



Artisan Technology Group is your source for quality new and certified-used/pre-owned equipment

- FAST SHIPPING AND DELIVERY
- TENS OF THOUSANDS OF IN-STOCK ITEMS
- EQUIPMENT DEMOS
- HUNDREDS OF MANUFACTURERS SUPPORTED
- LEASING/MONTHLY RENTALS
- ITAR CERTIFIED SECURE ASSET SOLUTIONS

SERVICE CENTER REPAIRS

Experienced engineers and technicians on staff at our full-service, in-house repair center

*InstraView*SM REMOTE INSPECTION

Remotely inspect equipment before purchasing with our interactive website at www.instraview.com ↗

WE BUY USED EQUIPMENT

Sell your excess, underutilized, and idle used equipment. We also offer credit for buy-backs and trade-ins. www.artisanng.com/WeBuyEquipment ↗

LOOKING FOR MORE INFORMATION?

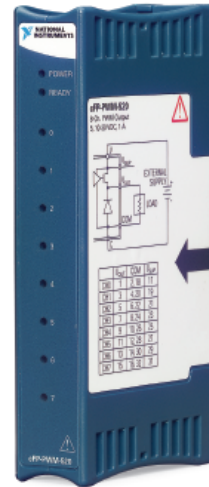
Visit us on the web at www.artisanng.com ↗ for more information on price quotations, drivers, technical specifications, manuals, and documentation

Contact us: (888) 88-SOURCE | sales@artisanng.com | www.artisanng.com

Pulse-Width Modulation Output Module for Compact FieldPoint

NI cFP-PWM-520

- 8 outputs
 - 5, 12, and 24 VDC
 - 1 A per channel, maximum
 - 1 kHz max frequency
- Overcurrent protection on outputs
- 2,300 V_{rms} bank isolation for transient overvoltage protection
- Hot-swappable with autoconfiguration
- -40 to 70 °C operating range



Module	Output Channels	Output Voltages	Output Frequency	Output Duty Cycle	Output Current (see Specifications)
cFP-PWM-520	8	5 VDC or 10 to 30 VDC	Up to 1 kHz	0 to 100%	1 A

Overview

The National Instruments cFP-PWM-520 is a versatile pulse-width modulation output module for Compact FieldPoint that you can use to control the power of many DC-powered devices. By pulsing the input voltage and varying the duty cycle, you can perform analog control on many DC devices. The NI cFP-PWM-520 is commonly used to efficiently control power such as the speed of a DC servo motor, the intensity of a light bulb, or the heat output of an industrial heater. It includes onboard diagnostics to ensure trouble-free installation and maintenance.

Pulse-Width Modulation Output

You can configure the output period for each cFP-PWM-520 channel to vary from 1 ms to 65.5 in 1 ms increments. You then programmatically set the duty cycle for each channel. The duty cycle is the percentage of the output period when output is high. You can set the duty cycle for 0 to 100 percent with 12-bit resolution (4,096 settings). Each output channel is an optically isolated sourcing output with overcurrent protection. The outputs are compatible with voltages from 10 to 30 VDC, or 4.5 to 5.5 VDC, and each output can drive up to 1 A.

Isolation

The cFP-PWM-520 features optical bank isolation with 2,300 V_{rms} of breakdown isolation. This Compact FieldPoint module does not have channel-to-channel isolation.

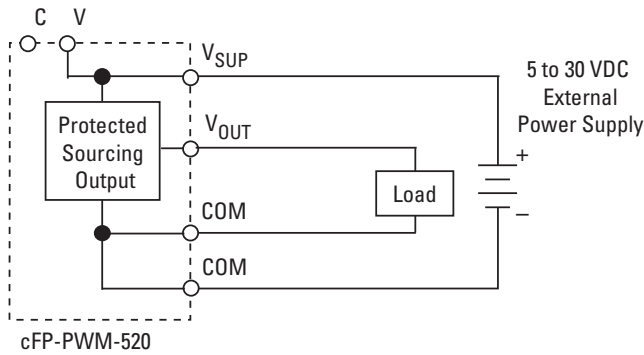
Field I/O Connections

Compact FieldPoint modules include a built-in power distribution bus that provides multiple power connections on the module. A field-wired power supply connected to the voltage (V) and common (C) terminals is internally connected to a power distribution bus that offers additional breakout terminals for voltage supply (V_{SUP}) and common (COM). These terminals deliver a convenient way to distribute power to field devices that require external power.

The cFP-PWM-520 has:

- 8 pulse-width modulation digital output terminals (V_{OUT})
- 16 common terminals (COM)
- 8 power connections to power field devices (V_{SUP})

Pulse-Width Modulation Output Module for Compact FieldPoint



Wiring Schematic for the cFP-PWM-520

Ordering Information

NI cFP-PWM-520777318-520

Recommended Compact FieldPoint System Products

NI cFP-2120777317-2120

NI cFP-BP-4778617-04

NI cFP-CB-1778618-01

NI PS-5 power supply778805-90

NI Developer Suite Professional Control Edition777906-03

BUY NOW!

For complete product specifications, pricing, and accessory information, call 800 813 3693 (U.S.) or go to ni.com/compactfieldpoint.

BUY ONLINE at ni.com or CALL 800 813 3693 (U.S.)

Pulse-Width Modulation Output Module for Compact FieldPoint

Specifications

Typical for -40 to 70 °C unless otherwise noted.

Output Characteristics

Number of channels.....	8
Output type	Sourcing
Output voltage	Supply voltage (Output current x output impedance)
Supply voltage	5 VDC or 10 to 30 VDC, user-provided
Maximum output current	1 A per channel at -40 to 50 °C; 0.75 A per channel at 50 to 60 °C; 0.5 A per channel at 60 to 70 °C
All channels	8 A
Output impedance.....	0.3 Ω typical at 10 to 30 VDC
Period	1 to 65,535 ms
Duty cycle.....	0 to 100%
Resolution	12 bits
Pulse-width accuracy.....	-1 to +3 μs ± 0.005%
Protection	Short-circuit

Isolation Voltage

Channel-to-channel isolation.....	No isolation between channels
Transient overvoltage.....	2,300 V _{rms}

Physical Characteristics

LED indicators	
POWER (green)	Power on and self-test passed
READY (green)	Module configured and ready
Output <0...7> (green)	Instantaneous on/off output status
Dimensions	127.0 by 65.9 by 23.9 mm (5.00 by 2.60 by 0.94 in.)
Weight.....	110 g (3.9 oz)

Power Requirements

Power from network module	715 mW
---------------------------------	--------

Environment

Operating temperature	-40 to 70 °C
Storage temperature.....	-55 to 85 °C
Relative humidity	10 to 90%, noncondensing

Shock and Vibration

Operating vibration, random (IEC 60068-2-64)	10 to 500 Hz, 5 g _{rms}
Operating vibration, sinusoidal (IEC 60068-2-6)	10 to 500 Hz, 5 g
Operating shock (IEC 60068-2-27)	50 g, 3 ms half sine, 18 shocks at 6 orientations; 30 g, 11 ms half sine, 18 shocks at 6 orientations

Safety and Compliance

Safety

This product is designed to meet the requirements of the following standards of safety for electrical equipment for measurement, control, and laboratory use:

- IEC 61010-1, EN 61010-1
- UL 61010-1, CSA 61010-1

Note: For UL and other safety certifications, refer to the product label or visit ni.com/certification, search by model number or product line, and click the appropriate link in the Certification column.

Electromagnetic Compatibility

This product is designed to meet the requirements of the following standards of EMC for electrical equipment for measurement, control, and laboratory use:

- EN 61326 EMC requirements; Minimum Immunity
- EN 55011 Emissions; Group 1, Class A
- CE, C-Tick, ICES, and FCC Part 15 Emissions; Class A

Note: For EMC compliance, operate this device according to product documentation.

CE Compliance

This product meets the essential requirements of applicable European Directives, as amended for CE marking, as follows:

- 2006/95/EC; Low-Voltage Directive (safety)
- 2004/108/EC; Electromagnetic Compatibility Directive (EMC)

Note: Refer to the Declaration of Conformity (DoC) for this product for any additional regulatory compliance information. To obtain the DoC for this product, visit ni.com/certification, search by model number or product line, and click the appropriate link in the Certification column.

Waste Electrical and Electronic Equipment (WEEE)

EU Customers: At the end of their life cycle, all products must be sent to a WEEE recycling center. For more information about WEEE recycling centers and National Instruments WEEE initiatives, visit ni.com/environment/weee.htm.

NI Services and Support



NI has the services and support to meet your needs around the globe and through the application life cycle – from planning and development through deployment and ongoing maintenance. We offer services and service levels to meet customer requirements in research, design, validation, and manufacturing. Visit ni.com/services.

Training and Certification

NI training is the fastest, most certain route to productivity with our products. NI training can shorten your learning curve, save development time, and reduce maintenance costs over the application life cycle. We schedule instructor-led courses in cities worldwide, or we can hold a course at your facility. We also offer a professional certification program that identifies individuals who have high levels of skill and knowledge on using NI products. Visit ni.com/training.

Professional Services

Our NI Professional Services team is composed of NI applications and systems engineers and a worldwide National Instruments Alliance Partner program of more than 600 independent consultants and

integrators. Services range from start-up assistance to turnkey system integration. Visit ni.com/alliance.



OEM Support

We offer design-in consulting and product integration assistance if you want to use our products for OEM applications. For information about special pricing and services for OEM customers, visit ni.com/oem.

Local Sales and Technical Support

In offices worldwide, our staff is local to the country, giving you access to engineers who speak your language. NI delivers industry-leading technical support through online knowledge bases, our applications engineers, and access to 14,000 measurement and automation professionals within NI Developer Exchange forums. Find immediate answers to your questions at ni.com/support.

We also offer service programs that provide automatic upgrades to your application development environment and higher levels of technical support. Visit ni.com/ssp.

Hardware Services

NI Factory Installation Services

NI Factory Installation Services (FIS) is the fastest and easiest way to use your PXI or PXI/SCXI combination systems right out of the box. Trained NI technicians install the software and hardware and configure the system to your specifications. NI extends the standard warranty by one year on hardware components (controllers, chassis, modules) purchased with FIS. To use FIS, simply configure your system online with ni.com/pxiadvisor.

Calibration Services

NI recognizes the need to maintain properly calibrated devices for high-accuracy measurements. We provide manual calibration procedures, services to recalibrate your products, and automated calibration software specifically designed for use by metrology laboratories. Visit ni.com/calibration.

Repair and Extended Warranty

NI provides complete repair services for our products. Express repair and advance replacement services are also available. We offer extended warranties to help you meet project life-cycle requirements. Visit ni.com/services.



ni.com • 800 813 3693

National Instruments • info@ni.com



©2008 National Instruments Corporation. All rights reserved. FieldPoint, National Instruments, National Instruments Alliance Partner, NI, ni.com, NI Developer Suite, and SCXI are trademarks of National Instruments. Other product and company names listed are trademarks or trade names of their respective companies. A National Instruments Alliance Partner is a business entity independent from NI and has no agency, partnership, or joint-venture relationship with NI.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisanTG.com



Artisan Technology Group is your source for quality new and certified-used/pre-owned equipment

- FAST SHIPPING AND DELIVERY
- TENS OF THOUSANDS OF IN-STOCK ITEMS
- EQUIPMENT DEMOS
- HUNDREDS OF MANUFACTURERS SUPPORTED
- LEASING/MONTHLY RENTALS
- ITAR CERTIFIED SECURE ASSET SOLUTIONS

SERVICE CENTER REPAIRS

Experienced engineers and technicians on staff at our full-service, in-house repair center

*InstraView*SM REMOTE INSPECTION

Remotely inspect equipment before purchasing with our interactive website at www.instraview.com ↗

WE BUY USED EQUIPMENT

Sell your excess, underutilized, and idle used equipment. We also offer credit for buy-backs and trade-ins. www.artisanng.com/WeBuyEquipment ↗

LOOKING FOR MORE INFORMATION?

Visit us on the web at www.artisanng.com ↗ for more information on price quotations, drivers, technical specifications, manuals, and documentation

Contact us: (888) 88-SOURCE | sales@artisanng.com | www.artisanng.com