

HBS4200

Temperature Transmitter

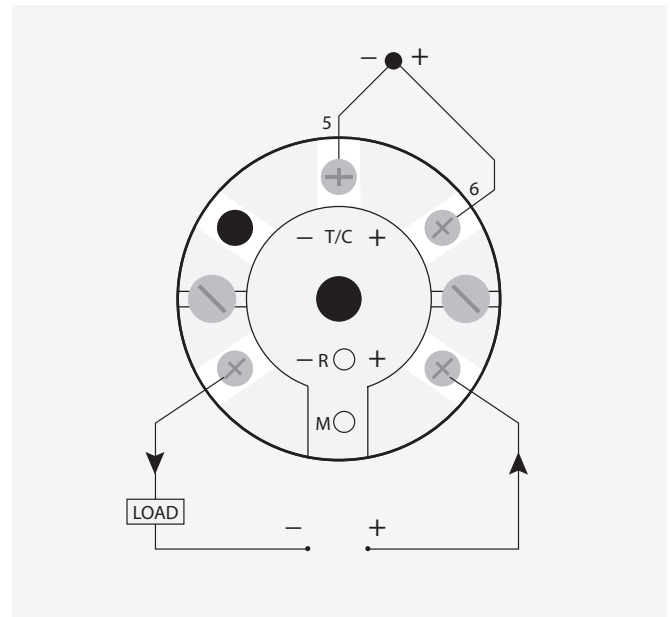


The HBS4200 is a high accuracy head-mounted programmable temperature transmitter suitable for Thermocouple inputs. The temperature transmitter is loop powered and converts the input signal into a 4 to 20mA current output.

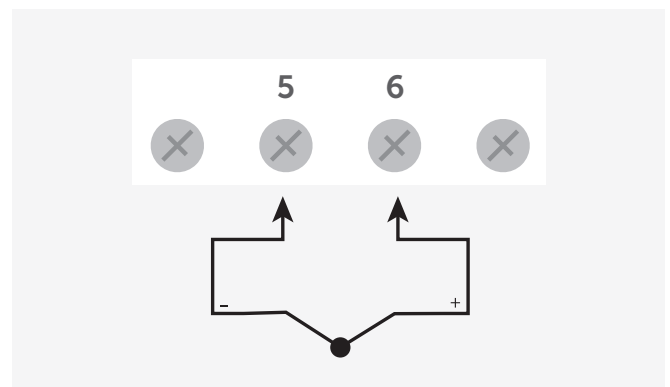
The thermocouple input types and ranges including upscale or downscale sensor error detection can be programmed using the configuration kit HBSUSB1.

Thermocouple Input:

Sensor Type	Range (°C) Min temp - Max Temp
K	-200 - +1370
J	-100 - +1200
E	-200 - +1000
N	-180 - +1300
T	-200 - +400
R	-10 - +1760
S	-10 - +1760



Connections:



Output:

mA, signal range	4 to 20mA
2-Wire output	4 to 20mA
Maximum output	21.5mA (High Burnout Condition)
Minimum output	< 3.9mA (Low Burnout Condition)

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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 non-condensing

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

Type K	-200°C to +1370°C ± 0.1% of F.S. ± 0.5 °C (plus any sensor error)
Type J	-100°C to +1200°C ± 0.1% of F.S. ± 0.5 °C (plus any sensor error)
Type E	-200°C to +1000°C ± 0.1% of F.S. ± 0.5 °C (plus any sensor error)
Type N	-180°C to +1300°C ± 0.1% of F.S. ± 0.5 °C (plus any sensor error)
Type T	-200°C to +400°C ± 0.2% of F.S. ± 0.5 °C (plus any sensor error)
Type R	-10°C to +1760°C ± 0.1% of F.S. ± 0.5 °C (plus any sensor error)
Type S	-10°C to +1760°C ± 0.1% of F.S. ± 0.5 °C (plus any sensor error)

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