



# TEL-TRU MANUFACTURING COMPANY

## THERMOCOUPLE TEMPERATURE TRANSMITTER MODEL TT112



### PRODUCT FEATURES:

- 2-wire loop powered 4-20mA output
- Linearized output to voltage
- Input T/C with cold junction compensation
- Analog design, potentiometer adjustable
- Factory calibrated fixed ranges
- Metal housing
- Fits standard connection heads

### DESCRIPTION:

The TT112 loop powered transmitter receives and measures signals from thermocouples and sends an output current of 4-20 mA which is directly proportional to the thermocouple millivolt input. A TT112 transmitter is available for thermocouple sensor types J, K, T, or E.

The wide temperature range makes the TT112 an excellent choice for temperature signal transmission. It is factory calibrated and designed for highest performance and lowest cost.

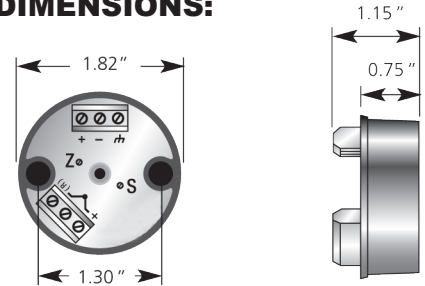
Precision 20-turn potentiometers allow fine adjustment of ZERO and SPAN. TT112 units fit into industry standard connection heads.

### SPECIFICATIONS:

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

<b>Input:</b>	T/C type J, K, T or E
<b>Output:</b>	4-20 mA loop powered,
<b>Linearization:</b>	Linear to mV, not to temperature
<b>Power Supply:</b>	12-32VDC, polarity protected
<b>Supply Effect:</b>	0.02%/V
<b>Temperature Drift (including cold junction drift):</b>	Zero Drift: ±0.01% FS/°C Span Drift: ±0.01% FS/°C
<b>Sensor Lead Resistance:</b>	10K ohms max.
<b>Accuracy:</b>	0.15% FS (includes effects of linearity, hysteresis and repeatability)
<b>Span/Zero Adjustment:</b>	20-turn potentiometer, ±10% for zero and span
<b>Maximum Loop Resistance:</b>	$R_{max.} = [V_{supply} - 9VDC] / 20mA$
<b>Warmup:</b>	30 seconds
<b>Ambient Operating Temperature:</b>	-40°C.....80°C (-40°F...176°F)
<b>Storage Temperature:</b>	-40°C.....80°C (-40°F...176°F)
<b>Housing Material:</b>	Die Cast Zinc, Enamel Painted
<b>Housing Dimensions:</b>	1.82" dia. x 1.15" H

### DIMENSIONS:



Input				Temperature Ranges		Code
J	K	T	E	°C	°F	
•		•	•	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>
•	•			0/+800	(32/+1472)	<b>CX</b>
	•			0/+1000	(32/+1182)	<b>CY</b>
	•			0/+1200	(32/+2192)	<b>CZ</b>

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

### CUSTOM BUILDER:

Model	Input Code	Range Code
TT112	J	78

Ex.: Connection Head Type Fixed Range Thermocouple Temperature Transmitter, Type J, 0/+200°C (32/+392°F)

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