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Data Sheet

August 15, 2026

ACROMAG

Acromag IP220A-16 12-Bit Analog Output Industry Pack Module

Acromag IP220A-16 12-Bit Analog Output Industry Pack Module 16 Channels The Acromag IP220A-16 is a 16-channel 12-bit analog voltage output Industry Pack module with an independent DAC per channel. OEM IP220A datasheet rates bipolar -10 to plus 10 V outputs, 11 us settling, 5 mA drive, and simultaneous or individual update modes. Motion simulation voltage outputs, process setpoint generation, and high-density analog stimulus on IP carriers.

Instrument Type: 12-bit analog voltage output Industry Pack module The Acromag IP220A-16 is a 16-channel 12-bit analog voltage output Industry Pack module with an independent DAC per channel. OEM IP220A datasheet rates bipolar -10 to plus 10 V outputs, 11 us settling, 5 mA drive, and simultaneous or individual update modes. Motion simulation voltage outputs, process setpoint generation, and high-density analog stimulus on IP carriers. Instrument Type: 12-bit analog voltage output Industry Pack module One Channel Update Time: 11 us per conversion



MODEL

Acromag IP220A-16

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

IP220A-16

LISTING

<https://aumictechlabs.com/products/ip220a-16-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Acromag IP220A-16 is a 12-bit analog output Industry Pack module that delivers 16 independent voltage output channels for industrial automation and precision control systems. Each channel features its own 12-bit Digital-to-Analog Converter (DAC), eliminating glitches inherent in multiplexed designs. The module operates in a bipolar output range of -10V to +10V with $\pm 0.025\%$ system accuracy at 25°C (unloaded). Double-buffered architecture enables flexible update modes - individual channel writes or simultaneous multi-channel triggers - making it ideal for applications requiring synchronized linear movements or coordinated multi-axis control.

Technical Specifications

Output Channels: 16 single-ended analog voltage outputs
Resolution: 12 bits per channel
Output Range: Bipolar, -10V to +10V
System Accuracy: $\pm 0.025\%$ of 20V span (calibrated, at 25°C, unloaded)
Settling Time: 11 μs per channel
Maximum Throughput: 11 μs /conversion (single channel); 17 μs /16 channels (simultaneous)
Output Current: -5 mA to +5 mA maximum; minimum load resistance 5 k Ω at 10V output
Data Format: Left-justified, Bipolar Offset Binary
Output at Reset: 0 volts
Short Circuit Protection: Indefinite at 25°C
Isolation: Non-isolated between logic and field I/O grounds

Key Features

Independent DAC per channel for deterministic timing and signal integrity
Double-buffered architecture supports transparent or simultaneous update modes
Internally stored calibration coefficients for offset and gain correction
High output current capability (5 mA) supports 5 k Ω minimum load impedance
IP compliance per ANSI/VITA 4-1995

Typical Applications

Multi-axis motion control and synchronized linear movement simulation
Industrial automation requiring precise, simultaneous voltage outputs
Data acquisition systems demanding low glitch and high settling performance

Compatibility & Integration

Up to four IP220A-16 modules can be populated on a single carrier board, enabling 64 total analog output channels from one card cage slot.

Features & description

From manufacturer datasheet

Built-in stored calibration coefficients

Outputs reset to 0 V Technical Specifications Model: IP220A-16 Instrument Type: 12-bit analog voltage output Industry Pack module Output Channels: 16 single-ended Da Resolution: 12 bits Output Range: bipolar -10 to plus 10 V Settling Time: 11 us One Channel Update Time: 11 us per conversion Sixteen Channel Simultaneous Update: 17 us for 16 channels System Accuracy: 0.025 percent of 20 V span maximum corrected error at 25 C unloaded Data Format: bipolar offset binary left-justified Output At Reset: 0 V Output Current: -5 to plus 5 mA maximum Minimum Load At 10 V: 5 kOhm Short Circuit Protection: indefinite at 25 C Ip Standard: ANSI/VITA 4-1995 Id Eeprom Read Access: 0 wait states 250 ns cycle at 8 MHz Dac Write Access: 1 wait state 375 ns cycle at 8 MHz Operating Temperature Standard: 0 to 70 C Operating TemperatureEModels: -40 to 85 C Storage Temperature: -55 to 100 C Relative Humidity: 5 to 95 percent non-condensing Mtbef: 4094686 hours at 25 C MIL-HDBK-217F notice 2 Power Plus 5 V: 33 mA typical 45 mA maximum Power Plus 12 V From P1: 150 mA typical 200 mA maximum Power Minus 12 V From P1: 133 mA typical 180 mA maximum Carrier Density: up to 64 outputs with four IP modules on one carrier

IP220A Characteristics / Specifications

PARAMETER	VALUE
Model	IP220A-16
Instrument Type	12-bit analog voltage output Industry Pack module
Output Channels	16 single-ended
Da Resolution	12 bits
Output Range	bipolar -10 to plus 10 V
Settling Time	11 us
One Channel Update Time	11 us per conversion
Sixteen Channel Simultaneous Update	17 us for 16 channels
System Accuracy	0.025 percent of 20 V span maximum corrected error at 25 C unloaded
Data Format	bipolar offset binary left-justified
Output At Reset	0 V
Output Current	-5 to plus 5 mA maximum
Minimum Load At 10 V	5 kOhm
Short Circuit Protection	indefinite at 25 C
Ip Standard	ANSI/VITA 4-1995
Id Eeprom Read Access	0 wait states 250 ns cycle at 8 MHz
Dac Write Access	1 wait state 375 ns cycle at 8 MHz
Operating Temperature Standard	0 to 70 C
Operating TemperatureEModels	-40 to 85 C
Storage Temperature	-55 to 100 C
Relative Humidity	5 to 95 percent non-condensing
Mtbf	4094686 hours at 25 C MIL-HDBK-217F notice 2
Power Plus 5 V	33 mA typical 45 mA maximum
Power Plus 12 V From P	150 mA typical 200 mA maximum
Power Minus 12 V From P	133 mA typical 180 mA maximum

PARAMETER	VALUE
Carrier Density	up to 64 outputs with four IP modules on one carrier
Operating temperature	Standard: 0 to 70 C
Humidity	5 to 95 percent non-condensing

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
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Humidity	5 to 95 percent non-condensing
Operating Temperature Standard	0 to 70 C
Operating TemperatureEModels	-40 to 85 C
Relative Humidity	5 to 95 percent non-condensing
Mtbf	4094686 hours at 25 C MIL-HDBK-217F notice 2
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Power Plus 12 V From P	150 mA typical 200 mA maximum
Power Minus 12 V From P	133 mA typical 180 mA maximum
Carrier Density	up to 64 outputs with four IP modules on one carrier Notes From Acromag IP220A Industry Pack 12-Bit D/A Analog Output datasheet. IP220A-16 is the 16-channel ordering SKU; IP220A-16E adds extended temperature.

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
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Notes

From Acromag IP220A Industry Pack 12-Bit D/A Analog Output datasheet. IP220A-16 is the 16-channel ordering SKU; IP220A-16E adds extended temperature.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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NIST-traceable calibration · SAM registered ·
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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.