



11 Sep. 06  
DW200592

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

## Direct-Link™ DeviceNet

Data acquisition for real time Control applications

### Features

- **NEW! RoHS compliant**
- 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 **NEW**
- 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)

**BradCommunications™**



PCI-Universal



PC/104

### 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:

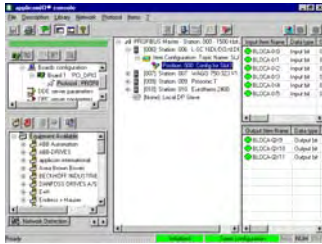
- Graphical console for configuration and diagnostic tools
- Data servers (Multi-protocol OPC DA 3.0 & 2.05, ActiveX, DAServer, FastDDE/SuiteLink)
- I/O libraries for Windows (DLL) and Ardence's hard real time extensions (RTX)
- Static library for non-windows OS
- Drivers for soft-logic packages ▲

# Direct-Link™ DeviceNet

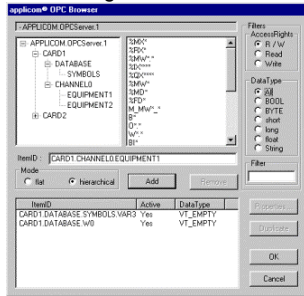


## Software tools

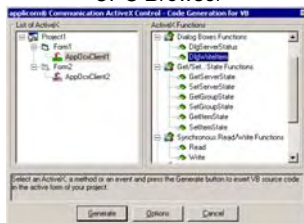
Direct-Link™ Interface cards provide effective software tools enabling fast integration of industrial communication into your applications. The console is common to all fieldbuses of Woodhead offer as Profibus-DP, EtherNet/IP, Modbus/TCP and CANopen.



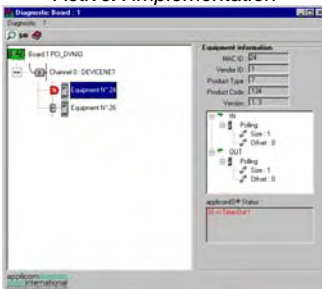
- Configuration console -



- OPC Browser -



- ActiveX implementation -



- Diagnostic and test tools -

## Hardware specifications

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

### 1 DeviceNet port

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

### Port for remote configuration and diagnostic

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

## Protocol Specifications

<b>DeviceNet</b>	<ul style="list-style-type: none"> <li>Master/Slave modes run simultaneously</li> <li>Devices supported: "Group 2 Only Server" and "U.C.M.M"</li> <li>Manage up to 63 nodes</li> <li>Node parameter online configuration</li> <li>I/O Slave messaging: Strobe, Polling, Cyclic and Change of State</li> <li>Explicit and I/O Peer to Peer messaging</li> <li>I/O data image: up to 2 Kbytes</li> <li>Integrated data consistency</li> <li>Direct access to variable types (bit, byte, word, double word)</li> <li>Up to 255 Bytes by Slave</li> <li>EDS Library</li> </ul>
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## Ordering Information

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