

VibroTrol 2168 Dual Channel signal conditioner

1. OVERVIEW



The VibroTrol 2168 dual channel signal conditioners accept signals from casing mounted vibration sensors to protect rotating machinery. These sensors could be any piezoelectric accelerometer and vibration velocity sensor with output voltage signal mv of variety sensitivity. The conditioners with independent pluggable structure provide redundant 24 VDC power supply, each channel card gives isolated 4-20 mA signal and at the same time provides SPDT relay contacts signal for Alarm and Danger.



VibroTrol 2168 dual channel signal conditioner can accept signals from any vibration sensors (Bently, Metrix, PCB, etc.), providing constant current excitation power supply for them and displaying amplitude of the vibration acceleration, vibration velocity and displacement of rotating machinery being monitored. And it transmits 4-20 mA proportional to the vibration value to PLC and DCS. Several VibroTro 2168 dual-channel vibration conditioners can connect with each other via Modbus 485 and communicate with control system.

The VibroTrol2168 can be mounted either on panel with indicator or on a DIN rail via adapter.

2. Product Features

- Independent pluggable and hot pluggable
- Redundant 24 VDC power supply

- 4-20mA proportional to the vibration velocity and acceleration and displacement
- Modbus485
- Standard built-in isolated barrier for strong anti-interference
- Power, input signal and output signal is isolated respectively.
- BNC interface provides dynamic buffer signal
- Chinese and English menu
- Three-key settings
- Two types of mounting styles

3. Applications

- Blower Centrifuge
- Engine Motor
- Electrical generator Compressor
- Fan Turbocharger
- Turbine Pump

4. Technical specifications

Power supply: 18-36VDC, 200mA

Support ICP acceleration sensor

configured band-pass filter: 4Hz-5kHz

sensitivity of input sensor: 4 mV -1000mV

Full Scale Output Range: 2-50g pk-pk

Paranoid voltage: 8-12VDC

constant current source: 4mA

open -circuit voltage: 24VDC

Accuracy: ±2%

Independent 24 A/D for each channel

Buffered output

Dynamic buffer signal

Monitor with two BNC buffered output connector

Relay output

Each channel has two SPDT relay output which can be either set as NC or NO or configured logically.

Isolation resistance: min.1000MΩ @500VDC

NC contact resistance: Max. 1Ω

NO contact resistance: min.10MΩ

Max. contact current :

8A@220VAC/5A@24VDC

Max. contact voltage: 220VAC/24VDC

4-20mA output

Two 4-20mA outputs

Output 4-20mA proportional to the measured parameters within full scale range

Load Resistance (RL): 0-600Ω

Refresh rate: 20ms~50ms

OLED display:

Via LCD display, the user can view the vibration value, the settings of the equipment, spectrogram, stick figure of H and HH alarm in both Chinese and English menu.

Configuration : For mounting on panel, it can be set by three keys and for mounting on DIN rail, it can be set in computer via USB.

Refresh rate: 20ms~50ms

Communication:

Modbus485

Environment requirements:

Operating temp.: -40°C~+85°C

Humidity: Max. 95%, No condensation

Vibration limit: 50g

Hole dimensions for mounting on panel

106mm×78mm

Mounting style:

On panel (with display) or on DIN rail(without display)

5. Selection Guides

VibroTrol 2168-AA

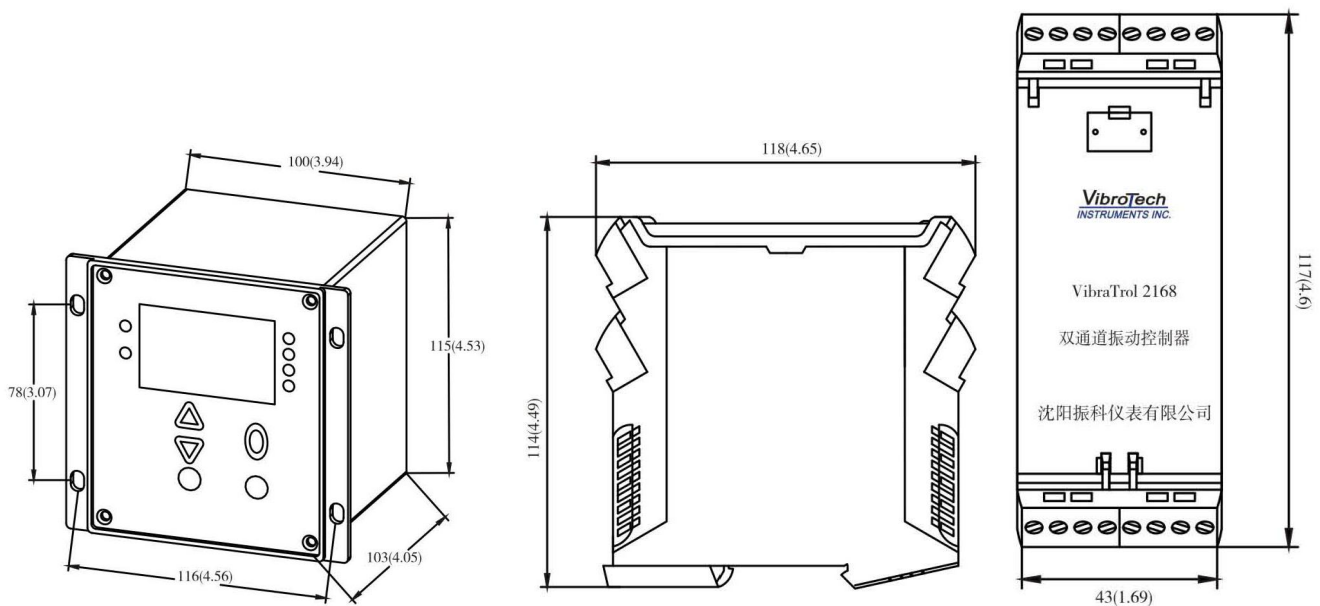
AA: mounting style

00 DIN rail (without display)

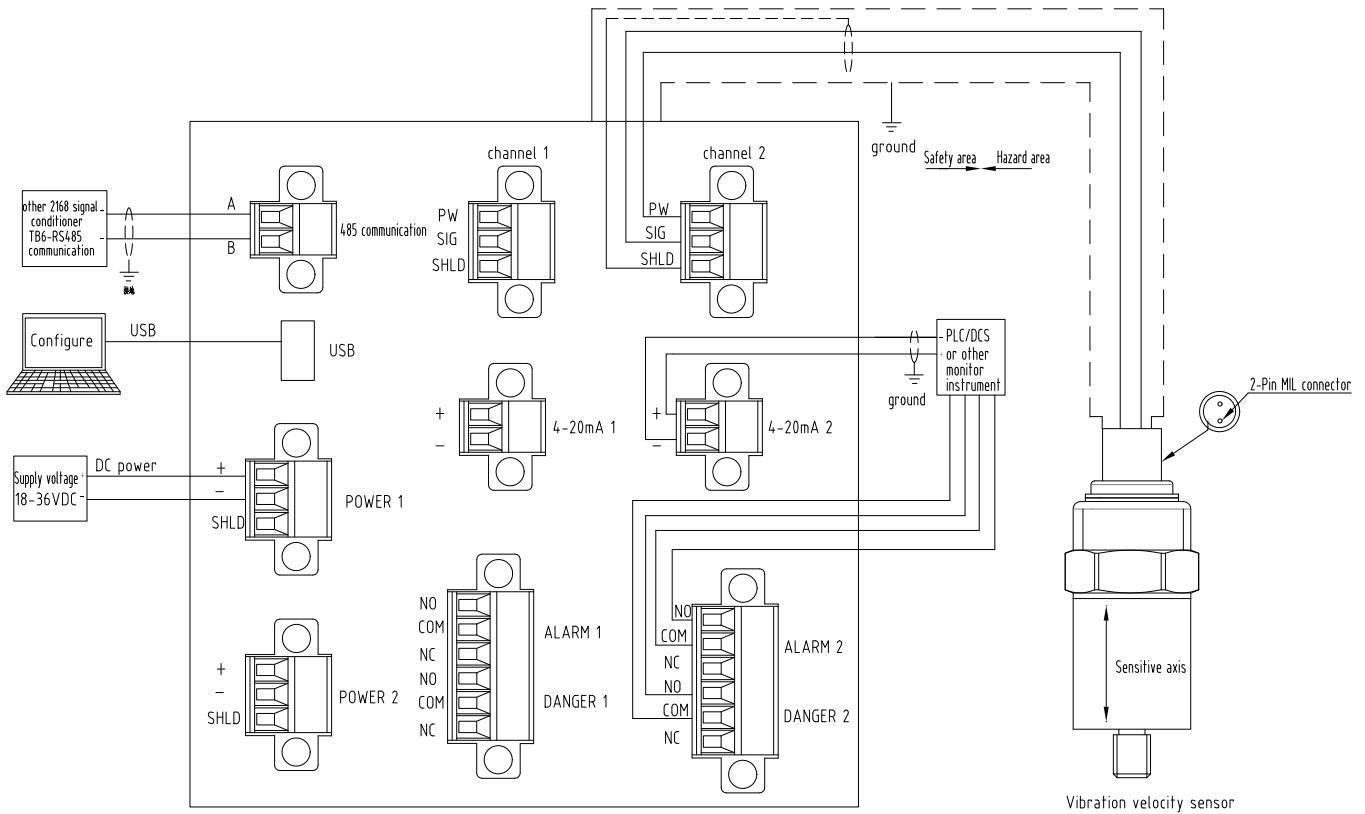
11 On panel (with display) or on

Notes: If the user needs to convert the sensor output signal to negative signal output and connect with the monitor racks, add -S after the model number, only the DIN rail can be selected.

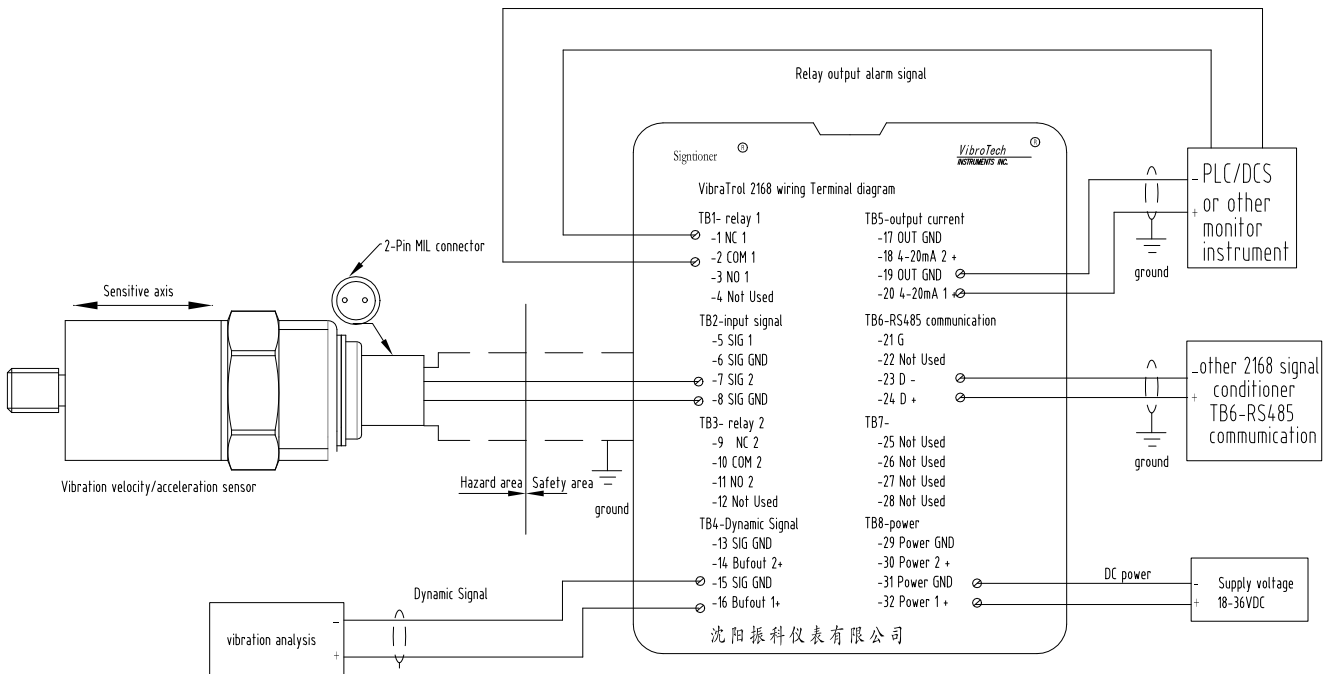
6. Dimensions (unit: mm/in)



7.Wiring



Terminals assignment for conditioner with display



Terminals assignment for conditioner mounted on DIN rail