

TEMPERATURE CONTROLLER

UNIVERSAL INPUT TEMPERATURE CONTROLLER



TMG-N7000 is a low cost PID temperature controller with independent process and set point displays.

- Input signal (should be defined in order):
Thermocouples (K, J, E, S, T, B, R, N)
RTDS (PT100, Cu50)
Linear signals (0/1-5V, 0-20mA, 4-20mA)
- Main Control output (should be defined in order):
Relay output
SSR logic output
Continuous output
- **Auto-tuning.**
- Power supply: 100-240VAC, 50/60HZ, or 24VDC
- Two configurable alarms.
- Selectable heating/cooling control.
- Selectable max output power to load.
- Ambient temperature is between 0-50°C
- Ambient humidity is between 35%-85%RH
- Dimensions (W×H×Dmm) and N.W.:
TMG-N7000: 48×48×115, 140g;
TME-N7000: 48×96×115, 250g;
TMF-N7000: 96×48×115, 240g;
TMD-N7000: 72×72×115, 220g;
TMA-N7000: 96×96×115, 300g;
TMS-N7000: 80×160×95, 350g;
TMT-N7000: 160×80×95, 360g.



This **CH702/402** is a **universal** input PID temperature controller with independent process and set point displays. Besides universal input, the instrument incorporates many other optional features, such as RAMP & RS485 communication.

- Universal input for:
Thermocouples (K, J, E, S, B, R, N)
RTDS (PT100, Cu50)
Linear signals (0/1-5V, 0-20mA, 4-20mA)
- Control method:
PID control (reverse action)
PID control (direct action)
ON/OFF.
- Main Control output (should be defined in order):
Relay output
SSR logic output
0/4-20mA, 0/1-5V or 0/2-10V continuous output
- **Auto-tuning.**
- Opto-isolated digital input for second set point and other programmable functions.
- Settable OFF-SET for input signal.
- Max/min set points limitation by user.
- Selectable max output power to load.
- Two configurable alarms.
- Selectable heating/cooling control.
- Configurable Celsius or Fahrenheit.



- Power supply: 100-240VAC, 50/60HZ, 24-30VDC/AC, or on your request.
- Ambient temperature is between 0-50°C (avoid freezing or condensation)
- Ambient humidity is between 35%-85%RH
- Dimensions (W×H×Dmm) and N.W.:
CH102: 48×48×110, 140g;
CH402: 48×96×110, 200g;
CH502: 96×48×110, 200g;
CH702: 72×72×110, 210g;
CH902: 96×96×110, 310g.

Optional features:

- RS485 opto-isolated serial interface with MODBUS/RTU protocol.
Maximum devices on network is 128.
- Initial preheating RAMP function.
- Power for a two-wire transmitter.
24VDC max 35mA.
- Automatic/Manual operation.
- External digital input.

THERMOSTAT

UNIVERSAL INPUT CONTROLLER

PROGRAMMER CONTROLLER



The **STP321** electronic thermostat are used to indicate temperature with high degree of accuracy. SPT321 (1 relay) and SPT322 (2 relays) thermostats can be configured via keypad for heating or refrigeration control.

- Universal input for:
Thermocouples (K, J)
RTDS (PT100, Cu50)
Linear signals (0/1-5V, 0-20mA, 4-20mA)
- Control relay: 15A/250Vac SPDT.
- Alarm relay: SPST, 3A.
- Accuracy: ±0.7°C (Pt100 and Pt100), ±3°C (thermocouple).
- IP65 front panel with silicone rubber keys.
- Display: 3 LED digits.
- Resolution: 0.1 from -19.9 to 199.9°C.
- Working environment: 0 to +50°C.
- Power: 100-240Vac/dc or 12-24Vdc/ac.
- Dimensions (W×H×Dmm):
STP321: 75×33×70,
STP322: 75×33×70.

Option:

- **STP** thermostat can also be a humidity controller.



PXR-4 is a **universal** input with beautiful chip LED process and set point display with many popular and practical features.

- Universal input for:
Thermocouples (K, J, E, S, B, R, N)
RTDS (PT100, Cu50)
Linear signals (0/1-5V, 0-20mA, 4-20mA)
- Control method: same as CH series.
- Main Control output (should be defined in order):
Relay output
SSR logic output
0/4-20mA, 0/1-5V or 0/2-10V continuous output
- **Auto-tuning.**
- Settable OFF-SET for input signal.
- Max/min set points limitation by user.
- Selectable max output power to load.
- Two configurable alarms.
- Dimensions (W×H×Dmm):
PXR-4: 48×48×74,
PXR-5: 48×96×65,
PXR-9: 96×96×65.

Optional features:

- Same as CH series



TMA-N7000P is a **Programmable** temperature controller with independent process and set point displays.

It can be programmed at most 32 segments according to user's need.

- Accepts input signal (should be defined in order):
Thermocouples (K, J, E, S, T, B, R, N)
RTDS (PT100, Cu50)
Linear signals (0/1-5V, 0-20mA, 4-20mA)
- Main Control output (should be defined in order):
Relay output
SSR logic output
Current continuous output
- Power supply: 100-240VAC, 50/60HZ, or 24VDC.
- PID control with **auto tuning**; ON/OFF control.
- Two configurable alarms.
- Selectable heating/cooling control.
- Ambient temperature is between 0-50°C
- Ambient humidity is between 35%-85%RH
- Dimensions (W×H×Dmm) and N.W.:
TMG-N7000P: 48×48×115, 140g;
TME-N7000P: 48×96×115, 250g;
TMF-N7000P: 96×48×115, 240g;
TMD-N7000P: 72×72×115, 220g;
TMA-N7000P: 96×96×115, 300g;

DIN RAIL TEMP. CONTROLLER

TEMP. & HUMI. CONTROLLER

TIMER

CH3000



CH3000 is DIN-Rail mounting temperature controller & transmitter.

- Supervised by software on PC through RS485 interface Modbus/RTU protocol.
- Universal input for: Thermocouples (K, J, E, S, B, R, N, T) RTDS (PT100, Cu50) Linear signals (0/1-5V, 0-20mA, 4-20mA)
- Output (should be defined in order): Relay/SSR output selectable by jumper Linear signal output
- Retransmission output 0/4-20mA, 0/1-5V
- Automatic/Manual operation.
- Auto-tuning
- Selectable max output power to load.
- Two configurable alarms.
- Selectable heating/cooling control.
- Configurable Celsius or Fahrenheit.
- External digital input.
- Thickness: 22.5mm

WH-7000 SERIES



WHD-7000 is an economical instrument with temperature control and humidity control in one unit and independent temperature and humidity digital displays.

- Recommended temperature sensor: PT100 or Cu50.
- Humidity sensor should be matched.
- Humidity range: 0%–100%
- Main Control output (should be defined in order): Relay output SSR logic output DC4-20mA current continuous output
- Basic error: temperature $\leq \pm (1\%F.S. + 1d)$ humidity $\pm 3\%$
- Power supply: 100-240VAC, 50/60HZ
- Ambient temperature is between 0-50°C
- Dimensions (W×H×Dmm): WHG-7000: 48×48×80; WHD-7000: 72×72×73; WHA-7000: 96×96×65.

Optional feature:

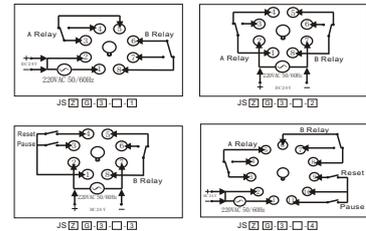
- RS485 interface with MODBUS/RTU protocol. It can be connected 128 devices max.

JSZG-3



JSZG-3 is a double rows 3 digits display time process and setting value.

- Micro processor is applied in the timer.
- High accuracy, wide time delay range.
- Bumpless transfer, good quality.
- Power supply: 110V, 220V, 380V or defined power.
- Operating frequency: 50-60HZ.
- Power consumption: 3VA.
- Time relay accuracy: 0.01 class ± 0.01 seconds.
- Counting time can be increasingly or decreasingly.
- Configurable output relays.
- Easy to operate.
- Ambient temperature is between 0-50°C.
- Ambient humidity is 35%-85%RH.
- Dimensions (W×H×Dmm): JSZG-3: 48×48×88
- Connection diagram



VOLTAGE REGULATOR

DIGITAL PANEL METER

COUNTER

TS-V SERIES



TSG-V is an intelligent voltage regulator with double rows 3 digits independent PV and SV displays.

When used with SCR, TSG-V can regulate the voltage on the load.

- Output impulse: breadth value $\geq 3V$, width $\geq 50\mu s$ (when the load is 20 Ω)
- Voltage setting range: 0–200V (or others you want)
- Ambient temperature: 0–50°C.
- Relative humidity not exceed 85%, non-corrosive environment.
- Power supply: AC 220V $\pm 15\%$, 50HZ, about 3VA.
- Dimensions (W×H×Dmm): TSG-V: 48×48×90; TSE-V: 48×96×125; TSD-V: 72×72×125; TSA-V: 96×96×115; TSG-2V: 48×48×90.

Note:

- TSG-2V can control 2 loads respectively. In other words, it includes 2 units TSG-V in one unit housing.

TS3-V



This **TS3-A/V** is a direct voltage digital panel meter. It is 3 1/2 digital display.

- Input mode: Single-end input.
- A/D converter: Dual slope.
- Sampling time: about 2.5 secondary.
- Frequency range: 40-200HZ (only for AC)
- Over input indication: 1 or -1
- Polarity display: only "-" display (only for DC)
- Max display: ± 1999
- Power supply: AC110/220V $\pm 10\%$, 50/60HZ
- Power consumption: $\leq 4.5VA$
- Dielectric with stand voltage: AC1500V 1min
- Withstand impedance: DC500V $\geq 100M\Omega$
- Voltage or current your choice.
- AC or DC should be defined in order.
- Availabel size (W×Hmm): 96×48mm

Option:

- With DC4–20mA analog output

TS-0005



This **TS-0005** is an intelligent digital counter with double rows 5 digits PV and SV display.

- Input mode: Proximity Switch, Photoelectric Switch, HALL Switch, Standard Voltage Switch, ON/OFF external signal.
- Alarm function (2 alarms): Deviation high and deviation low alarm.
- Alarm output relay: 3A/250V (resistance).
- Output delay time range: 1S-99999S.
- Power supply: 100-240VAC (50/60HZ).
- Display: 5 pcs 7 segments LED display Process value and setting value respectively.
- Clear up (reset "0") methods: 1) Press the clear up key 2) External signal 3) Automatic clear up, delay time setting is available
- Also can be used as length counter.
- Working environment: Temperature 0-50°C, Humidity <85%.
- Available size (W×Hmm): TSG-005: 48×48mm, TSE-005: 48×96mm TSD-005: 72×72mm, TSF-005: 96×48mm