



VT177230 Vibration Transmitter

Overview

VT177230 Vibration transmitter is digital circuit power supply equipment, measuring the vibration of rotating machinery, transmitter detects output and vibration proportional to 4-20mA signal and 100mV/g dynamic signal, it can transmitted directly to programmable logic controller (PLC), Distributed Control System (DCS), or any other 4-20mA input instrumentation.

The VT177230 is separate case mounted vibration transmitter which install directly to any rotating machine and bearing housing.

Product Feature

Connect directly to PLC & DCS or other control systems

No field configuration required

Accurate data

Provides & validation raw vibration signals analysis

Digital Circuit

Integrated anti-surge protection

4-20mA signal in proportion to velocity full scale

RSL Technology

2 or 3 Pin MIL Connector

HART Communication

Application

Blower Centrifugal Separator

Compressor engine

Motor Generator Pump

Fan Turbocharger Turbine



VT177230 Vibration Transmitter

Technical Specification

Range: Full scale range See order Guide BB,
4-20mA signal proportional to
velocity full scale

Accuracy: $\pm 1\%$

Linear: $\pm 1\%$

Sensitivity: 100mV/g ($\pm 10\%$)

Frequency Response: 5-1500Hz

Sensitive Axis: Same as stud axis

Supply Voltage (Vs) : 12-30VDC

Cross sensitivity: $< 5\%$

Resonant Frequency: $> 12\text{KHz}$

Sensing Type: Ceramic material/Shear force

Enclosure Material: 304SS

Operation Temp: $-55^{\circ}\text{C} \sim +75^{\circ}\text{C}$

Storage Temp: $-60^{\circ}\text{C} \sim +125^{\circ}\text{C}$

Settling Time: < 5 Second

Humidity: 100%,

Case Isolation: $\leq 400\text{A/m}$

Enclosure Rating: IP66

Hazardous Rating: NEPSI, Ex ia IIC T4 Ga

Barrier: Isolated or safety barrier

Connection (2 Pin) : Loop Power connection

(3 Pin)

Pin A: 4-20mA Loop (Positive)

Pin B: 4-20mA Loop (Negative)

Pin C: Dynamic Signal (No Buffering)

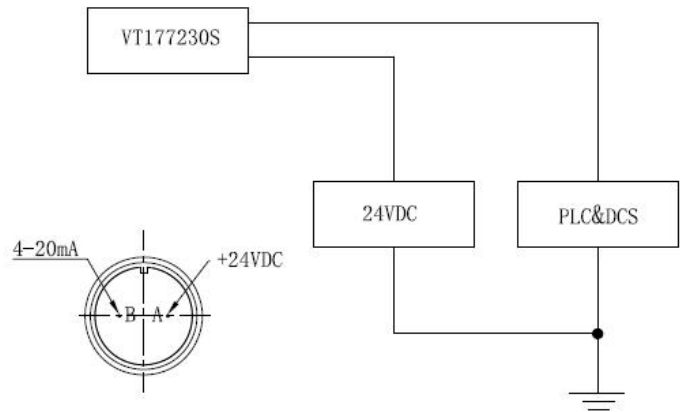
Mounting Stud: 1/4" -28UNF

Mounting Thread: M6 \times 1-10; M8 \times 1.25-10;

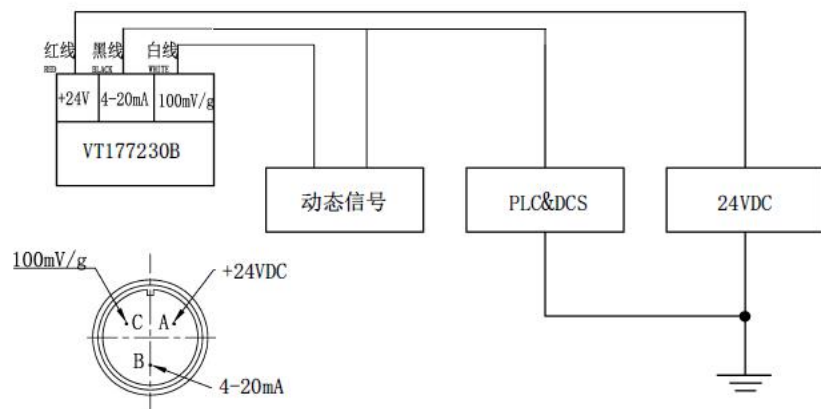
1/4" -28UNF

Maximum Load (R_L) : $R_L = 50 \times (V_s - 12) \Omega$

Connection Diagram



2 Pin MIL Connector Loop Power



2 Pin Connector, Dynamic Signal Output

A: Positive (4-20mA)

B: Negative (4-20mA) General Dynamic Signal

C: Dynamic Signal

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Order Guide VT177230A-BB-CC-DD-E

A: Dynamic Signal

S: No Dynamic Signal Output, 2 Pin

B: Dynamic Signal Output, 3 Pin

HART Code H after S/B

BB: 4-20 mA Full Scale Range

- 00 0-12.7mm/s (0-0.5in/s) , pk
- 01 0-25.4mm/s (0-1.0in/s) , pk
- 02 0-50.8mm/s (0-2.0 in/s) , pk
- 03 0-10mm/s (0-0.4in/s) , pk
- 04 0-12.7mm/s (0-0.5in/s) , rms
- 05 0-10mm/s (0-0.4in/s) , rms
- 06 0-25.4mm/s (0-1.0in/s) , rms
- 07 0-50.8mm/s (0-2.0 in/s) , rms

CC: Frequency

- 01 5Hz-1500Hz
- 02 10Hz-1000Hz

DD: Hazardous Area Rating

- 00 None
- 05 NEPSI, Exia IIC T4

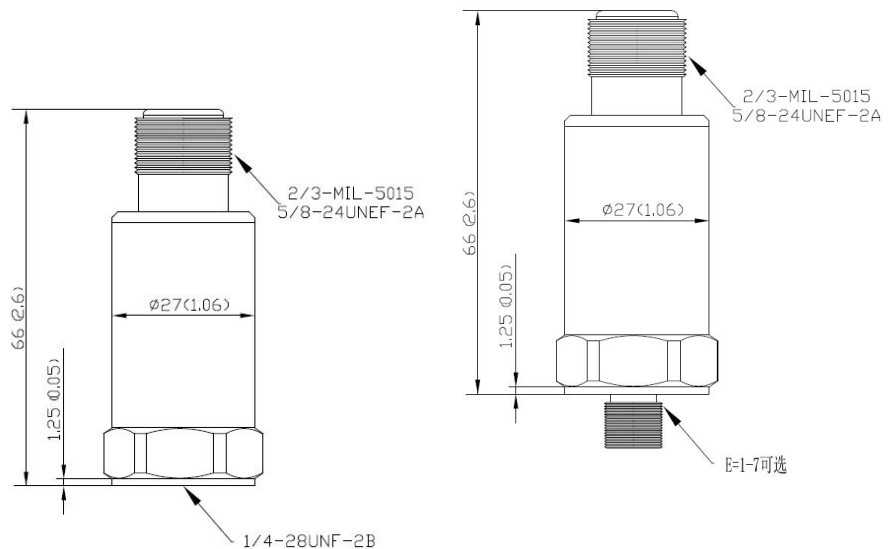
E: Mounting Stud

- 0 Insert Stud
- 1 M8×1.25-8
- 2 M6×1-8
- 3 M10×1-8
- 4 1/4"-20UNC
- 5 1/4"-28UNF
- 6 M8×1-8
- 7 M10×1.25-8

Insert Stud

- 135826-01**
M-M1/4-28UNF 到 M10×1.0-8
- 135826-02**
M-M1/4-28UNF 到 M8×1.0-8
- 135826-03**
M-M1/4-28UNF 到 M8×1.25-8
- 89139-01**
M-M1/4-28UNF 到 3/8-24UNF
- 128038-01**
M-M1/4-28UNF 到 3/8-24 Hex(1-3/8"×0.25")
- 146396-01**
F-M1/4-18NPT 到 1/4-28
- 146394-01**
F-M1/4-28UNF 到 1/4-18NPT
- 37439-01**
F-M1/4-28UNF 到 1/4-28UNF
- 164373**
M-M1/4-28UNF 到 1/4-28UNF Brass

Dimension



Insert Stud Require

All in One

单位: mm (in)