



**M B Control &
Systems Pvt. Ltd.**

Innovative Electronics For You

PID Controllers

Applications: Controlling temperature, humidity, pressure, flow, pH and others



Features:

- PID auto tuning
- Sample rate- two times per second
- Multi range input types- TC, RTD, mV, mA
- Control Output Options: Relay, SSR drive or 4~20mA
- Two-point alarm with twelve alarm modes
- Non-volatile memory
- Self-diagnosis
- Auto zero and Auto span
- Universal Power Supply
- Option for Remote SV
- Optional Re-transmission output 4~20 mA
- Optional RS 485 for MODBUS RTU

Specifications:

Input

T/C (Thermocouple): K, J, E, T – Accuracy 0.5% F.S ± 3 LS digits

T/C (Thermocouple): B, R,S – Accuracy 1% F.S ± 2

T/C (Thermocouple): N – Accuracy 1% F.S ± 1

PT100– Accuracy 0.5% F.S ± 0.3

JPT100– Accuracy 0.5% F.S ± 0.3

Cu50– Accuracy 0.5% F.S ± 3 CU100– Accuracy 0.5% F.S ± 1

0~50mV– Accuracy 0.5%F.S ± 3 LS digits

0~400 Ω – Accuracy 0.5%F.S ± 3 LS digits

Control Mode

ON/OFF (heating or cooling)

PID (heating or cooling mode or heating and cooling)

Output

Control Relay Output: AC 250V /5A

Control SSR output: DC 24V pulse voltage, load<30mA

Control Current output: DC 4~20mA load<500 Ω

Alarm Relay Output: AC 250V /3A

Mechanical Characteristics

Ambient Working temperature: 0~50 (no condensation)

Storage temperature: -10~60 (no condensation)

Working Humidity (non-condensing): 45 ~ 85%RH

Weight:About 400g

Electric Characteristics

Power supply: AC/DC 100~240V (85-265V)

Power Consumption: < 6VA

Dielectric strength: The shell and panel frame PC/ABS (Flame Class UL94V-0)

ESD: IEC/EN61000-4-2 Contact ± 4 KV /Air, ± 8 KV perf. Criteria B

Surge immunity: IEC/EN61000-4-5, ± 2 KV perf. Criteria B

Voltage drop & short interruption immunity: IEC/EN61000-4-29, 0%~70% perf. Criteria B

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Ordering Information:

A – MB Therm series PID Controller

B – Model No:

- MB- 1438 with size 48Wx48Hx100L mm (DIN 1/16)
- MB- 1538 with size 48Wx96Hx100L mm (DIN 1/8)
- MB- 1638 with size 96Wx48Hx100L mm (DIN 1/8)
- MB- 1738 with size 72Wx72Hx100L mm
- MB- 1838 with size 96Wx96Hx100L mm

C- Out 1 control output

- 0-None
- 1-Relay output
- 2-SSR Output
- 3-Current 4~20mA

D- Alarm

- 0-None
- 1-One Alarm
- 2-Two Alarm

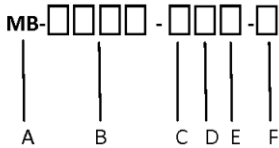
E- Communication

- 0-Without RS-485 communication
- 1-With RS-485 communication

F- Re-transmission

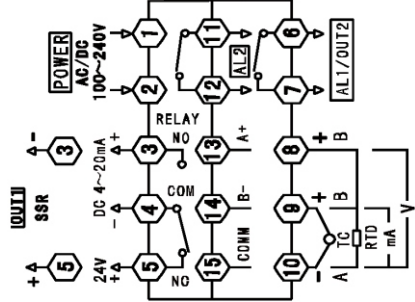
- 0-None
- 4~20mA

Order Information:

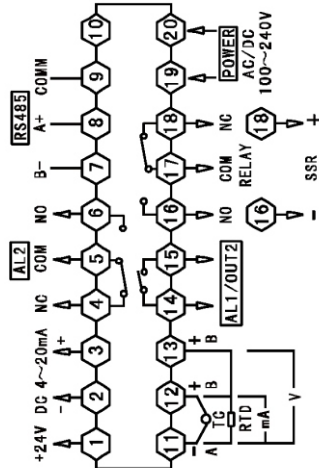


Terminal Wiring Diagrams:

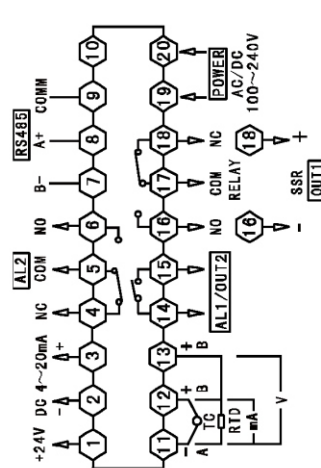
MB 1438



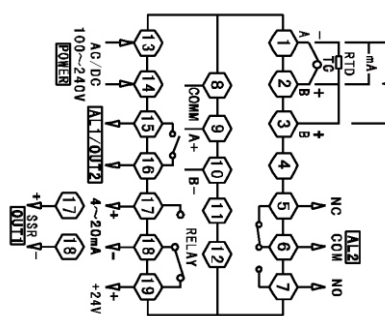
MB 1538



MB 1638



MB 1738



MB 1838

