

iSN-701X-mA/iSN-701X

Vibration Signal Converter

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)

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.

Applications

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

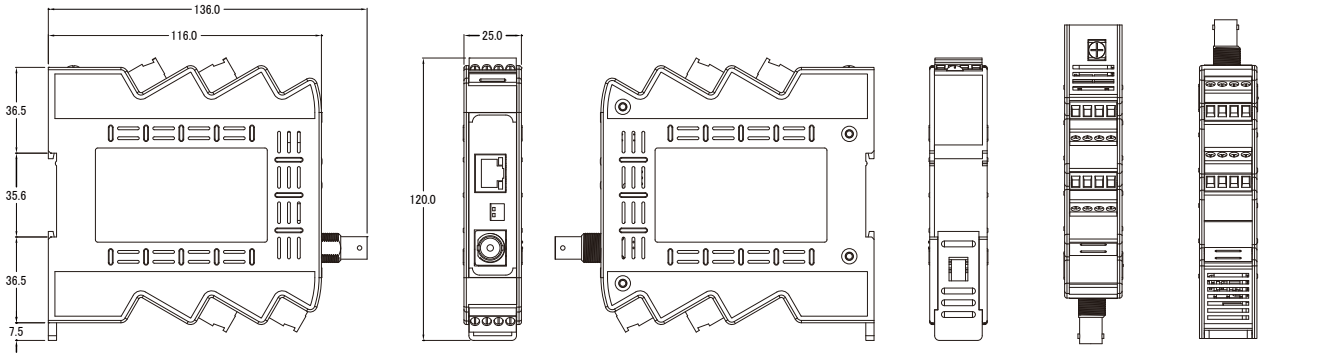
System Specifications

Model	iSN-701X-mA	iSN-701X
LED Indicators		
Status	1 X PWR, 1 X IEPE, 1 X DAQ	
Analog Input		
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	
Analog Output		
Channels	Voltage x 1, Current x 1	Voltage x 1
Range	Voltage: ±10 V Current: 0~20/4~20 mA	Voltage: ±10 V
COM Ports		
Ports	1 x RS-485	
Baud Rate	115200 bps Max.	
Protocol	Modbus RTU	

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

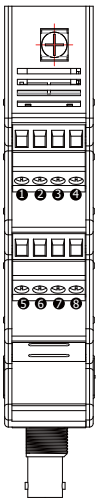
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Dimensions (Units: mm)



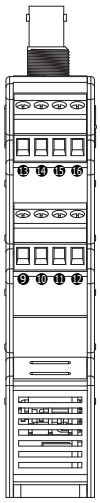
Left View | Front View | Right View | Rear View | Top View | Bottom View

Pin Assignments



1	2	3	4
5	6	7	8

TOP ↑			
POWER			
1	2	3	4
+Vs		GND	
RS-485			
5	6	7	8
D-		D+	



13	14	15	16
9	10	11	12

BOTTOM ↓			
SIGNAL			
13	14	15	16
RAW+	RAW-	IEPE+	IEPE-
CURRENT			
9	10	11	12
N.C.		GND	Iout

Ordering Information

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

Accessories

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

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