

DeviceNet Group2 only Explicit Messages

In This Appendix. . . .
— DeviceNet Commands

DeviceNet Group2 only Explicit Messages

These explicit messages are used to allocate/release the connection between the master and its slave.

DeviceNet Commands The following tables identify the data being transferred. When GET is by itself in the Service column, the item is either fixed and cannot change or the system sets the item to reflect the system processing characteristics. SET only in the Service column indicates the user can modify the item.

Unless otherwise indicated, all data is given in HEX format. Single numbers shall be considered zero filled and right justified.

CLASS = 1

ATTR	INSTANCE	ITEM	VALUE	DESCRIPTION	SERVICE
1	1	Vendor ID	660d	AutomationDirect.com	GET
2	1	Product Type	0	General Purpose I/O Device	GET
3	1	Product Code	20d	Vendor Assigned Product Code	GET
4	1	Revision Major/Minor	3.1	Released Product Version	GET
5	1	ID Status	1	Current Status of Entire Device	GET
6	1	Serial Number	XXXX	4-Digit Vendor Assigned	GET
7	1	Product Name	F2-DEVNETS	Vendor Assigned	GET
—	1	Reset		Reset the Device	RESET

CLASS = 3

ATTR	INSTANCE	ITEM	VALUE	DESCRIPTION	SERVICE
1	1	MAC ID	0 – 63	MAC ID (Node Address)	GET
2	1	BAUD RATE	0 – 2	0=125k, 1=250k, 2= 500k	GET
3	1	BUS-OFF Interrupt	X	BUS-OFF Interrupt processing	GET
4	1	BUS-OFF Count	X	BUS-OFF Count	GET/SET
5	1	ALLOCATION	X	Explicit and I/O connections	GET

CLASS = 4

ATTR	INSTANCE	ITEM	VALUE	DESCRIPTION	SERVICE
3	100	I/O DATA	Up to 128 BYTES	Read Input Data (Produced) Write Output Data (Consumed)	GET/SET
3	101	CONFIG DATA	4 Bytes + 1 Word (16 bits) for each occupied slot. Bytes 1-4 are always supplied. Other bytes are supplied when appropriate.		GET
		BYTE 1	0 – 3F (63d)	MAC ID	
		BYTE 2	0 – 2	BAUD RATE	
		BYTE 3	0 – 8	SLOTS (0=Empty Rack)	
		BYTE 4	0 – FF	SLOTS (Bit 0=Slot 0, Bit 1 = Slot 1, etc.)	
		BYTE 5/6	BITS 15 – 8 BITS 7 – 0	# Inputs # Outputs	
3	102	CONFIG DATA	8 BYTES	Configuration Data with the module ID for each occupied slot. 0FFH=Unoccupied	GET
			BYTE 1	Module ID in Slot 0	
			BYTE 2	Module ID in Slot 1	
			BYTE 3	Module ID in Slot 2	
			BYTE 4	Module ID in Slot 3	
			BYTE 5	Module ID in Slot 4	
			BYTE 6	Module ID in Slot 5	
			BYTE 7	Module ID in Slot 6	
		BYTE 8	Module ID in Slot 7		
3	103	PRODUCED DATA	0-0FFFFH	4 Channels (8 bytes) of analog inputs (First 4 of last 8 analog inuts in base)	GET
3	104	PRODUCED DATA	0-0FFFFH	4 Channels (8 bytes) of analog inputs (Second 4 of last 8 analog inuts in base)	GET
3	105	PRODUCED DATA	0-0FFFFH	4 Channels (8 bytes) of RTD/THM Inputs	GET

CLASS = 5

ATTR	INSTANCE 1=EXPLICIT 2=POLLING	ITEM	VALUE	DESCRIPTION	SERVICE
1	1/2	CNXN ATTR State	X	0=None, 1=Configuring, 2=Waiting, 3=Connected, 4=Timed out T	GET
2	1/2	Connect Type	X	0=Explicit 1=I/O	GET
3	1/2	Connect Trigger	X	83H = Explicit 82h = I/O	GET
4	1/2	Connect Produced	X	Connection ID that will produce...FFFF if no production	GET
5	1/2	Cconnect Consumed	X	Connection ID that will consume...FFFF if no production	GET
6	1/2	Connect COMM ID	021h	MSG Group2 Consuming MSG Group1 Producing	GET
7	1/2	Produced Connection Size	X	# Bytes data in polled connection # Bytes data + header in Explicit connection	GET
8	1/2	Consumed Connection Size		# Bytes data out polled connection # Bytes data + header out Explicit connection	GET
9 (see note)	1/2	Connect Expected Packet Rate	X	Number in milliseconds	GET
0C	1/2	Connect WD Timeout	0	Watchdog time out action reset device	GET
0D	1/2	Connect Path Length	X	0 for Explicit 6 for I/O	GET
0E	1/2	Connect Path ATTR ID	0/STRING	0 for Explicit 6 bytes for I/O	GET
0F	1/2	Connect Consumed Path Length	X	0 for Explicit 6 for I/O	GET
10	1/2	Connect Consumed ATTR ID	0/STRING	0 for Explicit 6 bytes for I/O	GET
11	1/2	PROD Inhibit	X		GET
—	1/2	Reset		Start Inactivity	RESET

Note: The F2-DEVNETS-1 has a interval timer that can be set to timeout after a selectable number of milliseconds. If there is no activity during the selected time value, the connection will release. **When this timer is set to zero the connection will not timeout.**

Since the operation depends on the controlling actions of a Master CPU existing externally on the network, the connection should never be allowed to timeout. To keep the connection open, set the Expected Packet Rate (EPR) value for the connection to zero.

All outputs will turn off when the connection is released. This will occur when an EPR value counts down to zero or when the master releases the connection. This is a fixed condition and cannot be modified.