# CDN066 DeviceNet RS232 Gateway

## Features

- Fully isolated RS232 serial channel
- Powered from DeviceNet 11-28 Vdc power
- Rotary MacId and Baud rate switches
- Rotary Serial Channel Baud Rate switch
- 2 Bi-color LED's for DeviceNet status
- 2 Bi-color LED's for serial channel status
- Selectable Serial Baud rate (300 - 19.2 kbaud)


## Description

The CDN066 is a compact RS232 to DeviceNet serial gateway. The unit is housed in a 2 ½ X 3 ¼ plastic housing with mounting tabs. A 5 pin micro connector provides the DeviceNet interface and a 9 pin D connector provides the RS232 interface. The RS232 serial channel is fully isolated from the DeviceNet power.

The CDN066 may be used to interface peripheral devices to a DeviceNet system. The RS232 serial stream is internally buffered, allowing a DeviceNet Master node to send and receive data using standard POLL or EXPLICIT messaging

The DeviceNet power is conditioned by a loss-of-ground protection circuit and applied to a non-isolated DC-DC converter to provide 5 volts @ 250 mA. A Newport NML0505S isolated DC-DC converter to provide power to the RS232 components.

## DeviceNet Model

CDN066 provides a fully buffered serial interface between DeviceNet and peripheral devices. Internal FIFOs buffers up to 64 bytes of receive and transmit data, easing the interface to slower RS232 based devices. Hardware or software flow control is supported. The DeviceNet object description may be found in the CDN066 DeviceNet Specification manual.

| Characteristic | Description |
|---|---|
| Serial Interface | RS232 150-19.2 Kbaud |
| Can Interface | ISO 11898 |
| Power(RS232) | Optically isolated |
| Bus Power | 11-28vdc @50 mA |

**DeviceNet Connector(5 pin MALE micro)**

| PIN | Function |
|---|---|
| 1 | Drain |
| 2 | Bus + |
| 3 | Bus – |
| 4 | CAN H |
| 5 | CAN L |

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## RS232Connector (DB-9 Male)

| PIN | Function |
|---|---|
| 1 | n.c |
| 2 | Receive Data |
| 3 | Transmit Data |
| 4 | n.c |
| 5 | Ground |
| 6 | n.c |
| 7 | Request to Send |
| 8 | Clear to Send |
| 9 | n.c. |

## DeviceNet Interface

| | |
|---|---|
| Power Requirements | 11-28vdc @ 50mA |
| Loss of Ground | Yes |
| Reverse Polarity | -30 VDC |
| Signal Levels | ISO11598 |

### RS232

| | |
|---|---|
| Isolation | 500 Volts |
| ESD Protection | +/-10 kv |
| Overload Protection | +/-30 Volt |
| Short Circuit | Indefinite |
| Output levels | +/-7.9 Volts (typical) |
| Data size | 8/7 bits (software config.) |
| Parity | Even/Odd/None |
| Stop bits | 1 (fixed) |
| Data Rate | 300,1220,2400,4800,9600, 19.2 (software selected) |
| Flow Control | None. RTS/CTS, X-ON/ X-OFF |

## Environmental

| | |
|---|---|
| Temperature | 0-70 $^{o}$C |
| Size | 3.25 X 2.37 X 1.08 |
| Mounting | ½ inch tab, 3/16 diameter Mtg Hole |
| Encapsulation | RTV Silicon Compound |

## Serial Stream Instance 1 Attributes

| Attribute | Access | Name | Type |
|---|---|---|---|
| **3** | **Get** | **Receive Data** | **See Notes** |
| **4** | **Set** | **Transmit Data** | **See Notes** |
| **5** | **Get/Set** | **Status** | **USINT** |
| **6** | **Get/Set** | **Baud Rate** | **USINT** |
| **7** | **Get/Set** | **Parity** | **USINT** |
| **8** | **Get** | **Data Size** | **USINT** |
| **9** | **Get** | **Stop Bits** | **USINT** |
| **10** | **Get/Set** | **Flow Control** | **USINT** |
| **11** | **Get/Set** | **Receive Count** | **USINT** |
| **12** | **Get/Set** | **Transmit Count** | **USINT** |
| **13** | **Get/Set** | **Max. Receive** | **USINT** |
| **14** | **Get/Set** | **Data Format** | **USINT** |
| **15** | **Get/Set** | **Block Mode** | **USINT** |
| **16** | **Get/Set** | **Receive Delimiter** | **USINT** |
| **17** | **Get/Set** | **Pad Char** | **CHAR** |
| **18** | **Get/Set** | **Max. Trasmit** | **USINT** |
| **19** | **Get/Set** | **Idle String** | **Short String** |
| **20** | **Get/Set** | **Fault String** | **Short String** |
| **21** | **Get/Set** | **Status Enable** | **USINT** |
| **22** | **Get/Set** | **Status Clr.Enable** | **USINT** |

*DeviceNet is a trademark of the Open DeviceNet Vendors Association

** See Notes = DeviceNet Specifications

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