

TC-3500 Temperature Controller

PID Temperature Control

OVERVIEW

The TC-3500 temperature controller series simplifies your temperature control requirements.

This controller reduces system complexity and set up cost. The TC-3500 is a high performance PID temperature controller in space-saving, panel-mount size. RS485 with MODBUS-RTU (JBUS) protocol and IP 65 mounted in panel with gasket suitable for wide range of environments.

For use with reverse polarity AHP-300FFHC, AHP-300XEHC, AHP-300XHC (page 36), AHP-150FFHC, AHP-150XEHC (page 38) air conditioners and AHP-300CPHC, AHP-150CPHC (page 78) cold plates.



SPECIFICATIONS

Mechanical Data:

- Housing Self-extinguishing plastic, UL 94 V0
- Dimensions 35x78 mm - depth 75,5 mm
- Weight 130 g approx
- Connections 2,5 mm² screw terminal block
- Mounting Flush in panel in 29x71 mm hole
- Front panel protection IP 65 mounted in panel with gasket

Electrical Data:

- Power supply 12...24 VDC +/- 10
- Power consumption 4 VA approx.

Input Data:

- Thermocouples J, K, S – According to IEC 584-2, accuracy class 1 or 2

Functional Data:

- Control PID double action
- PID functions AUTO TUNING FAST, SELF TUNING, FUZZY OVERSHOOT CONTROL

- Multi Set Point Up to 4 programmable Set Points
- Overall accuracy +/-0,5% full scale (TC S : +/- 1% fs)
- Unit of measurement °C / °F, programmable
- Max. cold junction compensation drift 0,1°C/°C with operating temperature 0...50°C after warm-up time of 20 min.
- Sampling rate 8 sample per second
- Serial communication RS485 with MODBUS-RTU (JBUS) protocol
- Communication rate 1200...38400 baud, programmable
- Display 4 red digit h=12 mm
- Parameters access Protected by password
- Operating temperature 0...50°C
- Operating humidity 30...95 RH% without condensation

PART NUMBER AND ORDERING



Input voltage

4: 12/24 VDC

Functions

4: Heat/Cool, reverse polarity

Switching Volts & Amps

5: Heat/Cool, VDC switching, 12/24 VDC, 7 amps

Sensor

0: None

3: PTC thermistor

Communications

2: RS-485 internal option

Options

DIMENSIONS AND CUTOUT

Dimensions: Inches [Millimeters]

