



DTM201/DTM202/DTM501 Distributed Transmitter-Monitors

DTM201/202/501 digital transmitter-monitor is ideal to monitor machine running condition. The DTMs are also improved the reliability with redundant power supplies, and redundant 4-20mA transmission. The smart DTM monitor can interface with almost any proximity probes. Application include:

- ✓ Turbines
- ✓ Compressors
- ✓ Motors
- ✓ Pumps
- ✓ Fans
- ✓ Blowers
- ✓ Centrifuges
- ✓ Generators
- ✓ Turbochargers



DTM201/202/501 Features

- ✓ Redundant 4-20mA outputs
- ✓ Redundant power supplies
- ✓ Measuring shaft vibration, thrust position and speed
- ✓ Dual alarms (SPDT)
- ✓ LED indication of system OK, Alert and Danger
- ✓ Local and remote RESET/BYPASS and Trip-multiply
- ✓ Buffered Output for condition monitoring
- ✓ Aluminum case for RFI/EMI
- ✓ Epoxy potted for better environmental protection

Electrical

Power Supply:

- 22-30VDC, 100mA.
- Galvanic isolation.

Frequency Response (± 3 dB):

- 4 ~ 4.0KHZ.
- Low frequency: 0.5 ~ 20Hz.

Proximity probe Interface:

Sensitivity:

- 5mm and 8mm probe: 8 mV/ μ m (200 mv/mil)
- 11mm probe: 4 mV/ μ m (100 mv/mil)
- 25mm probe: 2mV/ μ m (50 mv/mil)

Buffered Output:

- Original, un-filtered signal
- Impedance: 100 Ω
- Maximum cable distance: 300m (1000ft)
- Sensitivity: same as the sensor

Overall Vibration:

- Dual 4-20mA, source
- Maximum load resistance 500 Ω .

Alarm Setup:

- 0 ~ 100% FS.
- Accuracy: $\pm 0.1\%$.

Relays:

- Seal: Epoxy.
- Capacity: 0.5A/220VAC or 0.5A/24VDC, resistive load
- Relay type: SPDT
- Isolation: 1000VDC

Factory Default:

- Relay normally latched and de-energized (non-speed).
- Relay normally non-latched and de-energized (speed).
- Timed alarm defect is 1 second.
- Power-up inhibit is 10 seconds.

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.

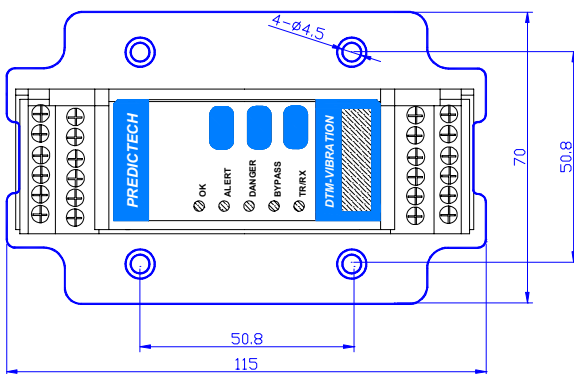


Remote RESET/BYPASS: Short the connector pin RESET and COM will engage system reset and bypass.

Trip Multiply

Short the connector pin Trip_Multi and COM will engage system alarm level increases a factor of 3.

Physical



Dimension: Height: 75mm (2.95"), see figuration.
Weight: 2.0lb (1.0kg).

Environmental

Temperature:

Operation: -35°C ~ +70°C.

Storage: -40°C ~ +100°C.

Humidity:

90% non-condensing.

Case:

Aluminum casted.

Certification

CE certified with EMI compliance (pending)

Ordering Information

DTM201-AXX-BXX-CXX-DXX-EXX-GXX

AXX: Full Scale.

- A00*: 0 ~ 200um pk-pk
- A01: 0 ~ 1000um pk-pk
- A02: 0 ~ 100um pk-pk
- A03: 0 ~ 10mil pk-pk
- A04: 0 ~ 50mil pk-pk
- A05: 0 ~ 5.0mil pk-pk

- A06: 0 ~ 200um pk-pk (0.5 ~ 100Hz)
- A07: 0 ~ 1000um pk-pk (0.5 ~ 100Hz)
- A08: 0 ~ 100um pk-pk (0.5 ~ 100Hz)

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.

DTM202-AXX-BXX-CXX-DXX-EXX-GXX

AXX: Full Scale.

- A00*: 1.0 ~ 0 ~ 1.0mm (requireTM0180 or other 8mm proximity probe transducer; TM0105 or other 5mm proximity probe transducer)
- A01: 2.0 ~ 0 ~ 2.0mm (requireTM0110 or other 11mm proximity probe transducer)
- A02: 6.0 ~ 0 ~ 6.0mm (requireTM0120 or other 25mm,35mm proximity probe transducer)
- A03: 12.0 ~ 0 ~ 12.0mm (requireTM0150 or other 50mm proximity probe transducer)
- A04: 40 ~ 0 ~ 40mil (requireTM0180 or other 8mm proximity probe transducer; TM0105 or other 5mm proximity probe transducer)
- A05: 80 ~ 0 ~ 80mil (requireTM0110 or other 11mm proximity probe transducer)
- A06: 0.25 ~ 0 ~ 0.25inch (requireTM0120 or other 25mm,35mm proximity probe transducer)
- A07: 0.5 ~ 0 ~ 0.5inch (requireTM0150 or other 50mm proximity probe transducer)

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.

DTM501-AXX-BXX-CXX-DXX-FXX-GXX

AXX: Full Scale.

A00: 0 ~ 1,000 rpm

A01*: 0 ~ 3,600 rpm

A02: 0 ~ 6,000 rpm

A03: 0 ~ 10,000 rpm

A04: 0 ~ 30,000 rpm

A05: 0 ~ 50,000 rpm

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

FXX: Teeth per Revolution.

F00*: 1

F02: Customer specify, number of teeth =XX

GXX: Mounting.

G00*: DIN rail mounting.

G01: Plate mounting.

* Denote factory default.

Optional accessories:

TM0180: 8mm probe.

TM0105: 5mm probe.

TM0110: 11mm probe.

TM0181: Extension cable.

TM0182: Driver.

TM900: Power converter

TM0200: 3-1/2 digit display unit.

TM0302: Housing, for 4 DTMs.

TM0306: Housing, for 10 DTMs.



Field-wiring Diagram

