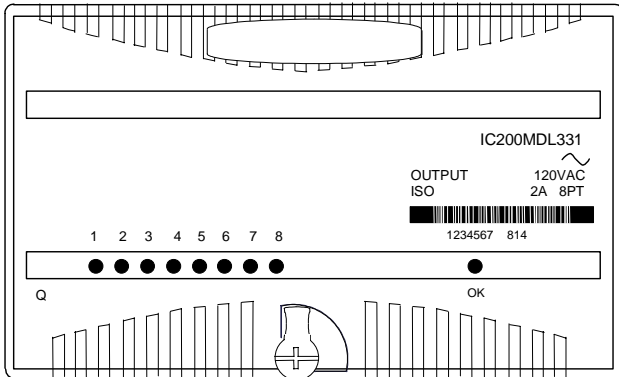


VersaMax 120VAC 2.0Amp Isolated Output Module, 8 Points

October 2008

GFK-2548

Discrete output module IC200MDL331 provides 8 isolated outputs.



An external 120 VAC power supply must be provided to switch power to the loads.

Intelligent processing for this module is performed by the CPU or NIU. The module receives 8 bits of discrete output data.

LED Indicators

Individual green LEDs indicate the on/off state of the output points. The output LEDs are logic-driven and independent of the load conditions.

The green OK LED is on when backplane power is present to the module.

Preinstallation Check

Carefully inspect all shipping containers for damage. If any equipment is damaged, notify the delivery service immediately. Save the damaged shipping container for inspection by the delivery service. After unpacking the equipment, record all serial numbers. Save the shipping containers and packing material in case it is necessary to transport or ship any part of the system.

Installation in Hazardous Locations

- EQUIPMENT LABELED WITH REFERENCE TO CLASS I, GROUPS A, B, C & D, DIV. 2 HAZARDOUS LOCATIONS IS SUITABLE FOR USE IN CLASS I, DIVISION 2, GROUPS A, B, C, D OR NON-HAZARDOUS LOCATIONS ONLY
- WARNING - EXPLOSION HAZARD - SUBSTITUTION OF COMPONENTS MAY IMPAIR SUITABILITY FOR CLASS I, DIVISION 2;
- WARNING - EXPLOSION HAZARD - WHEN IN HAZARDOUS LOCATIONS, TURN OFF POWER BEFORE REPLACING OR WIRING MODULES; AND
- WARNING - EXPLOSION HAZARD - DO NOT DISCONNECT EQUIPMENT UNLESS POWER HAS BEEN SWITCHED OFF OR THE AREA IS KNOWN TO BE NONHAZARDOUS.

Module Characteristics

Points	8 isolated inputs
Module ID	FFFF8840
Isolation:	User input to logic (optical) and frame ground: 250VAC continuous; 1500VAC for 1 minute Group to group: not applicable Point to point: 250VAC continuous; 1500VAC for 1 minute
LED indicators	One LED per point shows individual point on/off state OK LED indicates backplane power is present
Backplane current consumption	5V output: 85mA maximum
External power supply	85 to 132VAC (47 to 63Hz), 120VAC nominal
Thermal derating	See diagrams

Output Characteristics

Output voltage	85 to 132 VAC (47 to 63Hz), 120VAC nominal
Output voltage drop	2.0V maximum
Load current	10mA minimum per point 2.0A maximum per point 20A for one cycle (20ms) maximum inrush
Output leakage current	Less than 2mA at 132VAC
On response time	Less than ½ cycle
Off response time	Less than ½ cycle
Protection	Snubber and MOV (each output)
Diagnostics	None

Product Revision History

Rev	Date	Description
IC200MDL331H	October 2008	Updated Power Supply OK signal circuitry.
IC200MDL331G	April 2005	Improvement to latching mechanism
IC200MDL331F	April 2004	Changed to V0 plastic for module housing.
IC200MDL331E	January 2004	ATEX approval for Group 2 Category 3 applications.
IC200MDL331D	September 1999	Improved operation at high temperatures.
IC200MDL331A	March 1999	Initial product release.

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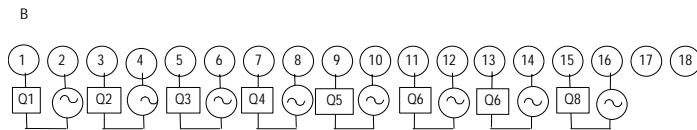
GFK-2548

Field Wiring Terminals

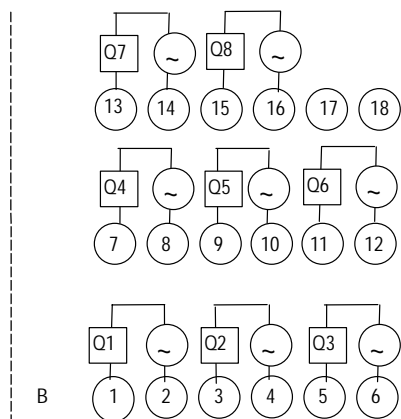
Terminal	Connection	Terminal	Connection
A1	No connection	B1	Output 1
A2	No connection	B2	Output 1 Ret
A3	No connection	B3	Output 2
A4	No connection	B4	Output 2 Ret
A5	No connection	B5	Output 3
A6	No connection	B6	Output 3 Ret
A7	No connection	B7	Output 4
A8	No connection	B8	Output 4 Ret
A9	No connection	B9	Output 5
A10	No connection	B10	Output 5 Ret
A11	No connection	B11	Output 6
A12	No connection	B12	Output 6 Ret
A13	No connection	B13	Output 7
A14	No connection	B14	Output 7 Ret
A15	No connection	B15	Output 8
A16	No connection	B16	Output 8 Ret
A17	No connection	B17	No connection
A18	No connection	B18	No connection

When wiring outputs to inductive loads, use of external suppression circuits is recommended. See chapter 2, "Installing Wiring for I/O Devices-Wiring to Inductive Loads" in the *VersaMax I/O System Manual*, GFK-1504, for more information.

Wiring Connections for Carriers with Two Rows of Terminals



Wiring Connections for Carriers with Three Rows of Terminals

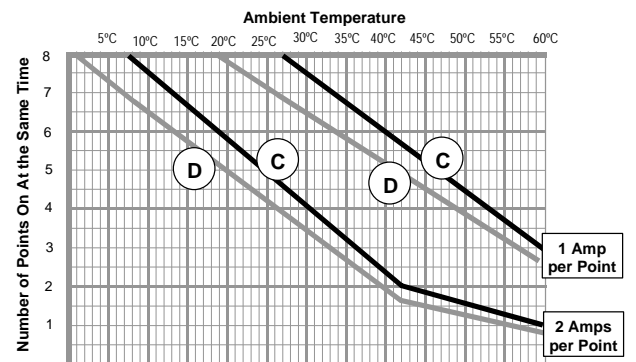
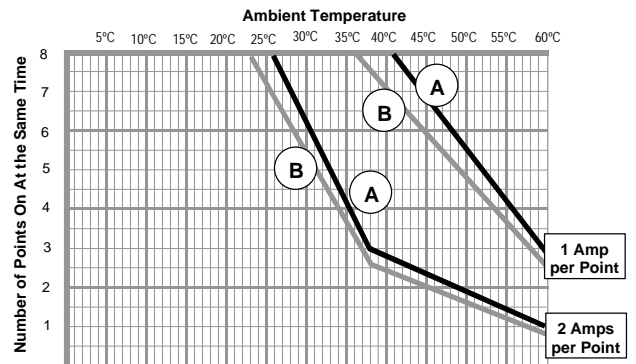
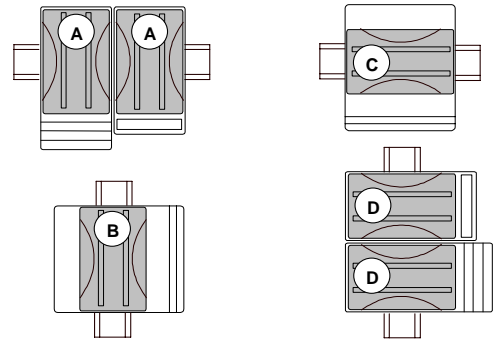


Operating Note

If hot insertion of a module is done improperly, the operation of other modules on the same backplane may be disrupted. See *Installing a Module on a Carrier* in the *VersaMax Modules Manual*, GFK-1504.

Thermal Derating

The number of points that can be on at the same time depends on the ambient temperature, the output current, and the orientation of the module and DIN rail. The charts below show thermal deratings for the module at 120VAC with the indicated output current per point.



Examples of Combining 2A and 0.5A Outputs

The examples below are for modules mounted on a horizontal DIN rail (orientations A and C above).

Temperature	Number of 2 Amp Points	and	Number of 0.5A Points
60deg C	1	+	0
50deg C	1	+	5
40deg C	2	+	2
40deg C	1	+	7