Type	Slots Used	Description	Part Number	Documentation
Discrete Output	Double	120 VAC, 0.5A, 32pt Version E or higher	IC697MDL350	GFK-0600 GFK-0262
		120 VAC, 2.0A, 16pt Version E or higher	IC697MDL340	
		120/240 VAC, 2.0A, Isolated 12pt Version B or higher	IC697MDL341	
		5/48 VDC, 0.5A, Neg logic, 32pt Version A or higher	IC697MDL753	
		12 VDC, 0.5A, 32pt Version E or higher	IC697MDL752	
		24/48 VDC, 0.5A, 32pt Version G or higher	IC697MDL750	
		24/48 VDC, 2.0A, 16pt Version D or higher	IC697MDL740	
		Relay output, 16pt Version B or higher	IC697MDL940	
	Single	Relay Output, 64 Point	IC697VDR151	GFK-2063
		Digital Output, 64 Point	IC697VDQ120	GFK-2066
Analog Input	Double	Analog Input SBS3* and version A or higher when installed in the main rack. Version A or higher when installed in an expansion rack. Firmware version 1.6 or higher.	IC697ALG230	GFK-0600 GFK-0385
	Double	Analog Current Input, 16 Channel Version B or higher	IC697ALG440	GFK-0600 GFK-0262
		Analog Voltage Input, 16 Channel Version B or higher	IC697ALG441	
	Single	Analog Input, 64 Channel, 16 Bit Standard Performance	IC697VAL264	GFK-2056
		Analog Input, Isolated, 16bit, 16 Channel, Voltage	IC697VAL132	GFK-2060
		8 Channel RTD/Strain Gauge	IC697VRD008	GFK-2098
Analog Output	Double	Analog Voltage/Current Output, 4Channel SBS3* and version E or higher when installed in the main rack. Version C or higher when installed in an expansion rack. Firmware version 1.4 or higher.	IC697ALG320	GFK-0600 GFK-0262
	Single	Analog Output, 32 Channel, 12 Bit	IC697VAL301	GFK-2058

Universal Terminal Boards

Series 90-70 I/O modules have detachable field wiring terminal boards. This convenient feature makes it easy to prewire field wiring to the user supplied input and output devices, and to replace modules in the field without disturbing existing field wiring. The I/O connector terminals accept up to one AWG #14 (2.1 mm^2) wire or two AWG #16 (1.3 mm^2) wires. Wires are routed out of the bottom of the terminal board cavity. A terminal board strap attached to the bottom front of each I/O terminal board is used to securely fasten the terminal board to the rack. For field wiring procedures, refer to GFK-0262.

Mechanical Keying

Some double-width Series 90-70 I/O modules are mechanically interlocked by means of a key block to prevent the accidental interchange of one module type for another. For example, a DC Output module cannot be inserted into a slot where the terminal board has been wired for an AC Input module. A unique key is provided with each module. When a module is initially installed in a rack, the key block automatically latches onto the center rail on the backplane, where it remains when a module is removed. Only the correct module type can be inserted into that slot.

Installing Insulating Strips for Series 90-70 Modules

An insulator strip is required on certain Series 90-70 modules that are installed to the immediate right of an RX7i module. The insulator strip prevents module from short-circuiting to the metal faceplates of an adjacent VME module.

Note: Current versions of these modules are shipped with the insulators installed. The strip is visible on the back of the printed wiring assembly.

High Voltage Series 90-70 Modules

Insulating strips should be installed on the following modules:

	Versions earlier than
IC697MDL240	D
IC697MDL241	D
IC697MDL250	G
IC697MDL251	E
IC697MDL640	E
IC697MDL340	G
IC697MDL341	E
IC697MDL350	F

The RX7i rack is shipped with an Insulator Kit that includes enough parts to update three Series 90-70 I/O modules.

The plastic insulating strip is installed on the back of the printed wiring assembly, along the edge of the I/O connector to prevent the possibility of high voltage I/O cards short-circuiting to the metal faceplates of VME cards. (Follow the installation instructions included with the kit). Use part number 44A752213-G01 to order additional kits as needed.

Module Load Requirements

The following table lists the DC load (in Amps) required by each module. The total load of all modules in a rack must not exceed the maximum capacity of the power supply in the rack in which the modules are installed. For power supply load capacities, see page 4-1.

Module Load Requirements (in Amps)				
Catalog Number	***Module***	***+5 VDC***	***+12 VDC***	***-12 VDC***
IC698CPE010	300Mhz CPU, Celeron	3.2	0.042	0.008
IC698CPE020/CRE020	700Mhz CPU, Pentium	4.5	0.042	0.008
IC698CPE030/RE030	600MHz CPU, Pentium-M	3.2	0.003	0.003
IC698CPE040/CRE040	1800MHz CPU, Pentium-M	6.8	0.003	0.003
IC698ETM001	Rack-based Ethernet module	1.5	—	—
IC698CHS017	Rear mount rack	0.7	—	—
IC698CHS117	Front mount rack	0.7	—	—
IC698CMX016	Communications Memory Xchange	1.8	—	—
IC698RMX016	Redundancy Memory Xchange	1.8	—	—
IC697BEM713	Bus Transmitter Module (BTM)	1.4	—	—
IC697BEM711	Bus Receiver Module (BRM)	0.8	—	—
IC697BEM731	Genius Bus Controller, double-width	1.3	—	—
IC687BEM731	Genius Bus Controller, single-width	1.3	—	—
IC697BEM763	DLAN/DLAN+ Interface Module	1.0	—	—
IC697CMM711	Communications Coprocessor	0.7	—	—
IC697HSC700	High Speed Counter: Listed current + 10mA x number of ON outputs) + (1.6 x encoder current).	1.0	—	—
IC697MDL240	120 VAC Isolated, Input, 16 points	0.25	—	—
IC697MDL241	240 VAC Isolated, Input, 16 points	0.25	—	—
IC697MDL250	120 VAC Input, 32 points	0.35	—	—
IC697MDL251	120 VAC Input, 16 points	0.35	—	—
IC697MDL252	12 VAC Input, 32 points	0.3	—	—
IC697MDL253	24 VAC Input, 32 points	0.3	—	—
IC697MDL254	48 VAC Input, 32 points	0.3	—	—
IC697MDL340	120 VAC Output, 16 point	0.25	—	—
IC697MDL341	120/240 VAC Isolated 2A Output, 16 points	0.25	—	—
IC697MDL350	120 VAC Output, 32 point	0.5	—	—
IC697MDL640	125 VDC Pos/Neg Logic Input, 16 points	0.3	—	—
IC697MDL650	24 VDC Pos Logic Input, 32 points	0.3	—	—
IC697MDL651	Negative Logic, TTL, Input, 32 points	0.53	—	—
IC697MDL652	12 VDC Pos/Neg Logic Input, 32 points	0.3	—	—
IC697MDL653	24 VDC Pos/Neg Logic Input, 32 points	0.3	—	—
IC697MDL654	48 VDC Pos/Neg Logic Input, 32 points	0.3	—	—
IC697MDL671	Interrupt Input Module, 16 points (14 Interrupt)	0.3	—	—
IC697MDL740	24/48 VDC Output, 16 point	0.25	—	—
IC697MDL940	16 Point Output, Relay	0.75	—	—
IC697PCM711	Programmable Coprocessor	1.00	—	—