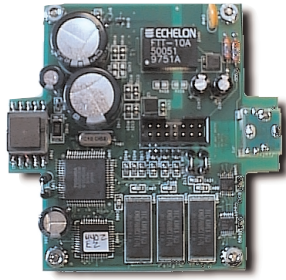


## DM-20 Device Manager Model 43201



### DM-20 Module

The DM-20 Module permits a manufacturer or integrator to manage the operation and maintenance of a control network without an on-site PC. The DM-20 is ideal for networks with 128 or fewer devices in which automatic, highly reliable network management is required and it is impractical use a PC for this purpose. Typical applications include machine tools, printing presses, water treatment systems, light rail vehicles, rail cars and propulsion systems, wayside control networks, airplanes, elevators, power substation systems, semiconductor manufacturing equipment, intelligent highway systems, and robotics equipment.

Resident within the DM-20 module is a powerful, configurable application program. The program includes a variety of function blocks that are configured by the LonMaker integration tool using a Software Plug-In. The LonMaker tool links together the function blocks of the DM-20, LonPoint™ modules, and 3rd party LONWORKS devices, to create an interoperable, distributed control system.

Network design and configuration is simplified by the Visio® interface of LonMaker Integration Tool, which can both import and export AutoCAD® files and generate as-built documentation.

After defining the control system using the LonMaker integration tool, the configuration information is loaded into the DM-20 module's flash memory. The configuration information loaded into the DM-20 module gives the module an overview of how a fully configured, properly operating control network should function. The DM-20 module then takes over management of the control network - automatically detecting the presence of new devices on the network, identifying, logging, and reporting faults, and replacing failed devices.

The DM-20 is designed to work in single channel and dual channel network topologies. The single channel mode supports a single TP/FT-10 channel and no routers.

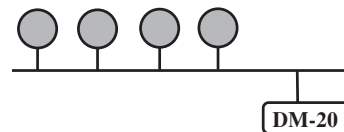
The dual channel mode supports a single router with a TP/FT-10 channel on the DM-20 side of the router and any LONWORKS channel on the other side of the router.

- ▼ Provides automatic installation, fault detection, and device replacement of a LONWORKS® network with up to 128 devices and one router
- ▼ DM-20 runs by itself without a local PC after being loaded from the LonMaker® Integration Tool
- ▼ Up to 16 databases can be loaded into a single DM-20. Runtime database selection allows the same unit to be used with multiple networks
- ▼ Network access from front panel jack
- ▼ Network database stored in FLASH – no batteries required
- ▼ Two-piece design cuts installation time, cost
- ▼ U.L Listed, CE Mark, FCC

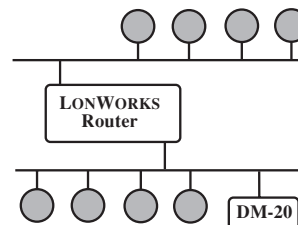
Additionally, it is possible to use multiple DM-20s on a single network when the number of devices or channels exceeds what can be handled by a single DM-20.

By continually polling the devices, the DM-20 module is able to verify their presence and health. New or replacement devices discovered in the course of polling are automatically installed by the DM-20 (both network variable and explicit message connections may be defined). If a device does not respond when polled, the DM-20 records the failure in an internal log and, optionally, updates an output network variable to annunciate the failure over the network.

The DM-20 module is supplied as a printed circuit card equipped with a 2 x 7 pin shrouded connector and four mounting holes for use with stand-offs.



Single channel mode supporting a single TP/FT-10 channel and no routers



Dual channel mode supporting a single router with a TP/FT-10 channel on the DM-20 side of the router and any LONWORKS channel on the other side of the router.

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## Specifications

Function	Description
Processor/memory	Neuron <sup>®</sup> 3150 <sup>®</sup> Chip, 10MHz, 1M flash memory
Method of identifying devices	Automatic detection of devices on the application domain, automatic detection of unconfigured devices. Devices identified by location string and program ID
Service function	Service switch, service LED
Health status	LED indicator
I/O connector	2 x 7 pin, 100mil pitch shrouded male header. Motherboard mating connector Samtec SSW-107-01-S-D-LL 2 x 7 socket strip
Transceiver type	FTT-10A with blocking capacitors for compatibility with link power channel
Input power	+5VDC ±5% @ 65mA
Temperature	-40 to +85°C, operating and non-operating
Humidity	10 to 95% RH @ 50°C
Input power	16-30VAC or DC @ 2.4VA, internally isolated power supply
Power connector	4 screw terminals, non-removable, wire clamp style, supports 12-24AWG (2 to 0.5mm) wire, daisy-chaining
Mounting	Type 1 Base Plate or Type 1D DIN Base Plate
Temperature	-10 to +60°C, operating and non operating
Humidity	10 to 95% RH @ 50°C
EMI	FCC A, CE Mark
Safety agency	UL 916
Dimensions	3.56" x 3.56" x 0.87" (9.04cm x 9.04cm x 2.21cm)

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