BradConnectivity <sup>™</sup> Brad Harrison <sup>®</sup> 85-0001 PVR2 conductor with shield, UL-listed		<ul> <li>I and O files: 32 words input + 32 words output</li> </ul>	
I/O Mapping (for SLC <sup>™</sup> )       PROFIBUS)         • Slave data is mapped into I, O, M0, M1 files in the SLC. Mapping depends on addresses assigned in the configuration created         Data Rate       • 9600, 19200, 31.25k, 45.45k, 93.75k, 187.5k, 500k, 1.5M, 3M, 6M, 12M         Cable       • Belden 3079A         • BradConnectivity <sup>™</sup> Brad Harrison <sup>®</sup> 85-0001 PVR2 conductor with shield, UL-listed		<ul> <li>M1 and M0 files: 1000 words input + 1000 words</li> </ul>	
(for SLC™)       PROFIBUS)         • Slave data is mapped into I, O, M0, M1 files in the SLC. Mapping depends on addresses assigned in the configuration created         Data Rate       • 9600, 19200, 31.25k, 45.45k, 93.75k, 187.5k, 500k, 1.5M, 3M, 6M, 12M         Cable       • Belden 3079A         • BradConnectivity <sup>™</sup> Brad Harrison <sup>®</sup> 85-0001 PVR2 conductor with shield, UL-listed		output (128 words in / out if configuring with COM	
• Slave data is mapped into I, O, M0, M1 files in the SLC. Mapping depends on addresses assigned in the configuration created         • 9600, 19200, 31.25k, 45.45k, 93.75k, 187.5k, 500k, 1.5M, 3M, 6M, 12M         • Belden 3079A         • BradConnectivity <sup>™</sup> Brad Harrison <sup>®</sup> 85-0001 PVR2 conductor with shield, UL-listed		PROFIBUS)	
the configuration created         Data Rate       9600, 19200, 31.25k, 45.45k, 93.75k, 187.5k, 500k, 1.5M, 3M, 6M, 12M         Cable       • Belden 3079A         • BradConnectivity <sup>™</sup> Brad Harrison <sup>®</sup> 85-0001 PVR2 conductor with shield, UL-listed	(101 020 )		
Data Rate         9600, 19200, 31.25k, 45.45k, 93.75k, 187.5k, 500k, 1.5M, 3M, 6M, 12M           Cable         Belden 3079A           BradConnectivity <sup>™</sup> Brad Harrison <sup>®</sup> 85-0001 PVR2 conductor with shield, UL-listed			
Data Rate       1.5M, 3M, 6M, 12M         • Belden 3079A       • BradConnectivity <sup>™</sup> Brad Harrison <sup>®</sup> 85-0001 PVR2 conductor with shield, UL-listed		the configuration created	
1.5M, 3M, 6M, 12M         • Belden 3079A         • BradConnectivity <sup>™</sup> Brad Harrison <sup>®</sup> 85-0001         • PVR2 conductor with shield, UL-listed	Data Rate		
• BradConnectivity <sup>™</sup> Brad Harrison <sup>®</sup> 85-0001 PVR2 conductor with shield, UL-listed		1.5M, 3M, 6M, 12M	
PVR2 conductor with shield, UL-listed			
	Cable		
Connector DB9 female connector		PVR2 conductor with shield, UL-listed	
	Connector	DB9 female connector	

#### **Hardware Specifications**

Processors         Protocol processor: Freescale Coldfire MCF5272 Backplane processor: Altera Cyclone II           • 2 MB of local Coldfire SDRAM         • 32 MB of local NIOS DDR           • 512 KB of onboard shared memory         • 512 KB of sectored flash memory           • 512 KB of program and configuration data         Two LEDs indicate:           1.         health of the PROFIBUS network (COMM)				
Processors         Backplane processor: Altera Cyclone II           • 2 MB of local Coldfire SDRAM         • 32 MB of local NIOS DDR           • 512 KB of onboard shared memory         • 512 KB of sectored flash memory           • 512 KB of program and configuration data         Two LEDs indicate:           1.         health of the PROFIBUS network (COMM)	Bus Interface	Allen-Bradley <sup>®</sup> SLC <sup>™</sup> 5/03 or higher		
Memory         • 2 MB of local Coldfire SDRAM           • 32 MB of local NIOS DDR           • 512 KB of onboard shared memory           • 512 KB of sectored flash memory           • 512 KB of sectored flash memory           • 512 KB of sectored flash memory           • 10 LEDs indicate:           1.         health of the PROFIBUS network (COMM)	Processors	Protocol processor: Freescale Coldfire MCF5272		
Memory       • 32 MB of local NIOS DDR         • 512 KB of onboard shared memory         • 512 KB of sectored flash memory         • 512 KB of program and configuration data         Two LEDs indicate:         1.       health of the PROFIBUS network (COMM)		Backplane processor: Altera Cyclone II		
Memory       • 512 KB of onboard shared memory         • 512 KB of sectored flash memory         • 512 KB of sectored flash memory         for storage of program and configuration data         Two LEDs indicate:         1.       health of the PROFIBUS network (COMM)		2 MB of local Coldfire SDRAM		
• 512 KB of sectored flash memory for storage of program and configuration data Two LEDs indicate: 1. health of the PROFIBUS network (COMM)		<ul> <li>32 MB of local NIOS DDR</li> </ul>		
for storage of program and configuration data           Two LEDs indicate:           1. health of the PROFIBUS network (COMM)	Memory	<ul> <li>512 KB of onboard shared memory</li> </ul>		
Diagnostics         Two LEDs indicate:           1.         health of the PROFIBUS network (COMM)		<ul> <li>512 KB of sectored flash memory</li> </ul>		
Diagnostics 1. health of the PROFIBUS network (COMM)		for storage of program and configuration data		
	Diagnostics	Two LEDs indicate:		
2 communication status with PROFIBUS slaves (SYS)		<ol> <li>health of the PROFIBUS network (COMM)</li> </ol>		
		2. communication status with PROFIBUS slaves (SYS)		
Backplane 750mA @ 5V from a supply delivering Separated Extra	Backplane	750mA @ 5V from a supply delivering Separated Extra		
Current Consumption Low Voltage (SELV)	Current Consumption	Low Voltage (SELV)		
Operating T° 0°C (32°F) up to +50°C (122°F)	Operating T°			
<b>Storage T°</b> -40°C (-40°F) up to +85°C (185°F)	Storage T°	-40°C (-40°F) up to +85°C (185°F)		
Relative Humidity 5% to 95% non-condensing	Relative Humidity	5% to 95% non-condensing		
Bollution dogree 1 - no pollution, or only non-conductive or non-	Pollution degree	Degree 1 - no pollution, or only non-conductive or non-		
corrosive pollution		corrosive pollution		
RoHS Compliant Yes	RoHS Compliant	Yes		

#### **Ordering Information**

Part Number	SAP	Description
SST-PB3-SLC	1120160022	BradCommunications™ SST™ PROFIBUS Scanner for Allen-Bradley SLC 500

#### Other related products:

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Part Number	SAP	Description
SST-PB3-CLX-RLL	1120160018	BradCommunications <sup>™</sup> SST <sup>™</sup> PROFIBUS Scanner for Allen-Bradley ControlLogix
SST-PB3-CLX-DTM		BradCommunications <sup>™</sup> SST <sup>™</sup> PROFIBUS Scanner for Allen-Bradley ControlLogix and CommDTM driver



#### To contact us: www.woodhead.com

Asia:

North America: US: + 1 800 225 7724 - Canada: +1 519 725 5136

Europe: France: +33 2 32 96 04 20 – Germany: +49 7252 94 96 0– Italy: +39 010 59 30 77 –

United Kingdom: +44 1495 356300 Shanghai, China: +86 21-5835-9885 - Tianjin, China: +86 22-23321717

Shanghai, China. +66 21-5655-9665 - Tianjin, China. +66 22-25521717 Singapore: +65 6268-6868 – Yamato, Japan: +81 46-265-2428 – Nagoya, Japan: +81 52-221-5950

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