



TM101 Transmitter-Monitor with Acceleration, Velocity and Displacement

Condition Monitoring

- ✓ Measuring any rotation machinery vibration.
- ✓ System can be used in hazardous area.

Output

- ✓ 4-20mA or 1-5V, source.
- ✓ Acceleration, velocity or displacement
- ✓ LED indication of system OK, Alert and Danger.
- ✓ Relay output of Alert and Danger (SPDT).
- ✓ Local and remote RESET/BYPASS.
- ✓ Buffered Output for condition monitoring
- ✓ 24VDC, 110VAC or 220VAC power input.



Specifications

Electrical

Power Supply:

22-30VDC, 100mA (Non isolated).
90 - 250VAC, 50Hz or 60Hz, 50mA.

Frequency Response (± 3 dB):

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/sec (100mV/in/sec)
for velocity sensor.

Current Source

Nominal 4mA @ 24VDC.

Connectors:

A/P: power(red).
B/S: com(white).

Buffered Output:

Original vibration, un-filtered.
Impedance: 100 Ω .

Maximum cable distance: 300m (1000ft).

Sensitivity: same as the sensor.

Overall Vibration:

4-20mA, source.

Driving load resistance up to 750 Ω .
1-5V, source.

Output impedance 250 Ω .

Alarm Setup:

0 ~ 100% FS.

Accuracy: $\pm 0.1\%$.

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

Dimension: Height: 75mm (2.95"), see
figuration.

Weight: 2.0lb (1.0kg).

Environmental

Temperature:

Operation: $-35^{\circ}\text{C} \sim +70^{\circ}\text{C}$.

Storage: $-40^{\circ}\text{C} \sim +100^{\circ}\text{C}$.

Humidity:

90% non-condensing.

Ordering Information

Standard Configuration:

TM101-A09-B00-C00-D00-E00-G00

Accelerometer kit:

TM0782A-K

**TM101-AXX-BXX-CXX-DXX-E
XX-GXX**

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*: +24VDC
- B01: 220VAC
- B02: 110VAC
- B03: 90~250VAC

CXX: Alarm.

- C00*: With Epoxy sealed relays
- C01: No Alarm

DXX: Overall Vibration.

- D00*: 4-20mA
- D01: 1-5V

EXX: Buffered Output.

- E00*: With Buffered Output.
- E01: Without Buffered Output.

GXX: Mounting.

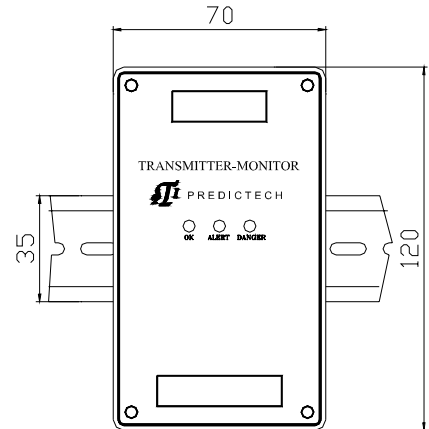
- G00*: DIN rail mounting.
- G01: Plate mounting.

* Denote factory default.

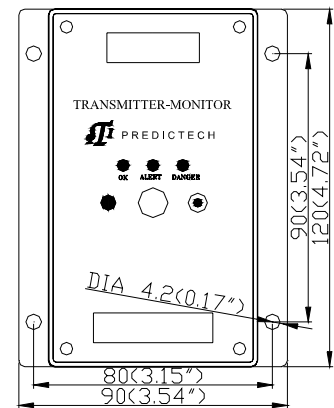
TM101 Accessories

TM101 must works with external accelerometer or velocity sensors as a system.

- TM0782A-K:** Accelerometer kit.
- TM0783A:** Accelerometer with cable.
- TM0793V-K:** Velocity sensor kit.
- TM900:** Power converter.
- TM0200:** 3-1/2 digit display unit.
- TM0302:** Housing, for 2 TMs or 6 drivers.
- TM0306:** Housing, for 6 TMs or 16 drivers.



TM - DIN Rail Mounting



TM Plate Mounting

TM101 Field-wiring Diagram

