

NXI-5100 Series High Density Programmable Resistance Module



Product Introduction

NXI-5100 is a multi-channel programmable resistance module. Its optional range of resistance is $0\Omega\sim 11.11M\Omega$. For different applications, the flexible design architecture supports a single module with optional 8, 12, 16, and 24 channels. Resistance resolution is up to 1Ω , to meet the needs of different test scenarios. NXI-5100 series can be widely used to simulate NTC resistor, resistive sensor and other simulation test scenes.

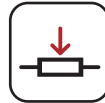
Application Fields



NTC temperature simulation



BMS test



Adjustable resistor replacement



Integration test system

Main Features

- ▶ Optional in 8/12/16/24 channels
- ▶ Optional resistance range: 0Ω (short circuit) $\sim 11.11M\Omega$
- ▶ Supports NTC short-circuit simulation and NTC open-circuit simulation ^[1]
- ▶ Resistance programming resolution up to 1Ω
- ▶ Resistance accuracy: $\leq 2M\Omega$: $0.1\%+R_r$, $>2M\Omega$: $1\%+R_r$
- ▶ Resistance maximum power: $0.25W$
- ▶ Maximum operating voltage: $125VAC$, $60VDC$
- ▶ Single module with single slot, applicable to NXI-F1000 series chassis
- ▶ Supporting $12VDC$ power supply input, LAN communication control
- ▶ Supporting Modbus-RTU and SCPI protocols

Note [1]: The $600k\Omega$ and $6M\Omega$ models support NTC short-circuit simulation and open-circuit simulation, others only support NTC short-circuit simulation.

Technical Data Sheet

Channels Resolution	24CH	16CH	12CH	8CH	8CH
1Ω	NXI-5100-110/24	NXI-5100-1.11k/16	NXI-5100-11.11k/12	NXI-5100-1.11M/8	NXI-5100-600k/8
10Ω	NXI-5100-1.1k/24	NXI-5100-11.1k/16	NXI-5100-111.1k/12	NXI-5100-11.11M/8	NXI-5100-6M/8
100Ω	NXI-5100-11k/24	NXI-5100-111k/16	NXI-5100-1.11M/12	/	/
1kΩ	NXI-5100-110k/24	NXI-5100-1.11M/16	NXI-5100-11.11M/12	/	/
10kΩ	NXI-5100-1.1M/24	NXI-5100-11.1M/16	/	/	/
100kΩ	NXI-5100-11M/24	/	/	/	/

Note: The 600kΩ and 6MΩ models support NTC short-circuit and open-circuit simulation; others only support NTC short-circuit simulation.

General Parameter	
Maximum Switching Voltage	125VAC, 60VDC
Resistance Maximum Power	0.25W
Resistance Accuracy	≤2MΩ: 0.1%+Rr >2MΩ: 1%+Rr
Resistance Temperature Coefficient	25ppm/°C
Residual Resistance(Rr)	Typical: 3Ω (When resistance is programmed to 0Ω)
Maximum Switching Current	0.5A
Switch Closing Time	<1.1ms
Switch Release Time	<0.4ms
Expected Switch Life	Low-load application:>1×10 ⁸ times operation, Full-load application:>1×10 ⁶ times operation
Others	
Test Terminal	SCSI connector, 68pin
Operating Power	12VDC±10%, <2A
Communication Interface ¹	LAN
Temperature	Operating temperature: 0°C~40°C; storage temperature: -20°C~60°C
Operating Environment	Altitude: <2000m, relative humidity: 5%~90%RH (non-condensing), atmospheric pressure: 80~110kPa
Dimension	130.5(H)*20(W)*230.5(D)mm (with puller)

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

Note 2: For other specifications, please contact NGI.

Note 3: All specifications are subject to change without notice.