







PVTVM's Transmitter Selection Guide

Model Number	TR1101	TR3101 TR3102	TR4101 TR4102 TR4105	TR5102
				
Acceleration (g's)	•			
Velocity (ips/sec, mm/sec)	•			
Displacement (mils, um)	•	•	•	
Vibration Measurements				
Radial Vibration		TR3101	TR4101	
Axial Position		TR3102	TR4102	
Phase Reference			TR4102 TR4105	•
Speed			TR4105	•
Case Vibration	•			
Sensor Interfaces				
Built in Accelerometer				
Proximity Probe (5mm, 8mm, and 11mm)		•	•	•
Accelerometer	•			
Velocity Transducer	•			
Available Outputs				
4-20mA Output	•	•	•	•
Buffered Output (3 meters)			•	
Buffered Output (300 meters)	•	•		•
Available Features				
Loop Powered (2- Wire) Transmitter			•	
3-Wire Transmitter	•	•		•
Hazardous Rating (CSA, ATEX) Explosion Proof, Class I, Class II, Div.1, Groups (A-G), EExdIICT4				
Hazardous Rating (CSA, ATEX) Intrinsically Safe, EExiaIICT4			•	
Hazardous Rating (CSA), non-incendive, Class I, Div.2, Groups (A-D, T4)			•	
Environmental Rating- NEMA 4 or IP65				
Low Pass and High Pass Filter				
Warranty- 5 years	•	•	•	•

• = Complete Offering

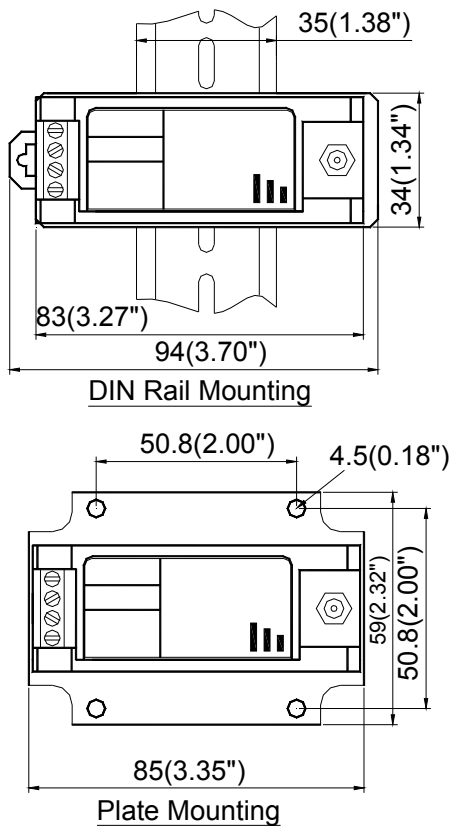


TR4102 Proximity Loop Powered Transmitter for Axial Position/ Phase Reference

The TR4102 is a cost-effective solution for monitoring the axial position or phase reference on balance of plant machines. The TR4102 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

DCS or PLC Power Supply:

16-30VDC

Sensor Interface:

Special 95Ω coaxial cable with connector

Probe:

5mm, 8mm, and 11mm probes which includes: TM0180,

TM0105, TM0110, 3300, and 7200 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)

4-20mA Transmissions:

2-wire, load

Phase reference: frequency response: 0 - 10 KHz

(G02 and G03)

Buffered Output (GAP V):

Raw position signal

Nominal: 2-18VDC

Impedance: 20KΩ

Maximum cable distance: 3.0m (10ft)

Sensitivity: 8mV/um (200mV/mil) nominal

Frequency response: 0 - 10 KHz

Maximum Load:

50×(Vs-16)

Where Vs is the system power supply

System Self-test:

System OK: output 4-20mA

System Not OK: output < 3.6mA



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
Standard configuration:
TR4102-E00-G00-S00

8mm probe:
TM0180-07-00-05-10-02

Extension cable:
TM0181-040-00

TR4102-EXX-GXX-SXX

EXX: Probe and Cable

- 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
- 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/ Function

- G00: DIN rail mount, measure position
- G01: Plate mount, measure position
- G02: DIN rail mount, measure phase
- G03: Plate mount, measure phase

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
 - X № TC RU C-US.ГБ05.B.00477
NANIO CCVE
CE Mark

Note: ** TR CU certificate is pending

TR4102 Accessories

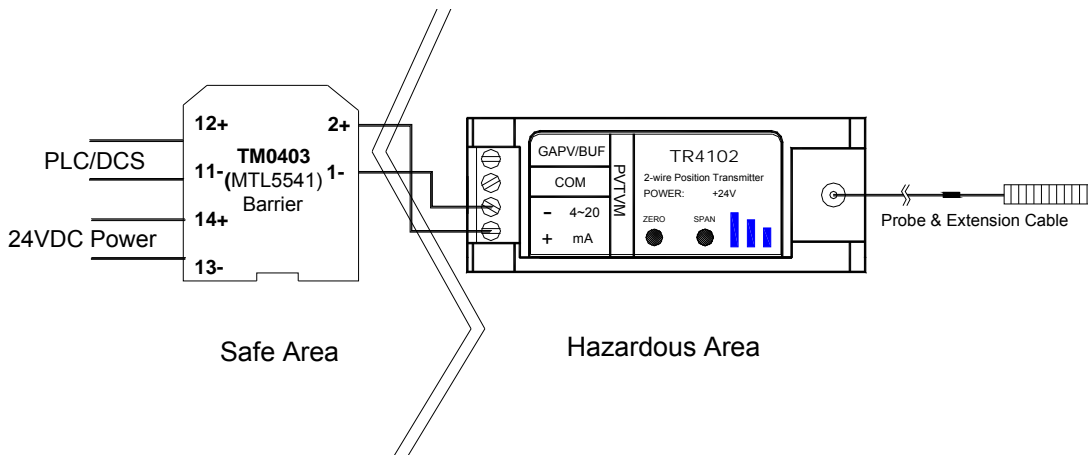
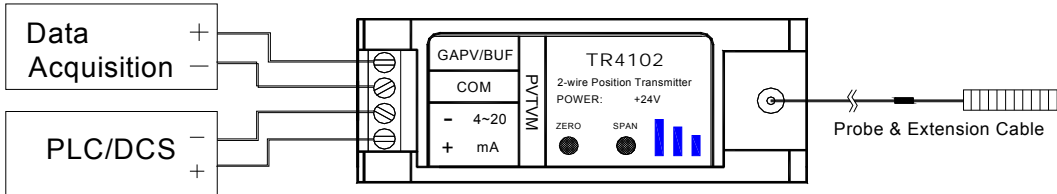
The TR4102 requires a proximity probe and extension cable to work as a system.

- 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)