

SG-3227

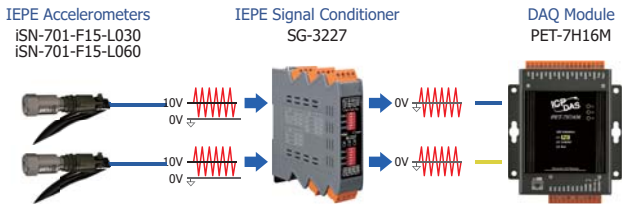
2-channel IEPE Signal Conditioner

Features

- Dual-channel IEPE input
- Independent channel configuration via DIP switches
- Selectable excitation current: 2 mA / 4 mA / 6 mA / 10 mA
- Signal Amplification of x1 , x10 and x100
- LED indicators for sensor status: Normal, Open, or Short circuit

Introduction

The SG-3227 is a 2-channel signal conditioning module designed for IEPE accelerometers. It features two independently configurable channels via DIP switch banks, supporting flexible setup for various sensor types. Selectable excitation currents (2 mA, 4 mA, 6 mA, or 10 mA) ensure broad sensor compatibility, while a built-in amplifier offers adjustable gain settings (×1, ×10, ×100) to suit different signal ranges. LED indicators provide real-time sensor diagnostics—including normal operation, open circuit, and short circuit status—minimizing wiring errors and simplifying field troubleshooting.



Applications

- Data Acquisition System
- Vibration Measurement
- Remote Diagnosis
- Testing Equipment

System Specifications

Model Name	SG-3227
LED Indicator	
System LED Indicator	1 as Power Indicator
LED Status Indicator	Yellow : Sensor Open Green : Sensor Normal Red : Sensor Short
Isolation	
Input/Output to Power	1000 VDC
EMS Protection	
ESD (IEC 61000-4-2)	±4 kV Contact for each Terminal
EFT (IEC 61000-4-4)	±4 kV for Power Line
Surge (IEC 61000-4-5)	±1 kV for Power Line
Power	
Reverse Polarity Protection	Yes
Input Range	+18 to +30 VDC
Consumption	3 W
Mechanical	
Dimensions (W x L x H)	25 mm x 120 mm x 117 mm
Installation	DIN-Rail or Wall Mounting
Environment	
Operating Temperature	-25 to +75°C
Storage Temperature	-40 to +85°C
Humidity	10 to 95% RH, Non-condensing

I/O Specifications

Model Name	SG-3227
IEPE	
Channel	2
Connectors	Screw Terminal (Including a female BNC to terminal block adaptor)
Excitation Current	2 mA / 4mA / 6mA / 10mA
Excitation Voltage	30 VDC* ; 28 VDC**
Gain	x1 / x10 / x100 for AC Coupling
Upper Cut-off Frequency	x1, x10 Gain : 80 kHz ; x100 Gain : 50 kHz
Lower Cut-off Frequency	AC Coupling (0.1uF) : 1.6 Hz AC Coupling (1uF) : 0.2 Hz
Analog Output	
Channels	2
Voltage Range	±10V
Note: (*): Non-V3 version ; (**): V3 version	

LED Indicators and Switch setting

LED Indicators	Description
RED	Sensor Short
GREEN	Normal Operation
YELLOW	Sensor Open

Coupling Setting	1	2
DC	OFF	OFF
AC (0.1 uF)	ON	OFF
AC (1 uF)	OFF	ON

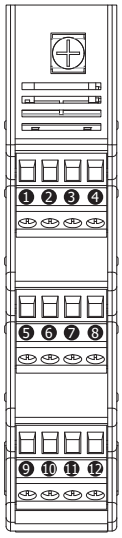
Gain Setting	3	4
x1	OFF	OFF
x10	ON	OFF
x100	OFF	ON

Excitation Current Setting	5	6
2 mA	OFF	OFF
4 mA	ON	OFF
6 mA	OFF	ON
10 mA	ON	ON

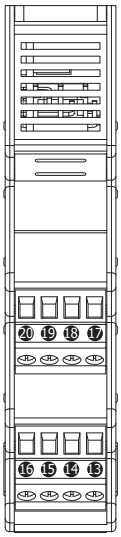
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PIN Assignment

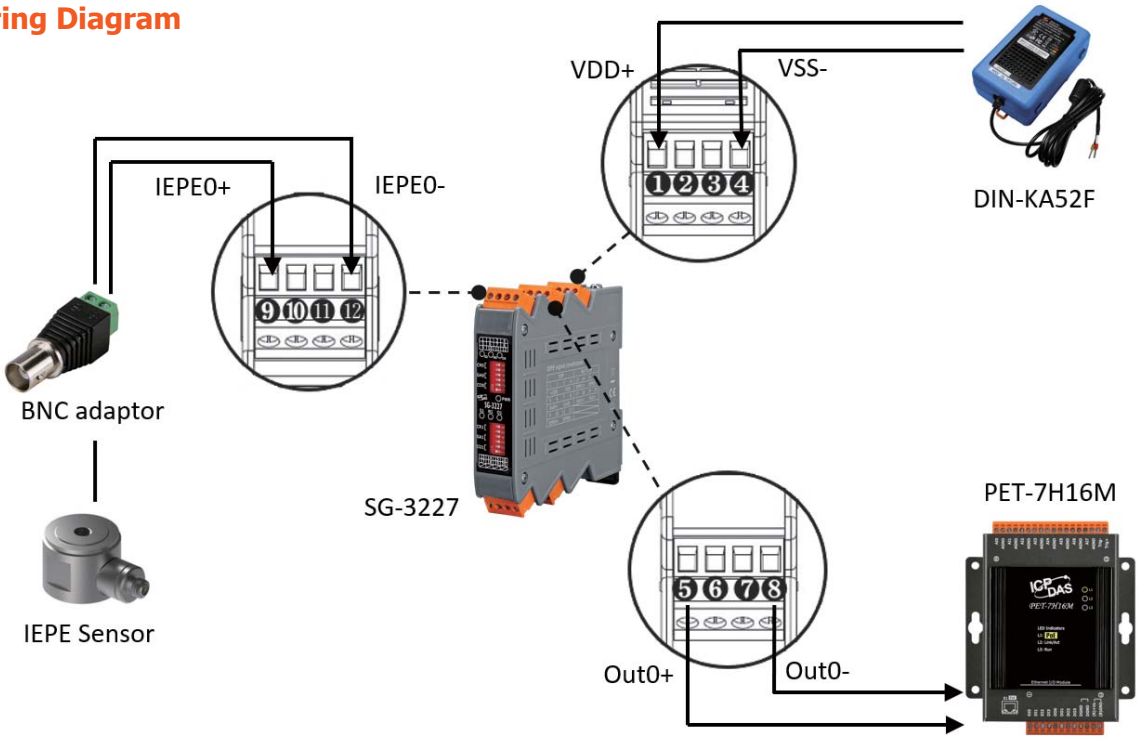
TOP			
1	2	3	4
+VDD		-VSS	
5	6	7	8
Out0+		Out0-	
9	10	11	12
IEPE0+		IEPE0-	



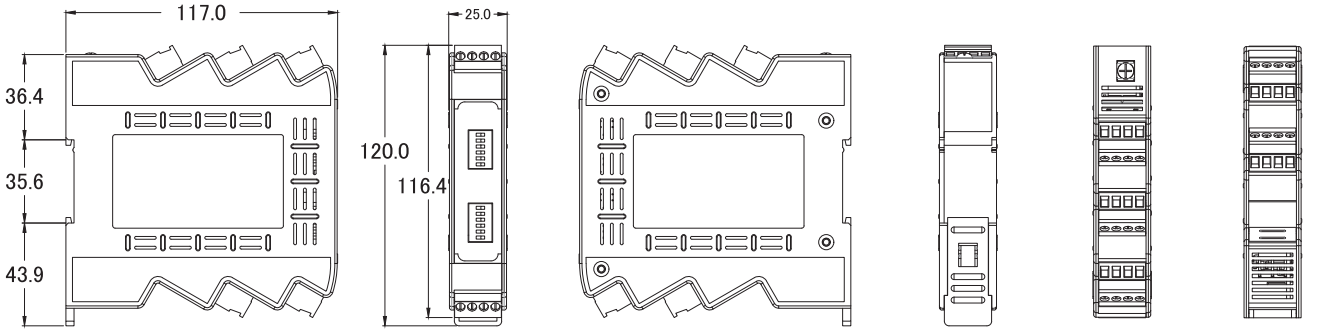
Bottom			
13	14	15	13
IEPE1+		IEPE1-	
17	18	19	20
Out1+		Out1-	



Wiring Diagram



Dimensions (Units: mm)



Left View | Front View | Right View | Rear View | Top View | Bottom View

Ordering Information

SG-3227 CR	2-channel IEPE Input Signal Conditioner (RoHS)

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