## CALIBRATION CERTIFICATES

Simulator, type KA 7531 for Pt100, thermocouples, mV, V, mA, Hz **Option PC interface** 



### **Technical features**

- ► Universal manual simulator for simulating temperature sensors and process variables when testing measuring instruments, regulators, and other equipment
- ► Pt100 simulation with 5 fixed resistors in 4-conductor technology

Voltage and thermocouples simulation with 16-bit D/A converter Current simulation with 16-bit D/A converter Frequency and pulse generator with quartz-crystal oscillator Continuity check with settable threshold

- ► All signals are available at the same time.
- ► Signals can be set either manually or automatically, in step or ramp form.
- All signals and all the programming can be shown on the illuminated graphics display.
- Connection of peripherals via ALMEMO® clamp connectors, cable with anti-kink protective sleeve and strain relief
- Power supply via battery, mains unit, USB cable ZA 1919-DKUV or connection to RS422 network distributor with connector ZA5099-FSV
- Modern, compact housing also suitable for DIN top-hat rail
- Option of PC-controlled operation via all ALMEMO® data cables, also networked with settable device address via network distributor and RS422 connector

## **Options**

addressable PC interface

Order no. OA 7531-I

## **Included** as standard

Simulator, 5 sockets for Pt100, thermocouples or 0 to 10 V, 0 to 20 mA, frequency, continuity tester Graphics display and keypad, sockets DC, A1, batteries, including ALMEMO® clamp connector (for Pt100) and ALMEMO® connecting cable with 2 banana plugs and Order no. KA75311 2 test probes

### **Technical data** Signal Pt100 5 discrete resistance values in 4-conductor technology 0/50/100/200/300°C 0.01% Accuracy Temperature drift 10 ppm / K 16-bit DAC electr. isolated Signal voltage -10 to +55 mV load $> 1 M\Omega$ 0.0 to 10.0 V load $> 100 \text{ k}\Omega$ Accuracy 0.1% of final value Temperature drift 10 ppm / K Time constant 100 us Thermocouples type K, N, L, J, U, T, S, R, B Signal current 16-bit DAC electr, isolated 0 to 20.0 mA load < 500 $\Omega$ Accuracy 0.1% of final value Temperature drift 10 ppm / K Time constant 100 µs signal frequency 0 to 65000 Hz 1 to 99 % Pulse width Period 100 μs to 10 s Pulse $10 \,\mu s$ to $1 \, s$ Accuracy 0.1% Temperature drift 10 ppm / K Continuity current approx. 0.1 mA Threshold 10 to 1000 mV Battery 4.5 V Current consumption Standard approx. 50 mA with illumination approx. 85 mA Current output approx. 3.5 I<sub>out</sub> Display Illumination graphics 128 x 64 (55 x 30 mm) 2 white LEDs Keypad 7 silicone keys (4 soft-keys) (LxWxH) 127 x 83 x 42 mm Housing ABS (-10 to +70 °C), 290 g

**Accessories** 

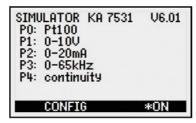
ALMEMO® clamp connector **ZA1000KS** ALMEMO® connecting cable with 2 banana plugs and 2 test probes ZA1000PK Mains adapter 12 V / 200 mA ZA1312NA1 USB data cable, electrically isolated **ZA1919DKU** As above but with 9 V supply, not electr. isol. ZA1919DKUV V24 data cable, electrically isolated ZA1909DK5 Connector for RS422 network distributor ZA5099FSV Fixture for top-hat rail mounting ZB2490HS Rubber guard, gray ZB2490GS2

10/2008 We reserve the right to make technical changes

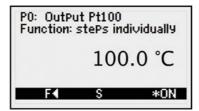
# **CALIBRATION CERTIFICATES**

## Simulator KA 7531

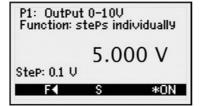
## **Displays** (examples):



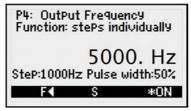
Main menu



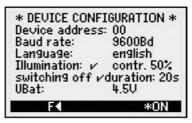
Pt100 resistance values



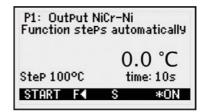
0 to 10 V step generator



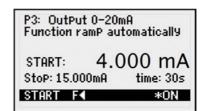
Frequency pulse generator



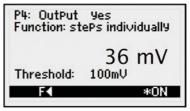
Device configuration



NiCr-Ni step generator



0 to 20 mA ramp generator



Continuity tester