DM1201 Dual-Channel A/V/D Case Vibration Monitor

Condition Monitoring

- ✓ Measuring rotation machinery vibration. Such as case vibration, bearing housing vibration, structural vibration. Output in acceleration, velocity or displacement.
- ✓ Monitoring vibration increase due to imbalance, misalignment, looseness, rolling-element bearing failure, defect gearbox.
- ✓ Can be used in hazardous area.

Machine Type

- ✓ All kinds of rotation machines. Such as blower, compressor, electric motor, pump, gearbox, and power generators etc.

Sensor Installation

- ✓ Only need to mill a flat base of 1.5 inches in diameter, and drill a 1/4-28" hole in the middle to install the sensor. No need to do anything inside the machine.

Feature

- ✓ 4-20mA output.
- ✓ LED indication of system OK, Alert and Danger.
- ✓ 3 1/2 LCD display channel overall.
- ✓ Relay output of Alert and Danger (SPDT).
- ✓ Local and remote RESET/BYPASS.
- ✓ Buffered Output
- ✓ AC power input.

Specifications

Electrical

Power Supply:
B02: 90~250VAC, 50mA.
B00: 220VAC+/-20% 50mA
B01: 110VAC+/-20% 50mA

Frequency Response (±3dB):
Acceleration: 2.0 ~ 10KHz.
Velocity: 10 ~ 5KHz.
Displacement: 10 ~ 3KHz.
Acceleration (low frequency): 1.0 ~ 100Hz.
Velocity (low frequency): 1.5 ~ 100Hz.
Displacement (low frequency): 2.0 ~ 100Hz.

Sensor Interface:
Sensitivity:
100mV/g for accelerometer.
Or
4.0mV/mm (100mV/in/sec) for velocity sensor.
Current Source
Nominal 4mA@24VDC.
Connectors:
POW/A: power(red).
SIG/B: com(white).

Buffered Output:
Original vibration, un-filtered.
Impedance: 100 Ω.
Maximum cable distance: 300m (1000ft).
Sensitivity: same as the sensor specification.

Overall Vibration:
4-20mA, source.
Driving load resistance up to 750 Ω.

Alarm Setup:
0 ~ 100% FS.
Accuracy: ±0.1%.

Relays:
Seal: Epoxy.
Capacity: 2A/220VAC or 2A/24VDC, resistive load.
Relay type: SPTD.
Isolation: 1000VDC.

Factory Default:
Relay normally latched and de-energized.
Timed alarm defect is approx. 3 seconds.
Power-up inhibit is set to 10 seconds nominal.

LED Machine Condition Indicator:

Green: Self-test passed, System works OK.

Yellow: Vibration over Alert level.

Red: Vibration over Danger level.

RESET/BYPASS:
Local reset is on monitor front panel.
Remote RESET/BYPASS: Short the connector pin RESET and COM will engage system reset and bypass.

Physical

Weight: 1.0kg (2.0lb).

Environmental

Temperature:
Operation: 0°C ~ +60°C.
Storage: -40°C ~ +100°C.
Humidity:
90% non-condensing.

Ordering Information

Standard Configuration:
DM1201-A09
Accelerometer kit:
TM0783A

DM1201-AXX-BXX

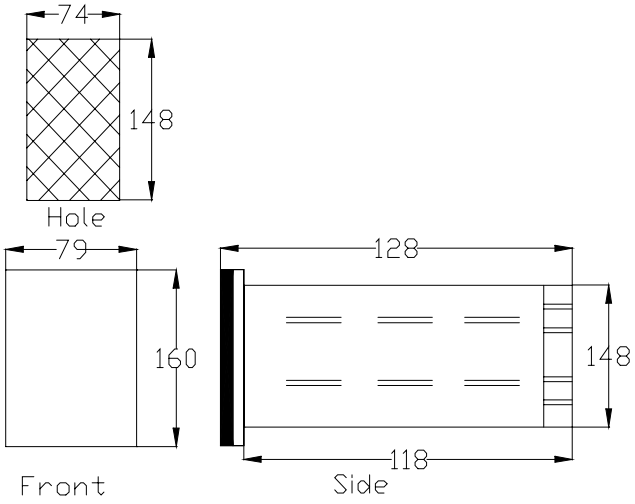
AXX: Full Scale

A00: 0 ~ 200um pk-pk
A01: 0 ~ 500um pk-pk
A02: 0 ~ 100um pk-pk
A03: 0 ~ 10mil pk-pk
A04: 0 ~ 25mil pk-pk
A05: 0 ~ 5.0mil pk-pk
A06: 0 ~ 50mm/s pk
A07: 0 ~ 100mm/s pk
A08: 0 ~ 20mm/s pk
A09*: 0 ~ 2.0ips pk
A10: 0 ~ 4.0ips pk
A11: 0 ~ 1.0ips pk
A12: 0 ~ 5.0g pk
A13: 0 ~ 10g pk
A14: 0 ~ 5.0g pk (0.5 ~ 100Hz)
A15: 0 ~ 10g pk (0.5 ~ 100Hz)
A16: 0 ~ 50mm/s pk (1.5 ~ 100Hz)
A17: 0 ~ 100mm/s pk (1.5 ~ 100Hz)
A18: 0 ~ 500um pk-pk (2.0 ~ 100Hz, with TM0793V)
A19: 0 ~ 200um pk-pk (2.0 ~ 100Hz, with TM0793V)
A20: 0 ~ 2.0ips pk (1.5 ~ 100Hz)
A21: 0 ~ 4.0ips pk (1.5 ~ 100Hz)
A22: 0 ~ 20mil pk-pk (2.0 ~ 100Hz, with TM0793V)
A23: 0 ~ 10mil pk-pk (2.0 ~ 100Hz, with TM0793V)

BXX: Power Supply

B00: 220VAC
B01: 110VAC

* Denote factory default.



DM1201 Accessories

DM1201 must works with external accelerometer or velocity sensors as a system.

TM0782A-K: Accelerometer kit.
TM0783A: Accelerometer w / cable.
TM0793V-K: Velocity sensor kit.

DM1201 Field-wiring Diagram