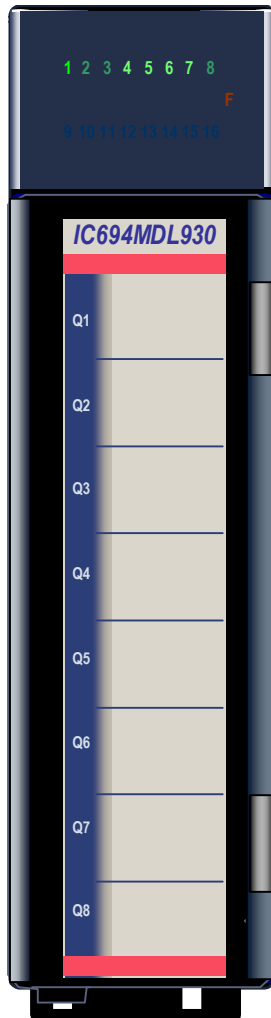


Output Module, Isolated Relay, N.O., 4 Amp, 8 Point: IC694MDL930



The **4 Amp Isolated Relay Output** module, IC694MDL930, provides eight normally–open relay circuits for controlling output loads. The output switching capacity of each circuit is 4 Amps. Each output point is isolated from the other points, and each point has a separate common power output terminal. The relay outputs can control a wide range of output devices, such as: motor starters, solenoids, and indicators. The user must supply the AC or DC power to operate the field devices connected to this module.

Individual numbered LEDs show the ON/OFF status of each output point. There are no fuses on this module. The red bands on the label show that MDL930 is a high-voltage module.

This module can be installed in any I/O slot in an RX3i system.

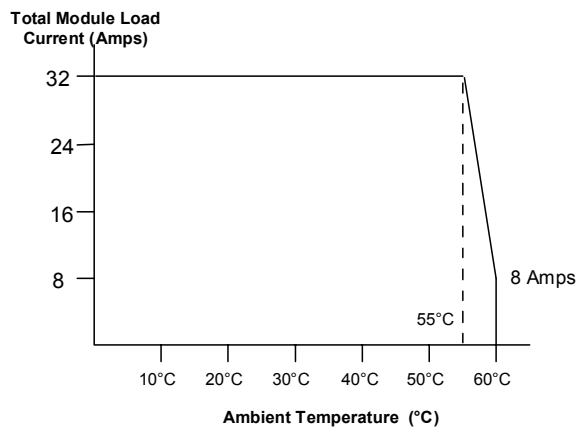
Specifications: MDL930

Rated Voltage	24 volts DC, 120/240 volts AC (nominal - see the following table for exceptions)
Operating Voltage	5 to 30 volts DC 5 to 250 volts AC, 50/60 Hz
Outputs per Module	8 isolated outputs
Isolation:	
Field to Backplane and to Frame Ground	250 VAC continuous; 1500 VAC for 1 minute
Point to Point	250 VAC continuous; 1500 VAC for 1 minute
Maximum Load	4 Amps resistive maximum per output 2 Amps pilot duty per output 20 Amps maximum per module for UL installations Maximum Load depends on the ambient temperature as shown below
Minimum Load	10mA
Maximum Inrush	5 Amps
On Response Time	15ms maximum*
Off Response Time	15ms maximum*
Power Consumption	6mA (all outputs on) from 5 volt bus on backplane 70mA (all outputs on) from relay 24V bus on backplane

Refer to Appendix A for product standards and general specifications.

* When this module is used with DC power supply IC695PSD040 or PSD140, special precautions should be taken because dropouts in the source voltage will be seen by this module and may cause relay dropouts.

Load Current vs. Temperature



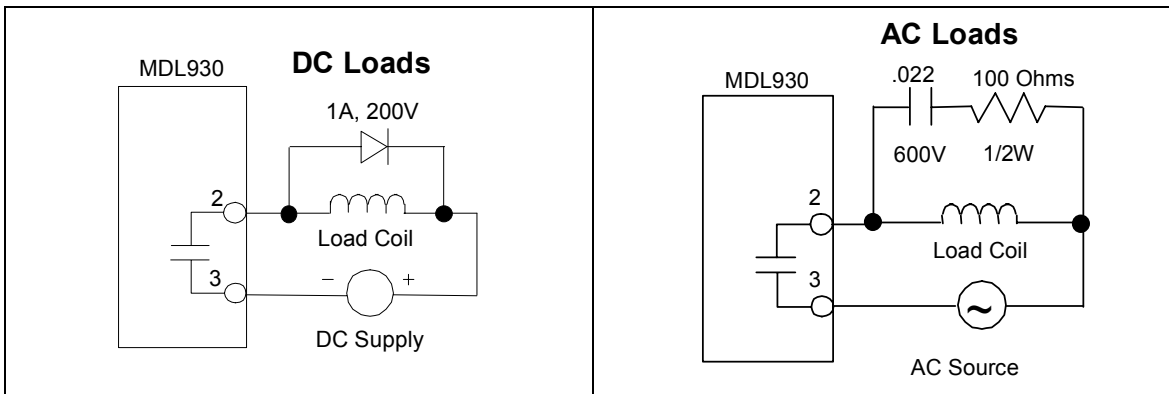
Load Current Limitations

Operating Voltage	Maximum Current for Load Type		Typical Contact Life (Number of Operations)
	Resistive	Lamp or Solenoid *	
24 to 120 VAC	4 Amps	2 Amps	150,000
24 to 120 VAC	1 Amp	0.5 Amp	500,000
24 to 120 VAC	0.1 Amp	0.05 Amp	1,000,000
240 VAC	4 Amps	2 Amps	50,000
240 VAC	0.1 Amp	0.05 Amp	500,000
240 VAC	1 Amp	0.5 Amp	200,000
24 VDC	–	3 Amps	50,000
24 VDC	4 Amps	2 Amps	100,000
24 VDC	1 Amp	0.5 Amp	500,000
24 VDC	0.1 Amp	0.05 Amp	1,000,000
125 VDC	0.2 Amp	0.1 Amp	300,000

* Assumes a 7ms time constant

Relay contact life, when switching inductive loads, will approach resistive load contact life if suppression circuits are used. Examples of typical suppression circuits for AC and DC loads are shown below. The 1A, 200V diode shown in the DC load typical suppression example is an industry standard 1N4935. The resistor and capacitor shown for AC load suppression are standard components, available from most electronics distributors.

Load Suppression Examples for Output Module IC694MDL930



Field Wiring: MDL930

Terminal	Connection
1	No connection
2	Output 1-1
3	Output 1-2
4	Output 2-1
5	Output 2-2
6	Output 3-1
7	Output 3-2
8	Output 4-1
9	Output 4-2
10	No connection
11	No connection
12	Output 5-1
13	Output 5-2
14	Output 6-1
15	Output 6-2
16	Output 7-1
17	Output 7-2
18	Output 8-1
19	Output 8-2
20	No connection

Module Circuits Terminals Field Wiring

