



# TEL-TRU MANUFACTURING COMPANY

## THERMOCOUPLE TEMPERATURE TRANSMITTER MODEL TT212



### 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
- DIN Rail-Mounted

### DESCRIPTION:

The TT212 loop powered transmitter receives and measures signals from thermocouples and sends an output current of 4-20mA which is directly proportional to the thermocouple millivolt input. A TT212 transmitter is available for thermocouple sensor types J, K, T, or E.

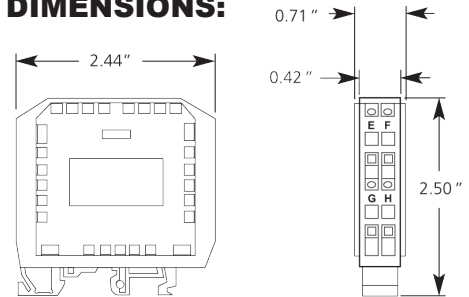
The wide temperature range make the TT212 an excellent choice for temperature signal transmission. It is factory calibrated for fixed range and designed for highest performance and lowest cost.

Precision 20-turn potentiometers allow fine adjustment of ZERO and SPAN. TT212 is DIN rail-mounted conforming to DIN standard 46277 package which is very compact.

### SPECIFICATIONS:

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

### DIMENSIONS:



<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>	12-32 VDC, 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 ohm 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>	Rmax. = [Vsupply - 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>DIN Rail:</b>	DIN 46277
<b>Housing Material:</b>	Polyamide
<b>Housing Dimensions:</b>	2.44" W x 2.50" H x 0.71" D

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

### HOW TO ORDER:

Model	Input Code	Range Code
TT212	J	76

Ex.: DIN Rail-mounted Fixed Range Thermocouple Temperature Transmitter, Type J, 0/+100°C (32/+212°F)

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