

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