

Signal

Nagman Temperature Calibrator

Portable, Handy, Easy to carry
& Sturdy Case with grip

Basic Accuracy : $\pm 0.02\%$ F.S.

**Capability to Measure & Simulate
DC Voltages, Resistances, Thermocouples & RTD**

Model

NAGMAN 14+

- Compact, Light Weight Unit with Holster
- Capability to Measure & Simulate DC Voltages, Resistances, Thermocouples and RTD
- 5 digits display of Measurement & 6 digits display for Simulation
- Dual LCD with white LED for backlight
- Measurement & Simulation of :

Thermocouple types :

R, S, B, E, K, J, T, N, L & U

RTD Types :

PT100, Pt200, Pt500, Pt1000, Cu10 & Cu50

Resistances :

500 Ω & 5 K Ω in Measurement Mode

400 Ω & 4 K Ω in Simulation Mode

DC Voltages :

50 mV & 500 mV in Measurement Mode

100 mV & 1000 mV in Simulation Mode



Product of

Nagman Instruments & Electronics (P) Ltd.

- Comprehensive Calibration Solutions (Standards / Systems / Packages / Software / Services)
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Specifications subject to change owing to continuous development



P.T.O.

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SPECIFICATIONS

MEASURING FUNCTIONS

Functions	Range / Type	Ranges	Resolution	Accuracy	Remarks
DC Voltage	50 mV	-5 to 55 mV	1 μV	0.02 + 0.02	Impedance approximately 100 MΩ
	500 mV	- 50 to 550 mV	10 μV	0.02 + 0.01	
Resistance	500 Ω	0 to 550 Ω	0.01 Ω	0.05 + 0.02	Test current for 500 Ω; approximately 1 mA; Test current for 5 KΩ; Approximately 0.1 mA; Open circuit Voltage; About 2.5 V; Does not include Lead Resistance
	5 KΩ	0 KΩ to 5.5 KΩ	0.1 Ω	0.05 + 0.02	
Thermocouple	R	0 to 1767°C	1°C	0 to 500°C : 1.8°C	ITS-90
	S	0 to 1767°C		500 to 1767°C : 1.5°C	
	K	-100 to 1372°C	0.1°C	-100 to 0°C : 1.2°C	
	E	-50 to 850°C		0 to 1372°C : 0.8°C	
				-50 to 0°C : 0.9°C	
				0 to 85°C : 1.5°C	
	J	-60 to 1120°C		-60 to 0°C : 1°C	
	T	-100 to 400°C		0 to 1120°C : 0.7°C	
				-100 to 0°C : 1°C	
	N	-200 to 1300°C		0 to 400°C : 0.7°C	
			-200 to 0°C : 1.5°C		
	B	600 to 1820°C	0 to 1300°C : 0.9°C		
			600 to 800°C : 2.2°C		
			800 to 1000°C : 1.8°C		
L	-60 to 900°C	1000 to 1820°C : 1.4°C			
		-60 to 0°C : 0.7°C			
		0 to 900°C : 0.5°C			
U	-100 to 600°C	0.1°C	-100 to 0°C : 0.7°C		
			0 to 600°C : 0.5°C		
RTD	Pt100 385	-200 to 800°C	0.1°C	-200 to 0°C : 0.5°C	ITS-90
				0 to 400°C : 0.7°C	
				400 to 800°C : 0.8°C	
	Pt1000 385	-200 to 630°C		-200 to 100°C : 0.3°C	
				100 to 300°C : 0.5°C	
				300 to 630°C : 0.7°C	
	Pt200 385	-200 to 630°C		-200 to 100°C : 0.8°C	
				100 to 300°C : 0.9°C	
				300 to 630°C : 1°C	
	Pt500 385	-200 to 630°C		-200 to 100°C : 0.4°C	
-100 to 300°C : 0.5°C					
300 to 30°C : 0.7°C					
Cu10	-100 to 260°C	1.8°C			
Cu50	-50 to 150°C	0.7°C			
	500 Ω	<50 Ω	0.02 Ω		500 Ω Approximately 1 mA test Current

OUTPUT FUNCTIONS

Output	Range / Type	Ranges	Resolution	Accuracy	Remarks
DC Voltage	100 mV	-10 to 110 mV	1 μ V	0.02 + 0.01	Maximum Output : 0.5 mA Maximum Output : 2 mA
	1000 mV	-100 to 1100 mV	10 μ V	0.02 + 0.01	
Resistance	400 Ω	0 to 400 Ω	0.01 Ω	0.02 + 0.02	Excitation Current : ± 0.5 to 3 mA if ± 0.1 to 0.5 mA add 0.1 Ω ; does not include lead resistance
	4 K Ω	0 K Ω to 4 K Ω	0.1 Ω	0.05 + 0.025	Excitation Current : ± 0.05 to 0.3 mA; does not include lead resistance
Thermocouple	R	0 to 1767°C	1°C	0 to 100°C : 1.5°C	ITS-90
				100 to 1767°C : 1.2°C	
	S	0 to 1767°C		0 to 100°C : 1.5°C	
				100 to 1767°C : 1.2°C	
	K	-200 to 1372°C	0.1°C	-200 to -100°C : 0.6°C	
				-100 to 400°C : 0.5°C	
				400 to 1200°C : 0.7°C	
				1200 to 1372°C : 0.9°C	
	E	-200 to 1000°C		-200 to 100°C : 0.6°C	
				-100 to 600°C : 0.5°C	
				600 to 1000°C : 0.4°C	
	J	-200 to 1200°C		-200 to -100°C : 0.6°C	
				-100 to 800°C : 0.5°C	
				800 to 1200°C : 0.7°C	
	T	-250 to 400°C		-250 to 400°C : 0.6°C	
				-200 to -100°C : 1.0°C	
	N	-200 to 1300°C		-100 to 900°C : 0.7°C	
				900 to 1300°C : 0.8°C	
	B	600 to 1820°C	1°C	600 to 800°C : 1.5°C	
				800 to 1820°C : 1.1°C	
	L	-200 to 900°C	0.1°C	-200 to 0°C : 0.7°C	
				0 to 900°C : 0.5°C	
	U	-200 to 600°C	0.1°C	-200 to 0°C : 0.7°C	
				0 to 600°C : 0.5°C	
RTD	Pt100 385	-200 to 800°C	0.1°C	-200 to 0°C : 0.3°C	ITS-90 Excitation Current " ± 0.5 to ± 3 mA for Pt100, Cu10, Cu50, add 0.5°C when excitation current is ± 0.1 mA to 0.5 mA; Excitation Current " ± 0.05 mA to ± 0.3 mA for Pt200, Pt500, Pt1000; does not include Lead Resistance
				0 to 400°C : 0.5°C	
				400 to 800°C : 0.8°C	
	Pt1000 385	-200 to 630°C		-200 to 100°C : 0.2°C	
				100 to 300°C : 0.5°C	
				300 to 630°C : 0.7°C	
	Pt200 385	-200 to 630°C		-200 to 100°C : 0.8°C	
				100 to 300°C : 0.9°C	
				300 to 630°C : 1°C	
	Pt500 385	-200 to 630°C		-200 to 100°C : 0.4°C	
				100 to 300°C : 0.5°C	
				300 to 630°C : 0.7°C	
	Cu10	-10 to 260°C		-10 to 260°C : 1.8°C	
	Cu50	-50 to 150°C		-50 to 150°C : 0.6°C	

STANDARD DELIVERY

- Temperature Calibrator – Model : Nagman 14+
- 1.5V x 4 Nos. Alkaline Batteries
- Operation Manual
- Test Leads
- Traceable Calibration Certificate

OPTIONAL

- Calibration Certificate from NABL Accredited – as per ISO/IEC 17025:2005 Laboratory