



SG-3016-G/SG-3016-80-G

Strain Gauge Input Signal Conditioner

Features

- Three-way Isolation: 1000 VDC
- Accuracy: $\pm 0.1\%$ of full range
- Easy to configure input/output range
- Three VRs for calibrating accuracy of the input/output range
- Flexible DIN-rail



Introduction

The SG-3016/SG-3016-80 is a voltage input to voltage or current output signal conditioning module. It has 1000 Vdc three-way isolation for input, output and power. It also can change the input/output range via internal configuration switches.

The SG-3016/SG-3016-80 has an LED display to show whether the SG-3016/SG-3016-80 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 600 Hz. The bandwidth of the SG-3016-80 is typically 80 Hz. It is easy to mount the SG-3016/SG-3016-80 on a standard DIN rail and operate in environments with wide temperature range.

Applications

- Building Automation
- Machine Automation
- Remote Diagnosis
- Factory Automation
- Remote Maintenance
- Testing Equipment

Specifications

Model Name	SG-3016	SG-3016-80
Isolation		
Three-way Isolation	1000 VDC	
LED Indicators		
Status	Yes, 1 as Power/Communication Indicator	
Analog Input		
Channels	1	
Type	± 10 mV, ± 20 mV, ± 30 mV, ± 50 mV, ± 100 mV	
Accuracy	$\pm 0.1\%$ of full range	
Bandwidth	<600 Hz	<80 Hz
Analog Output		
Channels	1	
Range	Voltage: ± 5 VDC, ± 10 VDC, (Note 1: Only supports Bipolar-type input) 0 ~ 5 VDC, 0 ~ 10 VDC (Note 2: Only supports Unipolar-type input) Current: 0 ~ 20 mA (Note 2: Only supports Unipolar-type input)	
Current Load Resistance	0 ~ 500 Ω (Source)	

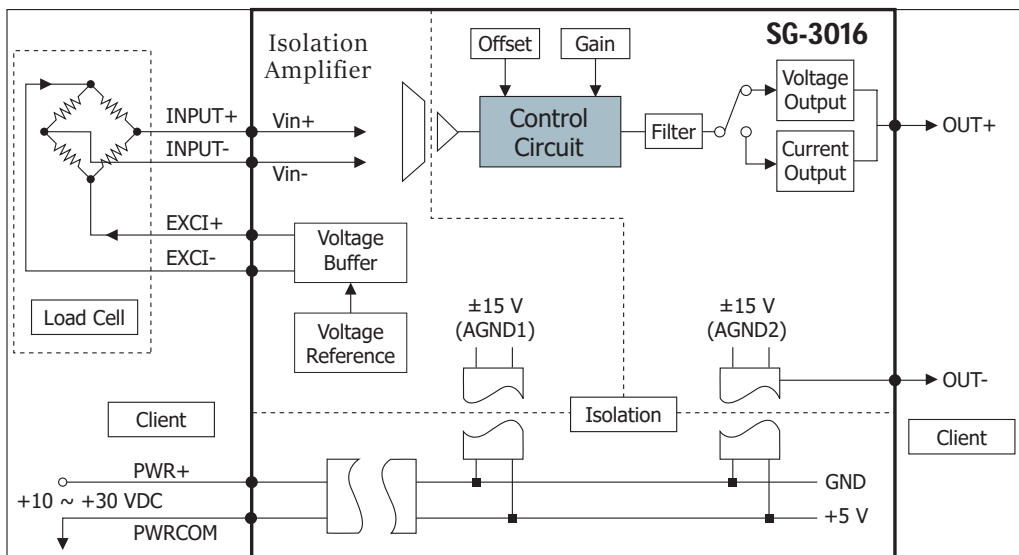
Specifications

Model Name	SG-3016	SG-3016-80
Excitation Voltage Output		
Channels	1	
Range	1 ~ +10 VDC	
Max. Load Current	+20 mA	
Power		
Reverse Polarity Protection	Yes	
Input Range	+10 ~ +30 VDC	
Consumption	1.44 W (Voltage Output), 1.74 W (Current Output)	
Mechanical		
Dimensions (mm)	25 mm x 114 mm x 70 mm (W x L x H)	
Environment		
Operating Temperature	-25°C ~ +75°C	
Storage Temperature	-30°C ~ +75°C	
Humidity	5 ~ 95%, non-condensing	

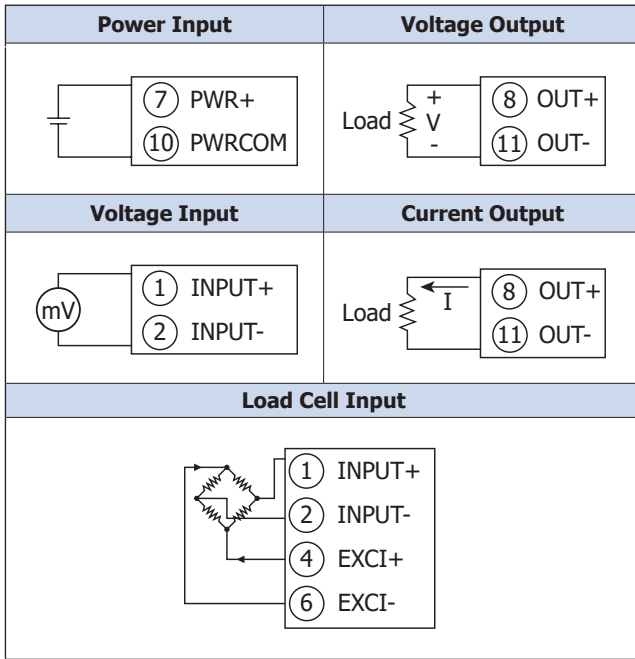
SG-3016 / SG-3016-80-G Input To Output Setting

Input	Output	Polarity
$\pm 10, \pm 20, \pm 30, \pm 50, \pm 100$ mV	± 10 V	Bipolar
$\pm 10, \pm 20, \pm 30, \pm 50, \pm 100$ mV	± 5 V	Bipolar
$\pm 10, \pm 20, \pm 30, \pm 50, \pm 100$ mV	0~10 V	Unipolar
$\pm 10, \pm 20, \pm 30, \pm 50, \pm 100$ mV	0~5 V	Unipolar
$\pm 10, \pm 20, \pm 30, \pm 50, \pm 100$ mV	0~20 mA	Unipolar

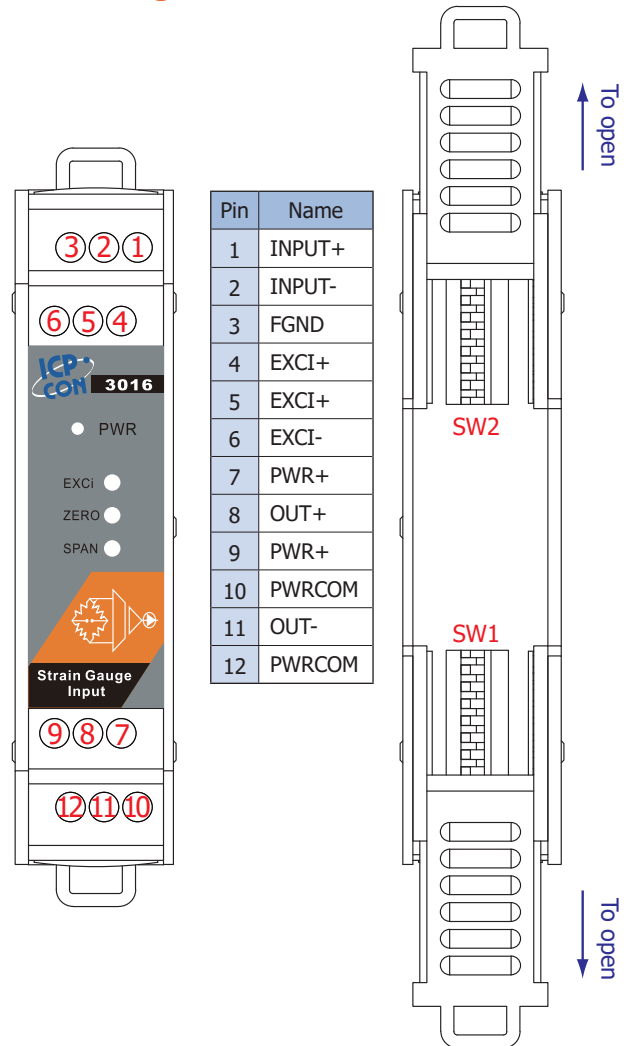
Internal I/O Structure



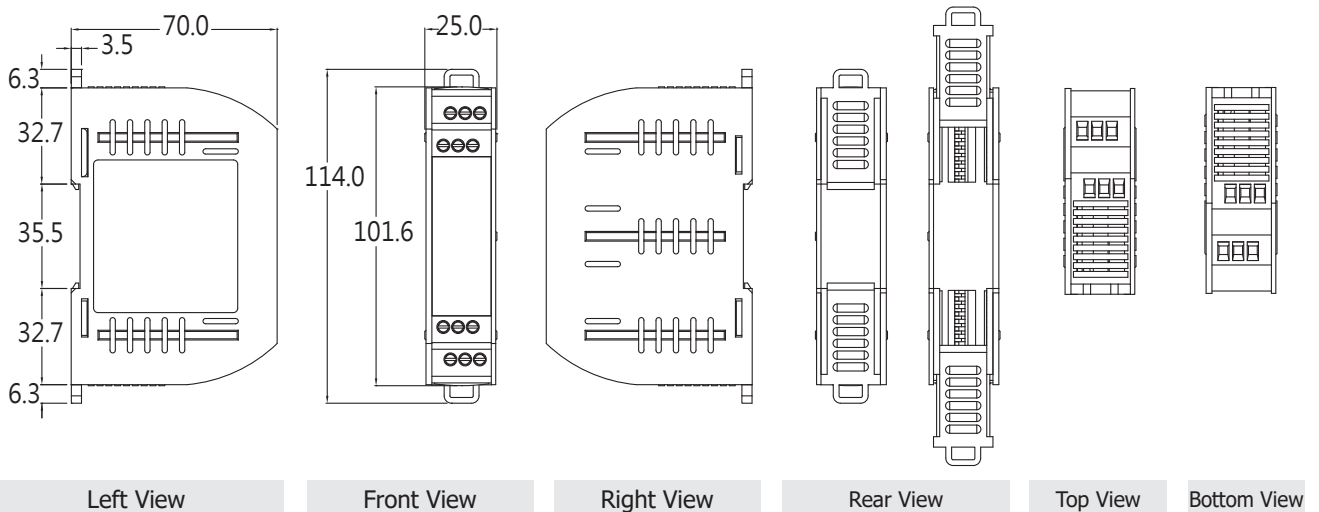
Wire Connections



PIN Assignments



Dimensions (Units: mm)



Ordering Information

SG-3016-G CR	Strain Gauge Input Signal Conditioner (RoHS)
SG-3016-80-G CR	Strain Gauge Input Signal Conditioner with 80 Hz Low Pass Filter (RoHS)