



LC5296-AT LC5248E-AT LC5296L-AT LC5248L-AT Auto-tune PID Controller

Masibus LC5296-AT / LC5248E-AT / LC5296L-AT / LC5248L-AT PID Controller series is designed to offer outstanding control performance in a compact package providing a comprehensive solution for a wide variety of applications: such as plastic manufacturing, packaging machinery and food processing applications requiring precise heat/cool control and processes protection alarming.

LC5296-AT / LC5248E-AT PID Controller offer a cost-effective alternative to implement loops in a PLC while at the same time improving loop performance. It accepts one universal process input suitable for Thermocouple, RTD or linear mA/Volt. All inputs and outputs can be read directly over the Modbus communication interface by the supervisory host system as well as process value can be retransmitted to remote PLC/DCS. This expands capabilities of available PLC/DCS and host supervisory system I/O, simplifies machine troubleshooting and remote diagnostics.

LC5296-AT / LC5248E-AT / LC5296L-AT / LC5248L-AT PID Controller With a fast responsive PID auto-tuning algorithm it is equipped with Heat/Cool relay or SSR output for control function. Auto-tuning adjusts the PID parameters for desired set-point according to the current process dynamics so it has no harmful effect on the current operation. It has flexibility to switch control to On-Off or Manual mode for non-critical applications.

LC5296-AT / LC5248E-AT PID Controller has two outputs available providing a combination of Relay (alarm output) and Relay or SSR (control output) based on application requirement. Whereas LC5296L-AT / LC5296L-AT PID controller has 3 outputs providing combination of 2 Relay (alarm output) or SSR (control output)

Compact size and simple programming makes the installation and operation of Controller easier and user-friendly.

Features

- Auto-tune PID
- Universal input (TC, RTD, Volts, mA)
- 15 Alarm configurations
- RS485 Modbus Communication (optional in LC5296-AT / LC5248E-AT model)
- Retransmission Output (optional in LC5296-AT / LC5248E-AT model)
- Relay / SSR control output option
- Password protected configurations
- Auto/Manual selection with bump less transfer
- Fail-safe Design protecting the process in case of system malfunctioning
- Display brightness control
- Transmitter Power Supply in LC5296-AT/LC5296L-AT/ LC5248E-AT model
- Function Key : Selectable for RUN/STOP or Auto/manual or none.(LC5296L-AT/LC5248L-AT)

Applications

- Injection Molding machines
- Plastic Extrusion process
- Packaging machines
- Food processing applications

TECHNICAL SPECIFICATIONS

Input Analogue PV Output [#] (Option) (only in LC5296-AT model)										
		Input				PV Output [#] (Optic				
Input Type		Thermocouple (E),	Current		0-20mA/ 4-20n			
		RTD (Pt100), Current, Voltage			Voltage 0-5V/ 1-5V/ 0-10V @3 KΩ Min					
Display Range		Refer Table-1			Accuracy 0.25% FS					
Accuracy		±0.25% of FS ±1 Count for TC, RTD input			Communication Output (Optional in LC5296-AT / LC5248E-AT)					
Accuracy		±0.1% of FS ±1 digit for Linear input			Interface RS485					
ADC Resolution		16 bits			Protocol					
Display Reso	Display Resolution		0.1 / 1.0 °C			Baud Rate 9600, 19200, 38400				
Sampling Rate 5 Samples/Sec				Alarm Output						
CJC Error ±2.0 °C				LC5296-AT / LC5248E-AT LC5296L-AT / LC5248L-AT						
Sensor open			All inputs except 0-5V / 0-10 V			1 (If control outp	out is Relay/ SSR)	1 (If control out	put is Relay) or	
Sensor Burn	out current	0.25μΑ				or 2 (If control	l output is AO)	2 (If control o	utput is SSR)	
RTD excitation	on current	0.166 mA (Appro	0.166 mA (Approx.)			Single Chan	ige over (C, NO, N	IC), For LC5248L	-AT(C ,NO)	
NMRR		> 40dB				Rating 5A @ 230VAC / 30VDC				
CMRR		> 120dB								
		< 100ppm for Inj	put to Display		Transmitter supply In LC5296-AT/ LC5296L-AT/LC5248E-AT model only 24V DC (±10%) @26mA (Current limited)					
Temp-co					Deven Currely					
	(LC5296-AT/ LC5248E-AT)				Power Supply Standard 85-260VAC / 100-300VDC					
Input Impedance		> 1MQ	,				85-260VAC / 10	00-300VDC		
Max Voltage		20VDC			Optional 18-36VDC					
		Display & Keys			Power Cons	umption		LC5296-AT / LC		
	LC5296-A		LC5248E-AT	LC5248L-AT	1		5VA Approx. (LC	5296L-AT / LC5	248L-AT)	
	0.56", 0.56", 0.4", 0.4",					nstanding voltage)				
	7 segment,						condary terminals**: A			
Process Valu	Red LED,	Red LED,	Red LED,	Red LED.			ounding terminal: At le			
	,						condary terminals**: A		or 1 minute	
	4 digits	4 digits	4 digits	4 digits		Between secondary terminals**: At least 500 V AC for 1 minute * Primary terminals indicate power terminals and relay output terminals.				
	0.4",	0.4",	0.28",	0.31",			log I/O signal and Con			
Set Value	7 segment		7 segment,	7 segment,			re at 500 V DC betwe		ind	
	Green LED	, , ,	Green LED,	Green LED,	grounding tern					
	4 digits 4 digits 4 digits 4 digits					Physical				
	SET1, SET2	Enter. Increase.	Enter. Increase	, Enter, Increase,						
Keys	Increase,	Decrease A/M		1 Decrease, A/M			LC5296-AT/	LC5248E-AT	LC5248L-AT	
	Decrease, A	Μ	, , , , , , , , , , , , , , , , ,	, , , , , , , , , , , , , , , , , ,			LC5296L-AT	10 10 100	10 10 05	
	Relay &					n mm)(H x W x D)		48 x 48 x 120	48 x 48 x 85	
Status LEDs	Communicati	on, Relay & SSR	Relay & SSR	Relay & SSR	Front Bezel (in mm)(H x W) 96 x 96 48 x 48 48 x 48					
A/M						t (in mm) (H x W)		44 x 44	45 x 45	
		Output				idPanel (in mm)	65	115	77	
Control Output					Weight (app	rox.)	300g	120g	120g	
Control Type On/Off, P, PI, Auto tune PID					Enclosure M	laterial		Molded ABS		
Manual offse		±50% of P band			Enclosure Protection IP20					
Proportional band 0.0 to 999.9 or 0 to 9999					Terminal Cable Size 2.5mm ²					
Integral time O(off) to 1000 Sec				Environmental						
U U						emperature	0 to 55 °C			
Derivative time 0(off) to 180 Sec						Operating Temperature 0 to 55 °C Storage temperature 0 to 80°C				
Cycle time	For SSR	1 to 60 Sec	lustin on loff m	o do)						
Deless Combin	For Relay	10 to 300 Sec (H	iyst in on/orr m	ode)	Humidity 30-95% RH (non-condensing)					
Relay Contro	ol Output	4.5.1					able-1: Display R			
Relays		1 No.	(Input	Input Type	Rar	-		
Туре			Single Change over (C, NO, NC),			E	-20	0 to 1000 °C		
		For LC5248L-AT(C, NO)				L				
Rating		and the second se				J		0 to 1200°C		
		5A @ 230VAC /	30VDC			J K	-20	0 to 1200°C 0 to 1372°C	_	
Rating		nal)	30VDC		Thermocou	J K	-20 -20			
0	Output (Optio	nal) 11V DC@20mA	30VDC		Thermocou	J K	-20 -20 -20	0 to 1372°C		
Resolution		nal) 11V DC@20mA 10ms		_	Thermocou	J K Dle T B R	-20 -20 -20 450	0 to 1372°C 0 to 400°C	_	
Resolution Analogue M		nal) 11V DC@20mA 10ms onal in LC5296-AT	Г / LC5248E-А1	г)		J K Dle T B R S	-20 -20 -20 450 0 to 0 to	0 to 1372°C 0 to 400°C 0 to 1800°C 0 1768 °C 0 1768 °C		
Resolution Analogue M Current		nal) 11V DC@20mA 10ms onal in LC5296-AT 0-20mA/4-20mA	Γ / LC5248E-A1 4@500Ω max		Thermocoup	J K T B R S PT-100 (3 v	-20 -20 -20 450 0 tr wire) -20	0 to 1372°C 0 to 400°C) to 1800°C o 1768 °C	9.0 to 850.0 °C	
Resolution Analogue M Current Voltage		nal) 11V DC@20mA 10ms onal in LC5296-AT	Γ / LC5248E-A1 4@500Ω max		RTD	J K T B R S PT-100 (3 v 1-5V/0-5V,	-20 -20 -20 450 0 tr wire) -20 /0-10V DC	0 to 1372°C 0 to 400°C 0 to 1800°C 0 1768 °C 0 1768 °C 0 to 850 °C,-199	9.0 to 850.0 ℃	
Resolution Analogue M Current		nal) 11V DC@20mA 10ms onal in LC5296-AT 0-20mA/4-20mA	Γ / LC5248E-A1 4@500Ω max			J K T B R S PT-100 (3 v 1-5V/0-5V,	-20 -20 -20 450 0 to wire) -20	0 to 1372°C 0 to 400°C 0 to 1800°C 0 1768 °C 0 1768 °C	9.0 to 850.0 ℃	
Resolution Analogue M Current Voltage		nal) 11V DC@20mA 10ms onal in LC5296-AT 0-20mA/4-20mA 0-5V/ 1-5V/ 0-1 0.25% of FS	Γ / LC5248E-A1 4@500Ω max		RTD	J K T B R S PT-100 (3 v 1-5V/0-5V,	-20 -20 -20 450 0 tα wire) -2C /0-10V DC (Ext 250 Ω) -19	0 to 1372°C 0 to 400°C 0 to 1800°C 0 1768 °C 0 1768 °C 0 to 850 °C,-199	9.0 to 850.0 ℃	
Resolution Analogue M Current Voltage Accuracy	V Output (Opt	nal) 11V DC@20mA 10ms onal in LC5296-AT 0-20mA/4-20mA 0-5V/ 1-5V/ 0-1 0.25% of FS	Γ / LC5248E-AT 4@500Ω max LOV @3 KΩ Min ng Code Control	Optio	RTD Linear	J K T B R S PT-100 (3 v 1-5V/0-5V,	-20 -20 -20 -20 450 0 ta 0 ta 0 ta 0 ta -20 -20 -20 -20 -20 -20 -20 -20 -20 -20	0 to 1372°C 0 to 400°C 0 to 1800°C 1768 °C 1768 °C 1768 °C 0 to 850 °C,-199 99 to 9999 ng Code r Supply	0.0 to 850.0 ℃ Output	
Resolution Analogue M Current Voltage		nal) 11V DC@20mA 10ms onal in LC5296-AT 0-20mA/4-20m/ 0-5V/ 1-5V/ 0-1 0.25% of FS Orderin	Γ / LC5248E-AT 4@500Ω max LOV @3 KΩ Min ng Code Control		RTD Linear	J K T B R S PT-100 (3 v 1-5V/0-5V 0/4-20mA	-20 -20 -20 -20 450 0 tr 0 tr wire) -2C /0-10V DC (Ext 250 Ω) -19 Orderi Input Powe	0 to 1372°C 0 to 400°C 0 to 1800°C 1768 °C 1768 °C 0 to 850 °C,-199 99 to 9999 ng Code r Supply 260VAC/ 1	Output	
Resolution Analogue M Current Voltage Accuracy Model	V Output (Opt	nal) 11V DC@20mA 10ms onal in LC5296-AT 0-20mA/4-20mA 0-5V/ 1-5V/ 0-1 0.25% of FS Orderin Power Supply 111 85-260VAC/	Γ / LC5248E-AT A@500Ω max LOV @3 KΩ Min ng Code Control Output	Optio 1 (AO1*) 2 (AO	RTD Linear 2**or RS485)	J K K T B R S PT-100 (3 v 1-5V/0-5V, 0/4-20mA LC5296L-AT 1	-20 -20 -20 -20 -20 -20 0 to 0 to 0 to 0 to -20 -20 -20 -20 -20 -20 -20 -20 -20 -20	0 to 1372°C 0 to 400°C 0 to 1800°C 1768 °C 1768 °C 0 to 850 °C,-199 99 to 9999 ng Code r Supply 260VAC/ 1 F	Output Relay1+Relay2	
Resolution Analogue M Current Voltage Accuracy Model LC5296-AT	V Output (Opt	hal) 11V DC@20mA 10ms onal in LC5296-AT 0-20mA/4-20m/ 0-5V/ 1-5V/ 0-1 0.25% of FS Orderin Power Supply U1 85-260VAC/ 100-300VDC	Γ / LC5248E-AT A@500Ω max LOV @3 KΩ Min ng Code Control Output 1 Relay N	Optio 1 (AO1*) 2 (AO N None N	RTD Linear 2**or RS485) None	J K K T B R S PT-100 (3 v 1-5V/0-5V, 0/4-20mA LC5296L-AT 1 LC5248L-AT 2	-20 -20 -20 -20 -20 -20 -20 -20 -20 -20	0 to 1372°C 0 to 400°C 0 to 1800°C 0 1768 °C 0 1768 °C 0 to 850 °C,-199 99 to 9999 ng Code r Supply 260VAC/ 1 F 3-36VDC 2	Output Relay1+Relay2 Relay1+SSR	
Resolution Analogue M Current Voltage Accuracy Model	V Output (Opt	nal) 11V DC@20mA 10ms onal in LC5296-AT 0-20mA/4-20mA 0-5V/ 1-5V/ 0-1 0.25% of FS Orderin Power Supply 111 85-260VAC/	Γ / LC5248E-A1 A@500Ω max LOV @3 KΩ Min ng Code Control Output 1 Relay N 2 SSR 1	Optio 1 (AO1*) 2 (AO N None N L 4-20 mA 1	RTD Linear 2**or RS485) None 4-20 mA*	J K K T B R S PT-100 (3 v 1-5V/0-5V 0/4-20mA LC5296L-AT 1 LC5296L-AT 1 LC5248L-AT 2 3	-20 -20 -20 -20 -20 -20 -20 -20 -20 -20	0 to 1372°C 0 to 400°C 0 to 1800°C 0 1768 °C 0 1768 °C 0 to 850 °C,-199 99 to 9999 ng Code r Supply 260VAC/ 1 F 3-36VDC 2	Output Relay1+Relay2	
Resolution Analogue M Current Voltage Accuracy Model LC5296-AT	V Output (Opt Input 1 E 2 J 3 K	hal) 11V DC@20mA 10ms onal in LC5296-AT 0-20mA/4-20m/ 0-5V/ 1-5V/ 0-1 0.25% of FS Orderin Power Supply U1 85-260VAC/ 100-300VDC	Γ / LC5248E-AT A@500Ω max LOV @3 KΩ Min ng Code Control Output 1 Relay N 2 SSR 1 2	Optio 1 (AO1*) 2 (AO None N 4-20 mA 1 2 0-20 mA 2	RTD Linear 2**or RS485) None 4-20 mA [#] 0-20 mA [#]	J K K T B R S PT-100 (3 V 1-5V/0-5V 0/4-20mA V C C C S C C C C C C C C C C C C C C C	-20 -20 -20 -20 -20 -20 0 ta 0 ta 0 ta 0 ta 0 ta -19 (Ext 250 Ω) -19 Orderi Input Powe E U1 100 J U2 18 K T	0 to 1372°C 0 to 400°C 0 to 1800°C 0 1768 °C 0 1768 °C 0 to 850 °C,-199 99 to 9999 ng Code r Supply 260VAC/ 1 F 3-36VDC 2	Output Relay1+Relay2 Relay1+SSR	
Resolution Analogue M Current Voltage Accuracy Model LC5296-AT	V Output (Opt Input 1 E 2 J 3 K 4 T	hal) 11V DC@20mA 10ms onal in LC5296-AT 0-20mA/4-20m/ 0-5V/ 1-5V/ 0-1 0.25% of FS Orderin Power Supply U1 85-260VAC/ 100-300VDC	Γ / LC5248E-AT A@500Ω max LOV @3 KΩ Min ng Code Control Output 1 Relay N 2 SSR 1 2 3	Optio 1 (AO1*) 2 (AO None N 4-20 mA 1 2 0-20 mA 2 3 1-5 V 3	RTD Linear 2**or RS485) None 4-20 mA [#] 0-20 mA [#] 1-5 V [#]	J K K T B R S PT-100 (3 v 1-5V/0-5V 0/4-20mA V C LC5296L-AT 1 LC5248L-AT 2 3 4 5	-20 -20 -20 -20 -20 -20 0 ta 0 ta 0 ta 0 ta 0 ta -19 0 ta 19 0 ta 	0 to 1372°C 0 to 400°C 0 to 1800°C 0 1768 °C 0 1768 °C 0 to 850 °C,-199 99 to 9999 ng Code r Supply 260VAC/ 1 F 3-36VDC 2	Output Relay1+Relay2 Relay1+SSR	
Resolution Analogue M Current Voltage Accuracy Model LC5296-AT	V Output (Opt Input 1 E 2 J 3 K 4 T 5 B	hal) 11V DC@20mA 10ms onal in LC5296-AT 0-20mA/4-20m/ 0-5V/ 1-5V/ 0-1 0.25% of FS Orderin Power Supply U1 85-260VAC/ 100-300VDC	Γ / LC5248E-AT A@500Ω max LOV @3 KΩ Min ng Code Control Output 1 Relay N 2 SSR 1 2 3	Optio 1 (AO1*) 2 (AO None N 4-20 mA 1 2 0-20 mA 2 3 1-5 V 3 4 0-5 V 4	RTD Linear mal 2**or RS485) None 4-20 mA [#] 0-20 mA [#] 1-5 V [#] 0-5 V [#]	J K K T B R S PT-100 (3 V 1-5V/0-5V 0/4-20mA V C C C S C S D C C C S C S C C C C C S C C C C	-20 -20 -20 450 0 ta 0 ta 0 ta 0 ta 19 0 ta 19 10 ta 10 10 ta 10 10 ta 10 10 ta 10 10 ta 10 10 ta 10 10 ta 10 10 ta 10 10 ta 10 10 10 10 10 10 10 10 10 10 10 10 10	0 to 1372°C 0 to 400°C 0 to 1800°C 0 1768 °C 0 1768 °C 0 to 850 °C,-199 99 to 9999 ng Code r Supply 260VAC/ 1 F 3-36VDC 2	Output Relay1+Relay2 Relay1+SSR	
Resolution Analogue M Current Voltage Accuracy Model LC5296-AT	V Output (Opt Input 1 E 2 J 3 K 4 T 5 B 6 R	hal) 11V DC@20mA 10ms onal in LC5296-AT 0-20mA/4-20m/ 0-5V/ 1-5V/ 0-1 0.25% of FS Orderin Power Supply U1 85-260VAC/ 100-300VDC	Γ / LC5248E-AT A@500Ω max LOV @3 KΩ Min ng Code Control Output 1 Relay N 2 SSR 1 2 3	Option 1 (AO1*) 2 (AO None N 4-20 mA 1 2 0-20 mA 2 3 1-5 V 3 4 0-5 V 4 5 0-10 V 5	RTD Linear 2**or RS485) None 4-20 mA [#] 0-20 mA [#] 1-5 V [#] 0-5 V [#] 0-10 V [#]	J K K T B R S PT-100 (3 \ 1-5\/0-5\/ 0/4-20\mA V 1-5\/0-5\/ 0/4-20\mA 1 LC52\96L-AT 1 LC52\96L-AT 2 3 4 5 6 7	-20 -20 -20 -20 -20 -20 -20 0 ta 0 ta 0 ta 0 ta -20 -20 -20 -20 -20 -20 -20 -20 -20 -20	0 to 1372°C 0 to 400°C 0 to 1800°C 0 1768 °C 0 1768 °C 0 to 850 °C,-199 99 to 9999 ng Code r Supply 260VAC/ 1 F 3-36VDC 2	Output Relay1+Relay2 Relay1+SSR	
Resolution Analogue M Current Voltage Accuracy Model LC5296-AT	V Output (Opt Input 1 E 2 J 3 K 4 T 5 B 6 R 7 S	hal) 11V DC@20mA 10ms onal in LC5296-AT 0-20mA/4-20m/ 0-5V/ 1-5V/ 0-1 0.25% of FS Orderin Power Supply U1 85-260VAC/ 100-300VDC	Γ / LC5248E-AT A@500Ω max LOV @3 KΩ Min ng Code Control Output 1 Relay N 2 SSR 1 2 3	Optio 1 (AO1*) 2 (AO None N 4-20 mA 1 2 0-20 mA 2 3 1-5 V 3 4 0-5 V 4	RTD Linear mal 2**or RS485) None 4-20 mA [#] 0-20 mA [#] 1-5 V [#] 0-5 V [#]	J K K T B R S PT-100 (3 V 1-5V/0-5V 0/4-20mA V C5296L-AT 1 LC5296L-AT 1 LC5248L-AT 2 3 4 5 6 7 9	-20 -20 -20 -20 -20 -20 -20 -20 -20 -20	0 to 1372°C 0 to 400°C 0 to 1800°C 0 1768 °C 0 1768 °C 0 to 850 °C,-199 99 to 9999 ng Code r Supply 260VAC/ 1 F 3-36VDC 2	Output Relay1+Relay2 Relay1+SSR	
Resolution Analogue M Current Voltage Accuracy Model LC5296-AT	V Output (Opt Input 1 E 2 J 3 K 4 T 5 B 6 R 7 S 9 Pt-100	hal) 11V DC@20mA 10ms onal in LC5296-AT 0-20mA/4-20m/ 0-5V/ 1-5V/ 0-1 0.25% of FS Orderin Power Supply U1 85-260VAC/ 100-300VDC	Γ / LC5248E-AT A@500Ω max LOV @3 KΩ Min ng Code Control Output 1 Relay N 2 SSR 1 2 3	Option 1 (AO1*) 2 (AO None N 4-20 mA 1 2 0-20 mA 2 3 1-5 V 3 4 0-5 V 4 5 0-10 V 5	RTD Linear 2**or RS485) None 4-20 mA [#] 0-20 mA [#] 1-5 V [#] 0-5 V [#] 0-10 V [#]	J K K T B R S PT-100 (3 V 1-5V/0-5V 0/4-20mA V C LC5296L-AT 1 LC5248L-AT 2 3 4 5 6 7 9 C	-20 -20 -20 -20 -20 -20 -20 -20 -20 -20	0 to 1372°C 0 to 400°C 0 to 1800°C 0 1768 °C 0 1768 °C 0 to 850 °C,-199 99 to 9999 ng Code r Supply 260VAC/ 1 F 3-36VDC 2	Output Relay1+Relay2 Relay1+SSR	
Resolution Analogue M Current Voltage Accuracy Model LC5296-AT	V Output (Opt Input 1 E 2 J 3 K 4 T 5 B 6 R 7 S 9 Pt-100 C 4-20 mA	hal) 11V DC@20mA 10ms onal in LC5296-AT 0-20mA/4-20m/ 0-5V/ 1-5V/ 0-1 0.25% of FS Orderin Power Supply U1 85-260VAC/ 100-300VDC U2 18-36VDC	Γ / LC5248E-AT A@500Ω max LOV @3 KΩ Min ng Code Control Output 1 Relay N 2 SSR 1 2 3 3 4 5	Optio 1 (AO1*) 2 (AO N None N 4-20 mA 1 2 0-20 mA 2 3 1-5 V 3 4 0-5 V 4 5 0-10 V 5 6	RTD Linear 2**or RS485) None 4-20 mA [#] 0-20 mA [#] 1-5 V [#] 0-5 V [#] 0-10 V [#]	J K T B R S PT-100 (3 ∨ 1-5V/0-5V, 0/4-20mA LC5296L-AT 1 LC5248L-AT 2 3 4 5 7 9 C D D	$\begin{array}{c} -20\\ -20\\ -20\\ -20\\ -20\\ -20\\ -20\\ -20\\$	0 to 1372°C 0 to 400°C 0 to 1800°C 0 1768 °C 0 1768 °C 0 to 850 °C,-199 99 to 9999 ng Code r Supply 260VAC/ 1 F 3-36VDC 2	Output Relay1+Relay2 Relay1+SSR	
Resolution Analogue M Current Voltage Accuracy Model LC5296-AT	V Output (Opt Input I E J J 3 K 4 T 5 B 6 R 7 S 9 Pt-100 C 4-20 mA D 0-20 mA	hal) 11V DC@20mA 10ms onal in LC5296-AT 0-20mA/4-20mA 0-5V/ 1-5V/ 0-1 0.25% of FS Orderin Power Supply U1 85-260VAC/ 100-300VDC U2 18-36VDC *Config	Γ / LC5248E-AT A@500Ω max LOV @3 KΩ Min ng Code Control Output 1 Relay N 2 SSR 1 2 3 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Optio 1 (AO1*) 2 (AO N None N 4-20 mA 1 2 0-20 mA 2 3 1-5 V 3 4 0-5 V 4 5 0-10 V 5 6	RTD Linear 2**or RS485) None 4-20 mA [#] 0-20 mA [#] 1-5 V [#] 0-5 V [#] 0-10 V [#]	J K T B R S PT-100 (3 ∨ 1-5V/0-5V, 0/4-20mA LC5296L-AT 1 LC5248L-AT 2 3 4 5 7 9 C D E	$\begin{array}{c} -20\\ -20\\ -20\\ -20\\ -20\\ -20\\ -20\\ -20\\$	0 to 1372°C 0 to 400°C 0 to 1800°C 0 1768 °C 0 1768 °C 0 to 850 °C,-199 99 to 9999 ng Code r Supply 260VAC/ 1 F 3-36VDC 2	Output Relay1+Relay2 Relay1+SSR	
Resolution Analogue M Current Voltage Accuracy Model LC5296-AT	V Output (Opt Input 1 E 2 J 3 K 4 T 5 B 6 R 7 S 9 Pt-100 C 4-20 mA D 0-20 mA E 1-5 V	hal) 11V DC@20mA 10ms onal in LC5296-AT 0-20mA/4-20mA 0-5V/ 1-5V/ 0-1 0.25% of FS Orderin Power Supply U1 85-260VAC/ 100-300VDC U2 18-36VDC *Config ** PV o	Γ / LC5248E-AT A@500Ω max LOV @3 KΩ Min ng Code Control Output 1 Relay N 2 SSR 1 2 3 2 3 3 4 5 5 3 3 4 5 5 3 3 4 5 5 3 3 5 5 5 5	Optio 1 (AO1*) 2 (AO N None N 4-20 mA 1 2 0-20 mA 2 3 1-5 V 3 4 0-5 V 4 0-5 V 4 0-10 V 5 6 6	RTD Linear 2**or RS485) None 4-20 mA [#] 0-20 mA [#] 1-5 V [#] 0-5 V [#] 0-10 V [#]	J K T B R S PT-100 (3 v 1-5V/0-5V, 0/4-20mA LC5296L-AT 1 LC5248L-AT 2 3 4 5 6 7 9 C D E F	$\begin{array}{c} -20\\ -20\\ -20\\ -20\\ 0 tr -20\\ 0 tr -20\\ 0 tr 0 tr -20\\ 0 tr -20\\ 0 tr -20\\ -19\\ -20\\ -19\\ -19\\ -20\\ -19\\ -20\\ -19\\ -20\\ -19\\ -20\\ -20\\ -20\\ -20\\ -20\\ -20\\ -20\\ -20$	0 to 1372°C 0 to 400°C 0 to 1800°C 0 1768 °C 0 1768 °C 0 to 850 °C,-199 99 to 9999 ng Code r Supply 260VAC/ 1 F 3-36VDC 2	Output Relay1+Relay2 Relay1+SSR	
Resolution Analogue M Current Voltage Accuracy Model LC5296-AT LC5248E-AT	V Output (Opt Input 1 E 2 J 3 K 4 T 5 B 6 R 7 S 9 Pt-100 C 4-20 mA D 0-20 mA E 1-5 V F 0-5 V	hal) 11V DC@20mA 10ms onal in LC5296-AT 0-20mA/4-20mA 0-5V/ 1-5V/ 0-1 0.25% of FS Orderin Power Supply U1 85-260VAC/ 100-300VDC U2 18-36VDC *Config ** PV o # Not a	Γ / LC5248E-AT A@500Ω max LOV @3 KΩ Min ng Code Control Output 1 Relay N 2 SSR 1 2 3 3 4 5 3 3 4 5 3 3 4 5 5 3 3 4 5 5 3 3 4 5 5 5 5	Optio 1 (AO1*) 2 (AO None N 4-20 mA 1 2 0-20 mA 2 3 1-5 V 3 0-5 V 4 0-10 V 5 6 6	RTD Linear 2**or RS485) None 4-20 mA* 0-20 mA* 1-5 V* 0-20 mA* 0-5 V* 0-10 V* RS485	J K T B R S PT-100 (3 ∨ 1-5V/0-5V, 0/4-20mA LC5296L-AT 1 LC5248L-AT 2 3 4 5 7 9 C D E	$\begin{array}{c} -20\\ -20\\ -20\\ -20\\ 0 tr \\ -20\\ -20\\ -20\\ -20\\ -20\\ -20\\ -20\\ -2$	0 to 1372°C 0 to 400°C 0 to 1800°C 0 1768 °C 0 1768 °C 0 to 850 °C,-199 99 to 9999 ng Code r Supply 260VAC/ 1 F 3-36VDC 2	Output Relay1+Relay2 Relay1+SSR	
Resolution Analogue M Current Voltage Accuracy Model LC5296-AT LC5248E-AT	V Output (Opt Input 1 E 2 J 3 K 4 T 5 B 6 R 7 S 9 Pt-100 C 4-20 mA D 0-20 mA E 1-5 V F 0-5 V G 0-10 V	hal) 11V DC@20mA 10ms onal in LC5296-AT 0-20mA/4-20mA 0-5V/ 1-5V/ 0-1 0.25% of FS Orderin Power Supply U1 85-260VAC/ 100-300VDC U2 18-36VDC *Config ** PV o # Not a ** Defau	Γ / LC5248E-AT A@500Ω max LOV @3 KΩ Min ng Code Control Output 1 Relay N 2 SSR 1 2 3 3 4 5 3 3 4 5 3 3 4 5 5 3 3 4 5 5 3 3 4 5 5 5 5	Optio 1 (AO1*) 2 (AO N None N 4-20 mA 1 2 0-20 mA 2 3 1-5 V 3 4 0-5 V 4 0-5 V 4 0-10 V 5 6 6	RTD Linear 2**or RS485) None 4-20 mA* 0-20 mA* 1-5 V* 0-20 mA* 0-5 V* 0-10 V* RS485	J K R S PT-100 (3 ∨ 1-5V/0-5V 0/4-20mA Model LC5296L-AT 1 LC5248L-AT 2 3 4 5 6 7 9 C D E F G G	-20 -20 -20 -20 -20 -20 -20 -20 -20 -20	0 to 1372°C 0 to 400°C 0 to 1800°C 0 1768 °C 0 1768 °C 0 to 850 °C,-199 99 to 9999 ng Code r Supply 260VAC/ 1 F 3-36VDC 2	Output Relay1+Relay2 Relay1+SSR	
Resolution Analogue M Current Voltage Accuracy Model LC5296-AT LC5248E-AT	V Output (Opt Input 1 E 2 J 3 K 4 T 5 B 6 R 7 S 9 Pt-100 C 4-20 mA D 0-20 mA E 1-5 V F 0-5 V G 0-10 V X Default I/P type	hal) 11V DC@20mA 10ms onal in LC5296-AT 0-20mA/4-20mA 0-5V/ 1-5V/ 0-1 0.25% of FS Orderin Power Supply U1 85-260VAC/ 100-300VDC U2 18-36VDC W2 18-36VDC *Config ** PV o # Not a ** Defau	Γ / LC5248E-AT A@500Ω max LOV @3 KΩ Min ng Code Control Output 1 Relay N 2 SSR 1 2 3 4 5 3 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Optio 1 (AO1*) 2 (AO N None N 4-20 mA 1 2 0-20 mA 2 3 1-5 V 3 4 0-5 V 4 0-10 V 5 6 6 r PV 248E-AT model igured from facto	RTD Linear 2**or RS485) None 4-20 mA* 0-20 mA* 1-5 V* 0-20 mA* 0-5 V* 0-10 V* RS485	J K R S PT-100 (3 ∨ 1-5V/0-5V 0/4-20mA Model LC5296L-AT 1 LC5248L-AT 2 3 4 5 6 7 9 C D E F G G	$\begin{array}{c} -20\\ -20\\ -20\\ -20\\ 0 tr \\ -20\\ -20\\ -20\\ -20\\ -20\\ -20\\ -20\\ -2$	0 to 1372°C 0 to 400°C 0 to 1800°C 0 1768 °C 0 1768 °C 0 to 850 °C,-199 99 to 9999 ng Code r Supply 260VAC/ 1 F 3-36VDC 2	Output Relay1+Relay2 Relay1+SSR	
Resolution Analogue M Current Voltage Accuracy Model LC5296-AT LC5248E-AT	V Output (Opt Input I E 2 J 3 K 4 T 5 B 6 R 7 S 9 Pt-100 C 4-20 mA D 0-20 mA E 1-5 V F 0-5 V G 0-10 V X Default I/P type Masibus Autom	hal) 11V DC@20mA 10ms onal in LC5296-AT 0-20mA/4-20mA 0-5V/ 1-5V/ 0-1 0.25% of FS Orderin Power Supply U1 85-260VAC/ 100-300VDC U2 18-36VDC *Config ** PV o # Not a ** Defau	Γ / LC5248E-AT A@500Ω max LOV @3 KΩ Min ng Code Control Output 1 Relay N 2 SSR 1 2 3 4 3 4 5 3 4 5 3 4 5 5 3 4 5 5 5 5 5 5	Optio 1 (AO1*) 2 (AO N None N 4-20 mA 1 2 0-20 mA 2 3 1-5 V 3 4 0-5 V 4 0-10 V 5 6 6 r PV 248E-AT model igured from facto	RTD Linear 2**or RS485) None 4-20 mA* 0-20 mA* 1-5 V* 0-20 mA* 0-5 V* 0-10 V* RS485	J K K T B R S PT-100 (3 V 1-5V/0-5V 0/4-20mA V LC5296L-AT 1 LC5296L-AT 1 LC5248L-AT 2 3 4 5 6 7 9 C D E F G X	-20 -20 -20 -20 -20 -20 -20 -20 -20 -20	0 to 1372°C 0 to 400°C 0 to 1800°C 0 1768 °C 0 to 850 °C,-199 99 to 9999 ng Code r Supply 260VAC/ 1 F 3-36VDC 2 3 Rel	Output Relay1+Relay2 Relay1+SSR ay1+Relay2+SSR	

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