

PRODUCT INFO SHEET

Nanmac Corporation

Quality • Performance • Solutions

Temperature and Process Controllers Proportional • PID • Ramp Soak • Limit H34 Series

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The H34-540 Series is 1/16 DIN or 1/4 DIN temperature controller with auto tuning PID control capabilities. One of four user programmable set points may be selected. For PID control in the form of time proportional relay on/off output, time proportional voltage pulse, or 4-20 mA signal control. Its universal input accepts 23 input varieties, including thermocouple, RTD, and voltage inputs can be easily configured for a 4-20 mA input. The relays may be programmed as alarms with 20 different high, low, and deviation alarm types which can include fail-safe operation. Digital input options add the ability of external contacts to operate the controller. With RS-485 serial communication options include protocols for master/slave set point control, modbus ASCII and RTU.

H34-540 Series Temperature Controllers - Specifications

Part No.	DIN Size	Description
H34-540-6RA-11	1/16	2 Relays, 1 Analog Output, 2 Digital Inputs, Heating or Cooling
H34-540-6RA-14	1/16	2 Relays, 1 Analog Output, RS-485 Communication, Heating or Cooling
H34-548-6RB-21	1/4	3 Relays, 2 Analog Outputs, 2 Digital Inputs, Heating or Cooling
H34-548-6RB-24	1/4	3 Relays, 2 Analog Outputs, RS-485 Communication, Heating or Cooling
H34-549-6RB-24	1/4	3 Relays, 2 Analog Outputs, RS-485 Communication, Heating & Cooling

The H34-550 Series is 1/16 DIN or 1/4 DIN ramp and soak controller with auto-tuning PID control capabilities. Two programs store 15 segments each for precision set point control. At the completion of a program, the controller can hold a set point, stop the outputs, or loop the completion of a program. Thus, enabling one 30 segment program to be used. Its universal input accepts 23 input varieties, including thermocouple, RTD, and voltage inputs can easily be configured for a 4-20 mA input. The relays may be programmed as alarms with 20 different high, low, and deviation alarm types which include failsafe operation. Digital input options add the ability of external contacts to operate the controller and digital output options are available. With RS-485 serial communication options include protocols for master/slave set point control, modbus ASCII and RTU.



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H34-550 Series Ramp Soak Controllers - Specifications		
Part No.	DIN Size	Description
H34-550-6RA-14	1/16	2 Relays, 1 Analog Output, RS-485 Communication
H34-558-6RA-26	1/4	3 Relays, 2 Analog Outputs & 4 Digital Inputs, RS-485 Communication

H34-570 Series Limit (On/Off) Controllers - Specifications		
Part No.	DIN Size	Description
H34-570-6RA-10	1/16	1 Latching Relay, 1 Alarm Relay, 1 Analog Output
H34-578-6RA-14	1/4	3 Relays, 1 Analog Outputs & 4 Digital Inputs, RS-485 Communication

Specifications			
Input Type	Thermocouple Type	Temperature Range	Accuracy*
Thermocouple	B	32 to 3,300°F (0 to 1,800°C)	> 400°C : $\pm 0.15\%$ FS ± 1 digit < 400°C : $\pm 5\%$ ± 1 digit
	C (W5)	32 to 4,200°F (0 to 2,300°C)	$\pm 0.2\%$ FS ± 1 digit
	E	-300 to 1,800°F (-199.9 to 999.9°C)	> 0°C : $\pm 0.1\%$ FS ± 1 digit
	J	-300 to 2,300°F (-199.9 to 999.9°C)	< 0°C : $\pm 0.2\%$ FS ± 1 digit
	K	0 to 2,300°F (-199.9 to 999.9°C)	> 0°C : $\pm 0.1\%$ FS ± 1 digit
	L	-300 to 1,600°F (-199.9 to 900.0°C)	> 0°C : $\pm 0.25\%$ FS ± 1 digit
	N	-300 to 2,400°F (-200 to 1,300°C)	> 0°C : $\pm 0.1\%$ FS ± 1 digit < 0°C : $\pm 0.25\%$ FS ± 1 digit
	Platinel II	32 to 2,500°F (0 to 1,390°C)	$\pm 0.1\%$ FS ± 1 digit
	R	32 to 3,100°F (0 to 1,700°C)	$\pm 0.15\%$ FS ± 1 digit
	S	32 to 3,100°F (0 to 1,700°C)	
	T	-300 to 750°F (-199.9 to 400.0°C)	
U	-300 to 750°F (-199.9 to 400.0°C)		
RTD	JPtA	-199.9 to 999.9°F (-199.9 to 500.0°C)	$\pm 0.1\%$ FS ± 1 digit**
	JPtB	-199.9 to 300.0°F (-150.0 to 150.0°C)	
	PtA	-300 to 1,560°F (-199.9 to 850.0°C)	$\pm 0.1\%$ FS ± 1 digit**
	PtB	-199.9 to 999.9°F (-199.9 to 500.0°C)	
	PtC	-4.0 to 212.0°F (-19.99 to 99.99°C)	$\pm 0.2\%$ FS ± 1 digit
Process	0.4 to 2.0V	0.400 to 2.000	$\pm 0.1\%$ FS ± 1 digit
	1.000 to 5.000	1.000 to 5.000	Display range can be scaled between -1999 and 9999.
	0 to 10V	0.00 to 10.00	4 to 20 mA Input
	-10 to 20mV	-10.00 to 20.00	To accept a 4 to 20 mA signal, select 0.4 to 2.0 VDC input and connect a 100Ω resistor across the input terminals.
	0 to 100mV	0.0 to 100.0	

*Performance within recommended operating conditions (10 to 50°C, 20 to 90% RH)

**For a range scale of 0 to 100°C: $\pm 0.3^\circ\text{C} \pm 1$ digit, and for a range scale of -100 to 100°C: $\pm 0.5^\circ\text{C} \pm 1$ digit