

NXI-4102-8/8 Programmable Multi-channel High Voltage I/O Module



Product Introduction

NXI-4102-8/8 is a programmable high voltage digital IO module based on NXI architecture, electric level range 3.3V~40V. It supports 8-channel PWM input detection, 8-channel PWM output drive, single channel up to 20MS / s sampling rate, with multiple functions such as synchronous trigger, frequency measurement etc. NXI-4102-8/8 can be used in NXI modular instrumentation measurement and control chassis, also can be used separately. It widely used in high voltage IO signal acquisition and data processing and analysis and other scenarios.

Application Fields



High Voltage I/O
Signal Acquisition



Automotive/Consumer
Electronics Controller



Industrial Control



Integrated Test Systems

Main Features

- ▶ Electric Level Range: 3.3V~40V
- ▶ Frequency Range: 1Hz~100kHz
- ▶ 8 channels PWM input measurement, 8 channels PWM output drive
- ▶ Output Drive Current: $\leq 100\text{mA}$
- ▶ Maximum 20MS/s sampling rate for single channel, total sampling rate 20MS/s
- ▶ Support frequency measurement function
- ▶ Support streaming sampling, 10000 points can be cached
- ▶ Support PWM output, PWM complementary output available
- ▶ Support multi-channel synchronous acquisition
- ▶ Single module with dual slots, applicable to NXI-F1000 chassis or independent use
- ▶ Support 12V DC power supply input, LAN communication for individual control
- ▶ Support Modbus-RTU, SCPI and CANopen protocols

Technical Data Sheet

Model	NXI-4102-8/8		
Level Range	3.3V~40V		
Frequency Range	1Hz~100kHz		
Channels	8CH input, 8CH output		
Digital Input			
Channels	8CH		
Level Range	3.3V~40V		
Frequency Measurement Range	1Hz~100kHz		
Frequency Measurement Accuracy	100kHz: 1%F.S.	10kHz: 0.1%F.S.	1kHz: 0.01%F.S.
Duty Cycle Measurement Range	100kHz: 5%~95%, resolution: 1% 10kHz: 0.5%~99.5%, resolution: 0.1% 1kHz: 0.05%~99.95%, resolution: 0.01% 100Hz: 0.005%~99.995%, resolution: 0.001%		
Level Logic	Support customization		
Digital Output			
Channels	8CH		
Level Range	Internal power supply: 24V External power supply: 3.3V~40V		
Output Drive Current	≤100mA/CH		
Frequency Output Range	1Hz~100kHz		
Frequency Output Accuracy	100kHz: 0.1%F.S.	10kHz: 0.01%F.S.	1kHz: 0.001%F.S.
Duty Cycle Setting Range	100kHz: 5%~95% 10kHz: 0.5%~99.5% 1kHz: 0.1%~99.9% 100Hz: 0.01%~99.99%		
Maximum Safe Voltage	≤42V		
Others			
Test Terminal	Pluggable terminal		
Operating Power	12VDC±10%, <2.5A		
Communication Interface	LAN/CAN		
Temperature	Working temperature:0°C~40°C; Storage temperature:-20°C~60°C		
Operating Environment	Altitude: <2000m; Relative humidity:5%~90%RH (no condensation); Atmospheric pressure: 80~110kPa		
Dimensions	130.5mm(H)*40mm(W)*230.5mm(D)(with puller)		

Note 1: For more and latest information, please contact NGI.

Note 2: For other specifications, please contact NGI.