

SIGNEXT™ -T/C

Thermocouple
Signal Conditioners



- 8 customer selectable T/C types.
- 6 DIP switch configurable output ranges.
- 16 temperature ranges available.
- 3 port isolation.
- Plug & socket connectors.

The SigNext™-T/C module converts a thermocouple signal to a standard analog value such as 0-10V or 4-20mA. One module can accept 8 different thermocouple types, 16 temperature ranges and offers 6 different analog output ranges. The input is cold junction compensated using an RTD connected to the input terminals (provided) and the output is linearized to input temperature.

There are 16 DIP switch selectable temperature ranges. The selected range

must be within the maximum range for the thermocouple type selected. For example, if a J type thermocouple is used the maximum range allowable is 0-600°C meaning the 0-400°C range could be selected but not the 0-800°C range. Similarly, for a K type the maximum range is 0-1200°C.

This module provides 3 port isolation meaning the input, output and power are all isolated from each other so no ground loops will be created.

There are 6 DIP switch selectable

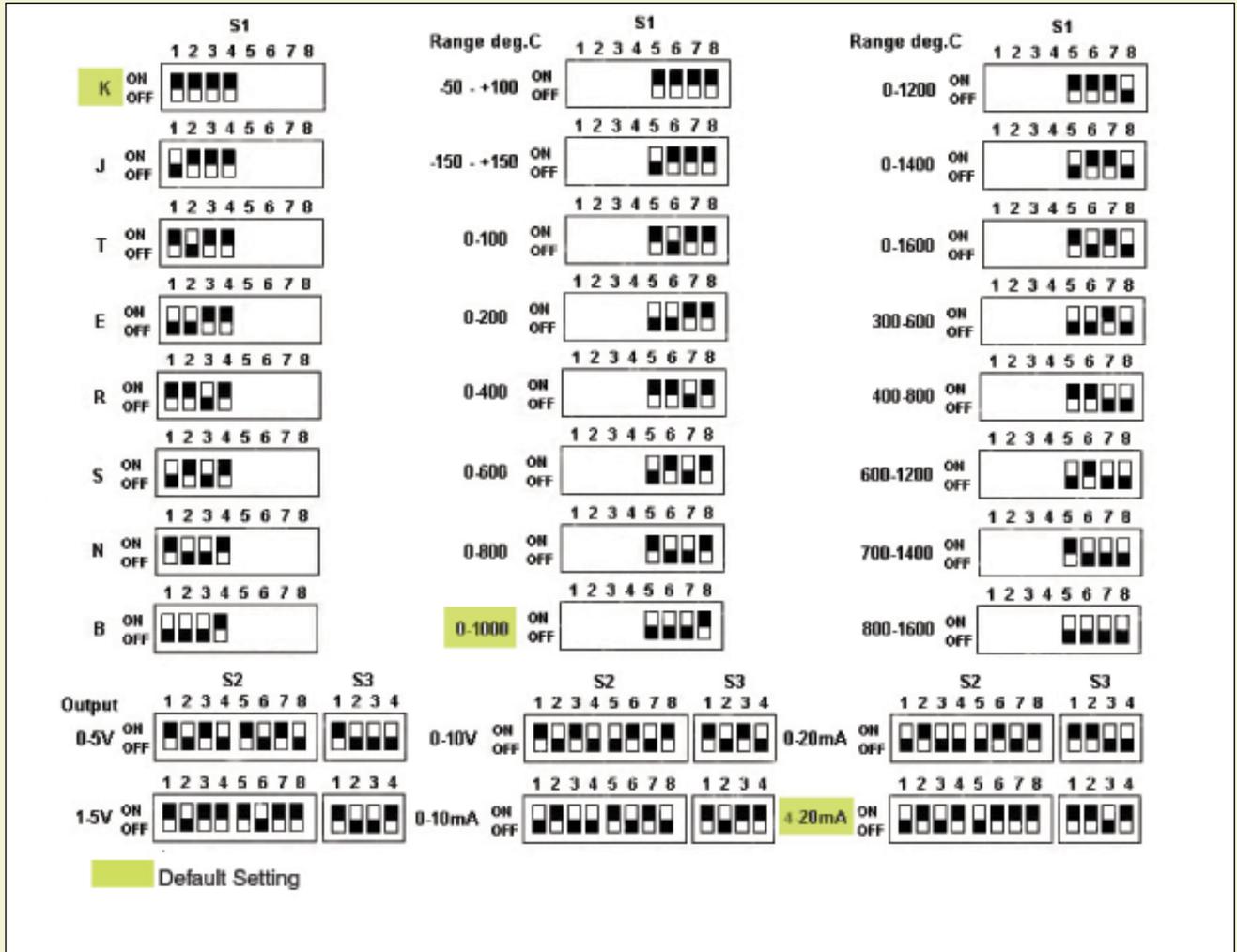
output ranges - 3 voltage and 3 current. The module can be configured while the power is applied. Span and zero calibration potentiometers are accessible on the front of the module. The default setting is a 4-20mA output.

Ordering Information

Catalog Number **330142**

SPECIFICATIONS

SIGNEXT™ - T/C		
Catalog Number:	330142	
Input ranges / impedance:	K, J, T, E, R, S, N, B thermocouple	
Output range / load impedance:	0-5V, ≥1KΩ / 0-10mA / 0-900KΩ 1-5V, ≥1KΩ / 0-20mA / 0-450Ω 0-10V, ≥1KΩ / 4-20mA / 0-450Ω	
Supply:		
voltage:	24Vdc ±10%	
current:	~180mA @ 24Vdc	
General:		
Accuracy:	+/-0.2%	
Type:	Range	Accuracy
K:	0-1200°C	±1.2°C
J:	0-600°C	±0.6°C
T:	-150°C-+400°C	±0.5°C
E:	0-600°C	±0.6°C
R:	0-600°C	±1.6°C
S:	0-400°C	±1.4°C
N:	0-200°C	±1.2°C
B:	600-600°C	±1.0°C
Temp. Co-eff:	≤0.015%/°C	
Output Ripple:	≤0.5% peak	
Response Time:	≤600ms	
Input break fault:	102% of upper temperature limit	
Isolation:	input-output 1.8KV for 1 minute input-power 1.8KV for 1 minute output-power 1.8KV for 1 minute	
Storage temp.:	-10 to +70°C	
Operating Temp.:	0 to 60°C	
Humidity:	90% non-condensing	
Dimensions:	78 x 99 x 114mm	
Weight:	~180g	
Approvals:	 US LISTED, E256770	



DIP switch S1 is inside the module. Press the locking tabs beneath each connector and slide the PCB out of the housing.

Care must be taken when inserting the PCB back into the housing so that the DIP switches are not

damaged. The factory default setting is 4-10mA.

The temperature range selected cannot be outside the ranges specified for each thermocouple type in the specifications section.

Default settings are K type, 0-1000°C, 4-20mA output.

SPECIFICATIONS

