

DeviceNet slave module

CN

M3-61B

DeviceNet slave module

- ▶ Provides DeviceNet access to Model 5300 I/O and register resources.
- ▶ Supports bit-strobe, poll, change-of-state, cyclic, and explicit messaging. 125K, 250K, and 500K baud rates are supported.
- ▶ ODVA compliant.

DeviceNet specifications

Number of ports	1
Connector	Pluggable screw-type 5-pin
Baud rate	125, 250, 500 Kbaud
MAC ID range	0-63
Maximum cable trunk	500 m
Operating mode	Slave
Message formats	Poll, change-of-state (COS), cyclic, explicit messaging, bit-strobe
Compliance	ODVA

Other specifications

Module size	2 rack slot (1.5"/38 mm)
Module weight	90 g
Bus power required (5 VDC)	0.26 mA
Isolation rating	500 VDC
Operating temperature	
Horizontal installation	0 - 50°C
Vertical installation	0 - 45°C
Storage temperature	-25 - 85°C
Humidity	5 - 95% non-condensing

Note:

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Minimum hardware revision	0, A
Minimum firmware revision	1.02
Minimum operating system revision	5.00.90R46
Documentation number: 950-536102-000	



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The M3-61B module is a DeviceNet slave interface that allows 5300 I/O to be easily added to a DeviceNet network providing a low-cost way to incorporate CTC's high density I/O modules into an automation system. The slave module can access digital and analog I/O directly and other resources via registers. Typical configurations are:

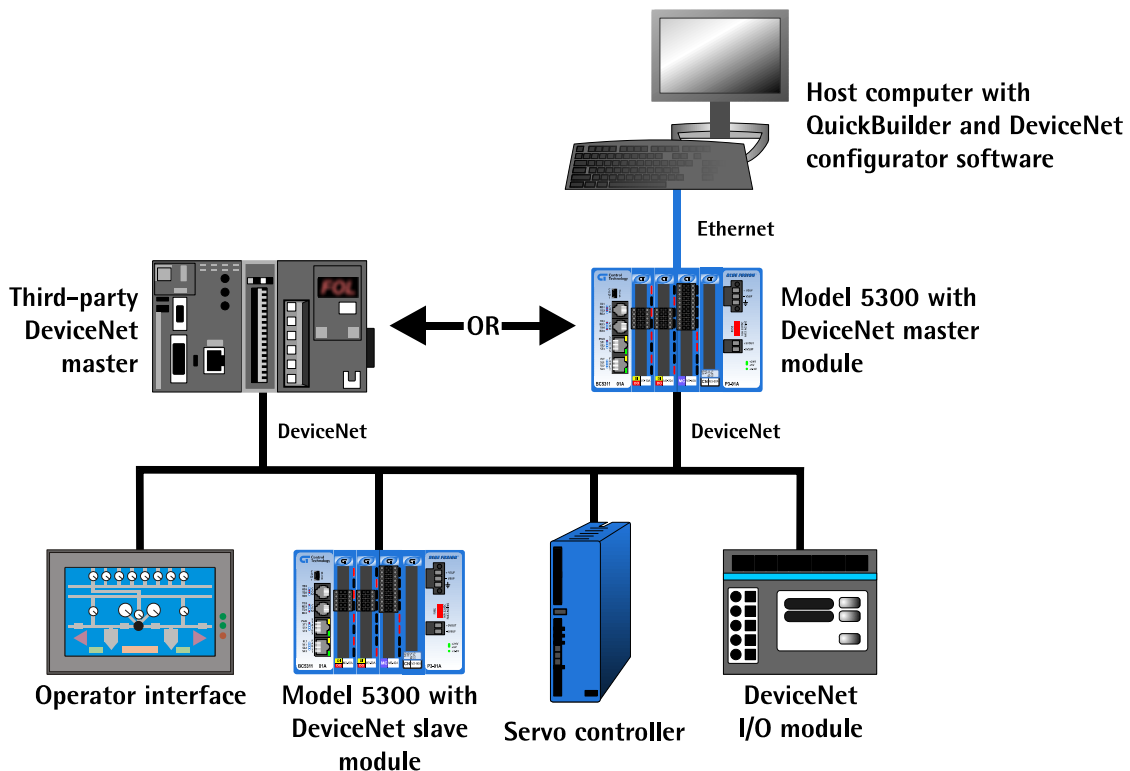
Slave Only: The 5300 is used strictly as high density remote I/O under complete control of the remote DeviceNet Master.

Slave plus local program control: The 5300 runs a QuickBuilder logic control program locally and also allows selected I/O and registers to be read and written by a remote DeviceNet master.

Master and Slave plus local program control: The 5300 supports having both a DeviceNet Master (M3-61A) and Slave (M3-61B) in a single system. The slave module can access both the local 5300 I/O as well as remote I/O devices connected via the master.

The Model M3-61B supports bit-strobe, poll, change-of-state (COS), cyclic and explicit messaging. All three baud rates (125K, 250K, and 500K) are available, and node selection is available with simple on-board switches that are accessible via the front of the module.

The Model M3-61B is equipped with a 32-bit processor, allowing operation of the DeviceNet network at full rated speed without encumbering the controller's CPU. Complete messages are assembled locally on the Model M3-61B module and are then passed to the controller's processor for servicing.



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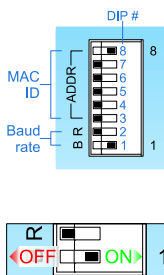
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Electrical specifications

Parameter	Min	Typ	Max
Power requirements (from controller)			
Logic supply (3.3V)		250 mA	400 mA
Auxiliary supply (24V from 24V bus)		0 mA	0 mA
DeviceNet power	11 VDC	24 VDC	28 VDC
DeviceNet load		100 mA	150 mA
DeviceNet miswiring protection			24 VDC

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MAC ID settings

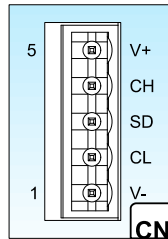
Address	DIP 3 - 8
0	000000
1	000001
2	000010
3	000011
...	
62	111110
63	111111

Baud rate settings

Baud rate (kBit/sec)	DIP 1 - 2
125	0 0
250	0 1
500	1 0
Reserved	1 1

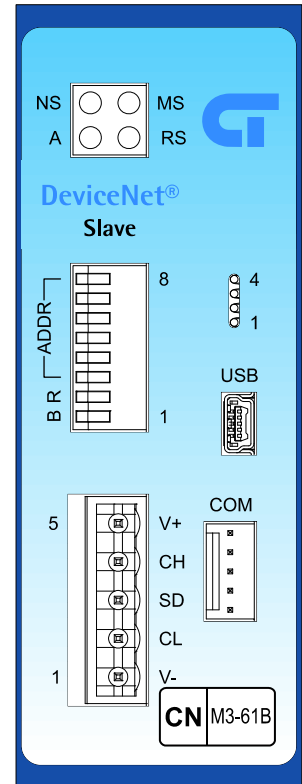
Off = 0 (left)
On = 1 (right)

DeviceNet pinouts

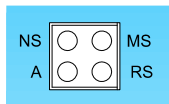


Pin #	Signal
5	V+ (Red)
4	CANH (White)
3	Shield
2	CAN-L (Blue)
1	V- (Black)

M3-61B Module



Module LEDs



Name	States	
NS (Network status)	Off	Device is not powered (MS LED will be off in this case) or not online
	Green	Link OK. Online, connected
	Flashing green	Online, not connected
	Flashing red	Minor fault on one or more connections
	Red	Critical link failure
A	N/A	Reserved for future use
MS (Module status)	Off	No power or not initialized
	Green	Normal operating state
	Flashing green	Auto band in progress
	Flashing red	Recoverable fault
	Red	Unrecoverable fault
Flashing red/green	Device in self test	
RS (Run status)	N/A	Not used

Note

- LEDs 1-4, USB and COM port are reserved for future use.