The 1782-JDC is a family of DeviceNet-to-serial link communications gateways that provide a flexible DeviceNet interface to a wide variety of ASCII devices. The JDC allows the user to easily and conveniently connect and integrate peripheral products with either RS232 or RS485 serial ports into a DeviceNet system.

Using the JDC, you may communicate with the connected peripheral devices in the same fashion as the other DeviceNet products in the system. Data may be read/written using either I/O polling or explicit messaging. Typically realtime data is read and written as I/O by the DeviceNet Master via Polled I/O and parameters are read and written with the Explicit Messaging technique.

The 1782-JDC-1, -2, and –3 have an easy set-up arrangement with only 10 parameters. Users comment frequently that they can get the device up and running in just a few minutes. In addition, these versions support data transfers of up to 124 bytes.

The newest member of the family, the 1782-JDCE series, supports real-time data to be read and written with the Explicit Messaging technique. This is useful in some panel display applications. This version has additional parameters to configure and is limited to data transfers of 50 bytes.

Another new feature on all versions is a mode which automatically provides byteswapping for 16-bit or 32-bit length data messages. This is useful with some PLCs.

The 1782-JDC is defined as a Communications Adapter device on the DeviceNet system. It has a 3-pin plug connector for connection to a RS232 or RS485 interface port on your device and a 5-pin pluggable DeviceNet connector for connections to the DeviceNet network. Baud rate selection is done automatically by the device when it is powered up on a network. The 1782-JDC has one assigned DeviceNet address, which is set by a 6-position DIP switch on the unit.

Other JDC parameters are software- configurable and are changed from their default values by third-party DeviceNet configuration tools. Each 1782- JDC has 2 standard green/red DeviceNet LED's for module status and network status and two green LED's to indicate RS485/232 transmit and receive activity.

The RS232 version may be used for point-to-point connection to a single serial device.

The RS485 version may be connected in a point-to-point fashion to a single device, or to multiple devices in the standard RS485 convention.

The JDC is a general-purpose gateway that is completely device- independent. The JDC does not interpret the data being transmitted across it, and so the transferred messages may contain data of any nature or definition. This allows you to use the same device for a wide variety of DeviceNet-serial interface applications.

FEATURES

- Translates messages and data between DeviceNet and a serial peripheral device
- ODVA Conformance tested to DeviceNet Spec 2.0
- Defined as a DeviceNet Communications Device Profile 12 (Chex)
- Autobaud operation
- Polled I/O, Change-of-State I/ O and Explicit Messaging
- Software Configurable Parameters for serial port operation
- Special mode performs byte swapping of serial message for AB PLC compatibility
- Address selection via DIP switches
- DIN rail mount
- Pluggable 5-pin DeviceNet connection
- Pluggable RS-485 2-pin connection / RS-232 3 Pin Connection
- 2 standard DeviceNet module and network status LED's
- 2 serial transmit and receive LED's

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WRC is one of the original members of ODVA
Your source for Blue-Collar Electronics.

WRC is a Rockwell Automation Encompass Partner for Gateway, Bus Extender and signal conditioning products.

FEATURES —*continued*

- Powered from DeviceNet 11- 25 Vdc network power
- ASCII string length up to 124 bytes on all models except JDCE which is limited to 50 bytes
- Serial port baud rate up to 38.4k baud
- Optional isolated RS232 interface Enhancements to 1782-JDCE
- Explicit messaging to serial devices
- Start of String Delimiter
- Expanded Byte Swap options
- Data only mode
- Master/Slave handshake option

MODEL NUMBERS

- 1782-JDC-1: Isolated RS232 Interface
- 1782-JDC-2: RS485 Interface
- 1782-JDC-4: RS422 Interface
- 1782-JDCE-1: Isolated RS232 Interface with support for Explicit Data Messages

SPECIAL NOTE:

Users of 1782-JDC with Revision Number 6._, - replacements should be ordered as 1782-JDCE!

Contact Technical Support if you have any questions.

SPECIFICATIONS

See next page.

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Specifications

Product:	1781-JDC DeviceNet-Serial Gateway
Description:	Communications gateway between a serial capable device over an RS232 or RS485 interface and a DeviceNet network.
Device Type:	Communications Adapter, C_{hex} , (12)
Device Profile:	Identity Object Message Router Object DeviceNet Object Connection Object
Product Revision:	
DeviceNet Conformance:	Designed to conform to the ODVA DeviceNet Specification Volume I and II, Version 2.0.
DeviceNet Communications:	Predefined Master/Slave Connection Set, Group 2 Only Server
DeviceNet:	Autobaud operation (default)
Address selection:	Address number 0 to 63, switch selectable (default = 63)
Cable Connection:	JDC: 5-pin pluggable header (male) Phoenix Contact MSTBA 2.5/5-G-5.08/AU or equivalent DeviceNet Cable: 5-contact plug (female contacts)
Status Indicators:	Module Status: green/red bi-color LED
Serial port:	1200, 2400, 4800, 9600, 19.2k, 38.4k baud
Parity:	Odd/even/none (software selectable)
Data bits:	7 or 8 (software selectable)
Serial port connection:	9-Pin D-Sub
Status Indicators:	Transmit Active: green LED
Network Isolation:	2500V (optional)
Max Power:	1.75 watts: 160 mA @ 11 Vdc – 70 mA @ 25 Vdc unregulated power supply
Mounting:	DIN rail mount, EN 50022
Size:	depth: 3.54" (90mm) width: .98" (25mm) height: 3.11" (79mm)
Operating Temp:	0-60° C
Humidity:	0-95% RH, non-condensing