

The Assembly Qualifiers that have Device Net capabilities are equipped with a DN-400 board from Huron Networks. The addition of this board allows the Qualifier to present information about Cycle Accepts, Batch Accepts, and Rejects via Device Net. Parameter selections and resets may also be issued via the network connection.

Configuration:

The Device Net enhanced Qualifiers ship with their address set to 63 and their data rate set to 125Kbaud. Both of the features may be reconfigured by changing dip-switch settings on the DN-400 board inside the Qualifier box.

The first two dip-switches define the data rate and are labeled DR on the DN-400 board. The data rate settings are as follows:

DIP1	DIP2	DATA RATE
OFF	OFF	125 K baud
OFF	ON	250 K baud
ON	OFF	500 K baud
ON	ON	Network Defined

If the data-rate is set to Network Defined both the data rate and the address will be definable by the network and the default settings will be 125Kbaud and address 63.

The remaining dip-switches are used to set the unit's address (as long as the Data Rate is NOT set to Network Defined). Dip-Switch 3 is the most significant bit in the address and dip-switch 8 is the least significant bit. If dip-switch 3 through 8 are all set to off, the address will be 0. If only dip-switch 8 is on the address is 1. This binary trend remains true all the way up until all the address dip-switches are on (3-8) making the unit's address 63.

The second dip-switch on the board only has one switch on it. If this switch is turned on, a termination resistor is switched into place. Units are shipped with the termination resistor in the OFF position.

Inputs:

Four separate inputs into the Qualifier may be accessed over the Network. There is only one input byte accessible via Device Net. That input byte is defined as follows:

BIT	FUNCTION
7	UNUSED
6	UNUSED
5	UNUSED
4	UNUSED
3	Parameter D
2	Parameter C
1	Parameter B
0	Batch Reset

The upper nibble of the input byte is unused. If a 0x01 (Hex) is issued, a Batch Reset will be performed. This bit should not be left high. The Batch Reset should be asserted and then released in order to perform a reset.

The default parameter is A. If a 0x02 is issued, parameter B will be selected. Likewise if a 0x08 is issued, parameter D will be selected. Only 1 parameter bit should be set at a time.

Outputs:

One byte is available to be read from the Qualifier via the network. That output byte is defined as follows:

BIT	FUNCTION
7	PS2 (Always 0)
6	PS1 (Always 1)
5	UNUSED
4	UNUSED
3	CYCLE ACCEPT
2	BATCH ACCEPT
1	REJECT
0	UNUSED

If the Qualifier has no status, a 0x40 (Hex) will be read from this byte. If a Reject occurs a 0x42 will be present. A Cycle Accept will be read as 0x48, and if both a Cycle Accept and a Batch Accept are present, a 0x4C will be presented.

Connector:

The Device Net connector on the side of the Qualifier is wired as follows:

PIN	FUNCTION
1	SHIELD
2	V+
3	V-
4	CAN_H
5	CAN_L

Device Net Color Code:

The Device Net cable color code is as follows:

COLOR	FUNCTION
Red	V+
White	CAN_H
Bare	SHIELD
Blue	CAN_L
Black	V-