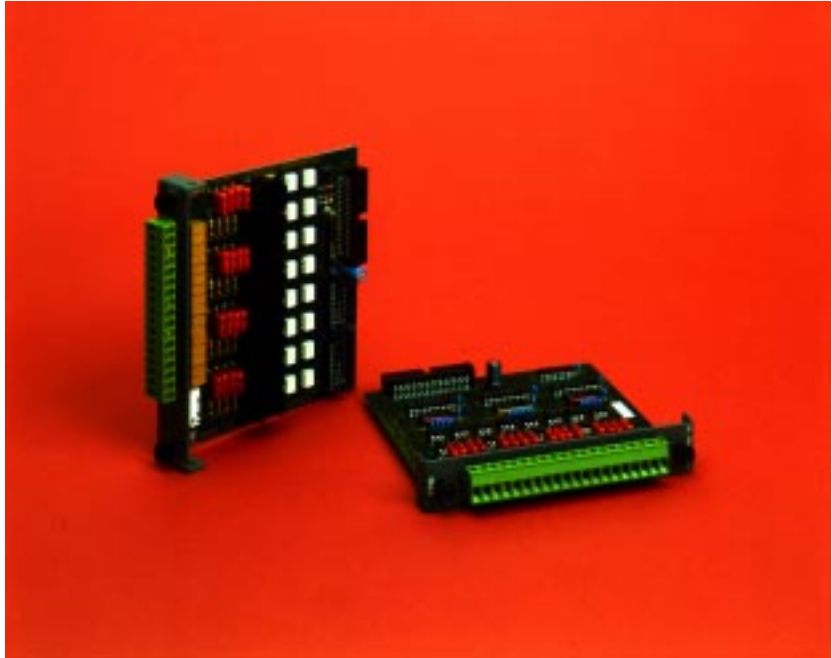


Model 2210, 2211 A.C. Input and Output Modules

High-Density I/O Modules for 120 VAC Applications



These modules allow interfacing to a variety of A.C. input and output devices commonly used in automation applications where 120 VAC is the preferred control voltage. They allow a high density of I/O to be accommodated, even in a small controller, due to their 16-channel configuration. Modules described in this data sheet include:

- Model 2210: 16 channel A.C. Input Module
- Model 2211: 16 channel A.C. Output Module

The Model 2210

The sixteen inputs of the model 2210 Input Module are activated by switching them to A.C. "hot". The resultant current flow (4.5 mA typical) has been carefully tailored for successful application with a wide range of solid state sensors and mechanical switches. The inputs are arranged in groups of four, with a separate common for each group – commons are typically connected to A.C. "neutral".

Connections to the model 2210 are made via a screw terminal strip, which may be detached from the module as a single unit. This facilitates complete disconnection of all external wiring from the module. Individual LED status indicators are also provided for each input, simplifying setup and troubleshooting.

The Model 2211

The model 2211 provides 16 A.C. outputs, each fused at 1 amp and recommended for average currents up to 0.75 amp. Built-in snubbers allow these solid state outputs to be used with inductive loads, such as solenoids, small motors and motor starters. "Zero-cross" triggering is used for each output, resulting in greatly reduced noise generation and greater protection for the modules output devices.

As with the model 2210, connections are made to a detachable terminal strip, and individual LED indicators are provided. A single A.C. hot connection serves all 16 outputs.



The models 2210 and 2211 may be used in any Control Tech. controller with a type 2200 bus.

For More Information

Further detailed connection and application information may be found in Control Tech. publications IG2210 and IG2211; these are the Installation Guides for the two module types.

Selection and applications assistance may be obtained from our staff of Systems Specialists – call the number below for further information.

Control Technology Corporation

25 South Street
Hopkinton, MA 01748

Telephone (508) 435-9595
Toll Free (800) 282-5008
Facsimile (508) 435-2373
email help@control.com

See us on the World Wide Web:
<http://www.control.com/>

Absolute Maximum Ratings

	Min	Max	
Model 2210			
Applied Input Voltage		135.0	VAC
Model 2211			
Voltage Applied to Common Terminal		135.0	VAC
Output Current - Single output		0.75	Amp A.C.
Total module limit		10.0	Amps A.C.
Ambient Temperature	0	50	°C

Specifications - Model 2210

	Min	Typ	Max	
Input threshold voltage		58.0	70.0	VAC
Input "on" current (Vi = 120 VAC)	2.0	4.5	5.5	mA A.C.

Specifications - Model 2211

Output "on" voltage drop	1.6	2.2	VAC
Output "off" leakage current (Vo = 0 VAC)	4.7	5.7	mA AC

Power Requirements (from controller) - Note 1

Model 2210			
Logic Supply (5 V)	10	50	mA
Auxiliary Supply (24 V)		0	mA
Model 2211			
Logic Supply (5 V)	60	230	mA
Auxiliary Supply (24 V)		0	mA

Notes:

1. All Power Requirements are worst-case, with all inputs and/or outputs activated.
2. Specifications shown above are at 25° C., unless otherwise noted.