

DeviceNet™ Device Level Network Master Module

The DeviceNet master module allows the Q Series to control systems that require integration of third party DeviceNet products. The QJ71DN91 module is configured by use of the GX Configurator-DN plug-in for GX Developer or GX Configurator2-DN in GX Works2. Note that this module is also capable of functioning as a DeviceNet slave if required.

| | | | | | | | | | | | |
|--|--|-------------------------------------|-----------------------------------|---|------------------------------|----------------------------|--------------------------------------|----------------|-----------------|----------------|-----------------|
| Model Number | | | | QJ71DN91 | | | | | | | |
| Stocked Item | | | | S | | | | | | | |
| Certification | | | | UL • cUL • CE | | | | | | | |
| Node Type | | | | DeviceNet master (Group 2 only client) | | | | | | | |
| Node Number Which Can be Set | | | | 0 to 63 | | | | | | | |
| Functioning as Master | Number of Connections that Can be Created | Message Connection | | 63 | | | | | | | |
| | | I/O Connection | | 63 (polling, bit strobe, change of state, cyclic) | | | | | | | |
| | Amount of Communication Data | I/O Communication | Send | Max. 4096 points (512 bytes), max. 256 bytes per 1 node | | | | | | | |
| | | | Receive | Max. 4096 points (512 bytes), max. 256 bytes per 1 node | | | | | | | |
| | | Message Communication | Send | Max. 240 bytes | | | | | | | |
| | | | Receive | Max. 240 bytes | | | | | | | |
| Functioning as Slave | Node Type | | DeviceNet slaves (Group 2 server) | | | | | | | | |
| | Setting Possible Node Number | | 0 to 63 | | | | | | | | |
| | Number of Connections that Can be Created | I/O Connection | | 1 (polling) | | | | | | | |
| | | Amount of Communication Data | I/O Communication | Send | Max. 1024 points (128 bytes) | | | | | | |
| | Receive | | | Max. 1024 points (128 bytes) | | | | | | | |
| Transmission Speed | | | | One speed can be selected from 125, 250 and 500kbit/s | | | | | | | |
| Maximum Cable Length (*1) | | | | Maximum Transmitting Distance of Trunk Line | | Length of Drop Line | | | | | |
| | | | | Communications Speed | Thick Cables | Thin Cables | Thick and Thin Cables Coexist | Maximum | Total | | |
| | | | | | | | | 125kbaud | 500m (1640 ft.) | 100m (328 ft.) | See table below |
| | | | | | 250kbaud | 250m (820 ft.) | | 78m (256 ft.) | | | |
| 500kbaud | 100m (328 ft.) | 39m (128 ft.) | | | | | | | | | |
| Current Consumption Required on the Network (A) | | | | 0.03 | | | | | | | |
| I/O Device Points Occupied | | | | 32 points | | | | | | | |
| 5VDC Internal Current Consumption (A) | | | | 0.17 | | | | | | | |
| Weight (kg) | | | | 0.11 | | | | | | | |
| Base Unit Slots Occupied | | | | 1 | | | | | | | |

Note 1: The maximum cable length complies with that in the DeviceNet specification (release 2.0) volumes 1 and 2.

Combined Distance of Thick and Thin Cables

| Transmission Speed | Max. Combined Distance of Thick and Thin Cables |
|--------------------|---|
| 125kbaud | Thick cable length + 5 x Thin cable length ≤ 500m (1640 ft.) |
| 250kbaud | Thick cable length + 2.5 x Thin cable length ≤ 250m (820 ft.) |
| 500kbaud | Thick cable length + Thin cable length ≤ 100m (328 ft.) |