

TC3004

Compact controller with touch screen



The TC3004 is a compact controller in a standard plug-in housing, designed for controlling refrigeration or heating systems. Visualisation and operation are carried out via a 5" colour display with touch-screen, Ethernet and USB are used for system integration.

Signal connections for process signals:

- 4 temperature inputs PT1000 / KTY, 2- or 3-wire
- 1 current output 0... 20 mA,
- 1 frequency output 0... 150 Hz for controlling an inverter
- 3 switch inputs, 1 door connection via EasyLock

Power outputs for low voltage devices:

- 6x TRIAC, output power 230 VAC, 16 A
- 4x TRIAC, output power 230 VAC, 0.9 A
- 1 potential-free alarm contact 0.5 A

TC3004

Signals

Power



Temperature inputs

The TC3004 measures up to 4 temperatures via PT1000 sensors in two- or three-wire technology, i. e. with compensation of the conductor states. The alternative use of KTY sensors is possible.

Digital inputs

3 nc/no contacts can be connected by 2 wires each. The TC3004 detects door contacts or pressure switches via these inputs.

Power outputs

The TC3004 offers a total of 10 power outputs 230 VAC for controlling heating and cooling units:

6 outputs, loadable with 16 A, for power consumers

4 outputs, loadable at 0.9 A, for auxiliary units

The outputs use zero crossing switches to minimize interferences.

A digital frequency output 0... 150 Hz enables the power control of frequency inverters, for example.

Notlauf, Alarme

The TC3004 checks the temperatures for compliance with predefined limit values. Values above or below these limits trigger an internal signal transmitter and a potential-free alarm contact.

If the TC3004 is equipped with a backup battery, it records the temperatures even in the event of a power failure and the alarm system remains active.

Operating

A colour graphic display 5" with a resolution of 800x480 pixels is supported by a graphic library and enables visualisation of the process. It is operated via a touch screen.

Network Archive

The TC3004 records the temperature profile to archive files. The archive files can be exported to an USB stick on site.

Ethernet integrates the TC3004 into the network and allows remote access to the archive.

A serial interface RS-485 is available for local networking of several controllers or for connecting external systems.

Construction

The TC3004 is supplied in a slide-in housing according to the standard grid for panel mounting. For supply, a mains voltage of 100 - 240 VAC is required. The internal power consumption of the TC3004 is 10 W.

All signal connections are routed at the rear via plug-in/screw terminals.

Programming

The TC3004 is based on a powerful PowerPC processor. The RTOS-UH real-time operating system is part of the standard scope of delivery. Crest-C, PEARL and IEC 61131-3 programming environments are available.