

BradCommunications™ Direct-Link™ DeviceNet network interface cards allow deterministic I/O data acquisition for PC-based control applications.

11 Sep. 06 DW200592

# Direct-Link™ DeviceNet

# Data acquisition for real time Control applications

## **Features**



- Automatic devices detection on the network
- Connect PC-Based Control applications directly to I/O devices
- Protocol: DeviceNet Master/Slave
- 1 Serial or Ethernet port for remote configuration and diagnostic
- Embedded Communication on the card for powerful data throughput
- Automatic I/O mapping for easy configuration
- Certified by the ODVA Test Lab

# **OS** supported

## Standard package

• Windows 32-bit (XP SP1/ 2000 SP4 / NT SP6, 2003 Server), Ardence RTX

#### **Free Download**

 Windows XP Embedded, QNX, VxWorks, Linux, Phar Lap ETS, DOS

Woodhead is a member of ODVA (Open Device Vendors Association)

**Brad**Communications









**PCI-Universal** 

#### Overview

BradCommunications™ Direct-Link™ is a low range of automation components for industrial communication. It includes a variety of products such as diagnostic tools, intelligent connectors, tunneling gateways, fieldbuses network interface cards, and software drivers for industrial networks.

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

Direct-Link™ products are characterized by their simple use and fast implementation; they are modular and scalable. Moreover, they are designed to be easily embedded into computerized systems and are available in a wide selection of form factors.

#### Powerful Network Interface card

Particularly, the **BradCommunications™ Direct-Link™ DeviceNet** interface cards are equipped with 1 DeviceNet port handling DeviceNet protocol in both Master/Scanner and Slave modes up to 500Kbps.

A smart A.D.M (Automatic Dual port ram Mapping) mechanism avoids the I/O tags configuration in the Dual Port RAM of the card. More than a simple I/O acquisition card, the Direct-Link™ PCU-DVNIO/PC104-DVNIO interfaces provide the applications with additional information such as: device status and diagnostics, process data read/write monitoring, communication tools for troubleshooting, hardware and software Watchdog, etc.

The communication layers are completely embedded on the card, allowing easy and fast communication with field devices resulting in remarkable application performance.

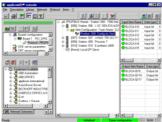
### Product package includes:

- Graphical console for configuration and diagnostic tools
- Data servers (Multi-protocol OPC DA 3.0 & 2.05, ActiveX, DAServer, FastDDE/SuiteLink)
- I/O libraries for Windows (DLL) and Ardence's hard real time extensions
- Static library for non-windows OS
- Drivers for soft-logic packages ▲



#### Software tools

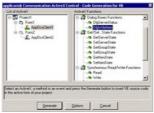
Direct-Link™ Interface cards provide effective software tools enabling fast integration of industrial communication into applications. The console is common to all fieldbuses of Woodhead offer as Profibus-DP, EtherNet/IP, Modbus/TCP and CANopen.



- Configuration console



- OPC Browser -



- ActiveX implementation -





Diagnostic and test tools

# **Brad**Communications

# **Direct-Link™ DeviceNet**



# **Hardware specifications**

	PCU-DVNIO	PC104-DVNIO
Bus interface	PCI Universal 3.3/5V, PCI-X compatible <b>NEW</b>	PC/104 bus
Processor	AMD SC520	
Memory	8 Mbytes SDRAM	
Interruption	Hardware Plug&Play	2, 3, 4, 5, 6, 7, 10, 11, 12, 14, 15
DPRAM Address	Hardware Plug&Play (2 Kbytes used per card)	From C8000 to DE000 (8 Kbytes used per card)
Dimensions (L x W)	168mm x 107mm (6.61" x 4.21")	95mm x 90mm (3.74" x 3.54")
Consumption	6W (max. 1.2A)	5W (max. 0.8A)
Operating T°	0°C (32° F) up to +70° C (149° F)	-40°C (-40° F) up to +85°C (185° F)
Storage T°	-40°C (-40°F) up to +80°C (176°F)	-40°C (-40° F) up to +85°C (185° F)
Discrete Input	Opto-coupled discrete input Voltage -> DC +10 to +30 or AC 24 V (50 to 60 Hz)	
Discrete Output	"WatchDog" output contact free from potential (floating) (24V DC, 0.25 A)	
EMC Compliance	EN55022 Class B, EN61000-6-2, EN61000-3-2, EN61000-3-3	
RoHS Compliance	YES <b>NEW</b>	

#### 1 DeviceNet port

i Botiocitot port		
Connector type	Standard DeviceNet connector (female connector with screw and resistance terminator included)	HE13 ( 2 x 5 pins)
CAN Controller	Phillips SJA 1000	
CAN Transceiver	Phillips 82C251 in conformity with DeviceNet specifications	
Speed	125, 250, 500 Kbps	
LED indicators	1 Status LED / 1 transmission LED	

## Port for remote configuration and diagnostic

Port Type	Ethernet port NEW	Asynchronous Serial port
Connector type	BaseT - RJ45	HE13 (2 x 5 pins)
LED indicators	4 LEDs - TX/RX/Link/100 Mbps	-
Electrical interface	Ethernet IEEE 802.3	RS232
Speed	10/100 Mbps (auto-negotiation)	50 to 38400 bps

# **Protocol Specifications**

**DeviceNet** 

- Master/Slave modes run simultaneously
- Devices supported: "Group 2 Only Server" and "U.C.M.M"
- Manage up to 63 nodes
- Node parameter online configuration
- I/O Slave messaging: Strobe, Polling, Cyclic and Change of State
- Explicit and I/O Peer to Peer messaging
- I/O data image: up to 2 Kbytes
- Integrated data consistency
- Direct access to variable types (bit, byte, word, double word)
- Up to 255 Bytes by Slave
- EDS Library

# **Ordering Information**

Part Number	Product Description
DRL-DVN-PCU	BradCommunications™ Direct-Link™ PCU-DVNIO DeviceNet card, PCI-Universal bus, 3.3/5V
DRL-DVN-104	BradCommunications™ Direct-Link™ PC104-DVNIO DeviceNet card, PC/104 bus

For product and technical information, visit: www.woodhead.com

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

France, +33 2 32 96 04 20 – Germany, +49 711 782 3740 – Italy, +39 010 59 30 77 – United Kingdom, +44 1495 356300 China, +86 21 50328080 – Singapore, +65 261 6533 – Japan, +81 3 5791 4621 Europe:

BradCommunications and Direct-Link are trademarks of Woodhead Industries, Inc. © 2006 Woodhead Industries, Inc.