The BradCommunications<sup>™</sup> Direct-Link<sup>™</sup> network adapters provide simple use and fast implementation in connecting notebook or desktop computers with Profibus protocols up to 12 Mbps.

#### 23 Apr. 10 DW2007191

# **Direct-Link™ USB100PFB**

**Easy-to-Use solution** 



## Overview

The BradCommunications<sup>™</sup> Direct-Link<sup>™</sup> is a range of automation components for industrial communication. It includes a variety of products such as diagnostic tools, intelligent connectors, tunneling gateways, dedicated fieldbus cards, and software drivers for industrial networks.

Simple as they are affordable, Direct-Link<sup>™</sup> products allow you to acquire the equipment to develop your architectures and industrial applications at a lower cost.

The BradCommunications<sup>™</sup> Direct-Link<sup>™</sup> product line is characterized by its simple use and fast implementation. The solutions are modular and scalable. Moreover, the products are designed to be easily embedded in computerized systems and are available in a wide selection of form factors.

Particularly, the BradCommunications<sup>™</sup> Direct-Link<sup>™</sup> products are based on a non-intelligent 12 Mbps USB adapters that are especially designed to communicate with Siemens controllers and others compatibles devices set on a Profibus network. Direct-Link<sup>™</sup> suits perfectly to applications requiring few CPU resources (for more powerful data through and large application, see applicom<sup>®</sup> product ranges).

## **Features**

- RoHS compliant
- Ready to plug, no hardware setting
- High Speed USB Adapter v2.0 & v1.1
- Profibus protocols managed simultaneously:
  - Profibus DP-V0 Master/Slave
  - Profibus DP-V1 Master
  - □ S7/MPI Master for Simatic<sup>®</sup> S7 -300 and S7-400
  - □ S7/MPI Slave for Simatic<sup>®</sup> S7-200
  - □ S5 for Simatic<sup>®</sup> S5 (95U, 115U, 135U, 155U)
- Profibus speed: 9.6kbps ↔12Mbps
- Software Interfaces:
  - OPC Server
     (Data Access v1.0a, v2.05 and 3.0)
  - □ Wonderware DAServer
  - Wonderware I/O Server (SuiteLink, FastDDE)
  - ActiveX Control
  - DLL library 32-bits
  - □ VI ( Virtual Instruments for NI LabVIEW<sup>™</sup>)

#### Supported OS

• Windows XP / 2000 / 2003 Server



Molex is a member of PTO (PROFIBUS Trade Organization), PNO (PROFIBUS Nutzerorganisation e. V.) and France Profibus.

**Brad**Communications<sup>™</sup>

# Direct-Link<sup>™</sup> USB100PFB



# Software tools

The core of Direct-Link™ PC Network Interfaces lies in effective software tools enabling fast integration of industrial communication into your applications.



## Configuration



#### Diagnostics

EADWAIT - Wait Destination : Card number (1-8) : Equipment type:	_	nnel (0-3) : 🚺		ent (0 255) : 0
Parameters : Function : READWORD  Number of variables : 10				
First variable addr Mode : Star				1000
Function return : Adr 1000 Adr 1001 F +/- Adr 1002 Adr 1003 Adr 1003 Adr 1005 Adr 1005 Adr 1006 Adr 1009 Adr 1009	- 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0	0000 (h) 0000 (h) 0000 (h) 0000 (h) 0000 (h) 0000 (h) 0000 (h) 0000 (h) 0000 (h)	-	Poling Stop/Error 7 Read
Status : 0	Exchange OK		-	Quit

### Testing Tools



OPC Browser





## **Technical data**

Hardware			
Unit	High-speed USB Adapter, Version 2.0 or 1.1 Full speed and High Speed with automatic recognition		
Processor	USB : ARM 7, Philips LPC2212		
	Profibus : 186 core, 48 MHz		
Dimensions (L x W x H)	56 x 33 x 93mm (2.20" x 1.29" x 3.66"), Aluminium box		
Power supply	5V through USB (no external supply required)		
Consumption	350 mA		
USB connector	USB Port Type: Mini-B USB Cable A/Mini-B (included in the package)		
Operating T°	0°C to +55°C (32°F to 131°F)		
Storage T°	-20°C to +70°C (-4°F to 158°F)		
RoHS	Yes		
Humidity	5 to 95% non condensing		
Certification	CE, UL, UL/C		
Supported Protoco			
Protocol	<ul> <li>S7/MPI<sup>(1)</sup> Master - Siemens S7-300, S7-400</li> </ul>		
	<ul> <li>MPI<sup>(1)</sup> Slave - Siemens S7-200</li> </ul>		
	<ul> <li>DP-V0 Master/Slave Class-1 &amp; Class-2 (3070 bytes INPUT and 3070 bytes OUTPUT)</li> </ul>		
	DP-V1 Master Class-1 & Class-2		
_	<ul> <li>S5<sup>(1)</sup> Client – Siemens 95U, 115U, 135U, 155U</li> </ul>		
Profibus port			
Port type	Profibus port (EN 50170)		
Connector type	9 pin, D-sub, female		
Electrical Interface	RS485 with galvanic insulation 500 V		
Speed	9600 bps to 12 Mbps		
LED indicators	2 bicolor leds: Bus fault, Communication status		
1) – Maximum of 40 Simatic <sup>®</sup> S7 and S5 devices supported simultaneously.			

## **Ordering information**

Part Number	Description
DRL-MPI-USB	BradCommunications <sup>™</sup> Direct-Link <sup>™</sup> High-Speed USB Adapter for MPI/S7, PROFIBUS <sup>®</sup> up to 12 Mb, All Data Servers (OPC, Wonderware <sup>™</sup> , ActiveX <sup>™</sup> ) and DLL Library
DRL-MPI-USB-DLL	BradCommunications <sup>™</sup> Direct-Link <sup>™</sup> High-Speed USB Adapter for MPI/S7, PROFIBUS <sup>®</sup> up to 12 Mb, <b>DLL Library only</b>
DRL-PFB-USB	BradCommunications <sup>™</sup> Direct-Link <sup>™</sup> High-Speed USB Adapter for Full PROFIBUS <sup>®</sup> (DP, S5, S7/MPI), Profibus up to 12 Mb, All Data Servers (OPC, Wonderware <sup>™</sup> , ActiveX <sup>™</sup> ) and DLL Library
DRL-PFB-USB-DLL	BradCommunications <sup>™</sup> Direct-Link <sup>™</sup> High-Speed USB Adapter for Full PROFIBUS <sup>®</sup> (DP, S5, S7/MPI), Profibus up to 12 Mb, <b>DLL</b> Library only
DRL-UDS-USB	Upgrade license from DLL Library only → All Data Servers (OPC, Wonderware <sup>™</sup> , ActiveX <sup>™</sup> ) and DLL Library

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