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Find the *National Instruments FP-PG-522* at our website: ***Click HERE***

Pulse Generation Output Modules for Compact FieldPoint and FieldPoint

NI [c]FP-PG-522

- 8 outputs
  - 5 to 30 VDC
  - 2 A per channel
  - 5 kHz maximum frequency
- 2,300 V_{rms} bank isolation for transient overvoltage protection
- Hot swappable with autoconfiguration
- -40 to 70 °C operating range

NEW



Module	Output Channels	Output Voltages	Output Frequency	Minimum On/Off Time	Output Current (see Specifications)
cFP-PG-522	8	5 to 30 VDC sinking	Up to 5 kHz	100 µs	2 A

Overview

The National Instruments [c]FP-PG-522 devices are versatile pulse generation output modules for Compact FieldPoint and FieldPoint that can be used to precisely generate a continuous or finite pulse train to control external circuits. NI [c]FP-PG-522 modules are commonly used to provide an accurate pulse train for frequency measurement, gauge control, and stepper motor control. All the modules include onboard diagnostics to ensure trouble-free installation and maintenance.

Compact FieldPoint and FieldPoint

These modules are available for both FieldPoint and Compact FieldPoint, with identical measurement specifications, functionality, and accuracy. Compact FieldPoint is designed for industrial control applications that perform advanced embedded control, data logging, headless operation, and Ethernet connectivity. Compact FieldPoint, our most rugged and reliable platform, is designed for industrial and mobile environments with high shock, vibration, and temperature extremes. FieldPoint is a lower-cost distributed I/O system with a variety of communication options in addition to Ethernet. It is designed to be mounted on DIN rails in static applications where the FieldPoint bank is connected to a PC for data collection, analysis, display, and storage.

Pulse Generation Modules

You can program each output of the [c]FP-PG-522 modules to generate a finite number of pulses or to generate pulses continuously. You can programmatically set the on-time and off-time for each output pulse train, set the number of pulses to be sent, and start and stop the pulse train. The on-time and off-time for each output are set as an integer from 1 to 65,535 timebase units, with selectable timebase options of 100 µs, 10 ms, or 1 s. Setting the off -time to zero generates a constant on (high) signal. Each channel also includes a green LED to indicate whether the output is actively generating a pulse train.

Isolation

[c]FP-PG-522 modules feature optical bank isolation with 2,300 V_{rms} of breakdown isolation. These Compact FieldPoint and FieldPoint modules do not have channel-to-channel isolation.

Field I/O Connections

Compact FieldPoint and 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 provides additional breakout terminals for voltage supply (V_{SUP}) and common (COM). These terminals provide a convenient way to distribute power to field devices that require external power.

The [c]FP-PG-522 has:

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

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Pulse Generation Output Modules for Compact FieldPoint and FieldPoint

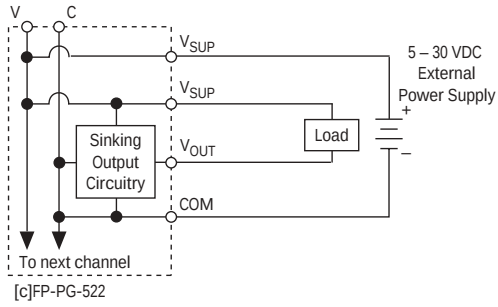


Figure 1. Wiring Schematic for PG Modules

Ordering Information

Compact FieldPoint

NI cFP-PG-522 777318-522

Recommended Compact FieldPoint System Products

NI cFP-2020 777317-2020
NI cFP-BP-4 778617-04
NI cFP-CB-1 778618-01
NI PS-5 Power Supply 778805-90
NI Developer Suite Professional Control Edition 777906-03

FieldPoint

NI FP-PG-522 777518-522

Recommended FieldPoint System Products

NI FP-1601 777792-01
NI FP-TB-1 777519-01
NI PS-4 Power Supply 778586-90
NI Developer Suite Control Edition 777905-03

BUY ONLINE!

*Visit **ni.com/info** and enter cfppg522, and/or fppg522.*

Specifications

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

Output Characteristics

Number of channels 8
Output type ..... 5-30 VDC, sinking
Supply voltage ..... 5-30 VDC, user-provided
Maximum output current
Per channel ..... 2 A per channel
All channels ..... 16 A² (8 A² for cFP-PG-522 operating at 60 to 70 °C)
Output impedance ..... 0.12 Ω
Pulse-width accuracy ..... ±5 µs, any pulse settings
Pulse-frequency accuracy ..... 0.007%, any pulse settings
Leakage current ..... 100 µA

Power Requirements

Power from network module ..... 420 mW

Physical Characteristics

LED indicators
POWER (green) ..... Power on and self-test passed
READY (green) ..... Module configured and ready
Output <0...7> (green) ..... Pulsing active on channel
Dimensions (FP only, including terminal base) ..... 10.7 by 10.9 by 9.1 cm (4.2 by 4.3 by 3.6 in.)
Weight
FP-PG-522 ..... 130 g (4.6 oz)
cFP-PG-522 ..... 100 g (3.5 oz)

Isolation Voltage

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

Environment

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

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 3121-1, UL 61010C-1
- CAN/CSA C22.2 No. 1010.1

For UL, hazardous location, and other safety certifications, refer to the product label or to ***ni.com***

Electromagnetic Compatibility

CE, C-Tick, and FCC Part 15 (Class A) Compliant
Emissions ..... EN 55011 Class A at 10 m
FCC Part 15A above 1 GHz
Immunity ..... EN 61326:1997 + A2:2001, Table 1
Note For EMC compliance, you must operate this device with shielded cabling.

CE Compliance

This product meets the essential requirements of applicable European Directives, as amended for CE Marking, as follows:
Low-Voltage Directive (safety) 73/23/EEC
Electromagnetic Compatibility
Directive (EMC) 89/336/EEC
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/hardref.nsf/*** and search by model number or product line.

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