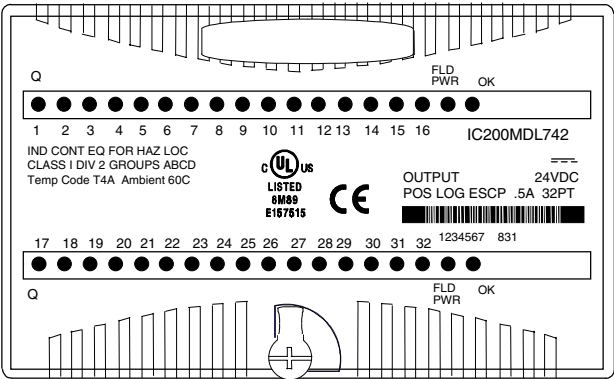


**IC200MDL742**

**Output Module, 24VDC Positive Logic 0.5 Amp, w/ESCP 32 Points**

Discrete output module IC200MDL742 provides two groups of 16 discrete outputs. Each point has electronic overcurrent protection and short circuit protection, and generates a fault if either condition exists. The outputs are positive or sourcing type outputs. They switch the loads to the positive side of the DC supply and thus supply current to the loads.



An external DC 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 32 bits of discrete output data.

**LED Indicators**

Individual green LEDs indicate the on/off state of the output points. The LEDs are dependent on field power, but independent of load conditions.

Individual amber LEDs indicate overload conditions on each output point.

The green FLD PWR LED is on when field power is applied to the module.

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

**Diagnostics**

The module reports the presence of any overloaded points to the system on a per-module basis. Amber LEDs indicate the overload conditions on a per-point basis. Once the overload condition is removed, normal operation is resumed.

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**Module Specifications**

<b>Module Characteristics</b>	
Points	2 groups of 16 outputs
Module ID	80808080
Isolation:	
User input to logic (optical) and to frame ground	250VAC continuous; 1500VAC for 1 minute
Group to group	250VAC continuous; 1500VAC for 1 minute
Point to point	None
LED indicators	One green LED per point shows individual point on/off state One amber LED per point shows individual point overloads FLD PWR LED indicates field power is present OK LED indicates backplane power is present
Backplane current consumption	5V output: 150mA maximum
External power supply	+18 to +30VDC, +24VDC nominal
Thermal derating	See diagram
<b>Output Characteristics</b>	
Output voltage	+18 to +30VDC, +24VDC nominal
Output voltage drop	0.5V maximum
Load current	0.5A at 30VDC maximum (resistive) 2.0A inrush maximum for 100ms
Steady-state overcurrent trip point	1.6A typ., 0.7A to 2.5A max range
Output leakage current	0.5mA at 30VDC maximum
On response time	0.5ms, maximum
Off response time	0.5ms, maximum
Protection (each output)	Short circuit protection, overcurrent protection, free-wheeling diodes

**External Power Supply Requirements**

The external power supply used to power the loads must provide sufficient field power for the module during short circuit events. When a load is shorted, an inadequate external power supply may allow field power to drop below the specified operating range, causing misoperation of the module. The external power supply must be capable of providing short circuit energy without degradation of output voltage levels. The amount of energy required depends on the number of simultaneously-short-circuited points that might occur. Refer to power supply short circuit operation specifications when selecting the power supply to be used with the loads.

Local energy storage (either batteries or capacitors) can be used to compensate for insufficient power supply characteristics. Additional best practices including minimizing wiring resistance from the external power supply to the module must be observed.

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**Thermal Derating**

The number of points that can be on at the same time depends on the ambient temperature, the external voltage, and the orientation of the module and DIN rail. The charts below show thermal deratings for the module at 24VDC and 30VDC with the maximum output current per point.

