Universal Input Type

PID Electronic Temperature Controller

Fuzzy PID Technology



ETC5
PID



Intelligent Self-tuning
Fuzzy Theory Combined with Traditional PID

High Precision
Cold-end Separate Temperature Measurement

Universal Input
Multiple Signal Free Input
Full-Scale Free Setting

Alarm Assistance
1 Set of Contacts (NO or Conversion)
Upper Limit Deviation Alarm
Lower Limit Deviation Alarm
Process Value Alarm

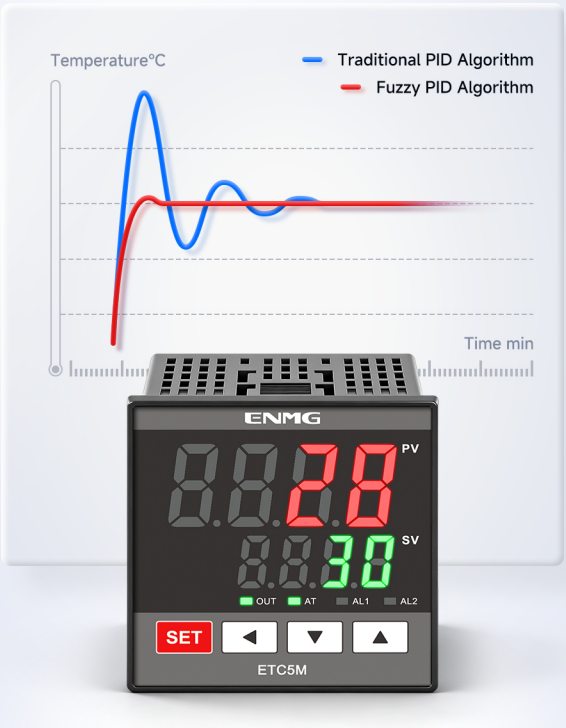
Multiple Outputs
Default Relay/Solid-State Dual-Purpose Type

Anti-Interference
Adaptable to Various Working Environments

Adjustment
Guidance with Attached Instruction Manual

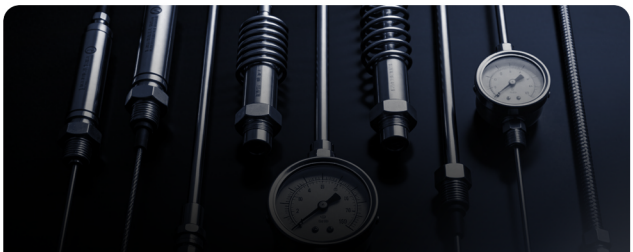
National Standard Size
Fits Standard Mounting Holes

PID Self-Tuning Adaptive Technology



Fuzzy Theory Combined with Traditional PID

Abbreviation: The fuzzy PID controller adaptively adjusts the/proportional band,integral, and derivative actions,endowing the system with small overshoot, strong adaptability,and short adjustment time.



Universal Input

K / J / R / S / B / E / N / T / Pt100 / Cu50,etc.
Accurately covers various mainstream models



Relay/Solid-State Dual-Purpose Output

One machine, multiple uses



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Extensive Applications


Oven and Electric Furnace


Environmental Protection


Laboratory Instruments


Light Industry Machinery

Standard Size

Match your hole-drilling requirements



More Product Information



- Product Brand : ENMG 恩爵
- Product Name : ETC5 PID Electronic Temperature Controller
- Measurement Accuracy : ±0.5%FS
- Power Supply : 85~265VAC 50Hz
- Resolution : 14 Bit
- Sampling Period : 0.5 Secretary
- Cold-Junction Compensation Error : ±2°C (Software correction is available within therange of)
- Control Mode : Features expert self-tuning PID: rapid response, small overshoot, high precision
- Insulation Resistance : >50MΩ (500VDC)
- Dielectric Strength : 1500VAC/1min
- Power Consumption : <10VA
- Display Mode : Dual-row 4-digit display
- Operating Environment : 0~50°C, Occasions with noncorrosive gases and a relativehumidity of 30-85%RH

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Specifications

Model Description

The design of product models and ordering codes aims to cover all possible specifications of this series of products, and they cannot be combined arbitrarily.If youhave any questions during the first selection, please contact technical service en-gineers for confirmation.If the technical specifications in the product library fail tomeet your needs, customization is available! Items marked with*are customizedproducts.



① Product Name

Code	Explanation
ETC5	PID Electronic Temperature Controller

② Panel Size / Mounting Method

Code	Explanation
N	Panel Size：48×24mm
S	Panel Size：48×48mm Cutout Dimensions：45×45mm
W	Panel Size：96×48mm
H	Panel Size：48×96mm Cutout Dimensions：45×93mm
M	Panel Size：72×72mm Cutout Dimensions：69×69mm
L	Panel Size：96×96mm Cutout Dimensions：93×93mm
D	22.5mm Wide DIN Rail Mounting

③ Control Output

Code	Explanation
RX	Relay Output
QX	Voltage Output (Used to drive SSR)
CX	Linear Current Output (Such as 4-20mA)
QR	Voltage Output (Used to drive SSR) + Relay Output
RR	Dual Relay Output

④ Auxiliary Output

Code	Explanation
1	1 Auxiliary Contact
2	2 Auxiliary Contact

⑤ Power Supply Specifications

Code	Explanation
A	AC 85-240V (Wide-Range AC)
D	AC/DC 24V (Dual AC/DC Compatible)

⑥ Terminal Block Type

Code	Explanation
S	Screw Terminal
P	Spring Insert Terminal

⑦ Input Type

Code	Explanation
M	Full-Range Universal Input (Supports Multiple Signals)

Note: Input Range Table

	Input	Measurement Range	Code	Measurement Range	Code	Measurement Range	Code
Thermocouple	K	0~200°C	K01	0~400°C	K02	0~600°C	K03
		0~800°C	K04	0~1000°C	K05	0~1200°C	K06
		0~1372°C	K07	0~100°C	K13	0~300°C	K14
	J	0~200°C	J01	0~400°C	J02	0~600°C	J03
		0~800°C	J04	0~1000°C	J05	0~1200°C	J06
	R#1	0~1600°C	R01	0~1769°C	R02	0~1350°C	R04
	S#1	0~1600°C	S01	0~1769°C	S02		
	B#1	400~1800°C	B01	0~1769°C	B02		
	E	0~800°C	E01	0~1000°C	E02		
	N	0~1200°C	N01	0~1300°C	N02		
	T#2	-199.9~400.0°C	T01	-199.9~100.0°C	T02	-100~200.0°C	T03
		0~350°C	T04				
Thermal Resistance	Pt100	-199.9~649.0°C	D01	-199.9~200.0°C	D02	-100~50.0°C	D03
		-100~100°C	D04	-100~200.0°C	D05	0.0~50.0°C	D06
		0.0~100°C	D07	0.0~200.0°C	D08	0.0~300°C	D09
		0.0~500°C	D10				
	Cu50	-199.9~649.0°C	P01	-199.9~200.0°C	P02	-100~50.0°C	P03
		-100~100°C	P04	-100~200.0°C	P05	0.0~50.0°C	P06
		0.0~100°C	P07	0.0~200.0°C	P08	0.0~300°C	P09
		0.0~500°C	P10				
Standard Signal	0~5VDC	0.0~100°C	401				
	1~5VDC	0.0~100°C	601				
	0~20mA#3	0.0~100°C	701				
	4~20mA#3	0.0~100°C	801				

⑧ Communication Interface

Code	Explanation
R	RS-485 Modbus RTU

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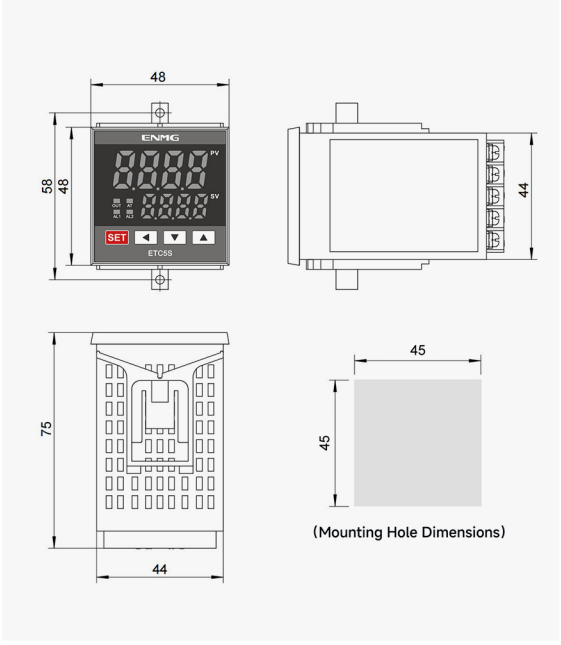
Overall and Mounting Hole Dimensions

ETC5S-QR1ASM

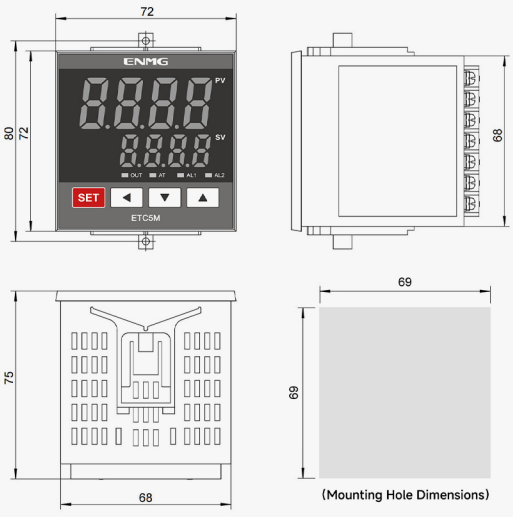




*Note: Unit: mm. The dimension data is measured manually, so deviations may exist. Please refer to the actual product.

ETC5M-QR1ASM





*Note: Unit: mm. The dimension data is measured manually, so deviations may exist. Please refer to the actual product.

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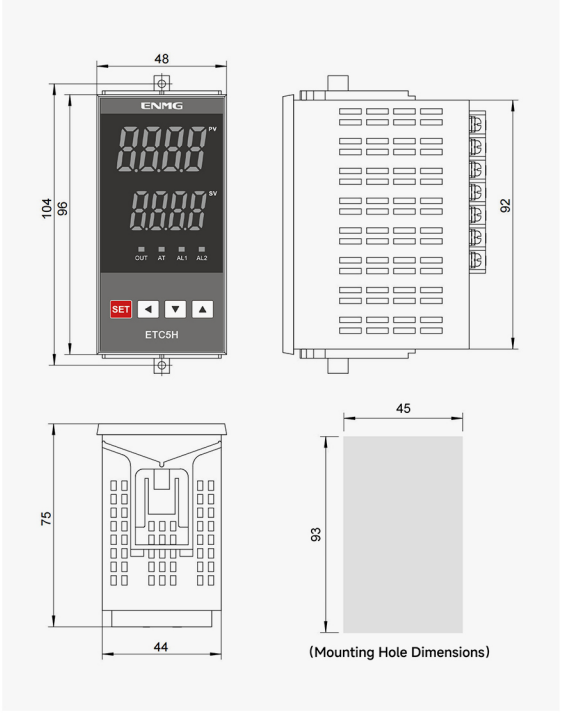
ETC5H-QR1ASM

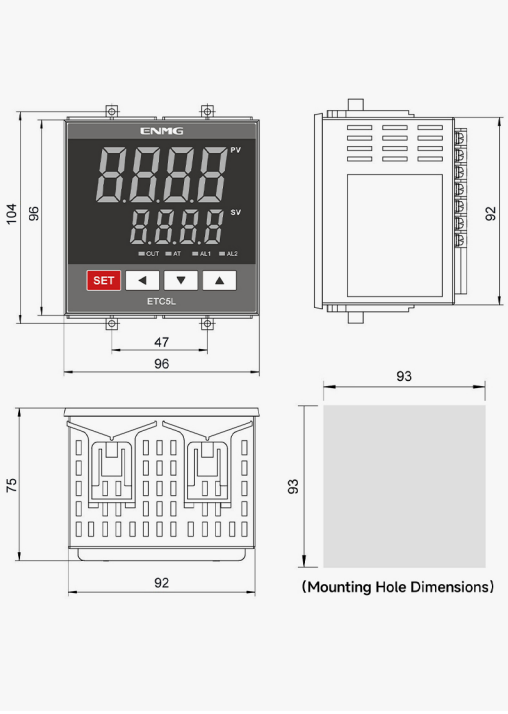




*Note: Unit: mm. The dimension data is measured manually, so deviations may exist. Please refer to the actual product.

ETC5L-QR1ASM





*Note: Unit: mm. The dimension data is measured manually, so deviations may exist. Please refer to the actual product.

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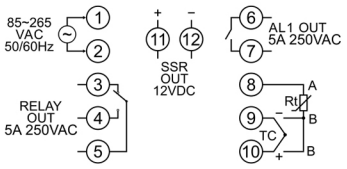
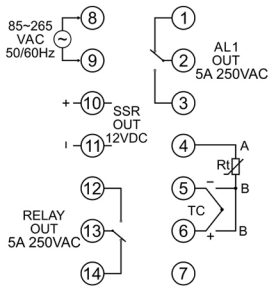
Terminal Description

ETC5S

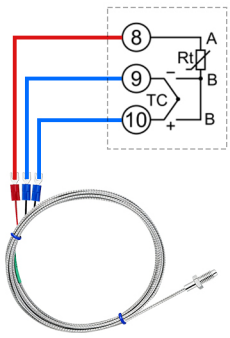


ETC5H、ETC5M、ETC5L

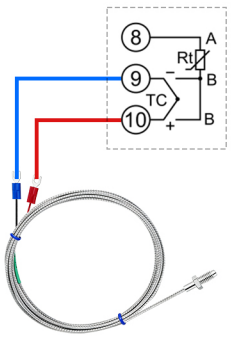


Wiring Application

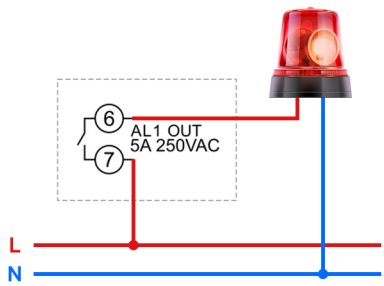
Thermocouple Input



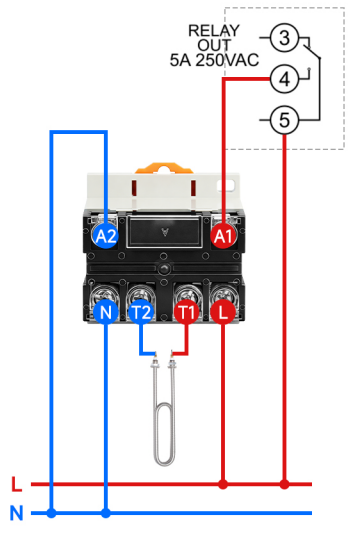
RTD Input



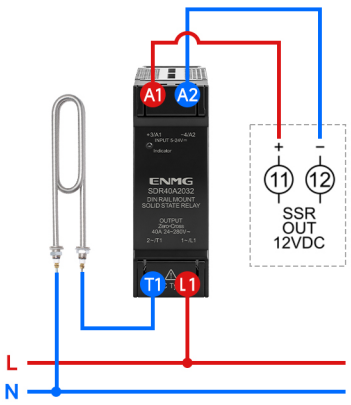
Alarm Output



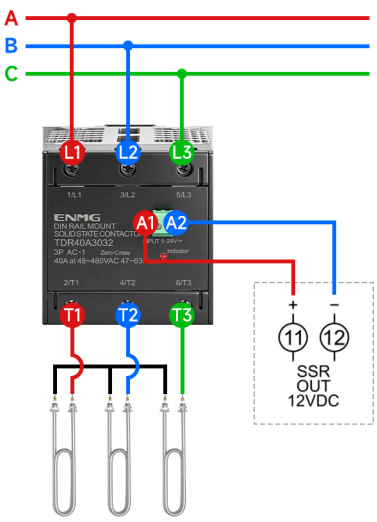
Relay Output



Single-Phase Solid-State Output



Three-Phase Solid-State Output



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Started in 2012, exploring the frontier, leading innovation, self-transformation, the world of ideas.

始于2012年，探索前沿 、 创新引领 、 自我蜕变 、 理念世界。

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