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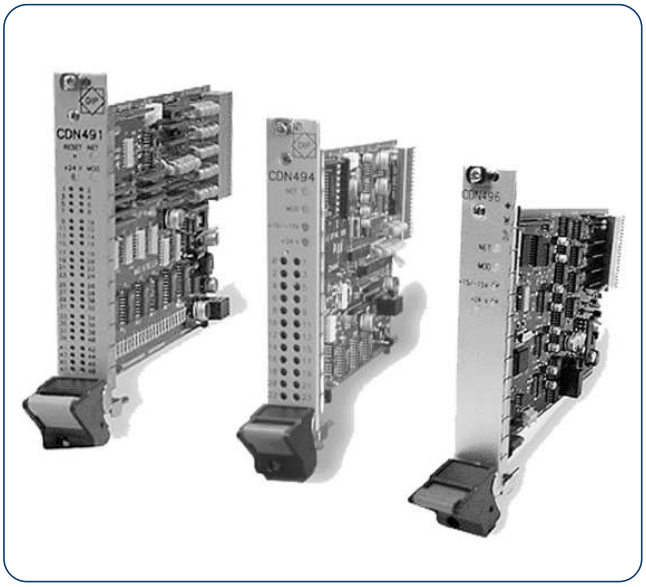
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Find the *MKS Instruments CDN491* at our website: *Click HERE*

Control & Information Technology

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CDN49x

HIGH DENSITY CARD I/O FOR CAN AND DEVICENET™ NETWORKS

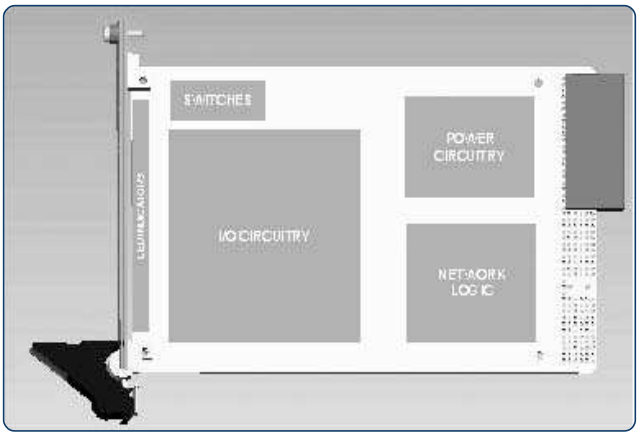
The CDN49x product line provides high density, compact and economical I/O solutions for popular CAN and DeviceNet™ Fieldbus Networks. A variety of models are available with a mix of digital I/O, analog inputs, and analog outputs. These robust I/O cards are at home in factory automation and process applications. For a complete solution, these cards are integrated into customer or MKS designed assemblies for a best-fit solution to any high density I/O requirement. Cards are physically compliant to 3U CPCI. To ensure an ideal installation fit, final signal distribution is available through high density D-sub connectors, or any customer requested method. Specific attributes of the CDN49x configurations include:

Fieldbus:	CAN and DeviceNet™ Networks
DIDO:	48 digital I/O points (optically isolated), each can be used as either an input or an output
Combo:	Combination of 24 digital I/O points, 8 analog input points, and 8 analog output points
AIAO:	32 analog input points and 16 analog output points

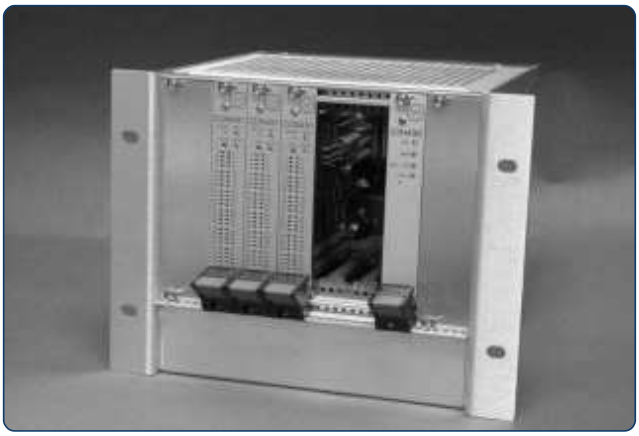
Features & Benefits

- High density analog, digital, or combination of field I/O points in a compact and economical package
- Flexible integration into existing or new DeviceNet networks
- Semi SIG compliant DeviceNet object models
- Digital I/O points individually configurable for input or output
- Each digital output can be read back as an input to verify signal integrity
- All outputs forced to safe state when power degrades or network communication is lost
- Analog input points are single-ended, 12-bit resolution, configurable for 0-10V or ±5V input ranges per channel
- Analog output points are single-ended, 12-bit resolution, ±10V output range
- Easy to install and configure
- Rotary switches for network address and jumpers for data rate; also can be set via backplane
- Standard NET and MOD bicolor status LED indicators, plus model-specific I/O status LED indicators
- Network communication is isolated from all I/O
- High density 110 pin I/O connector, CPCI J2 compliant

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CDN49x Card Layout







CDNx I/O System Examples

Specifications

Part Number	CDN491	CDN494	CDN496		
Model	DIDO	COMBO	AIAO		
Physical					
Dimensions (HxWxD)	x	x	x		100mm x 160mm; 3U x 4HP eurocard
I/O Connector	x	x	x		110 pin 2.00mm metric grid connector, CPCI compliant
Weight	x	x	x		200g
Environmental					
Operating Temperature	x	x	x		0 to +70°C
Storage Temperature	x	x	x		-40 to +85°C
Humidity	x	x	x		5 to 95% non-condensing
Front Panel Indicators					
Network, Module	x	x	x		DeviceNet bi-color (red/green) status LEDs
Power	x	x	x		+24V, ±15V (on COMBO and AIAO only)
Digital I/O Points	48	24	0		Green status LEDs
Network Functionality					
DeviceNet	x	x	x		Explicit Messaging, Polled I/O, Semi SIG compliant
DeviceNet Classes	x	x	x		Identity, Router, DeviceNet, Assembly, Connection, DIP, DOP, AIP, AOP, DeviceNet Supervisor
CAN	x	x	x		Proprietary CAN protocol; Others available on request
Switch Settings	x	x	x		Node Address (rotary), Baud Rate (jumpers); Option for backplane settable
Power					
Fieldbus Interface	x	x	x		11 - 25VDC; 250mA typical; 400mA maximum
DIDO Power	x	x			External +24VDC typical; +18 to +28VDC total range
AIAO Power		x	x		External ±15VDC
Digital I/O Points					
Number of DIDO points	48	24	0		Each point either digital input or output; active low; current sinking
Inputs Ion	x	x			4mA minimum
Inputs Ioff	x	x			2mA maximum
Inputs Vin Range	x	x			-1 to 28VDC
Outputs Ion	x	x			200mA per channel maximum; 800mA per 8 channel group maximum; For greater current, combine channels
Outputs Ioff	x	x			0.1mA off leakage current
Outputs Vol	x	x			0.9 - 1.1V typical; 1.1 - 1.2V maximum
Analog Input Points					
Number of Inputs	0	8	32		Single-ended
Input Range		x	x		Software selectable; 0-5, 0-10, ±5, ±10 VDC per channel
Resolution		x	x		12-bit
Filtering		x	x		16 Hz, low pass
Impedance					1M ohms
Analog Output Points					
Number of Outputs	0	8	16		Single-ended analog outputs
Output Range		x	x		-10 to +10 VDC
Resolution		x	x		12-bit
Output Impedance		x	x		2K ohms
Fan Output					
Vol	x	x	x		1VDC at 100mA
Voh	x	x	x		28VDC, off condition
Ion	x	x	x		100mA @ 24VDC

Ordering Information

			Analog		Digital		
Part Number	Network	IO Type	Input	Output	I/O	Type	Ejector
CDN491	DeviceNet	DIDO	0	0	48	SINK	Standard
CDN491-E	DeviceNet	DIDO	0	0	48	SINK	Enhanced
CDN491-C-E	CAN	DIDO	0	0	48	SINK	Enhanced
CDN491R	DeviceNet	DIDO	0	0	48	SINK	Enhanced
CDN491R-C	CAN	DIDO	0	0	48	SINK	Enhanced
CDN494	DeviceNet	COMBO	8	8	24	SINK	Standard
CDN494-E	DeviceNet	COMBO	8	8	24	SINK	Enhanced
CDN494-C-E	CAN	COMBO	8	8	24	SINK	Enhanced
CDN494R	DeviceNet	COMBO	8	8	24	SINK	Enhanced
CDN494R-C	CAN	COMBO	8	8	24	SINK	Enhanced
CDN496	DeviceNet	AIAO	32	16	0		Standard
CDN496-E	DeviceNet	AIAO	32	16	0		Enhanced
CDN496-C-E	CAN	AIAO	32	16	0		Enhanced
CDN496R	DeviceNet	AIAO	32	16	0		Enhanced
CDN496R-C	CAN	AIAO	32	16	0		Enhanced

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