

digital controller for temperature and process values



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

TLK 38 (33 x 75 mm)

as of

TLK 39 (33 x 75 mm)

as of

Specification:

Measuring input: Please specify type required on order!

- Pt100 (3-wire) and thermocouples: J, K and S
- PTC KTY 81-121, NTC 103AT-2 (2-Leiter) and thermocouples: J, K and S
- normalized signals: 0(4) ... 20 mA
- normalized signals: 0(1) ... 5 Volt and 0(2) ... 10 Volt

Measuring ranges:

Pt100: -200...850°C; PTC: -55...+150°C; NTC: -50...+110°C; Typ J: -0...1000°C, Typ K: 0...1370°C, Typ S: 0...1760°C

Resolution: temperature: 0.1, 1°C bzw. 0.1, 1°F
normalized signals: scale freely adjustable, -1999...9999 digit

Accuracy: ± 0.5 % FS ± 1 digit

Measuring rate: approx. 8 measurements / sec.

Display: 4-digit, 12 mm high LED-display (TLK38) resp. two lines, each 4-digit, 7 mm high LED-display (TLK39)

Outputs: 1 (standard) or 2 (option) switching outputs available output versions (standard = relay-output)
- relay output (close contact, switching power: 8A/3A, 250VAC)
- solid state relay (SSR drive): 8V DC / 8mA

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 / 20mA (only for power supply = 12VDC)

Housing: 75 x 33 x 64 mm, panel cutout: 71 x 29 mm, Mounting by means of clamping frame

Protection class: front IP65 (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 a. 12 VDC ±10%
options: 24 VAC/DC ±10% or 90...240 VAC ±10%, 50/60Hz

Power consumption: approx. 4 VA

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

TLK39 / ME: Pt100, 230VAC, Rel2: TLK39 with meas. input Pt100, 230VAC power supply and 2 outputs (2 * relay)

Implementations, Options:

- ME: Pt100 meas. input: Pt100 and thermocouple
- ME: Temp meas. input: PTC, NTC, thermocouple
- 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**
- 230VAC: Power supply: 90...240V AC**
- HLR1: output 1 = SSR drive**
- HLR2: 2nd switching output with SSR drive**
- REL2: 2nd switching output as relay output**

digital controller for temperature and process values



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

TLK 41 (48 x 48 mm)

as of

Specification:

Measuring inputs: universal input for

- resistance thermometer: Pt100 (3-wire)
- PTC KTY 81-121, NTC 103AT-2 (2-wire)
- Thermocouples: J, K, S
- Normalized signals: 0...20mA, 4...20mA, 0...5V, 0...10V, 1...5V, 2...10V
- mV signals: 0...50mV, 0...60mV, 12...60mV

Measuring ranges:

Pt100: -200...850°C; PTC: -55...+150°C; NTC: -50...+110°C; Type J: -160...1000°C, Type K: -270...1370°C, Type S: -50...1760°C

Resolution: temperature: 0.1, 1°C or 0.1, 1°F
normalized signals: scale freely adjustable, -1999...9999 digit

Accuracy: ± 0.15 % FS ± 1 digit

Measuring rate: approx. 8 measurements / sec.

Display: 4-digit, 12 mm high LED-display

Outputs: 1 (standard) up to max. 4 outputs available output versions (standard = relay-output)
- relay output (close contact, switching power: 5A/2A, 250VAC)
- solid state relay (SSR drive): 14V DC / 20mA
Please pick the possible combinations from the "Output options"-table.

Controller state: 2-point, 3-point or PID (single or double action) control

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

Alarm outputs: max. 3 (depending from output configuration)

Interface [option]: RS485, optoisolated

Power supply for transmitter: 12VDC / 20mA

Heater break function [option]: the controller is available with a current transformer input for the heater break monitoring

Housing: 48 x 48 x 98 mm, panel cutout: 45.5 x 45.5 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: 90...240 VAC ±10%, 50/60Hz.
option: 24 VAC ±10%, 50/60Hz and 24V VDC ±10%

Orderinformation: For each desired output the referring option has to be stated!

TLK41 / RS485, OUT1 = REL, OUT2 = REL, OUT3 = HLR:
TLK41 with serial interface, as well as 2 relay, 1 SSR output.

Implementations, Options:

- 24V: Power supply: 24V AC/DC**
- HBA: current transformer input for heater break function**
- RS485: serial interface**
- Output options:**

	OUT1	OUT2	OUT3	OUT4
REL: relay output		stand.		
HLR: SSR drive				
- Limitations: OUT3 and OUT4 have to have the same output option.*