

CB-6259

Multifunction DAQ Interface

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The CB-6259 is a rack mount terminal block that interfaces with nearly any National Instruments M-Series or X-Series multifunction DAQ cards on the PXI, PXI Express, PCI, or PCI Express platforms. Single connector DAQ cards require one CB-6259, while dual connector DAQ cards require two CB-6259 terminal blocks to take advantage of all of the channels. The CB-6259 allows easy configurable termination of analog input, analog output, digital input, and digital output signals.



Features/Capabilities

- Simple connection between the CB-6259 and M-Series DAQ card using a 68-pin cable assembly- typically the SHC68-68-EPM.
- Rack-mount construction for use with 19" rack enclosures.
- A shielded, metal enclosure to minimize interference.
- Pluggable, screw type terminal blocks.
- Individually configurable analog inputs for either +/-10VDC or +/-20mA.
- Two 8-channel bank connections to easily interface with industry standard 8-slot conditioner backplane devices (such as 3B, 5B, and 5D) via 26-pin ribbon cables.
- Channel-to-channel isolated analog outputs, configurable for either +/-10VDC, or 4-20mA
- Industry friendly digital I/O, with isolated 24VDC digital inputs and dry-contact 24VDC digital outputs. Each digital input and output also has their own individual status LED for easy debug.
- Break-out for counter connections, or TTL level digital I/O.
- Distributed excitation power for single point transducer termination.
- Readable, descriptive termination labels to minimize time referencing system prints and DAQ card manuals.



Specifications

This appendix lists the specifications for the CB-6259 connector module. Unless otherwise noted, all specifications are typical at 25° C.

Physical

Dimensions.....	19.0 in. by 3.47 in. by 8.25 in.
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Power Requirements

Rated Voltage.....	24 VDC
Maximum Current Draw.....	0.6A

Industrial Digital Output Specs

Number of Outputs/Module.....	8 Outputs
Maximum Output Contact Current.....	1.85A (non inductive load)

Industrial Digital Input Specs

Number of Inputs/Module.....	16 Inputs
Maximum Input Voltage.....	24 VDC

TTL/Counter Specification

Number of Counter/Timer Channels.....	2 (only on CB-6259-1)
Counter Timer Resolution.....	32-bit
Counter Measurements.....	Edge counting, pulse, semi-period, period, two-edge separation
Position Measurements.....	X1, X2, X4 quadrature encoding with channel Z reloading, two-pulse encoding
Number of TTL Level I/O.....	8 (only on CB-6259-2)

Analog Output Characteristics

Analog Output Range.....	±10 V or ±4-20mA
Output Current Drive.....	±15mA
Capacitive Load Drive.....	0.1µF
Small-Signal Bandwidth.....	30 kHz
Slew Rate.....	2 V/µS

Analog Output Isolation

Isolation Voltage Cont. Peak (DC) (V).....	2121 V
Isolation Voltage Pulse/Test Peak (V).....	2400 V
Isolation Mode Rejection (@60Hz).....	120dB

Analog Input Characteristic

Input Voltage Range.....	±10 VDC / ±100 mVDC
Typical Accuracy.....	0.025% / 0.015%
Input Bias Current.....	±0.5 nA

External Excitation

Maximum Analog external excitation.....	60 VDC
Maximum Analog excitation current (all channels).....	1 A
Maximum Digital Power Distribution.....	24 VD
Maximum Digital Distribution Current.....	4 A