

# Energom-SI-XX

## Signal Isolator DIN-Rail Mounting

### Description

Technology offers the industry's best selection of isolators. Dozens of models are now available to meet your needs. Select from single and dual-channel models with AC, DC, or loop-powered operation. Signal splitters deliver dual outputs from a single source. And whether you need a unit that sinks or sources current, Blue Jay has the right solution for you.

Optical or galvanic isolation eliminate ground loop errors, reduce noise, and block high voltage transient surges. Our multi-channel modules reduce costs and save space. Models with push-button calibration simplify installation and maintenance tasks. Units with mini USB port preset for 4-20mA input/output required.

### Features

- Support universal Input Signal
- Provide 26...18VDC input loop power
- TC/RTD sensor broken alarm
- Low Temp. drift. Auto zero calibrating
- Loop Power current limitation protection (30mA)
- Over-current protection for input current (50mA)
- Current output can be set inverse proportional output
- Programmed by USB or adaptor
- w/o external power supply
- Back board designed with redundant power-supply interfaces



### Technical characteristics

<b>Power supply:</b>	
Power Supply	24VDC±10%
Power Consumption	≅ 1W
<b>I/O capacity:</b>	
Input Types	4-20mA / 20-4mA; RTD(PT100,PT200,PT500,PT1000,Cu50); R(0-400Ω,0-4000Ω); TC(K,E,S,B,R,J,T,N); mV(-80-+80mV); V(0-1V)
Output signal types	0(4)-20mA
Response Time	< 0.4ms (0-90%,100%-10%)
Precision	±0.1%
Temp. Drift	0.01% per Celsius
Volt fluctuation influence	±0.005% X span / below V DC
Load Capacity	< 350Ω
<b>Isolation:</b>	
Insulation Resistor	>100MΩ / 500V between the input / output
Isolation Strength	AC2500v 1min between the input / output
<b>Other:</b>	
Ambient Temp. / Humi.	-40 ~ 85 C / ≅ 95% RH
Calibrating Ambient Temp.	25±2 C
Dimensions	113 X 109 X 17.5mm
Terminal Wiring Way	Screw
Comm Interface	Mini USB
Standard	EN61326 : 1997+A1: 1998+A2 : 2001+A3 : 2003
LED Indicator	Normally lighting indicates power supplied and working normally, blinking indicates digital communication is under way.

Energom-SI **1** **2** **3**

Series Name	Optional Type
<b>1</b> Input signal channel	<b>1:</b> Only one channel input <b>2:</b> Dual channel input
<b>2</b> Output signal channel	<b>1:</b> Only one channel output <b>2:</b> Dual channel output
<b>3</b> Input signal type	<b>A:</b> 0(4)-20mA <b>B:</b> 0(4)-20mA (with out input loop powered) <b>T:</b> TC(K,E,S,B,R,J,T,N); mV(-80-+80mV); V(0-1V) <b>R:</b> RTD(PT100,PT200,PT500,PT1000,Cu50); R(0-400Ω,0-4000Ω) <b>Blank:</b> Universal Input Signal

**Convert Accuracy**

Probe Type	Range	Minimum range	A/D accuracy	Conversion Accuracy	
<b>TC</b>	K	-270~1372C	100C	0.3C	1C or 0.1%
	E	-270~1000C	100C	0.25C	1C or 0.1%
	S	-50~1768C	500C	1C	2C or 0.1%
	B	400~1820C	500C	2C	2C or 0.1%
	R	-50~1768C	500C	1C	2C or 0.1%
	J	-210~1200C	100C	0.25C	1C or 0.1%
	T	-270~400C	100C	0.25C	1C or 0.1%
	N	-270~1300C	100C	0.4C	1C or 0.1%
<b>RTD</b>	PT100 / PT200	-200~850C	50C	0.15C	0.2C or 0.1%
	PT500 / PT1000				
	Cu50	-50~150C	50C	0.2C	0.2C or 0.1%
<b>R</b>	/	0~400Ω	10Ω	0.12Ω	0.1Ω or 0.1%
		0~4000Ω	100Ω	1Ω	1Ω or 0.1%
<b>mV</b>	/	+80mV ~ -80mV	3mV	12uV	0.10%
<b>Volt</b>	/	0~1V	100mV	0.25mV	0.25mV or 0.1%
<b>Ampere</b>	/	0~20mA	5mA	8uV	8uA or 0.1%

**Typical wiring**

