MITSUBISHI ELECTRIC
Changes for the Better

DIAMOND CONTROLS

Data Sheet

DCM 9000 Controller

PRODUCT DEFINITION

The DCM 9000 is a compact, embedded IoT (Internet of Things) controller and server platform for connecting multiple and diverse devices and sub-systems. With internet connectivity and web-serving capability, the DCM 9000 controller provides integrated control, supervision, data logging, alarming, scheduling, and network management. It streams data and rich graphical displays to a standard web browser via an Ethernet or wireless LAN, or remotely over the internet.

The licensing model for the DCM 9000 controller is simplified and features standard drivers, along with optional IO and field bus expansion modules for ultimate flexibility and expandability. The DCM 9000 controller operates with Niagara 4, the latest version of the Niagara Framework®, for optimum performance. In larger facilities, multi-building applications and large-scale control system integrations, Niagara 4 Supervisors can be used with JACE controllers to aggregate information, including alarms, and historical and real-time data, to create a single, unified application.

HARDWARE SPECIFICATIONS

NXP iMX8M+ Quad Core CPU
2GB LPDDR4 RAM
Removable 8GB micro-SD card
Wi-Fi (Client or WAP) • Wi-Fi 5 (802.11ac) • 1x1 802.11 a/b/g/n/ac • Configurable radio (Off, WAP, or Client) • WPAPSK/WPA2PSK supported
USB type C connector • Debug port
(2) isolated RS-485 with selectable bias and termination
(2) 10/100/1000MB Ethernet ports
Secure boot
*Supply requirements: 24VAC rated at 24VA minimum, or 24VDC rated at 1A (24W) minimum
Runs Niagara 4: 4.13 and later
Real-time clock
Batteryless

**Niagara Enterprise Security requires four hours of standby power*

EXPANSION MODULE AND IO CONFIGURATIONS

MAXIMUM EXPANSION (MODULES SUPPORTED)

- NPB-8000-LON (4)
- NPB-8000-232 (4)
- NPB-8000-2X-485 (2)

MAXIMUM IO (MODULES SUPPORTED)*

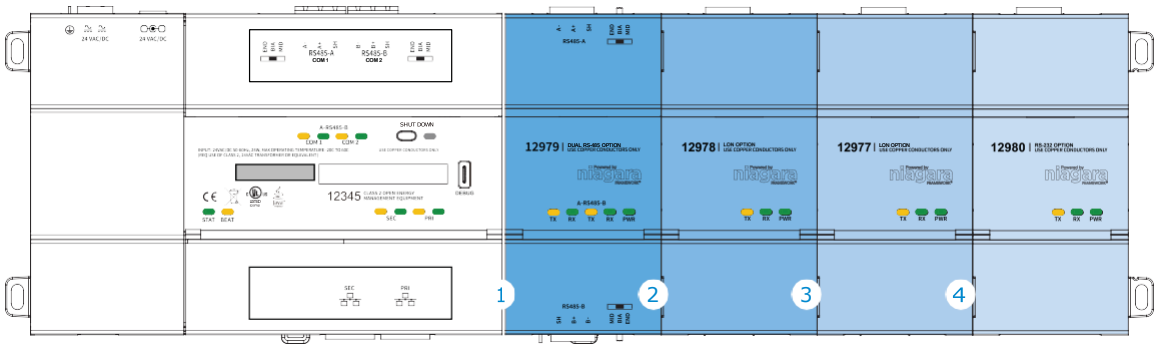
- IO-R-16 (16)*
- IO-R-34 (8)*

**See DCM IO R data sheet for configuration details*

MAXIMUM NIAGARA ENTERPRISE SECURITY (MODULES SUPPORTED)*

- T-SEC-R2R*
- T-SEC-RIO*

**16 total each or combined*



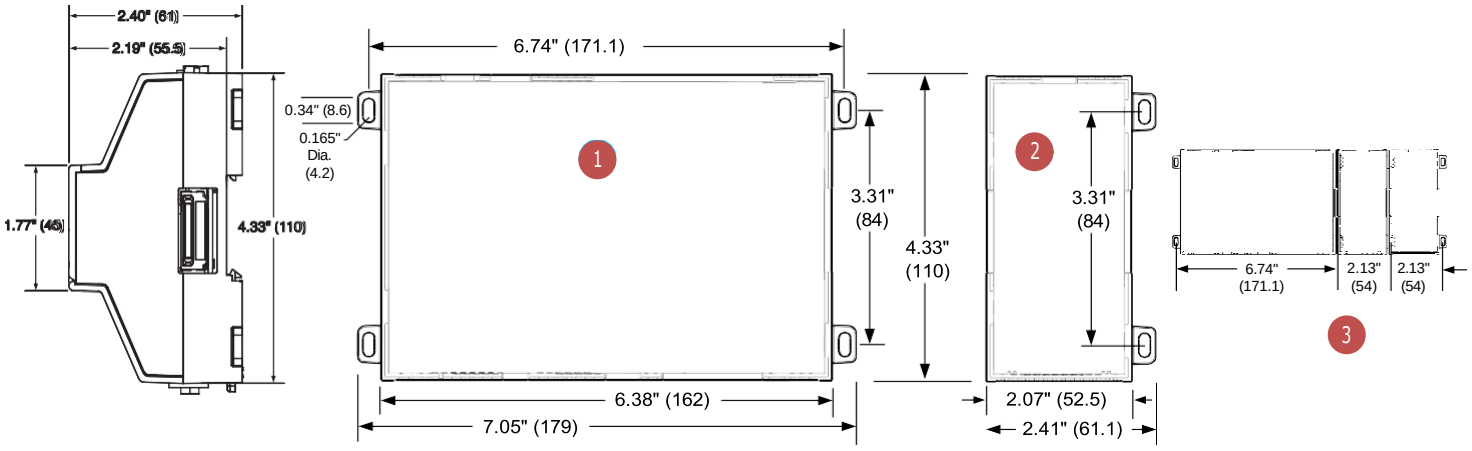
MAXIMUM COMBINATIONS

EXPANSION 1	EXPANSION 2	EXPANSION 3	EXPANSION 4
232 or LON	232 or LON	232 or LON	232 or LON
485 485	232 or LON	232 or LON	232 or LON
485 485	485 485	232 or LON	
485 485	485 485		

Expandability is dependent on the type of expansion module used

DCM 9000 CONTROLLER MOUNTING & DIMENSIONS

1. DCM 9000 controller. Allow at least 1.5" (38mm) clearance around all sides and minimum 3" (76mm) at bottom for optional Wi-Fi antenna
2. Expansion module. Up to four (4) may be used. See "Expansion Module and IO Configurations"
3. Distances between center of tabs from one unit to another unit



Compatible with (DIN43880) enclosures
Suitable for mounting to a panel or to an EN50022 standard 35mm rail

Vizio stencils available upon request

AGENCY CERTIFICATIONS

- UL 916
- CE EN 61326-1
- RCM
- FCC Part 15 Subpart B, Class B
- FCC Part 15 Subpart C
- C-UL listed to Canadian Standards Association (CSA) C22.2 No. 205-M1983 "Signal Equipment"
- 1999/5/EC R&TTE Directive
- CCC
- SRRC
- RSS
- RoHS

ENVIRONMENTAL SPECIFICATIONS

- **Operating temperature:** -20–60°C
- **Storage temperature:** -40–85°C
- **Humidity:** 5%–95% — Non condensing
- **Shipping & vibration:** ASTM D4169, Assurance Level II
- **MTTF:** 10 years+

DCM 9000 ORDERING INFORMATION

Part number	Description
DCM-9000	Base unit includes two isolated RS485 ports, two 10/100/1000MB Ethernet ports and Wi-Fi connectivity.
DCM-9000 Non-Wi-Fi	Identical in form and function to standard DCM 9000 model without the Wi-Fi module and peripherals.
DCM-9000-DEMO	Base unit includes two isolated RS485 ports, two 10/100/1000MB Ethernet ports, Wi-Fi connectivity, all available Tridium drivers and a 500 device license. Hardware Accessories purchased separately. Available with Niagara Analytics (non-production only).
DCM-9005	Base unit includes two isolated RS485 ports, two 10/100/1000MB Ethernet ports, Wi-Fi connectivity, all available Tridium drivers and Up to 5 devices/250 point core. Hardware Accessories purchased separately. Available with Niagara Analytics (non-production only).
DCM-9010	Base unit includes two isolated RS485 ports, two 10/100/1000MB Ethernet ports, Wi-Fi connectivity, all available Tridium drivers and Up to 10 devices/500 point core. Hardware Accessories purchased separately. Available with Niagara Analytics (non-production only).
DCM-9025	Base unit includes two isolated RS485 ports, two 10/100/1000MB Ethernet ports, Wi-Fi connectivity, all available Tridium drivers and Up to 25 devices/1250 point core. Hardware Accessories purchased separately. Available with Niagara Analytics (non-production only).
DCM-9100	Base unit includes two isolated RS485 ports, two 10/100/1000MB Ethernet ports, Wi-Fi connectivity, all available Tridium drivers and Up to 100 devices/5000 point core. Hardware Accessories purchased separately. Available with Niagara Analytics (non-production only).
DCM-9200	Base unit includes two isolated RS485 ports, two 10/100/1000MB Ethernet ports, Wi-Fi connectivity, all available Tridium drivers and Up to 200 devices/10000 point core. Hardware Accessories purchased separately. Available with Niagara Analytics (non-production only).
DEVICE-10	Up to 10 devices/500 point upgrade (can be purchased during initial licensing)
DEVICE-25	Up to 25 devices/1,250 point upgrade (can be purchased during initial licensing)
DEVICE-50	Up to 50 devices/2,500 point upgrade (can be purchased during initial licensing)
NPB-8000-2X-485	DCM 8000 & 9000 controllers — add on dual port RS-485 module
NPB-8000-LON	DCM 8000 & 9000 controllers — add on single port LON FTT10A module
NPB-8000-232	DCM 8000 & 9000 controllers — add on single port RS-232 module
WPM-8000	Universal power supply for DCM 8000 & 9000 controllers
IO-R-16	Optional 16 point IO RS485 module designed for use with the DCM 8000 & 9000 — Includes 8 Universal Inputs, 4 Form A Relay Outputs and 4 0-10 VDC Analog Outputs
IO-R-34	Optional 34 point IO RS485 module designed for use with the DCM 8000 & 9000 — Includes 16 Universal Inputs, 10 Form A Relay Outputs and 8 0-10 VDC Analog Outputs

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