Artisan Scientific
QUALITY INSTRUMENTATION ... GUARANTEED

Looking for more information?

Visit us on the web at **http://www.artisan-scientific.com** for more information:

- Price Quotations • Drivers • Technical Specifications, Manuals and Documentation

Artisan Scientific is Your Source for Quality New and Certified-Used/Pre-owned Equipment

- Tens of Thousands of In-Stock Items
- Hundreds of Manufacturers Supported
- Fast Shipping and Delivery
- Leasing / Monthly Rentals
- Equipment Demos
- Consignment

Service Center Repairs

Experienced Engineers and Technicians on staff in our State-of-the-art Full-Service In-House Service Center Facility

InstraView™ Remote Inspection

Remotely inspect equipment before purchasing with our Innovative InstraView™ website at **http://www.instraview.com**

We buy used equipment! We also offer credit for Buy-Backs and Trade-Ins

Sell your excess, underutilized, and idle used equipment. Contact one of our Customer Service Representatives today!

Talk to a live person: 888-88-SOURCE (888-887-6872) | Contact us by email: sales@artisan-scientific.com | Visit our website: http://www.artisan-scientific.com

Acromag
THE LEADER IN INDUSTRIAL I/O

IP230-x 16-Bit D/A Analog Output

IP230 modules have a 16-bit D/A converter (DAC) to provide highly-accurate analog voltage outputs.

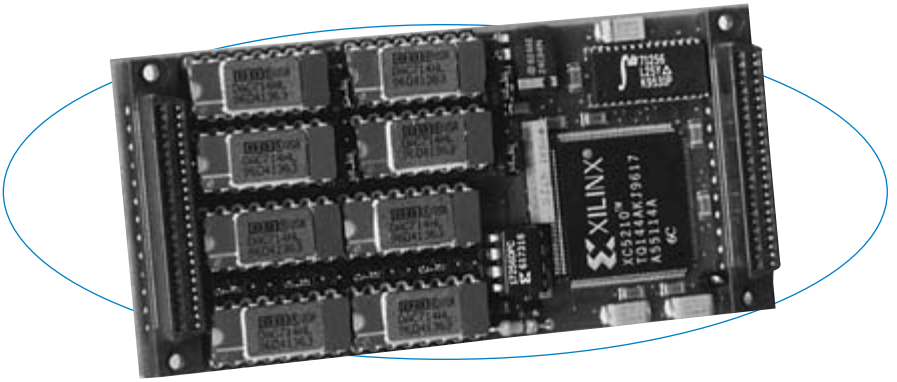
Jumper-selectable output ranges give you the choice of unipolar or bipolar voltage output. And for greater flexibility, the IP230 module accepts conversion start triggers from software commands, or from external sources for synchronization to specific events.

Features

- IP230-4: 4 analog voltage output channels
  IP230-8: 8 analog voltage output channels
- Individual 16-bit D/A converters per channel
- 10µS settling time (100KHz throughput)
- Three output ranges: ±5V, ±10V, 0 to 10V (jumper-selectable)
- Two trigger modes (software or external trigger)
- External trigger output
- Extended temperature option (-40 to 85°C)

Benefits

- High channel density saves card cage slots.
- Internally stored calibration coefficients ensure accuracy.
- Flexible output control allows single cycle updating of individual channels or all channels simultaneously.
- Hardware jumpers allow output range selection on an individual channel basis.



Independent D/A converters on each channel provide better performance and smoother operation.

Specifications

Analog Outputs

Output configuration: 4 (IP230-4/4E) or 8 (-8/8E).

D/A Resolution: 16 bits.

Output ranges: ±5V, ±10V, 0 to 10V (jumper-selectable).

Maximum throughput rate:
Outputs can be updated simultaneously or individually.
One channel: 100KHz (10µS/conversion)
Four channels (IP235-4): 100KHz (10µS/4 ch)
Eight channels (IP235-8): 100KHz (10µS/8 ch).

DAC programming: Immediate (transparently programmed to DAC output); simultaneous (input latches of multiple DACs are loaded with new data before simultaneously updating outputs).

System accuracy: 0.0061% of 20V span maximum corrected error (i.e. calibrated) at 25°C with the output unloaded.

Output at reset: 0V for bipolar output, 5V for unipolar.

Output current: -5 to +5mA (maximum).

Short circuit protection: Indefinite at 25°C.

IP Compliance (ANSI/VITA 4)

Meets IP specifications per ANSI/VITA 4-1995.

IP data transfer cycle types supported:
Input/output (IOSel*), ID read (IDSel*).

Access Times (8MHz clock):
All functions: 1 wait state (375nS cycle).

Environmental

Operating temperature: 0 to 70°C (IP230-4/8) or -40 to 85°C (IP230-4E/8E models).

Storage temperature: -55 to 125°C (all models).

Relative humidity: 5 to 95% non-condensing

Power: +5V (±5%): 200mA maximum.
±12V (±5%) from P1: 150mA maximum.

MTBF: 815,720 hrs. at 25°C, MIL-HDBK-217F, notice 2.

Ordering Information

Industry Pack Modules

IP230-4
Four high-resolution voltage outputs

IP230-4E
Same as IP230-4 plus extended temp. range

IP230-8
Eight high-resolution voltage outputs

IP230-8E
Same as IP230-8 plus extended temp. range

For Industry Pack Carrier Cards, see Page 5.

Software *(see Page 81)*

IPSW-API-VXW
VxWorks® software support package

IPSW-API-QNX
QNX® software support package

IPSW-ATX-PCI
ActiveX®/OLE Controls 2.0 software package

IPSW-LINUX
Linux™ support (website download only)

For accessories information, see Page 87.

Artisan Scientific - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisan-scientific.com

Artisan Scientific
QUALITY INSTRUMENTATION ... GUARANTEED

Looking for more information?

Visit us on the web at **http://www.artisan-scientific.com** for more information:

- Price Quotations • Drivers • Technical Specifications, Manuals and Documentation

Artisan Scientific is Your Source for Quality New and Certified-Used/Pre-owned Equipment

- Tens of Thousands of In-Stock Items
- Hundreds of Manufacturers Supported
- Fast Shipping and Delivery
- Leasing / Monthly Rentals
- Equipment Demos
- Consignment

Service Center Repairs

Experienced Engineers and Technicians on staff in our State-of-the-art Full-Service In-House Service Center Facility

InstraView™ Remote Inspection

Remotely inspect equipment before purchasing with our Innovative InstraView™ website at **http://www.instraview.com**

We buy used equipment! We also offer credit for Buy-Backs and Trade-Ins

Sell your excess, underutilized, and idle used equipment. Contact one of our Customer Service Representatives today!

Talk to a live person: 888-88-SOURCE (888-887-6872) | Contact us by email: sales@artisan-scientific.com | Visit our website: http://www.artisan-scientific.com