Brad® applicomIO DeviceNet network interface cards allow deterministic I/O data acquisition for PC-based control applications.

Some of the world's most demanding high-speed control and automation applications run on standard PCs using Brad® applicomIO network interface cards. Dedicated DCS and PLC systems have been eliminated in favor of open platforms running PC-based control systems.

The benefits include:
- Reduced material costs
- Reduced development times
- More flexible and customizable systems
- Reduced field-support costs

Brad applicomIO products have been designed for industrial applications independently of the fieldbus used. OEMs, system integrators and end-users can take advantage of developing standard control applications as well as selecting the fieldbus connectivity required from the Brad applicomIO product range. Brad applicomIO products consist of a fieldbus card and engineering tools which quickly and easily setup communication. Everything is included for a successful implementation at a lower cost.

Brad applicomIO network interface cards provide connectivity support for all popular fieldbuses including EtherNet/IP, PROFINET IO, Modbus TCP, PROFINET, DeviceNet and CANopen. Our cards are developed in compliance with the technical specifications of industrial organizations and comply with the applicable industrial standards. Brad applicomIO supports up to 8 cards in a single PC and can run on various operating systems including Windows 32-bits, Linux as well as real-time OS such as VxWorks, QNX, and VenturCom RTX.

Particularly, the Brad applicomIO 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 Brad applicomIO 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.

A real Turnkey Solution
Brad applicomIO configuration software console provides a standardized and user-friendly environment for quick development of communication applications without the worry of knowing industrial communication protocols. The console saves time during the commissioning phase by offering features such as automatic device detection, user configuration management, diagnostic information, etc.

Product package includes:
- Network interface card
- Engineering console for configuration and diagnostic tools
- Data servers (OPC DA 3.0 & 2.05, DAServer, FastDDE/SuiteLink)
- Development libraries: Windows (DLL), VenturCom (RTX)
- Static library for non-windows OS (VxWorks, QNX, Linux, etc.)

FEATURES AND BENEFITS
- Support of Windows 32-bit and 64-bit (WoW64)
- Support of Windows Seven and 2008 Server
- RoHS compliant
- Support of PCI Express 1x form factor
- Automatic devices detection on the network
- Connect PC-Based Control applications 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

SUPPORTED OS
Standard package
- Windows 32-bit and 64-bit (WoW64)
  - Windows XP
  - Windows 2003 Server
  - Windows Vista
  - Windows Seven
  - Windows 2008 Server
  - Windows 2008 Server R2

Free Download
- Other operating systems
  - Ardence RTX
  - VxWorks
  - QNX
  - Linux
  - DOS

TYPICAL APPLICATIONS
- PC-Based Control
- Robotic application
- Panel PC visualization system

*Molex is a member of ODVA
(Open Device Vendors Association)
Brad® applicomIO
DeviceNet
Network Interface Card

DeviceNet port
- Connector type: PCU-DVNIO: DeviceNet standard
- 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: PCU-DVNIO: Ethernet port
- 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

Software tools
Brad® applicomIO interface cards provide effective software tools enabling fast integration of industrial communication into your applications. The console is common to all fieldbuses as Profibus-DP, EtherNet/IP, PROFINET IO, Modbus/TCP and DeviceNet.

Specifications
- Technical Data
  - Bus interface:
    - PCU-DVNIO: PCI Universal 3.3/5V, PCI-X compatible
    - PC104-DVNIO: PC/104 bus
  - Processor:
    - PCU-DVNIO: AMD SC520 – 133MHz
    - PC104-DVNIO: AMD SC520 – 100MHz
  - Memory:
    - PCU-DVNIO: 16 Mb SDRAM / 4Mb Flash
    - PC104-DVNIO: 8 Mb SDRAM / 512 Kb Flash
  - Interruption:
    - PCU-DVNIO: Hardware Plug&Play
    - PC104-DVNIO: 2, 3, 4, 5, 6, 7, 10, 11, 12, 14, 15
  - DPRAM Address:
    - PCU-DVNIO: Hardware Plug&Play
    - PC104-DVNIO: Hardware Plug&Play
  - Dimensions (L x W):
    - PCU-DVNIO: 168mm x 107mm
    - PC104-DVNIO: 95mm x 90mm
  - Consumption:
    - PCU-DVNIO: 6W (max. 1.2A)
    - PC104-DVNIO: 5W (max. 0.8A)
  - Operating Temp.:
    - PCU-DVNIO: 0ºC up to +70ºC
    - PC104-DVNIO: -40ºC up to +85ºC
  - Storage Temp.:
    - PCU-DVNIO: -40ºC up to +80ºC
    - PC104-DVNIO: -40ºC up to +85ºC
  - Discrete Input:
    - Opto-coupled discrete input Voltage -> DC +10 to +30 or AC 24V (50 to 60 Hz)
  - Discrete Output:
    - “WatchDog” output contact free from potential (floating) (24V DC, 0.25A)
  - EMC Compliance: EN55022 Class B, ENE161000-6-2, ENE161000-3-2, ENE161000-3-3
  - RoHS Compliance: Yes

Ordering Information

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<thead>
<tr>
<th>Order No.</th>
<th>Engineering No.</th>
<th>Product Description</th>
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<tr>
<td>112003-0004</td>
<td>DRL-DVN-PCU</td>
<td>PCU-DVNIO DeviceNet card, PCI Universal bus, 3.3/5V</td>
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<td>112005-0009</td>
<td>DRL-DVN-104</td>
<td>PC104-DVNIO DeviceNet card, PC/104 bus</td>
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