

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 Pins MIL Connector

HART Communication

Application

| | | |
|------------|-----------------|-----------|
| Blower | Centrifugal | Separator |
| Motor | Generator | Pump |
| Fan | Turbocharged | Engine |
| Compressor | Machine Turbine | |

VT177230 Vibration Transmitter

Technical Specification

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

Accuracy: ±1%

Linear: ±0.5%

Sensitivity: 100mV/g (±10%)

Frequency Response: 2-1500Hz

Sensitive Axis: Same as stud axis

Supply Voltage (Vs): 12-28VDC

Cross sensitivity: <5%

Resonant Frequency: >12KHz

Shell Material: 304SS; optional: 316L

Operation Temp: -55 °C~+80 °C

Storage Temp: -60 °C~+125 °C

Settling Time:<5s

Humidity:100%

Case Isolation: ≤400A/m

Enclosure Rating: IP66

Hazardous Rating: Ex ia IIC T4 Ga; Ex na IIC T4 Gc

Mounting Stud:1/4"-28UNF

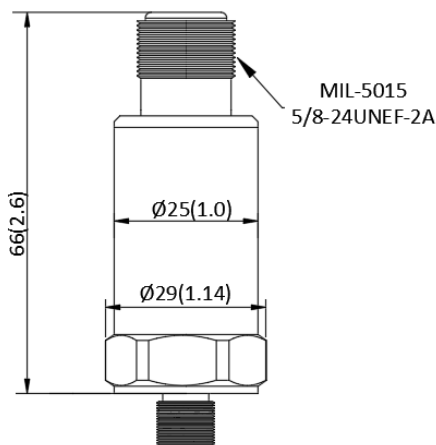
Mounting Thread: Optional

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

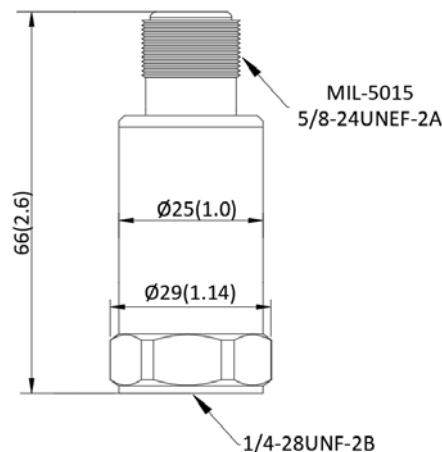
EMC: EN61000-6-2/EN61000-6-4

IEC61000-4-2~6

Dimension



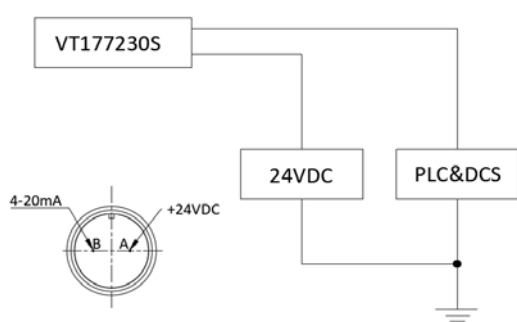
Integral mounting bolts



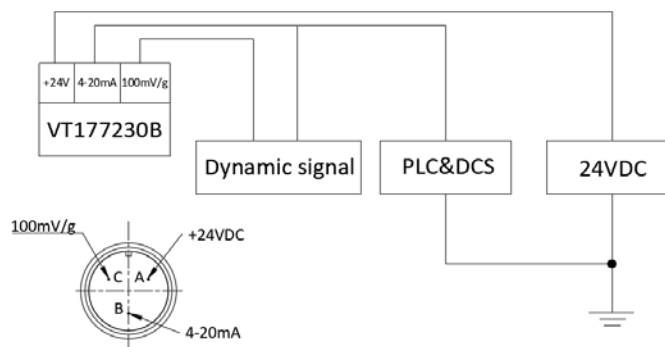
Split mounting bolts

Unit:mm(in)

Wiring Diagram



Two-wire, without dynamic signal output



Three-wire, with dynamic signal output

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Order Guide VT177230A-BB-CC-DD-E-F

A: Dynamic Signal

S MIL-5015 Two pins, without dynamic signal

B MIL-5015 Three pins, with dynamic signal

If you need HART protocol, add code H after S/B

BB: Full Scale Range

Vibration velocity peak value

00 12.7mm/s(0-0.5in/s), pk

01 25.4mm/s(0-1.0in/s), pk

02 50.8mm/s(0-2.0 in/s), pk

03 10mm/s(0-0.4in/s), pk

09 20mm/s(0-0.8in/s), pk

10 32mm/s(1.26in/s), pk

Vibration velocity rms value

04 12.7mm/s(0-0.5in/s), rms

05 10mm/s(0-0.4in/s), rms

06 25.4mm/s(0-1.0in/s), rms

07 50.8mm/s(0-2.0 in/s), rms

08 20mm/s(0-0.8 in/s), rms

11 32mm/s(1.26in/s), rms

Vibration acceleration peak value

30 2g, pk

31 5g, pk

32 10g, pk

33 16g, pk

34 20g, pk

35 50g, pk

Vibration acceleration rms value

50 2g, rms

51 5g, rms

52 10g, rms

53 16g, rms

54 20g, rms

55 50g, rms

Vibration displacement

20 100μm, pk- pk

21 125μm, pk- pk

22 150μm, pk- pk

23 200μm, pk- pk

24 250μm, pk- pk

25 500μm, pk- pk

26 1000μm, pk- pk

CC: Frequency Response

01 2Hz-1500Hz

02 10Hz-1000Hz

DD: Explosion-proof Grade

00 Safety zone

05 NEPSI, Ex ia IIC T4 Ga

06 NEPSI, Ex na IIC T4 Gc

E: Installation Thread

0 Split stud joint

1 Integral M8×1.25-8

2 Integral M6×1-8

3 Integral M10×1-8

4 Integral 1/4"-20UNC

5 Integral 1/4"-28UNF

6 Integral M8×1-8

7 Integral M10×1.25-8

F: shell Material

0 304SS

1 316L

Studs and joints

135826-01 M-M1/4-28UNF to M10×1.0-8 standard stud bolts

135826-02 M-M1/4-28UNF to M8×1.0-8 standard stud bolts

135826-03 Standard studs from M-M1/4-28UNF to M8×1.25-8

89139-01 M1/4-28UNF to 3/8-24UNF standard studs

89139-02 M-M1/4-28UNF to 1/8NPT standard studs

146396-01 F-M1/4-18NPT to 1/4-28 UNF connector

146394-01 F-M1/4-28UNF to 1/4-18NPT connector

37439-01 F-M1/4-28UNF to 1/4-28UNF mounting base

If you need special bolt joints, please contact the factory