

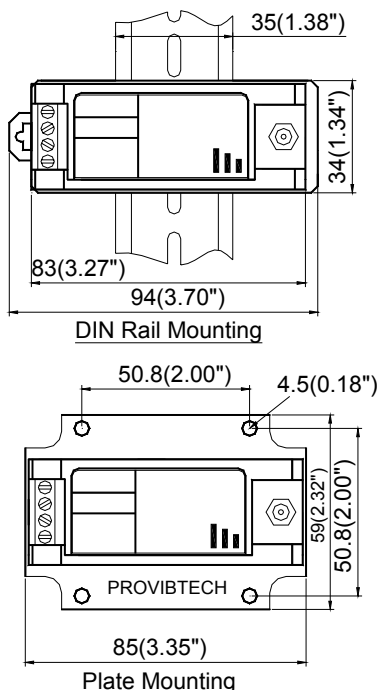


TR4101 Proximity Loop Powered Transmitter for Radial Shaft Vibration

The TR4101 is a cost-effective solution for monitoring the radial vibration on the shaft of balance of plant machines. The TR4101 combines the proximity probe driver and the signal conditioning circuit into one package. It works with a proximity probe and extension cable as a system.

Features

- ✓ Loop powered transmitter
- ✓ Does not require proximity probe driver
- ✓ Buffered output/ GAP
- ✓ Compatible with other manufacturers' proximity probes (5mm, 8mm and 11mm)
- ✓ Aluminum cast case (copper free) with epoxy potting for better environmental protection and reliability
- ✓ Same size as a proximity probe driver



Specifications

Electrical

Power Supply:

16-30VDC

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 and 990 series

Sensor Linear Range (reference with AISI 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

2-wire, load

Buffered Output/ GAP:

Original vibration, un-filtered

Nominal: 2-18VDC

Impedance: 20 k Ω

Maximum cable distance: 3.0m (10ft)

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

Electrical specifications continued

Maximum Load:

50 \times (Vs-16)

Where Vs is the system power supply

Isolation:

> 500Vrms; circuit to case

System OK:

System OK: output 4-20mA

System Not OK: output < 3.6mA



Physical

Height: 75mm (2.95")
Weight: 0.5 kg (1.0 lb)

Environmental

Temperature:
Operation: -40°C to +70°C
Storage: -40°C to +100°C
Humidity:
90% non-condensing

Order Information

* Factory default

Standard configuration:

TR4101-A00-E00-G00-S00

8mm probe:

TM0180-07-00-05-10-02

Extension cable:

TM0181-040-00

TR4101-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
- 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

EXX: Probe and Cable continued

- 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: Hazardous Area

- S00*: Without approval. CE
- S01: Multiple approvals
 - ATEX: II 1 G EEx ia IIC T4
 - @Ta=-40°C ~ +70°C
 - KEMA06ATEX0217X
 - CSA: Non-incendive, Class I, Div. 2, Groups A, B, C, D & T4
 - CSA: Intrinsically safe, Class I, Div. I, Groups A, B, C & D, T4
 - PCEC: Ex ia IIC T4
 - TR CU: 0Ex ia IIC T4 X
 - № TC RU C-US.ГБ05.B.00477
 - NANIO CCVE
- CE

TR4101 Accessories

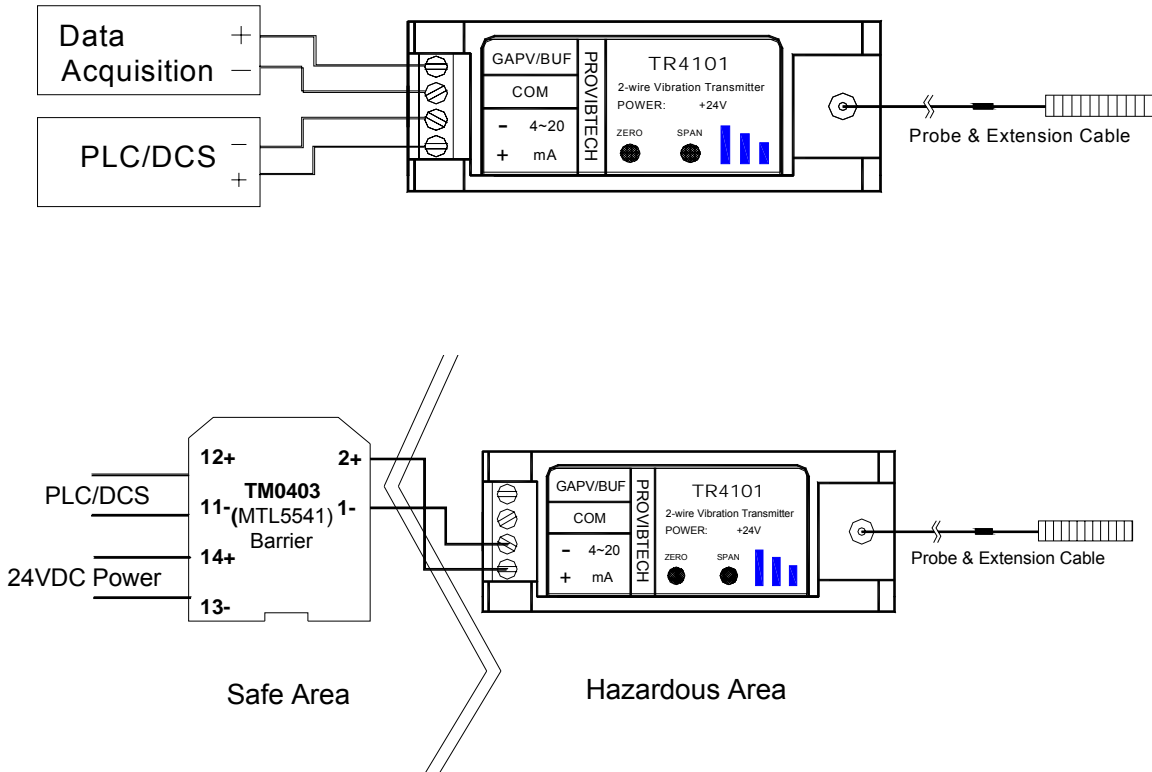
The TR4101 requires a proximity probe and extension cable to work as a system.

- TM0180:** 8mm probe
- TM0105:** 5mm probe
- TM0110:** 11mm probe
- TM0181:** Extension cable
- TM0200:** 3-1/2 digit display unit
- BNC-2:** BNC adaptor for portable data collector





Field-Wiring Diagram



Note:

Other Barriers:

TM0406: (STAHL 9160/13-11-10s)

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