

INFORMATION & SPECIFICATIONS DATA SHEET

Mp82830-T Thermocouple Linearized 2-wire 4 to 20mA Temperature Transmitter

Mp82830-T Microprocessor Head Mount Temperature Transmitter

The Mp82830T is one of the smallest, most advanced two-wire head mounting Microprocessor based transmitter available. Able to fit in a small, standard connection head, it can be factory programmed or is quickly and easily programmed to your exact needs for Thermocouple Types J, K, T, E and N Input. Using your personal computer and the optional "Point 'N Click" Software/Interface, allowing you to have a single transmitter to meet all of your Thermocouple Types J, K, T, E and N requirements.

Features include: 50°C (90°F) minimum span, complete linearization; selectable 4 to 20mA or 20 to 4mA output; total RFI-immunity (DC to 1GHz.; high loop drive capability (600 ohms @ 24Vdc).

There is no longer any reason to stock several different transmitters when a single, low-cost, high accuracy unit can meet all of your requirements. The Mp82830-T can easily be programmed in the field with the optional field programming module and PC based "Point 'n Click" software program in less than one minute, the Mp82830-T can be used for all your different J/K/T/E and N Thermocouple sensor and range requirements.

Specifications

Thermocouple Input Types: K, J, T, E, N
Temperature Ranges: See Table below
Minimum Temperature Span: See Table below
Minimum Span: See Table Below
Output: 4 to 20mA or 20 to 4mA
Linearization: On/Off
Power Supply: 10 to 36 Vdc, Polarity Protected
Supply Effect: 0.001%/V
Max. Ripple: 10 V PP. Min Vbat=10 Vdc
Zero Drift: ± 0.01%/°C or ±0.02°C/°C
Span Drift: ± 0.005%/°C or ±0.01°C/°C
Long Term Drift: ± 0.05%/Year
Cold Junction Drift: ± 0.01°C/°C



Features

- ▶ Programmable for Types J/K/T/E and N Thermocouples Ohm, mV
- ▶ Fully-Linearized
- ▶ RFI/EMI-Protected
- ▶ High Accuracy
- ▶ Mounts in Standard Small Protection Head
- ▶ Optional Plug-In Display & Protection Head
- ▶ Small Size (1.7" dia. x 1.1"H)

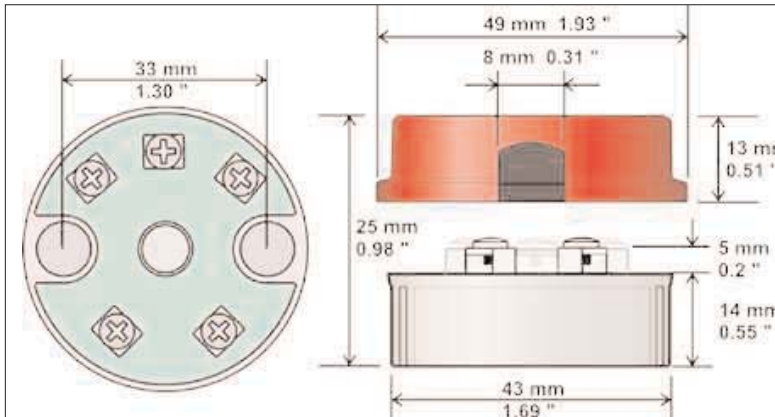
Sensor Lead Resistance: 10,000 Ohm max.
Open Circuit Detection: Upscale/Downscale
Load Capability: Vbat-10V/20 mA
Response Time: < 3 sec.
Startup Time: 20 sec.
Warmup Time: 5 Min.
Isolation: 500 VDC
Ambient Operating Temp.: -40 to + 85°C
Storage Temperature: -40.to +100°C
Ingress Protection: IP30
Housing Material: Makrolon
Housing Dimension: 43mm Dia. x 19mm H. (1.69" x 0.75").
Housing Dimension with Read-Out: 43mm Dia. x 36mm H..

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Sensor Type	Temp. Min. °C	Temp. Max. °C	Span Min. °C	Temp. Min. °F	Temp. Max. °F	Span Min. °F
Thermocouple Type						
J (Fe-CuNi)	-200	1200	50	-328	2192	90
K (NiCr-NiAl)	-270	1370	50	-454	2498	90
T (Cu-CuNi)	-270	400	50	-454	752	90
E (NiCr-CuNi)	-270	1000	50	-454	1832	90
N (Nicrosil-NiSil)	0	1300	50	+32	2372	90

Mp82830-T Dimension



SPI-MP C Based Interface and Software for field programming



Order Information

Part Number	Description
MP82810	Microprocessor Based Thermocouple Types J, K, T, E or N Transmitter Un-calibrated.
Accessories	Description
SP-PROG	Factory Configuration provide Sensor Type, Min.Max Temperature and Temperature Scale
SPI-MP (IF700)	PC Based Interface and Software for field programming
MP82-DISPLAY	Plug-In Loop-Powered LCD Readout)
DANW	Dome Connection Head with Glass Window

For factory configuration of the MP82830-T please provide Sensor Type, Minimum, Maximum Temperature and Temperature Scale.

Ordering is easy fast and secure just go to our web site at:

<http://www.tnp-instruments.com>

For your convenience we accept the following credit cards

