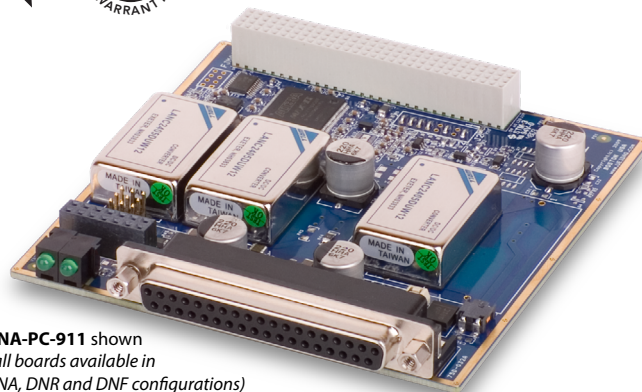


DNx-PC-910/911/912/913/914 Power Supply Output Boards



- DNA/DNR/DNF-PC-91x series for use with Cube/RACKtangle™/FLATRACK™ I/O chassis
- Isolated DC/DC converters
- Overload protection
- Overtemperature shutdown
- Software-controlled On/Off switch
- Readback of input voltage and current
- DNA version can be internally connected to an analog out board



DNx-PC-911 shown
(all boards available in
DNA, DNR and DNF 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 and DNF series are for use in the RACKtangle and FLATRACK chassis form factors. The DNx-PC-91x series is fully backward compatible with the DNx-PC-90x series boards.

The DNx-PC-910, 911, 912, 913 and 914 are designed to provide output voltages of ± 10 VDC, ± 15 VDC, $+24$ VDC, ± 45 VDC and ± 63 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 provide a read-back capability of the input voltage allowing the application to ensure acceptable input 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.

Software is included, providing a comprehensive, yet easy-to-use API that supports all popular operating systems, including Windows, Linux, and most real-time operating systems—such as QNX, Intime, VXworks, and more. Additionally, the UEIDAQ Framework—an even higher level Windows driver—supplies complete support for those creating applications in many popular Windows programming languages, as well as data acquisition software packages such as LabVIEW and MATLAB/Simulink.

Technical Specifications: (all version unless otherwise noted)

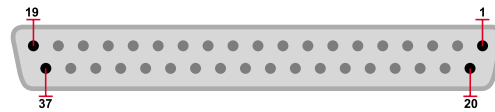
Input voltage:	Uses the same 9–36V DC as chassis in which it is installed
Output voltage /rated current: DNx-PC-910 DNx-PC-911 DNx-PC-912 DNx-PC-913 DNx-PC-914	(call for info on other voltages) ± 10 V DC $\pm 3\%$ @ 1.5 A ± 15 V DC $\pm 3\%$ @ 1.2 A ± 24 V DC $\pm 3\%$ @ 1.6 A ± 45 V DC $\pm 3\%$ @ 0.4 A ± 63 V DC $\pm 3\%$ @ 0.4 A
Output current temperature derating	Derated 1.2% per °C above 40 °C
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 accuracy	$\pm 1\%$
Temperature measurement accuracy	± 2 °C
Power supply efficiency	>75% at all currents
Power consumption	0.8W (without load)
Operating temperature range	-40 °C to +85 °C (output current derated 1.2% per °C above 40 °C)
Operating humidity	95%, non-condensing
MTBF (Hours)	150,000

* 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.

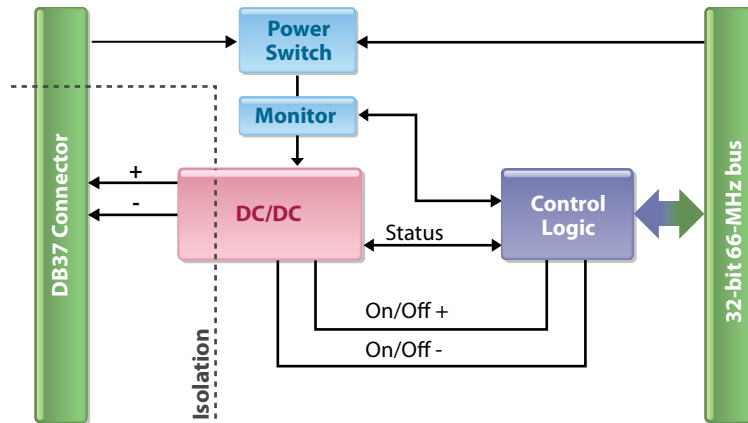
Pinout Diagrams:

DB-37 (female)
37-pin connector:

DNx-PC-910			DNx-PC-911			DNx-PC-912			DNx-PC-913			DNx-PC-914		
Ext PWR Ret	37	19	Ext PWR Ret	37	19	Ext PWR Ret	37	19	Ext PWR Ret	37	19	Ext PWR Ret	37	19
DGND	36	18	DGND	36	18	DGND	36	18	DGND	36	18	DGND	36	18
DGND	35	17	DGND	35	17	DGND	35	17	DGND	35	17	DGND	35	17
DGND	34	16	DGND	34	16	DGND	34	16	DGND	34	16	DGND	34	16
DGND	33	15	DGND	33	15	DGND	33	15	DGND	33	15	DGND	33	15
DGND	32	14	DGND	32	14	DGND	32	14	DGND	32	14	DGND	32	14
DGND	31	13	DGND	31	13	DGND	31	13	DGND	31	13	DGND	31	13
DGND	30	12	DGND	30	12	DGND	30	12	DGND	30	12	DGND	30	12
DGND	29	11	DGND	29	11	DGND	29	11	DGND	29	11	DGND	29	11
DGND	28	10	DGND	28	10	DGND	28	10	DGND	28	10	DGND	28	10
DGND	27	9	DGND	27	9	DGND	27	9	DGND	27	9	DGND	27	9
DGND	26	8	DGND	26	8	DGND	26	8	DGND	26	8	DGND	26	8
DGND	25	7	DGND	25	7	DGND	25	7	DGND	25	7	DGND	25	7
DGND	24	6	DGND	24	6	DGND	24	6	DGND	24	6	DGND	24	6
DGND	23	5	DGND	23	5	DGND	23	5	DGND	23	5	DGND	23	5
DGND	22	4	DGND	22	4	DGND	22	4	DGND	22	4	DGND	22	4
DGND	21	3	DGND	21	3	DGND	21	3	DGND	21	3	DGND	21	3
Ext PWR+	20	2	Ext PWR+	20	2	Ext PWR+	20	2	Ext PWR+	20	2	Ext PWR+	20	2
	1			1			1			1			1	



Block Diagram:



Connections:

Part #	Screw Terminal Panel	Screw Terminal Panel
DNA-CBL-37 or DNA-CBL-37S	DNA-STP-37	37-pin "D" connector to screw terminals.

Ordering Guide:

Part #	Description
DNA-CBL-37	3ft, 37-way, male to female flat ribbon cable
DNA-CBL-37S	3ft, 37-way, male to female, round shielded cable
DNA-STP-37	Universal Screw Terminal Panel for DNx-Series I/O
Extended Warranty	Option to purchase UEI's extended warranty (up to 10 years) is available