



TR3101 Proximity 3-Wire Transmitter for Radial Shaft Vibration

The TR3101 is a cost-effective solution for monitoring the radial vibration on balance of plant machines. The TR3101 combines the proximity probe driver and the signal conditioning circuit into one package. It works with the proximity probe and extension cable as a system.

Features

- ✓ Does not require proximity probe driver
- ✓ Buffered output/GAP will transmit signal up to 300 meters (1,000 feet)
- ✓ Compatible with other manufacturers' proximity probes (5mm, 8mm and 11mm)
- ✓ Aluminum cast (copper free) case with epoxy potting for better environmental protection and reliability
- ✓ Same size as a proximity probe driver



Specifications

Electrical

Power Supply:

20-30VDC

Frequency Response ($\pm 3\text{dB}$):

2.0 - 3,000Hz

Probe and cable:

5 meter or 9 meter proximity probe and extension cable works with 5mm, 8mm, and 11mm probes

Proximity probe includes: TM0180, TM0105, TM0110, 3300, 7200, 990 series

Sensor Linear Range (reference with ANSI 4140 steel):

5mm, 8mm probe: 2.0 mm (80mil)

Approximately 0.25mm (10mil) to 2.25mm (90mil)

11mm probe: 4.0mm (160mil)

Approximately 0.4mm (15mil) to 4.4mm (175mil)

Overall Vibration:

4-20mA; Source

Buffered Output/ GAP:

Original vibration, un-filtered

Nominal: 2-18VDC

Impedance: 500 Ω

Maximum cable distance: 300m (1,000ft)

Sensitivity: 8.0mV/ μm (200mV/mil) nominal

Maximum Load:

500 Ω

Isolation:

> 500Vrms; circuit to case

System OK:

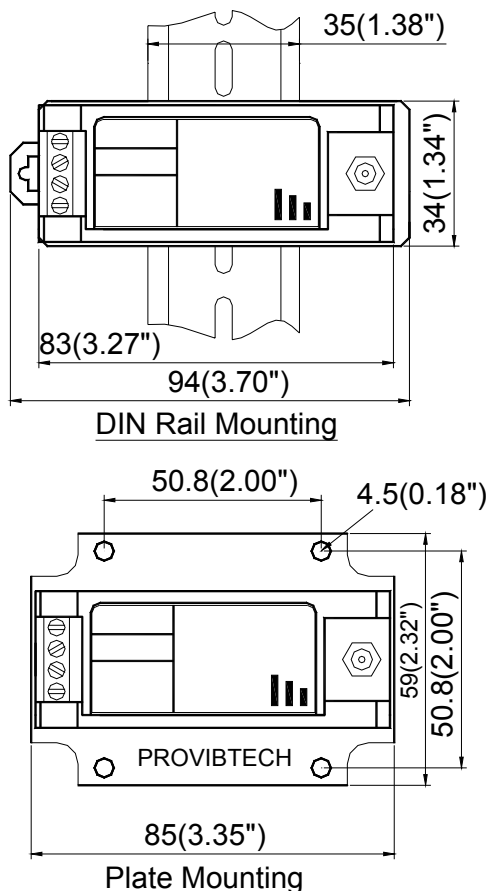
System OK: output 4-20mA

System Not OK: output < 3.0mA

Physical

Height: 75mm (2.95")

Weight: 0.5 kg (1.0 lb)





Proximity Transmitters and Seismic Vibration Transmitters

Environmental

Temperature:

Operation: -40°C to +70°C

Storage: -40°C to +100°C

Humidity:

90% non-condensing

Order Information

* Factory default

Standard configuration:

TR3101-A00-E00-G00-S00

8mm probe:

TM0180-07-00-05-10-02

Extension cable:

TM0181-040-00

TR3101-AXX-EXX-GXX-SXX

AXX: Full Scale

A00*: 0 - 200um (8.0mil) pk-pk

A01: 0 - 500um (20mil) pk-pk

A02: 0 - 100um (4.0mil) pk-pk

A03: 0 - 250um (10mil) pk-pk

A04: 0 - 630um (25mil) pk-pk

A05: 0 - 125um (5.0mil) pk-pk

EXX: Probe and Cable (not included)

E00*: TM0180, 8mm Probe, 5m Cable

E01: TM0180, 8mm Probe, 9m Cable

E02: 3300, 8mm Probe, 5m Cable

E03: 3300, 8mm Probe, 9m Cable

E04: 7200, 8mm Probe, 5m Cable

E05: 7200, 8mm Probe, 9m Cable

EXX: Probe and Cable continued

E06: TM0105, 5mm Probe, 5m Cable

E07: TM0105, 5mm Probe, 9m Cable

E08: TM0110, 11mm Probe, 5m Cable

E09: TM0110, 11mm Probe, 9m Cable

E10: 3300, 11mm Probe, 5m Cable

E11: 3300, 11mm Probe, 9m Cable

E12: 7200, 11mm Probe, 5m Cable

E13: 7200, 11mm Probe, 9m Cable

E14: 3309 Probe, 5m Cable

E15: 3309 Probe, 7m Cable

E16: 3000, 190 Probe, 15 Feet Cable

E17: 3000, 190 Probe, 20 Feet Cable

E18: 3000, 300 Probe, 15 Feet Cable

E19: 3000, 300 Probe, 20 Feet Cable

E20: 7200, 5mm Probe, 5m Cable

E21: 7200, 5mm Probe, 9m Cable

GXX: Mount

G00*: DIN rail mount

G01: Plate mount

SXX: Approval

S00*: CE Mark

TR CU: № TC RU C-US.ГБ05.B.00479

TR3101 Accessories

The TR3101 requires a proximity probe and extension cable to work as a system.

TM0180: 8mm probe

TM0105: 5mm probe

TM0110: 11mm probe

TM0181: Extension cable

TM900: Power converter

TM0200: 3-1/2 digit display unit

BNC-3: BNC adaptor for portable data collector



Field-Wiring Diagram

