



EMPOWERING PROCESS MANAGEMENT

An ISO 9001:2015 Company



AI Series PID Temperature Controllers



ELTEC CABLES & INSTRUMENTS

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Features

- Universal Sensor Input (All Thermocouple and RTD Input)
- Programmable Single Step Ramp and Soak function
- In-built Overshoot Control Protection Algorithm
- Alarm Acknowledge and Inhibit function

Specifications

DESCRIPTION		AI-7X41	AI-7X81	AI-7X82	AI-7X83
Display	Type	7 Segment LED (White Display for PV and Pure Green Display for SV)			
	No. of Digits	4 Digits Single Row	4 Digits Dual Row		
	LED Indication	Output Status	Output Status	Output Status Soak Time	Output Status

INPUT SPECIFICATION

Measurement	Input	T/C : J, K, R, S, N, T, B RTD : Pt-100			
	Accuracy	0.3% FS			
	Resolution	J, K, R, S, N, T, B : 1 °C Pt-100 : 1 °C/ 0.1 °C			

OUTPUT SPECIFICATION

Set Point	No. of Set Point	1	1	2	3
Output	Relay	5A @ 250VAC/ 30VDC			
	SSR Drive	12 VDC @ 30mA			
Output 1	Relay / SSR	User Selectable			Factory Set
Output 2	Relay / SSR	N.A	N.A	User Selectable ^s	Factory Set
Output 3	Relay / SSR	N.A	N.A	N.A	Factory Set

FUNCTIONAL SPECIFICATION

Control Parameter	Action	PID or ON/OFF			
	Hysteresis	0.1 to 100.0 °C/ 1 to 100 °C			
	Delay	0 to 500 Sec			
	P, I & D Values	User Programmable			
	Output Power	0 to 100 %			
	Cycle Time	1.0 to 100.0 Sec			
Output 2 / 3 Function	Aux. Control	N.A	N.A	Absolute / Deviation	
	Alarm	N.A	N.A	Low/ High/ Low Deviation/ High Deviation/ Band	
	Soak Timer	N.A	N.A	0.01 Sec to 9999 Hrs (with backup function)	

OPTIONAL SPECIFICATION

Digital Input	N.A	N.A	Available on request	Available
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GENERAL SPECIFICATION

Supply Voltage	90 - 270 VAC/ DC (24 VDC Available on Request)										
Temperature And Humidity	Operating : 0 - 50°C Storage : -20° to 75°C 95 % RH (Non-condensing)										
Dimensions in mm (H x W x D)	Model No.	Display Height	Model No.	Display Height		Model No.	Display Height		Model No.	Display Height	
				PV	SV		PV	SV		PV	SV
48 x 48 x 78	AI-7441	0.36"	AI-7481	0.36"	0.24"	AI-7482	0.36"	0.24"	AI-7483	0.36"	0.24"
96 x 48 x 53	AI-7641	0.36"	AI-7681	0.36"	0.36"	AI-7682	0.36"	0.36"	AI-7683	0.36"	0.36"
72 x 72 x 65	AI-7741	0.56"	AI-7781	0.56"	0.39"	AI-7782	0.56"	0.39"	AI-7783	0.56"	0.39"
48 x 96 x 53	AI-7841	0.56"	AI-7881	0.36"	0.36"	AI-7882	0.36"	0.36"	AI-7883	0.36"	0.36"
96 x 96 x 53	AI-7941	0.56"	AI-7981	0.80"	0.56"	AI-7982	0.80"	0.56"	AI-7983	0.80"	0.56"

I-THERM ORDER CODE GUIDE :

AI-7	X	X	X	X	X	X	X
AI - 7XXX-X-X-X-X	SIZE	DISPLAY	NO. OF O/P	OP1 TYPE *	OP2 TYPE *	OP3 TYPE *	SUPPLY
4 --->>	48 x 48	4 >> 4 Digits x 1 Row	1 #	R --->> Relay	R --->> Relay	R --->> Relay	A ->> 230 VAC
6 --->>	96 x 48	8 >> 4 Digits x 2 Row	2 #	S --->> SSR	S --->> SSR	S --->> SSR	B ->> 24 VDC
7 --->>	72 x 72		3		N --->> None	N --->> None	
8 --->>	48 x 96						
9 --->>	96 x 96						

* Not applicable for Single Output Models

Output Type User Selectable B/W Relay and SSR

\$ Except AI-7482



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