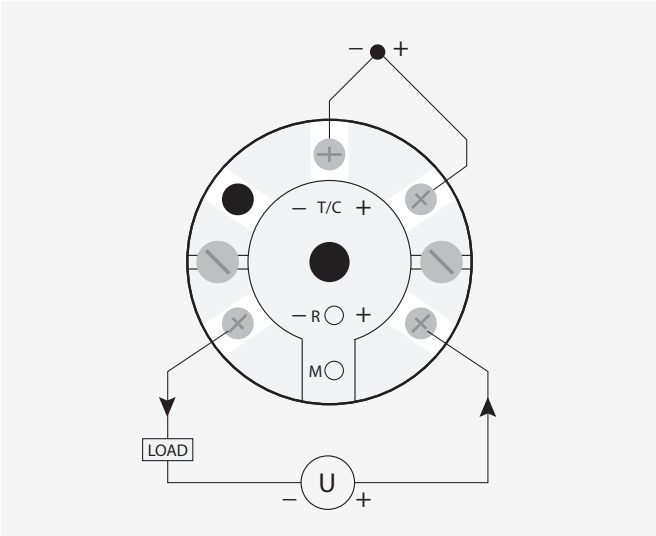
H&B SENSORS

SEM203TC

Temperature Transmitter

Temperature Transmitters



The SEM203TC is a head mount transmitter suitable for thermocouple input. The transmitter is loop powered and converts the input signal into a 4 to 20nA output. Simple push button operation allows the user to select the desired range and burnout direction and perform a user trim at both 4 and 20 mA points.

Connections:

Thermocouple Input:	
Sensor	**Range (°C)**
K	-200 - +1370
J	-100 - +1200
E	-200 - +1000
N	-180 - +1300
T	-200 - +400
R	-10 - +1760
S	-10 - +1760

H&B Sensors Ltd | Odyssey House | Durban Road | Bognor Regis | West Sussex | PO22 9RH | United Kingdom

Tel: +44(0)1243 866866 | Email: sales@hbsensors.com | www.hbsensors.com

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Environmental Conditions

Specifications range	-40°C to +85°C
Calibration temperature	+20°C
Ambient Storage Temperature	(-50 to 100) °C
Ambient Humidity Range	(10 to 90) % RH noncondensing

Mechanical Specifications

Dimensions	Ø43.0 mm x 21.3 mm
Weight approx	40 g

Common Specifications

Update time	500 ms
Response Time	1 second
Start up time	Within 8 seconds (I out < 4 mA during start up)
Warm-up time	1 minute to full accuracy
Power Supply	(12 to 30) Volts dc

Input Specifications - Thermocouple (PT100)

Fixed ranges:

	Inputs K, J, E & N (°C)	Input T (°C)	Inputs R & S (°C)
1	User	User	User
2	0 to 1000	0 to 400	800 to 1760
3	0 to 1200	0 to 250	800 to 1600
4	0 to 600	0 to 200	800 to 1400
5	0 to 500	0 to 150	1000 to 1760
6	0 to 250	0 to 100	1000 to 1600
7	0 to 100	0 to 50	1000 to 1400
8	-100 to 100	-100 to 150	0 to 1600

Output Specifications

Output Type	2 wire (4 to 20) mA current loop
Output range	(4.0 to 20.0) mA
Output Connection	Screw Terminal
Maximum output	21.5mA (in high burnout condition)
Minimum output	<3.8 mA (in low burnout condition)
Accuracy	(mA output /2000) or 5 uA (Whichever is the greater)
Loop Voltage effect	± 0.2 uA / V
Thermal drift	± 2 uA / °C Typically ± 2 uA / °C Max
Maximum output load	[(Vsupply-12)/20] K Ohms (Example 600 ohms @ 24 V)

Approvals

EMC	EN 61326

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