

N1200 Series Cell Voltage Monitor



Product Introduction

N1200 series cell voltage monitor is specially developed by NGI for fuel cell R&D and production. It is with compact size, high integration, high reliability and fast data transmission. N1200 standalone supports up to 200 channels. More channels can be tested simultaneously under cascade mode. Voltage acquisition ranges are from -5V to +5V, which completely covers the voltage range of fuel cell. Real-time voltage data of total 200 channels can be uploaded within 50ms by adopting 100M Ethernet communication.

Application Fields

- ▶ Fuel cell voltage monitoring
- ▶ Battery cell voltage monitoring

Main Features

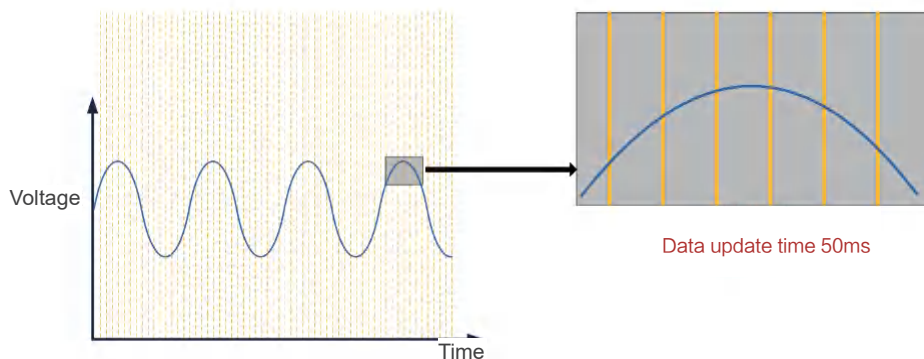
- ▶ Voltage acquisition range: -2.5V~+2.5V, -3V~+3V,-5V~+5V
- ▶ Voltage acquisition accuracy : 1mV, 2mV
- ▶ High integration, standalone with up to 200 channels
- ▶ Fast data transmission, within 50ms for total 200 channels transmission
- ▶ Compact size, standard 19-inch 1U, convenient for rack installation
- ▶ 100M Ethernet communication
- ▶ Easy system integration, supporting standard Modbus protocol, convenient for integration into PLC and other control systems

Standalone supporting 200 channels of voltage monitoring

N1200 CVM integrates 200 channels in a 19-inch 1U standard chassis. For more channel testing requirements, multiple sets of N1200 can be used for simultaneous testing, which not only saves space for customers, but also improves convenience.

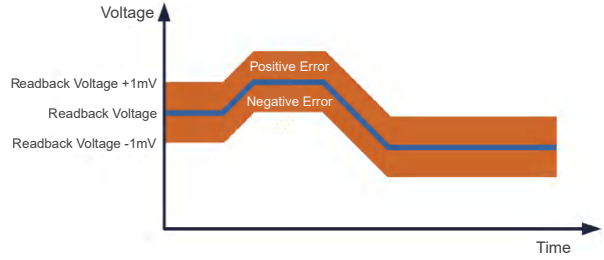
200 channels data update time 50ms

The ultra-fast sampling speed of N1200 and the fast transmission speed make the time from acquisition to update of 200 channels data up to 50ms.

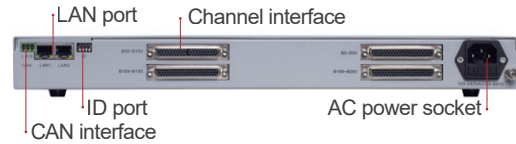
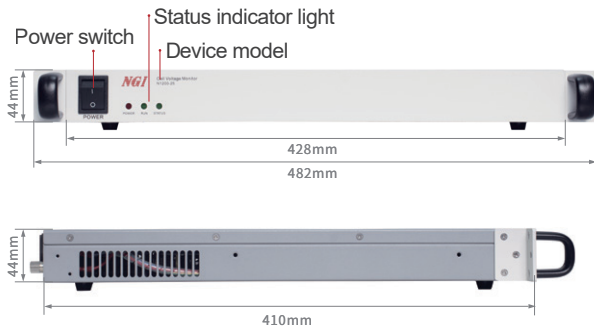


Voltage acquisition accuracy up to 1mV

N1200 CVM uses a stable detection circuit to measure the voltage of fuel cell with an accuracy of up to $\pm 1\text{mV}$, enabling real-time high-accuracy voltage detection of single fuel cell. The temperature coefficient is as low as $50\text{ppm}/^\circ\text{C}$, and the error caused by every ten degrees Celsius does not exceed 0.05%, which enables N1200 to maintain high precision in application.



Product Dimension



Technical Data Sheet

Model	N1200-25	N1200-30	N1200-50
Channel	200CH	160CH	80CH
Voltage Acquisition			
Range	-2.5V~+2.5V	-3V~+3V	-5V~+5V
Accuracy ($23\pm 5^\circ\text{C}$)	1mV	1mV	2mV
Resolution	0.1mV	0.1mV	0.1mV
Temperature Coefficient ($0\sim 40^\circ\text{C}$)	50ppm/ $^\circ\text{C}$		
General			
Data Update Cycle	$\leq 50\text{ms}$		
Connector Type	Pluggable terminal		
Interface	LAN/CAN		
Communication Protocol	Modbus protocol		
AC Input	Single phase, 100-240V AC, 50/60Hz		
Inter-channel Isolation	600V		
Temperature	Operating temperature: $0^\circ\text{C}\sim 40^\circ\text{C}$, storage temperature: $-20^\circ\text{C}\sim 60^\circ\text{C}$		
Operating Environment	Altitude $< 2000\text{m}$, relative humidity: 5%~90%RH(non-condensing), atmospheric pressure: 80~110kPa		
Net Weight	Approx. 3kg		
Dimension	1U, 44.0(H)*482.0(W)with handle*410.0(D)mm		