

SG-3016

Isolated strain gauge input module



Functional Description

The SG-3016 is a voltage input to voltage or current output signal conditioning module. It has 3000Vdc three-way isolation for input, output and power. It also can change the input/output range via internal configuration switches.

The SG-3016 has an LED display to show whether the SG-3016 is functioning correctly and has three VRs (Zero, Span, Exci) to calibrate accuracy of the input/output range.

The bandwidth of the SG-3016 is typically 3KHz. It is easy to mount the SG-3016 on a standard DIN rail and operate in environments with wide temperature range.

Applications

- Input/output signal conditioning
- Input, output or power isolation

Specifications

Voltage Input

- Electrical input: $\pm 10\text{mV}$, $\pm 20\text{mV}$, $\pm 30\text{mV}$, $\pm 50\text{mV}$, $\pm 100\text{mV}$

Voltage Output

- Bipolar: $\pm 5\text{V}$, $\pm 10\text{V}$
- Unipolar: $0\sim 5\text{V}$, $0\sim 10\text{V}$
- Excitation voltage: $1\sim 10\text{Vdc}$ (20 mA max)
- Output impedance: $< 50\Omega$

Current Output

- Current: $0\sim 20\text{mA}$
- Current load resistance: $0\sim 500\Omega$ (Source)

Supply Voltage

- Input Range: $10\sim 30\text{Vdc}$
- Consumption: 1.44W (voltage output)
1.74W (current output)

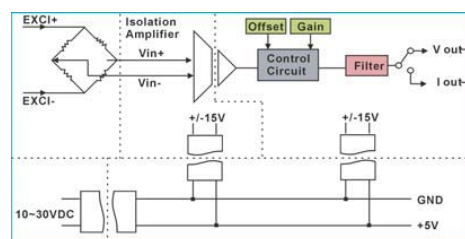
Features

- 3000Vdc isolation (three-way)
- Wide input/output range
- Stable voltage or current output
- Easy to configure input/output range
- Three VRs for calibrating accuracy of the input/output range
- Flexible DIN-rail mounting
- LED indicator

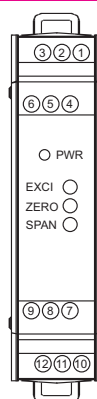
General Specifications

- Three-way isolation: 3000Vdc
- Accuracy: $\pm 0.1\%$ of full scale range
- Operation bandwidth: 3KHz
- Operating temperature: $-25\sim 75^\circ\text{C}$
- Storage temperature: $-30\sim 85^\circ\text{C}$
- Weight: 103 grams
- Dimensions: 113 mm x 70.5 mm x 24.5 mm

Block Diagram



Pin Assignment



Pin	Name
1	INPUT+
2	INPUT-
3	FGND
4	EXCI+
5	EXCI-
6	AGND1
7	VCC
8	OUT+
9	VCC
10	GND
11	OUT-
12	GND

Ordering Information

Standard

SG-3016: Isolated strain gauge input module