

Universal Calibrator DIGISTANT®

Built to use in the field

Model 4420

Code:	4420 EN
Delivery:	ex stock
Warranty:	24 months

For quality control, set-up and service technicians.



4420 EN

- Calibration and measurement unit for voltages, currents, temperatures and resistances
- All functions can be fully controlled and configured via RS232 interface
- Simultaneous transmission and measurement
- Automatic ramp function
- Simple menu assistance via display
- Voltage range $\pm 1 \mu\text{V}$ to $\pm 11.000 \text{ V}$
- Current range $\pm 200 \text{ nA}$ to $\pm 22.000 \text{ mA}$

Application

The DIGISTANT® model 4420 universal calibrator, built to use in the field, is ideal for checking and calibrating temperature measurement and control devices. The versatile functions of this portable unit allow to be used on-site or at a fixed location, on the test floor or in the laboratory.

The unit allows the simulation and measurement of voltages, currents, temperatures and resistances.

Simultaneous transmission and measurement allow, for example, controllers to be checked precisely.

The automatic ramp function is used for controlling processes.

The universal calibrator measures and simulates 14 models of thermocouples and Pt100. In addition, resistances can be measured from $10 \text{ m}\Omega$ to $2 \text{ k}\Omega$ and simulated from 10Ω to $4 \text{ k}\Omega$.

The reference junction temperature can be entered manually via keypad; if required, however, an automatic reference to an internal or external point is also possible.

Basic values and the corresponding Δ -values can be stored with 10 freely programmable memories each for voltage, current, temperature and resistance. Relevant values can be added and subtracted by operating the $\Delta+$ and $\Delta-$ keys respectively.

Description

The microprocessor controlled universal calibration source is operated via a clearly arranged membrane keyboard. The value entry keys have a different color to the function and memory keys, thus allowing clear differentiation between measurement and transmission variables.

Measurement and transmission values are indicated on a high-contrast, alphanumeric, supertwist LCD in two lines of 20 characters each. Transmission values are shown with the appropriate units. For the "simulate thermocouple" function, the thermocouple is displayed together with its standard symbol and the type of reference junction. When the unit is turned off, the values entered last are retained in memory.

In the "measure thermocouple" mode, the selected thermocouple, type of reference junction compensation, and measurement value are displayed. An internal reference junction was included especially for measuring and simulating thermocouples, to allow compensation of even large fluctuations in the ambient temperature.

The integrated NiMH accumulator is protected against overload and total discharge. The accompanying plug-in power supply allows the unit to be charged in the buffer mode as well.