



## TR1101 Seismic Vibration Transmitter

The TR1101 is a cost-effective solution for monitoring case vibration on balance of plant machines. The TR1101 conditions the signal from an accelerometer or velocity transducer and provides a 4-20mA output in acceleration, velocity or displacement.

### Features

- ✓ Measures machinery case vibration
- ✓ 4-20mA output in acceleration, velocity or displacement
- ✓ Buffered output up to 300 meters (1,000 feet)
- ✓ Compatible with other manufacturers' sensors (accelerometer or velocity sensor)
- ✓ Aluminum casted (copper free) case with epoxy potting for better environmental protection and reliability
- ✓ Compact size



### Specifications

#### Electrical

Power Supply:

22-30VDC, 100mA (Non isolated)

Frequency Response ( $\pm 3dB$ ):

Acceleration: 2.0 - 10 KHz

Velocity: 2 - 10 KHz (velocity sensor)

Velocity: 10 - 5 KHz (accelerometer)

Displacement: 10 - 3 KHz (velocity sensor)

Acceleration (low frequency): 1.0 - 100Hz

Velocity (low frequency): 1.0 - 100Hz (TM079VD)

Displacement (low frequency): 1.0 - 100Hz (TM079VD)

Sensor Interface:

Sensitivity:

100mV/g nominal for accelerometer or

4.0mV/mm/sec (100mV/in/sec) nominal for velocity sensor

40mV/mm/sec (1000mV/in/sec) nominal for velocity

TM079VD or 4mV/ $\mu$ m (100mV/mil) nominal for displacement TM079VD

Current Source:

Nominal 4mA@24VDC

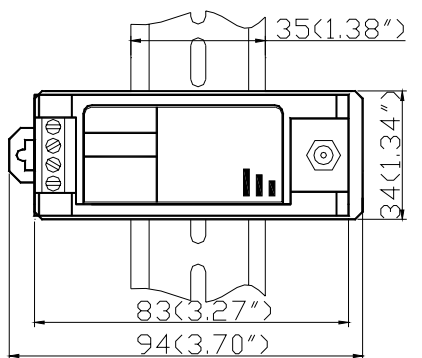
Connectors:

GAP/Buf: gap and buffered output

SIG: sensor signal

COM: signal com

4-20mA: 4-20mA output



DIN Rail Mount

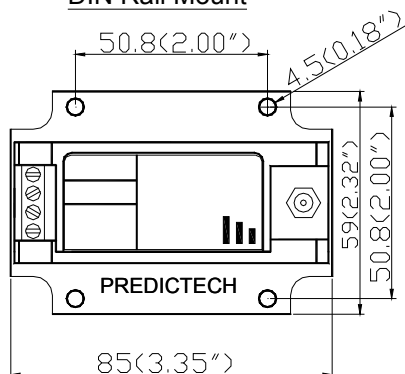


Plate Mount



## Electrical Specifications Continued

### Buffered Output:

- Original vibration, un-filtered
- Impedance: 100  $\Omega$
- Maximum cable distance: 300m (1,000ft)
- Sensitivity: same as the sensor

### Overall Vibration:

- 4-20mA, source
- Driving load resistance up to 750  $\Omega$

### System Self-test:

- System OK: output 4-20mA
- System Not OK: output < 3.0mA

## Physical

- Height: 75mm (2.95")
- Weight: 1.0kg (2.0 lbs)

## Environmental

### Temperature:

- Operation: -40°C to +70°C
- Storage: -40°C to +100°C

### Humidity:

- 90% non-condensing

## Order Information

\*Factory Default

**TR1101-AXX-EXX-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

### AXX: Full Scale Continued

- A12: 0 - 5.0g pk
- A13: 0 - 10g pk
- A14: 0 - 5.0g pk (low frequency)
- A15: 0 - 10g pk (low frequency)
- A16: 0 - 50mm/s pk (low frequency, E01, E04)
- A17: 0 - 100mm/s pk (low frequency, E01, E04)
- A18: 0 - 500um pk-pk (low frequency, E04)
- A19: 0 - 200um pk-pk (low frequency, E04)
- A20: 0 - 2.0ips pk (low frequency, E04)
- A21: 0 - 4.0ips pk (low frequency, E01, E04)
- A22: 0 - 20mil pk-pk (low frequency, E04)
- A23: 0 - 10mil pk-pk (low frequency, E04)
- A24: 0 - 2.0ips (50 mm/s) rms
- A25: 0 - 1.0ips (25 mm/s) rms
- A26: 0 - 0.8ips (20 mm/s) rms
- A27: 0 - 0.5ips (12.5 mm/s) rms

### EXX: Sensor Type (not included)

- E00\*: Accelerometer TM0782A, TM0783A, TM0784A, TM0785A, TM0786A or any current mode accelerometer with 100mV/g
- E01: Velocity sensor TM0793V, TM0796V or any current mode velocity sensor with 4mV/mm/sec
- E02: 330500, 330525 velocity sensor
- E03: 330750 velocity sensor
- E04: TM079VD low frequency sensor

### GXX: Mount

- G00\*: DIN rail mount
- G01: Plate mount

## TR1101 Accessories

The TR1101 requires an external accelerometer or velocity sensor to work as a system.

**TM0782A, TM0783A, TM0784A, TM0785A, TM0786A:**  
Accelerometer

**TM0793V, TM0796V:** Velocity sensor

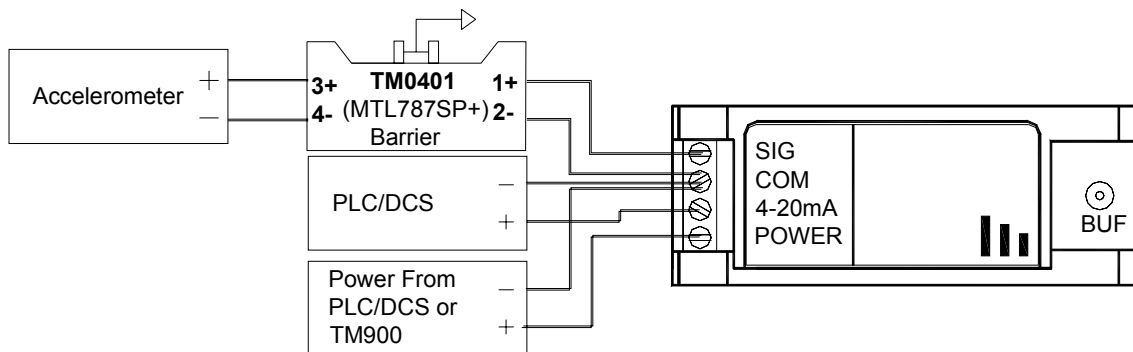
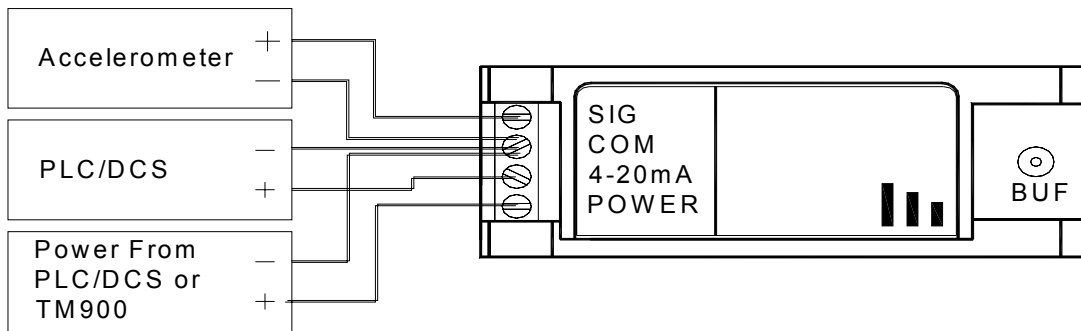
**TM079VD:** Low frequency velocity and displacement sensor

**TM900:** Power converter

**TM0200:** 3-1/2 digit display unit



**Field-Wiring Diagram**



Note:

Other barriers available:

TM0402: (STAHL 9001/51-280-091-141)

TM0407: (STAHL 9160/13-11-11)