

## I-87089W

### 1-channel Vibrating Wire Input Module



Model: I-87089W

### Features

- Support 8 ~ 32 Vibrating Wire inputs.
- Support 450 ~ 6000 Hz Vibrating Wire sensor.
- Support channel to channel isolation.

### Introduction

The vibrating wire sensor has a wire which is initially plucked by a series of electrical magnetic forces from a coil. The conductive wire after plucking is vibrating in a magnetic field. The wire will disturb the field, and then the coil can pick up the induced voltage change. The signal is amplified and detected by a VW readout device, or called VW reader. After plucking, there is no other force acting on this wire. When the transient response dies out, the reader can read a stable resonant frequency. The resonant frequency is function of the tension of this wire.

### Applications

The I-87089W/S can be extended to 32 channels by connecting 3 extra DN-1618UB.

### Specifications

Vibrating Wire Input	
Input Channels	8
Input Type	Vibrating Wire Sensor ( 2 VW wire + 2 Temperature wire + 1 shield wire)
Measuring Range	Wire: 450 ~ 6000 Hz
	Temperature: -20 °C ~ +50 °C
Excitation mode	Enhanced square wave
Resolution	Wire: $\pm 0.1\text{Hz}$ % of FSR
	Temperature: $\pm 0.1^\circ\text{C}$ % of FSR
Channel to channel isolation	Yes, 1 kV
System	
Dual Watchdog	Yes
Isolation	3000 Vdc
Connector	D-Sub 37
Communication Interface	
RS-485 (Data+, Data-)	D-sub 37-pin connector with 3000VDC isolation
Protocol	115200, 8, N, 1
LED Display	
2 LED as Power Indicator	
8 LEDs as 8-channel relay Indicator @ DN-1618UB	
Power	
Power Consumption	3.6 W
Environment	
Operating Temperature	-25 ~ 75 °C
Storage Temperature	-30 ~ 75 °C
Humidity	5 ~ 95% RH, non-condensing
Dimensions	
30mm x 102mm x 115mm(W x L x H)	

### Ordering Information

I-87089W-G 1-channel Vibrating Wire Input Module