

DeviceNet Master

- Used to Manage a Sub-Network
- Manages 8-nodes on Sub-Network



FDN-MSTR-1220  
CE SF UL

**Electrical**

- Bus Power: 11-30 VDC
- Current Consumption: 125 mA (Slave), 30 mA (Master)

**LED Indication**

- Slave Network Status:
  - Flashing Green: Ready for connection
  - Green: Established connection
  - Flashing Red: Connection time out
- Master Network Status:
  - Flashing Green: Ready for connection
  - Green: Connected to all stations
  - Flashing Red: Time out with one or more stations
  - Red: Connection not possible

**Adjustments**

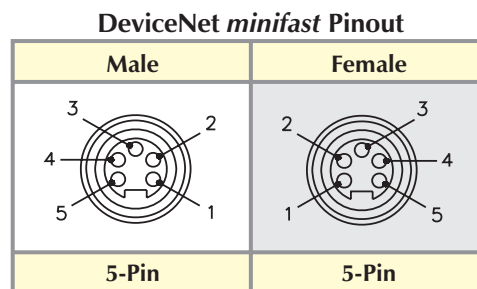
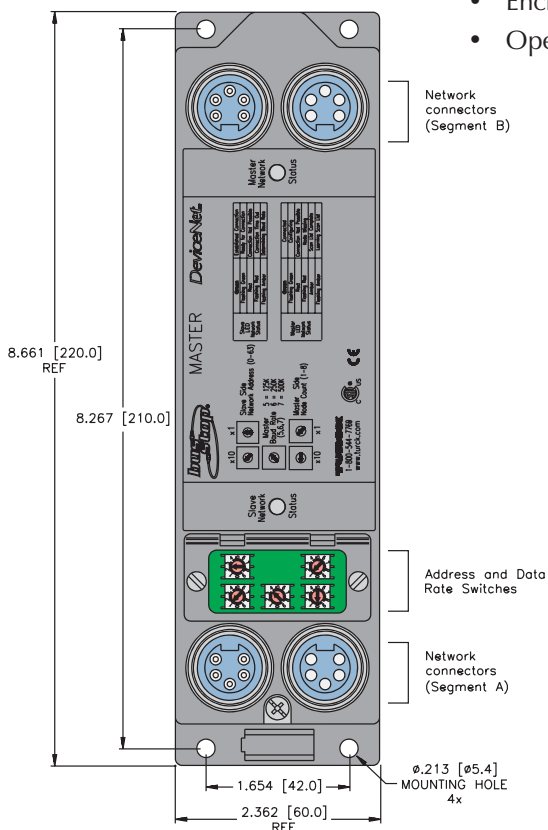
- Slave Side (Network address): 0-63 via rotary switches
- Master Side (Node count): 0-8 via rotary switches
- Master Baud Rate (5,6,7): 5=125 K, 6=250 K, 7=500 K

**Connections**

- Bus Line: 5-pin *minifast*® connectors

**Housing**

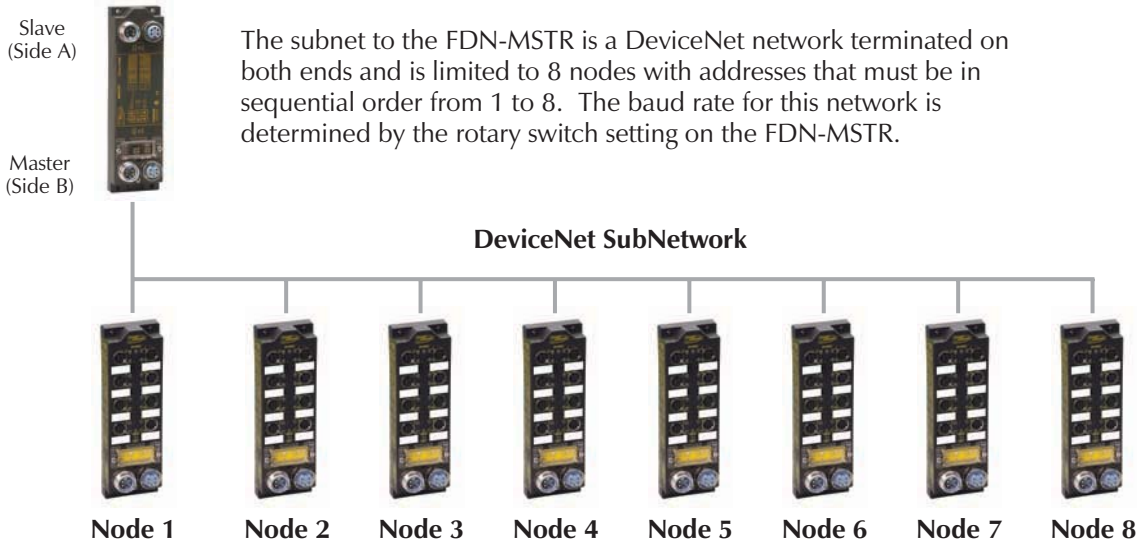
- Material: Glass filled nylon with nickel plated brass connectors
- Enclosure: NEMA 1,3,4,12,12 and IEC IP 67, 68 and 69K
- Operating Temperature: -25° to 70° C (-13° to 158° F)



Note: each segment has one male and one female connector

The FDN-MSTR is a DeviceNet™ master used to manage a subnet off of the main DeviceNet network.

### Main DeviceNet Network



The subnet to the FDN-MSTR is a DeviceNet network terminated on both ends and is limited to 8 nodes with addresses that must be in sequential order from 1 to 8. The baud rate for this network is determined by the rotary switch setting on the FDN-MSTR.

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The slaves on the subnet are independent of the main DeviceNet network. Hence a node 4 on the main network will conflict with a node 4 on the sub network.

### I/O Data Map 1

The Input data size is 64 bytes (where the first two bytes are reserved for status information from the FDN-MSTR).

	Byte	Bit 15	Bit 14	Bit 13	Bit 12	Bit 11	Bit 10	Bit 9	Bit 8	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
<b>In</b>	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	IC	-
	1	ESN 8	ESN 7	ESN 6	ESN 5	ESN 4	ESN 3	ESN 2	ESN 1	RSN 8	RSN 7	RSN 6	RSN 5	RSN 4	RSN 3	RSN 2	RSN 1
	2	Node Address 1 Input Data															
	3	Node Address 2 Input Data															
	...	...															
N	Node Address X Input Data																

The Output data is 64 bytes.

	Byte	Bit 15	Bit 14	Bit 13	Bit 12	Bit 11	Bit 10	Bit 9	Bit 8	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
<b>Out</b>	0	Node Address 1 Output Data															
	1	Node Address 2 Output Data															
	2	Node Address 3 Output Data															
	...	...															
	N	Node Address X Output Data															

IC = Invalid configuration of node missing: 0 means OK, 1 means error.

ESNX = Error on sub node X: 0 means OK, 1 means error communicating with node.

RSNX = Registered sub node X: 0 means no node is present, 1 means that node is present.

The data table for the Input and Output show the last Byte as "N". This "N" is variable depending on the total amount of data generated by all the nodes on the deviceNet™ sub network. However the maximum for both the Input and the Output are 64 bytes.