

digital controller for temperature and process values



Autotuned, microprocessor based digital controller with 2-, 3-point or PID control and adjustable set point gradient (dynamic set point)

THP 24 (24 x 48 mm)

as of

TLK 96 (96 x 96 mm)

as of

Specification:

Measuring input: Please specify type required on order!

- resistance thermometer: Pt100 (3-wire), Ni100 (3-wire)*2
- PTC KTY 81-121 (2-wire), NTC 103 AT-2 (2-wire)*1
- thermocouples: J, K, S
- mV-signal *1: 0 ... 50mV, 0 ... 60mV, 12 ... 60mV
- current signal: 0 ... 20mA, 4 ... 20mA
- voltage signal: 0 ... 10V, 0 ... 5V*1, 1 ... 5V*1, 2 ... 10V*1

*Please note: *1 = only for TLK96 available, *2 = only for THP24 available*

Measuring ranges:

Pt100: -100...600°C; Ni100: -50...+150°C; PTC: -50...+150°C; thermocouples type J: 0...800°C, type K: 0...1200°C, type S: 0...1600°C

Resolution:

temperature (resistance): 0.1, 1°C or 0.1, 1°F
 temperatur (thermocouples): 1°C or 1°F
 norm. signals: scale freely adjustable, -999...7000 Digit, DP xxx.x selectable

Accuracy: ± 0.5 % FS ±1 digit

Measuring rate: 1 measurements / sec.

Display: 4-digit, 7mm (THP24) resp. 14mm (TLK96) high LED-display

Outputs: 1 (standard) or 2 (option) switching outputs

available output versions (standard = relay output)
 - relay output (THP24: close contact, switching power: 5A/2A, 250VAC)
 (TLK96: change-over contact, switching power: 8A/3A, 250VAC)

- SSR drive: 6V DC / 15mA (THP24) resp. 12V DC / 25mA (TLK96)
 (THP24: at 2 outputs one is relais and one HLR output)

Controller state: 2-point, 3-point (with optional second output) or PID control.

Autotuning: the autotuning function guarantees the most briefly programming of all requested values.

Power supply for transmitter: 12VDC / 25mA (only for TLK96)

Housing: 48 x 24 x 100 mm (THP24), 96 x 96 x 73 mm (TLK96), panel cutout: 45 x 22 mm (THP24), 91 x 91 mm (TLK96), Mounting: by means of clamping frame (THP24), retaining clip (TLK96)

Protection class: front IP54 (mounted in panel with gasket)

Electric connection: screw-type terminals

Operating conditions: 0 ... +55 °C, 30 ... 95 %RH. (non condensing)

Power supply: 230 VAC ±10%, 50/60Hz (standard)
 option: 24 VAC ±10%, 50/60Hz and 24 VDC ±10%

Orderinformation: (Attention: measuring input has to be stated!)

THP24 / ME: 4-20mA, 24V, A2H: THP24 with meas. input 4-20mA, 24V power supply and 2 switching outputs

THP24: Implementations, Options:

ME: ... state desired measuring input

24V: Power supply: 24V AC/DC

HLR: output 1 = SSR drive

A2H: 2 outputs, out1 = relay, out2 = SSR drive

A2R: 2 outputs, out1 = SSR drive, out2 = Relais

digital temperature controller



Microprocessor based digital temperature controller with 2-point control

TDL 51 (33 x 65 mm)

as of

Specification:

Measuring input: NTC 103-AT2 (2-wire)

Measuring ranges: -40 ... +60°C

Resolution: 1°C

Accuracy: ± 1 % FS ±1 digit

Measuring rate: 1 measurements / sec.

Display: 2-digit + minus-sign, 14 mm high LED-display

Outputs: 1 switching output
 relay output: change-over contact : 8A/3A, 250VAC

Controller state: 2-point

Housing: 65 x 33 x 50 mm,
 panel cutout: 58 x 25 mm

Mounting by means of clamping frame
Protection class: front IP54 (mounted in panel with gasket)

Electric connection: screw-type terminals

Operating conditions: 0 ... +55 °C, 30 ... 95 %RH. (non condensing)

Storage temperature: -10 ... +60 °C

Power supply:

standard: 12 VAC ±10%, 50/60Hz and 12 VDC ±10%
 options: 24 VAC, 110VAC or 230 VAC ±10%, 50/60Hz.

Power consumption: approx. 2 VA

Orderinformation:

TDL51 / 230VAC, Re_G: TDL51 with 230VAC power supply and switching output with 16A/6A

Implementations, Options:

24VAC: Power supply: 24V AC

110VAC: Power supply: 110V AC

230VAC: Power supply: 230V AC

REL_G: Switching output: 16A/6A, 250VAC

Probe: for the device suitable probe

NTC6x30: NTC, 6 x 30 mm, stainless-steel, 1.5m PVC-cable (max. 80°C)

Orderinformation: (Attention: measuring input has to be stated!)

TLK96 / ME: Pt100, 24V, Rel2: TLK96 with meas. input Pt100/TC/ mV, 24VAC/DC power supply and 2 switching outputs (2 * relay)

TLK96: Implementations, Options:

ME: Pt100 meas. input: Pt100, thermocouple and mV

ME: Temp meas. input: PTC, NTC, thermocouple, mV

ME: mA meas. input: current (0-20mA, 4-20mA)

ME: V meas. input: voltage (0-5V, 0-10V, 1-5V, 2-10V)

24V: Power supply: 24V AC/DC

HLR1: output 1 = SSR drive

HLR2: 2nd switching output with SSR drive

REL2: 2nd switching output as relay output