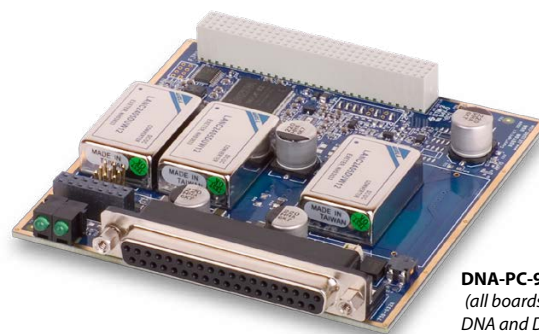


DNx-PC-911/912/913

Power Supply Output Boards

10-Year
Availability
Guarantee

- DNR-PC-91x series for RACKtangle chassis
- DNA-PC-91x series for CUBE chassis
- Isolated DC/DC converters
- Overload protection
- Overtemperature shutdown
- Software-controlled On/Off switch
- Readback of input voltage and current



DNA-PC-911 shown
(all boards available in both
DNA and DNR configurations)

General Description:

The DNA-PC-91x and DNR-PC-91x series provide external power to various sensors and signal conditioning when required by your application. The 91x series may also be used to provide power to the various DNx series I/O boards requiring external power. The DNA version is designed for use in UEI's "Cube" chassis while the DNR series is for use in the RACKtangle chassis form factors. The DNx-PC-91x series is fully backward compatible with the DNx-PC-90x series boards.

The DNx-PC-911, 912 and 913 are designed to provide output voltages of ± 15 VDC, $+24$ VDC and ± 45 VDC respectively. Input power for the boards is provided by the internal Cube or RACKtangle by default, but an external power supply* may be used to power the units. The units are designed to automatically detect the presence of an external supply and use power from it when available.

Outputs may be turned on and off under software control (default is On). The boards also provide an output voltage read-back capability allowing the application to ensure acceptable output voltage levels.

All connections are through a 37-pin D female connector. The pinout of this connector is identical to that of the earlier DNA-PC-90x series with the exception that pins designated as "NC" on the 90x series are now used as the connections to external power when used.

The DNx-PC-91x series includes software drivers supporting all popular operating systems including: Windows, Linux, QNX, VXWorks, RTX, and most other popular Real-Time Operating Systems. Windows users may take advantage of the powerful UEIDAQ Framework which provides a simple and complete software interface to all popular Windows programming language and data acquisition and control applications (e.g. LabVIEW, MATLAB).

Technical Specifications: (all version unless otherwise noted)

Input voltage: DNx-PC-911 DNx-PC-912 DNx-PC-913	9 - 36V DC 18 - 36V DC 9 - 36V DC
Output voltage: DNx-PC-911 DNx-PC-912 DNx-PC-913	(call for info on other voltages) ± 15 V DC $\pm 3\%$ $+24$ V DC $\pm 3\%$ ± 45 V DC $\pm 3\%$
Output current:* DNx-PC-911 DNx-PC-912 DNx-PC-913	(derated 1.2% per °C above 40 °C) 1.2 A 1.6 A 0.4 A
Output ripple voltage	<100 mV
Output enable/disable	software controlled. Default condition is ON
Input Selection*	Power provided by internal bus or external connection. Default source is internal.
Input protection	5 A slow-blow fuse
Output protection	Short circuit protected, unlimited duration
Short circuit output current	150 % of I_{max}
Output Isolation	350 Vrms, min
Input voltage readback acc.	$\pm 1\%$
Temp measurement acc.	± 2 °C
Power supply efficiency	>75% at all currents
Power consumption	0.8W (without load)
Operating temp. range	-40°C to +85°C (output current derated 1.2% per °C above 40 °C)
Operating humidity	95%, non-condensing

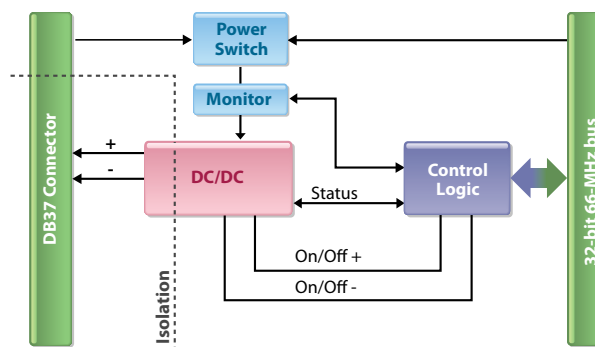
* When the total power drawn from all DNx-PC-91x series boards in a single chassis exceeds 40 watts, the use of external power is recommended.

Pinout Diagrams:

DB-37 (female)
37-pin connector:

DNx-PC-911	DNx-PC-912	DNx-PC-913
Ext PWR Ret 37 19 Ext PWR Ret	Ext PWR Ret 37 19 Ext PWR Ret	Ext PWR Ret 37 19 Ext PWR Ret
DGND 36 18 -15V	DGND 36 18 DGND	DGND 36 18 -45V
DGND 35 17 -15V	DGND 35 17 DGND	DGND 35 17 -45V
DGND 34 16 -15V	DGND 34 16 DGND	DGND 34 16 -45V
DGND 33 15 -15V	DGND 33 15 DGND	DGND 33 15 -45V
DGND 32 14 -15V	DGND 32 14 DGND	DGND 32 14 -45V
DGND 31 13 -15V	DGND 31 13 DGND	DGND 31 13 -45V
DGND 30 12 -15V	DGND 30 12 DGND	DGND 30 12 -45V
DGND 29 11 N/C	DGND 29 11 N/C	DGND 29 11 N/C
DGND 28 10 N/C	DGND 28 10 N/C	DGND 28 10 N/C
DGND 27 9 N/C	DGND 27 9 N/C	DGND 27 9 N/C
DGND 26 8 +15V	DGND 26 8 +24V	DGND 26 8 +45V
DGND 25 7 +15V	DGND 25 7 +24V	DGND 25 7 +45V
DGND 24 6 +15V	DGND 24 6 +24V	DGND 24 6 +45V
DGND 23 5 +15V	DGND 23 5 +24V	DGND 23 5 +45V
DGND 22 4 +15V	DGND 22 4 +24V	DGND 22 4 +45V
DGND 21 3 +15V	DGND 21 3 +24V	DGND 21 3 +45V
Ext PWR+ 20 2 +15V	Ext PWR+ 20 2 +24V	Ext PWR+ 20 2 +45V
1 Ext PWR+	1 Ext PWR+	1 Ext PWR+

Block Diagram:



Connections:

Cable Required	Screw Terminal Panel	Description
DNA-CBL-37 or -37S	DNA-STP-37	37-pin "D" connector to screw terminals.