



**CE03-100-180.1**

**Release 180.1**

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### 2.5.5. Analog Outputs 0 to 20mA, 8 Channel (900B08-0202)

The Analog Output module provides eight 0 to 21.0 mA outputs that may be scaled by the user to any span within this range on a per output basis. Outputs are isolated in groups of 4 with no isolation between outputs in a group. All points are isolated from controller logic.

A green blinking status LED on the module indicates when the module is being scanned. A red status LED when module or channel diagnostics exist. A user specified failsafe value is supported to allow predictable operation in the event communication between the module and the controller is interrupted.

Outputs are updated synchronous with control execution. A user-specified rate of change limit may be applied to each output when needed by slew rate function block. Requires Euro style 36-terminal terminal block.

Item	Specification
Outputs per module	8, isolated in 2 groups of 4 outputs (1-4, 5-8)
Current	0 to 21.0 mA range selectable
Load resistance	750 ohms max
Galvanic Isolation	500VDC group to group. Groups 1-4, 5-8
Galvanic Isolation from logic	500 VDC
Accuracy	0.1% full scale at reference conditions
Modules per rack	5 max when powered from internal 24V backplane power
Minimum current sensing	> 0.5 mA per output
Calibration Data	Data is stored in non-volatile memory. Redundant Factory Calibration, with automatic rejection of Bad version.
Diagnostics	Monitoring of Factory Calibration, Configuration, and +24 VDC power supply.
Output Verification	Feedback to controller that indicates output current flowing.
D/A Resolution	13+ bits (1 part in 13332)
Fail Safe State configuration	Yes <ul style="list-style-type: none"> <li>• Hold Last Value</li> <li>• Failsafe Value</li> </ul>
User specified scan rate	It is supported by the slew rate function block. Slew Rate is the maximum rate of change required to drive the output from full OFF (0%-typically 0 mA or 4 mA) to full ON (100%-typically 20mA). The block will convert this to a maximum change of the milliamp output per execution cycle of this block.

A DIP switch on the module selects the use of 24V from Rack PS (internal) power or external loop power via a separate 24V DC power source. The as-shipped (default) switch setting is external power.

External Power Source requirements:

Item	Specification
Voltage	Vin: 18 to 36 Vdc
Current	350 mA Per module