



## iSN-701X-mA/iSN-701X

Vibration Signal Converter

### Introduction

The iSN-701X series are vibration signal converter. Both of them have a built-in 4 mA excitation current to power the integrated electronic piezoelectric (IEPE) accelerometers and 24-bit A/D Converter. The iSN-701X series module converts the vibration signal into a variety of eigenvalues and provides a vibration eigenvalues threshold alarm function that sends an alarm when the eigenvalue exceeds the threshold value. Users can obtain the eigenvalues through the Modbus TCP/Modbus RTU. For controllers without communication interface, iSN-701X-mA can convert vibration eigenvalues to current value. The iSN-701X series module is recommended as your best choice for vibration monitoring and measurement.

### System Specifications

Model	iSN-701X-mA	iSN-701X
<b>LED Indicators</b>		
Status	1 X PWR, 1 X IEPE, 1 X DAQ	
<b>Analog Input</b>		
Channels	1	
Type	IEPE	
Range	±10 V	
Resolution	24 bit	
Sampling Rate	32, 64 (kHz)	
Excitation Current	4 mA	
Frequency Range	6 Hz ~ 6.4 kHz	
<b>Analog Output</b>		
Channels	Voltage x 1, Current x 1	Voltage x 1
Range	Voltage: ±10 V Current: 0~20/4~20 mA	Voltage: ±10 V
<b>COM Ports</b>		
Ports	1 x RS-485	
Baud Rate	115200 bps Max.	
Protocol	Modbus RTU	

### Features

- 1-axis IEPE vibration measurement
- Suitable for high frequency vibration measurement
- LED indicators for sensor Normal/Open/Short
- Support Modbus TCP/RTU slave protocol
- Data Format:
  - Acceleration: RMS, Maximum, P-P
  - Velocity: RMS
  - Displacement: P-P
  - Crest Factor
  - Top 20 spectrum values(Magnitude/Frequency)
- Vibration eigenvalues threshold alarm function
- The conversion of vibration eigenvalues to current output, suitable for integration into controllers without communication interface (iSN-701X-mA)

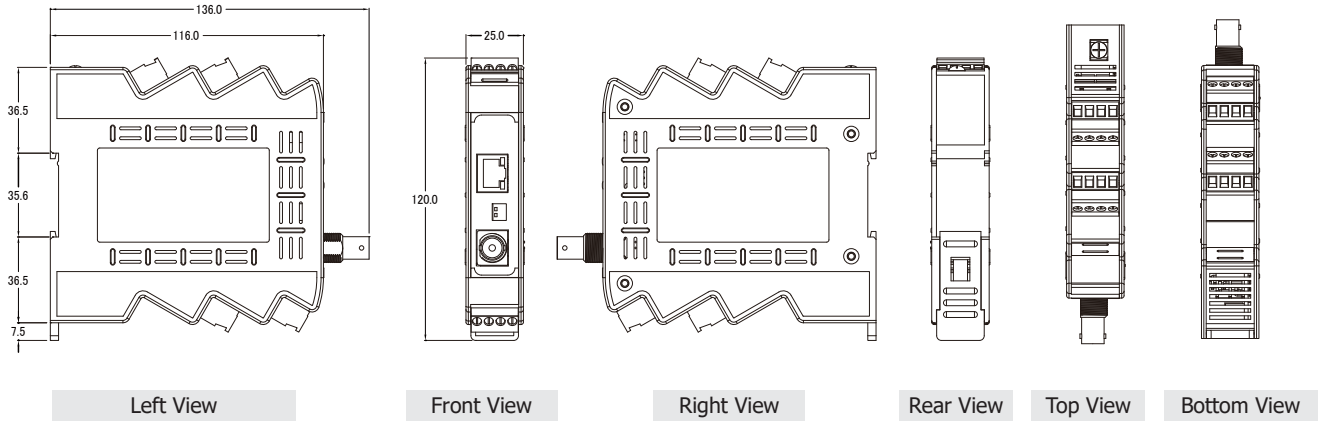


### Applications

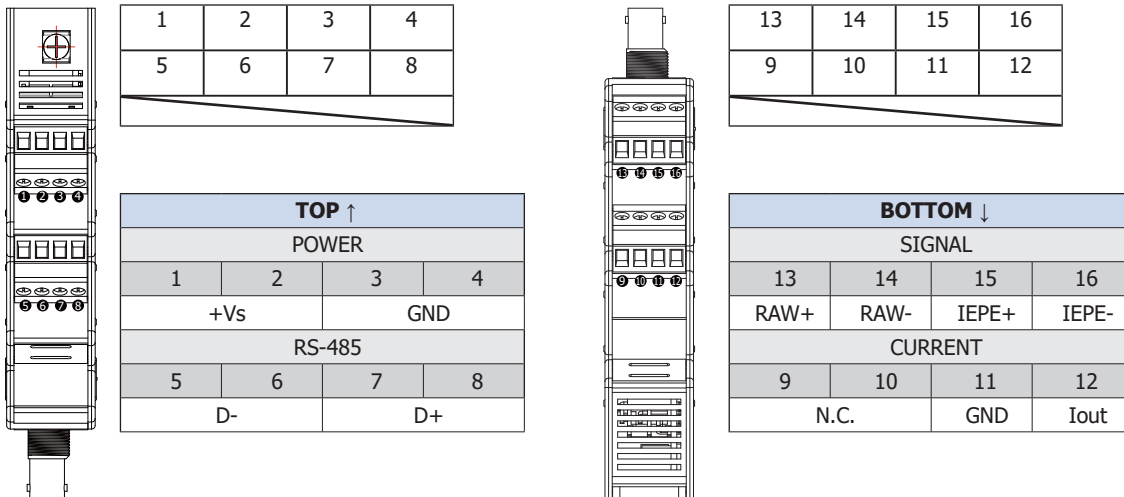
- Big data analysis
- System monitoring
- Trend analysis
- Predictive maintenance

Model	iSN-701X-mA	iSN-701X
<b>Ethernet</b>		
Ports	1 x RJ-45, 10/100Base-T(X)	
Protocol	Modbus TCP	
<b>Power</b>		
Input Range	+10 ~ +30 VDC	
Consumption	2.5 W	
<b>Mechanical</b>		
Dimensions (mm)	25 mm x 120 mm x 117 mm (W x L x H)	
Installation	Din-Rail	
<b>Environment</b>		
Operating Temperature	-25 ~ +75 °C	
Storage Temperature	-30 ~ 80 °C	
Humidity	10 ~ 90% RH, non-condensing	

## Dimensions (Units: mm)



## Pin Assignments



## Ordering Information

<b>iSN-701X-mA CR</b>	Modbus TCP/RTU, Vibration signal to Current converter, 1 channel (RoHS)
<b>iSN-701X CR</b>	Modbus TCP/RTU, Vibration signal to Modbus slave converter, 1 channel (RoHS)

## Accessories

<b>iSN-701-F15-L030 CR</b>	1-axis accelerometer, Range 80g, Sensitivity 100mV/g, Frequency 15 kHz, includes 300 cm cable (RoHS)
<b>iSN-701-F15-L060 CR</b>	1-axis accelerometer, Range 80g, Sensitivity 100mV/g, Frequency 15 kHz, includes 600 cm cable (RoHS)
<b>iSN-701-MBase01 CR</b>	Magnetic Base for iSN-701 series (RoHS)