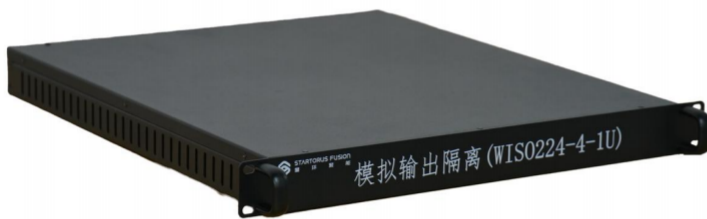


# WISO224-4-1U Isolation Amplifier

## Introduction

The WISO224-4-1U Isolation Amplifier is an analog signal isolation device developed by Startorus Fusion Energy for fusion plasma experiment applications and similar scenarios. The isolation amplifier supports  $\pm 5V$  input with a bandwidth of DC to 100 kHz and an isolation voltage of up to 3000 VDC. Its 1 M $\Omega$  input impedance minimizes errors introduced by the signal source internal resistance, and an internal low-pass filter is designed to suppress output signal noise. In addition, the isolation amplifier uses a 1U chassis with a total of four channel lock configurations and is compatible with the PCI-1720U interface.



## Parameters

Parameter	Specification
Number of Channels	4
Input Signal Type	Analog Voltage Signal
Output Signal Type	Analog Voltage Signal
Input Voltage Range	$\pm 5\text{ V}$
Output Voltage Range	$\pm 5\text{ V}$
Gain	1
Signal Polarity	Non-inverting Output
Isolation Withstand Voltage	$\geq 3\text{ kV DC (1 min)}$
Bandwidth	100 kHz
Gain Error	$< 0.3\%$
Nonlinearity	$< \pm 0.5\% \text{ FSR}$
Output Noise	$\leq 20\text{ mVpp}$
Input Impedance	1 M $\Omega$
Power Supply Voltage	220 V AC (Mains)
Interface Type	DB37 (Input Signal), BNC (Output Signal), IEC power inlet (power supply input)
Inter-Channel Crosstalk	$< 10\text{ mV}$

## Applications

The WISO224-4-1U Isolation Amplifier is primarily designed for fusion plasma experimental scenarios, suitable for small-scale analog signal acquisition and isolation in high-voltage environments such as Tokamak devices and magnetically confined fusion experimental platforms. The 3000 VDC isolation withstand voltage effectively protects downstream acquisition equipment from strong electromagnetic interference (EMI) and high common-mode voltage transients. The compact 1U chassis design facilitates flexible deployment within the experimental control room rack, making it ideal for applications with limited channel requirements or space constraints.

Additionally, this product is suitable for other scientific and industrial measurement and control scenarios requiring high isolation and wide-bandwidth analog signal transmission, such as high-voltage pulsed power supply monitoring and precision sensor signal conditioning.