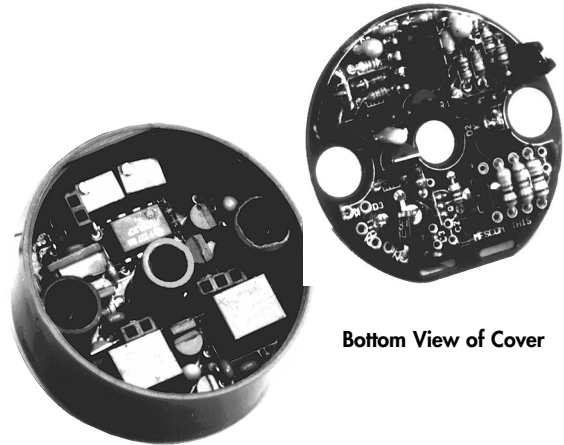


- **Compact Size, 1.73" (44mm) in Diameter For Quick Fit in Most Industrial Protection Heads**
- **High Precision (Accuracy = 0.1% of Span), Low Cost**
- **Enhanced RFI and EMI Protection for Better Measurement Stability**
- **Universal Input Capability Accommodating Thermocouple Types J, K, and Pt-100 RTD**
- **Fixed-Range Units Offered in Standard or Special**



Bottom Section

Bottom View of Cover

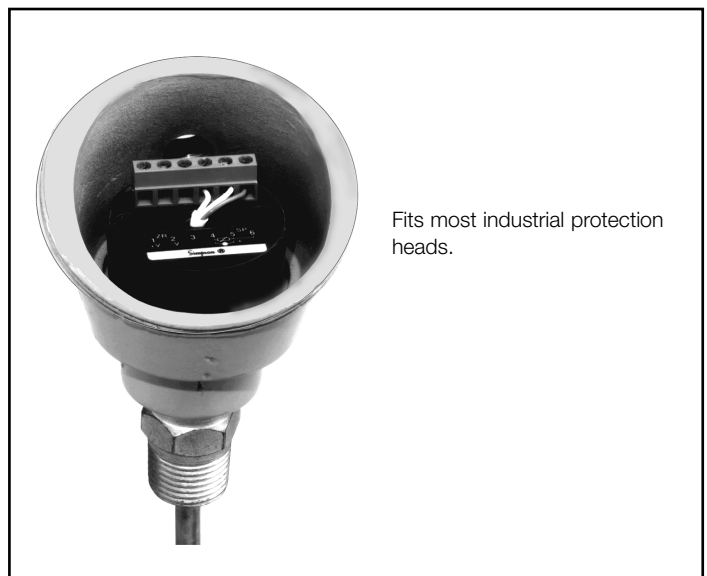
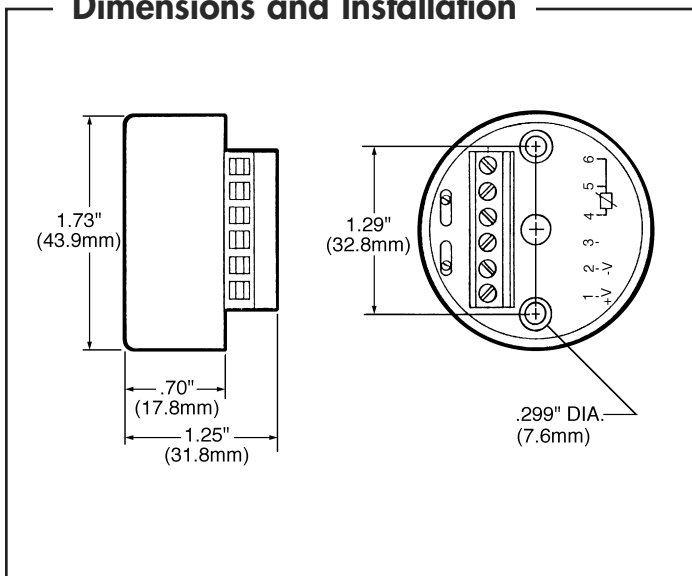
Simpson's model TR800 is a high precision, low cost transmitter designed to control an output current (4-20mA) in a linear relationship with a low level input signal for accurate transmission over long distances.

Each transmitter offers 2 to 3-wire compensation and linearization for Pt-100, and ice point reference compensation for thermocouples that are voltage linear.

The TR800 provides non-isolated, two-wire, 4-20mA amplification of low level process signals, including J, K, and Pt-100 inputs.

On the model TR800, range is determined by a set of internally mounted resistors. No soldering of resistors is required which allows for easy configuring of unit in the field.

Dimensions and Installation



Fits most industrial protection heads.

Typical Application

PERFORMANCE

Accuracy: ±0.1% of span
Adjustability: ±25% for both zero and span
Burnout Detection: Upscale-standard

INPUT

RTD: Pt-100, 2 or 3-wire
TC: all known types
Linearity: Better than ±0.03% of span (for TC/mV), ±0.05% of span (for RTD)
Stability (For Both Zero & Span):
 Pt-100 (100°C span): 0.03% of span/°C,
 TC/mV (25mV input): 0.04% of span/°C
T/C Cold Junction Compensation: <0.05°C/°C of ambient temperature

Standard Range Selection Chart - Sensor Type

°C	°F	RTD	K	J
-50+50	-50+125	*		
0+50	0+125	*		
0+100	0+212	*		
0+200	0+300	*	*	*
0+400	0+500	*	*	*
0+500	0+750		*	*
0+600	0+1000		*	*
0+800	0+1500		*	*
0+1000	0+2000		*	*
0+1200	0+2200		*	

INPUT SPAN

RTD: 20°C (36°F) min, 500°C (900°F) max
TC: 10mV min span

OUTPUT

Range: 4-20mA DC
Limit: 2.5 to 28mA
Maximum Load: $R_{max} = (V \text{ supply} - 10V) \div 20mA$

ENVIRONMENTAL

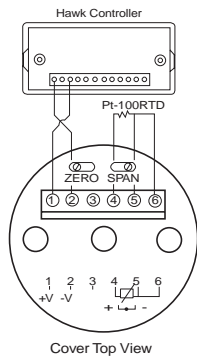
Ambient Temperature: -20 + 70°C (-4 + 160°F)
Humidity: 0-95% RH, non-condensing

ELECTRICAL

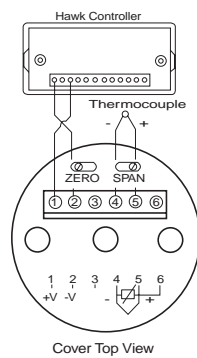
Supply Voltage: 8-38 VDC polarity protected
 RFI and EMI immunity from 20MHz to 500MHz

Wiring Diagrams

RTD Configuration



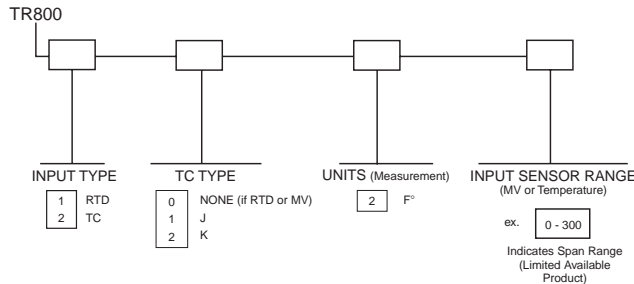
Thermocouple Configuration



CONFIGURATION:

1. Connect the positive supply lead to terminal one.
2. Connect the negative supply lead to terminal two.
3. For Pt-100 RTD Inputs, connect the Pt-100 leads to input terminals 4, 5, and 6 according to the RTD wiring diagram.
4. For thermocouple inputs, connect the thermocouple leads to input terminals

Ordering Information



For quickest delivery please choose sensor type and range from the Standard Range Selection Chart.
 If special ranges are required please contact Simpson for ordering information.