

VOLTAGE AND CURRENT CALIBRATOR

Source, load, measurement and transducer tester

UIC 1000

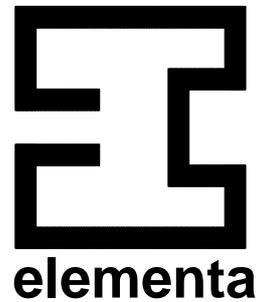
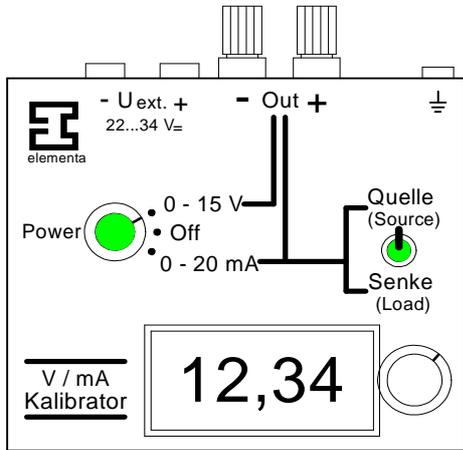


Diagram scale 1 : 2



Characteristics :

- * Voltage source for 0-15V
- * Current source and load for 0-20mA
- * Accuracy $\pm 0,05\%$ f.s. ± 1 digit
- * Actual value on large display
- * Measurement of voltage or current
- * Testing of transducers
- * Operational safety up to $\pm 60V$ at output
- * Practical screw and socket connections
- * Battery operation up to 200 hours
- * Compact robust housing
- * **Optional : calibration certificate**

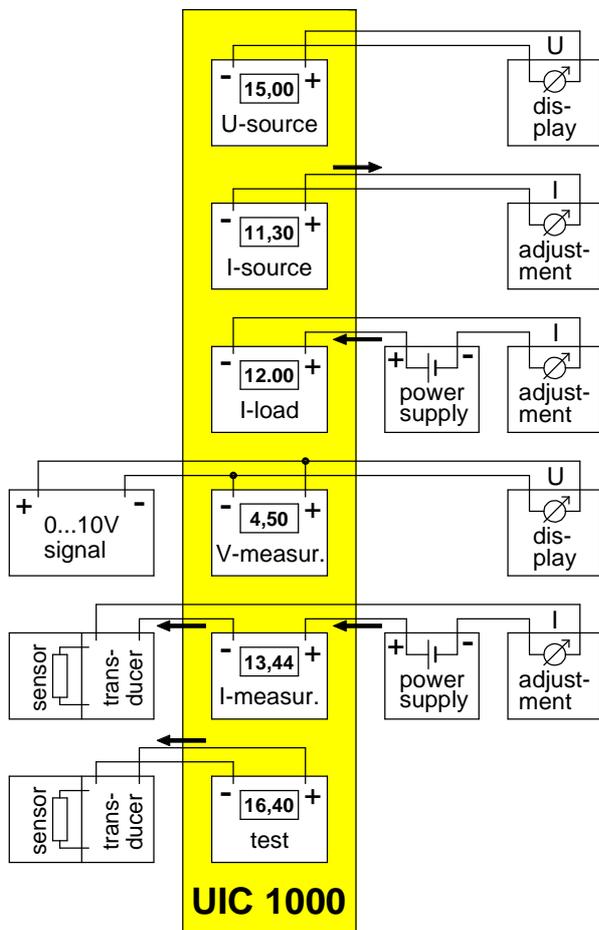
Applications :

for calibration, measurement, servicing and repair of process equipment which operate with voltage or current input;

e.g., for transducers, measurement displays, controllers and registration recorders, including their cabling paths. The calibrator is ideally suited for in-situ application, due to its compact design and long battery life.

Characteristics

Applications



Selectable methods of operation:

operation

As Voltage Source

E.g., To check a display or a controller with a voltage input.

As a Current Source

E.g., To check a display or a controller with a current input.

As Current load

E.g., In order to simulate a sensor with output. Besides the current shunt receiver (e.g. meter display), in this method of operation, it is possible at the same time to test the voltage supply and the interconnection cables.

As a Voltage Meter

E.g., To check the voltage in measurement circuit leads.

As a Current Meter

E.g., To measure and display the current in a current supply.

As a Transducer Tester

E.g., To supply energy to a sensor, which has a current output, and at the same time, to measure the output current.

Methods of operation

Technical data	<p>Voltage Source : Adjustable with 10-turns potentiometer: 0 - at least 15V, resolution 10mV, max. 100 mA, short circuit fail-safe by use of PTC fuse which automatically resets, internal impedance $\leq 0,35\Omega$</p> <p>Current Source : Adjustable with 10-turns potentiometer, 0 - at least 20mA, resolution 10μA, max. load voltage 23V. Max load : $R = 23V / I_{out}$ at a battery voltage of 27V</p> <p>Current Load : Adjustable with 10-turns potentiometer, 0 - at least 20mA, resolution 10μA, load voltage 1,2V bis 50V</p> <p>Voltage Measurement: Display range 0 - 19,99V, $R_i \geq 100K\Omega$</p> <p>Current Measurement: Display range 0 - 19,99mA, overload-safe up to $\pm 60V$</p> <p>Transducer Test: Display range 0 - 19,99mA, supply voltage to transducer max. 23V (with battery voltage of 27V).</p> <p>Tolerance: $\pm 0,05\%$ f.s. ± 1 digit, temperature coefficient typically $\leq \pm 30ppm/K$</p> <p>Display: 3½ position 12,5mm LCD actual display, displays up to 19,99</p> <p>External Voltage Protection: The output is protected up to $\pm 60V$ external voltage</p> <p>Measurement Connections: 4mm \varnothing sockets, wire up to 2mm \varnothing and cable fork lugs can be directly clamped.</p> <p>Housing: Enamel-painted sheet steel housing, thereby electrically and magnetically screened, Dimensions 116 x 100 x 28 mm³, weight approx. 500g</p> <p>Operational Temperature range: -10°C to +50°C</p> <p>Insulation: As a result of CE requirements, the housing and sockets are interconnected with varistors, which however, by correct operation do not influence the functioning of the equipment. Furthermore, the housing is galvanically-separated from the measurement circuit.</p>
Power supply	<p>Battery Operation: 3x9V blocks, e.g. Duracell MN 1604; battery life, dependent upon output current up to 200 hours, low battery warning display.</p> <p>External Supply: 22 bis 34V= via 4mm \varnothing plug socket (protected against reverse voltage by use of a diode). The external voltage supply must be galvanically separated from the measurement circuit.</p>
Ordering example	1 Unit voltage and current calibrator UIC 1000 with calibration certificate.
Calibration laboratory	<p>Option Calibration certificate: The calibration is done with measurement equipment which is several times more accurate than the calibrated object. The measurement equipment is traceable to the national standards at the PTB (Physical Technical Federal Institute). With this calibration certificate you prove the required ISO 9000 traceability to national standards.</p>
Delivery program	<p>HYBRIDS Thik-film, Thin-film and SMD technology</p> <p>DECADES Resistors, capacitors, voltages, currents, current loads, attenuation</p> <p>SIMULATORS Pt-100, Pt-500, Pt-1000, Ni 100 thermoelements, pH-values, conductivity, measurement transducers, strain gauges</p> <p>CALIBRATORS for current loops and multimeters</p> <p>SWITCHES rotary switch/resistance combinations, attenuation components and resistance indicators, also with binary control.</p>

We reserve the right to carry out modifications, especially those which improve the product. All correspondence occurs without reference to the patent position.