

8000 RIO-244

The 8000 RIO-244 analog input/output module is a revolutionary development for SY/MAX® series processors. Designed to operate as a single-slot register module with SY/MAX Model 300 through 700 processors, the module can significantly reduce slot requirements for systems requiring analog I/O.

The 8000 RIO-244 combines four auto-calibrated analog input and output channels into one standard-size SY/MAX register module. Isolation of input, output, and digital circuitry is provided by onboard electronics. Each channel provides independent selection of signal type, with over- and under-range protection and detection standard.

The 8000 RIO-244's input section provides four high-level channels that accept single-ended analog signals of 4-20 mA, 0-5 VDC, 0-10 VDC, ± 5 VDC, or ± 10 VDC. Each channel uses separate voltage and current input terminals and may be individually configured for any of the specified input ranges.

The 8000 RIO-244's output section provides four high-level channels that can generate analog signals of 4-20 mA, 0-5 VDC, 0-10 VDC, ± 5 VDC, or ± 10 VDC. Each channel uses separate voltage and current output terminals and may be individually configured for any of the specified output ranges.

Located on the front of the module are two removable terminal strips which support the module's input and output sections, respectively. These terminals allow quick replacement of the module in the field.



BENEFITS

- 4 input / 4 output points per module
- SY/MAX Model 300 through 700 processor compatibility
- Auto-calibrates for simple, reliable installation and maintenance
- User-configurable for flexible application
- Input electrically isolated from logic circuitry
- Compatible as local or remote I/O
- Removable field termination strips

RIO-244

ELECTRICAL SPECIFICATIONS

Inputs per Module	4
Outputs Per Module	4
Ranges	0-5 VDC, 1-5 VDC, 0-10 VDC, +/-5 VDC, +/-10 VDC & 4-20 mA
Resolution	Input: 13.5 bits (1 in 10,000) Output: 12.5 bits (1 in 10,000)
Accuracy	+/-0.05% @ 25°C +/-0.25% over 0-60°C range
Conversion Rate Input (all channels)	<50 ms (typ) <100 ms (worst case)
Output (all channels)	<25 ms
Calibration	Automatic
Input Impedance	250 ohms (current) 10 ¹² ohms (voltage)
Output Drive	10 mA (voltage) 20 mA (current into 600 ohms)
Isolation	1000 V channel to ground 500 V input to output channel 1500 V transient
Output Options	
Hold (CPU in halt): last value while in run	
Reset (CPU in halt): set to minimum value	
Preset (CPU in halt): set to preset value	
Output Protection	
Voltage mode: short circuit protection	
Current mode: open circuit protection	
Run Light	Indicates all digital and analog circuitry is functioning properly
Rack Compatibility	RRK-100, RRK-200, RRK-300, HRK-100, HRK-150, HRK-200, CRK-110, CRK-210, CRK-300, DRK-110, DRK-210, DRK-300, GRK-110, GRK-210, GRK-300
Power Requirements	1000 mA from SY/MAX family power supply

PHYSICAL SPECIFICATIONS

Weight	2.8 lb, 1.3 kg
Dimensions (HxWxD)	1.5 x 12.8 x 6.6 in., 3.8 x 32.5 x 16.8 cm



ENVIRONMENTAL SPECIFICATIONS

Ambient Operating Temp. Rating	0-60°C / 32-140°F
Humidity Rating	5-95% RH (non-condensing)
Storage Temperature	-40 to +100°C

ORDERING INFORMATION

Part Number	8000 RIO-244
Description	4-Channel Analog Input/ 4-Channel Analog Output Module

OTHER SPECTRUM PRODUCTS

Industrial PLC I/O Products

Digital	Input: High Density, Isolated, Counters Output: High Density, High Power, Form C
Analog	Combination, Output, Temp.

Operator Interface Products

SOI-120	2x20 LCD
SOI-200	4x20 LCD
SOI-250	4x20 VFD
SOI-260LC	4x20 LCD
SOI-260VF	4x20 VFD

Communications Products

Communication Processor	
RS-232 Converters	

Industrial Computing Products

FLATpak Series	NEMA Rated
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