



# TEL-TRU MANUFACTURING COMPANY

## RTD TEMPERATURE TRANSMITTER

### MODEL TT111



#### PRODUCT FEATURES:

- High Accuracy ( $\pm 0.1\%$ )
- 2-wire loop powered 4-20mA output
- Linearized output to temperature
- Input RTD Pt100 with 3-wire compensation
- Analog design, potentiometer adjustable
- Factory calibrated fixed ranges
- Metal housing
- Fits standard connection heads

#### DESCRIPTION:

The TT111 Series analog 2-wire, or loop powered, temperature transmitters offer the most effective price/performance ratio in the industry. Factory calibrated for fixed range, they provide a 4-20mA output linearized to temperature for Pt100. The wide temperature range makes the TT111 an excellent choice for temperature signal transmission.

Precision 20-turn potentiometers allow fine adjustment of ZERO and SPAN. TT111 transmitters are high quality, very accurate, completely linearized and fit into industry standard connection heads.

#### SPECIFICATIONS:

@Vnom = 24VDC,  
T.ambient = 25°C, Span nom. = 100°C

Pt100, 3-wire,  $\alpha = 0.00385$ , DIN EN 60751

4-20 mA loop powered,  
linear to temperature

$\pm 0.01\%$  FS

12-32 VDC, polarity protected

0.02%/V

$\pm 0.01\%$  FS/°C

$\pm 0.01\%$  FS/°C

$\pm 0.05\%$  FS/year

0.8 mA

500 ohm max.

0.1% FS (includes effects of linearity,  
hysteresis and repeatability)

20-turn potentiometer,  
 $\pm 10\%$  for zero and span

Rmax. =  $[V_{supply} - 9VDC] / 20mA$

Over-scale limit ( 27.0 mA ) or  
Under-scale limit ( 2.2 mA )

30 seconds

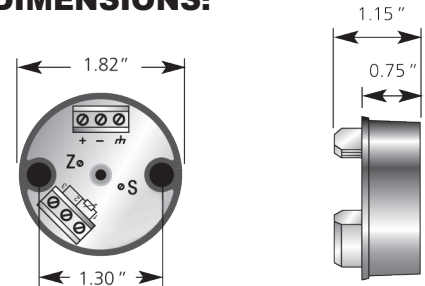
-40°C.....80°C (-40°F...176°F)

-40°C.....80°C (-40°F...176°F)

Die Cast Zinc, Enamel Painted

1.82" dia. x 1.15" H.

#### DIMENSIONS:



**Input:**

**Output:**

**Linearization:**

**Power Supply:**

**Supply Effect:**

**Zero Drift:**

**Span Drift:**

**Long Term Drift:**

**Excitation Current RTD:**

**Sensor Lead Resistance RTD:**

**Accuracy:**

**Span/Zero Adjustment:**

**Maximum Loop Resistance:**

**Open Circuit Detection:**

**Warmup:**

**Ambient Operating Temperature:**

**Storage Temperature:**

**Housing Material:**

**Housing Dimensions:**

Input	Temperature Ranges		Code
	C°	F°	
Pt100 3-wire (A)			
•	-50/+50	(-58/+122)	<b>73</b>
•	0/+50	(32/+122)	<b>75</b>
•	0/+100	(32/+212)	<b>76</b>
•	0/+200	(32/+392)	<b>78</b>
•	0/+300	(32/+572)	<b>80</b>
•	0/+400	(32/+752)	<b>81</b>
•	0/+600	(32/+1112)	<b>CW</b>

\*Custom ranges available - 10 piece min/range  
Contact factory with specific range requirement

#### HOW TO ORDER:

Model	Input Code	Range Code
TT111	A	76

Ex.: Connection Head Type Fixed Range RTD  
Temperature Transmitter, Type Pt100, 0/+100°C  
(32/+212°F)

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TT11111