

- ✓ Current Output 0-22mA, Source/Sink
- ✓ Voltage Output 0-25V
- ✓ mV Outputs 0-27mV and 0-540 mV
- ✓ DIN Thermocouples J, K, N, R, S, T, B, E
- ✓ RTD Simulator -200 ... 850°C
- ✓ Resistance Range up to 3kOhm
- ✓ Multimeter $\pm 2V$ to $\pm 200V$ DC and 0-100mA
- ✓ Measurements of fast Transients
- ✓ Datalogger Function OC505-D

Model OC505 is a hand-held Calibrator-Multimeter for the generation of currents 0-22mA in Source or Sink Mode and voltages 0-25VDC. External voltages $\pm 2V$, $\pm 20V$ and $\pm 200VDC$ (selected ranges or auto range) and currents of up to 100mA can be measured simultaneously with the generated calibrating signals.

Further functions are the generation of mV-Signals, the simulation of DIN-Thermocouples, the generation of Resistances and RTD Temperature Sensors. Up to eight fast input signals -Transients- can be measured, memorized and shown on the display as graphics or uploaded to a PC.

OC505-D is a Calibrator-Multimeter with a Datalogger Function. The generated calibrator signal and the measured signal at the multimeter input will be stored as tables with date and time added. The interval is selectable from 2sec. to 24h. The data can be transferred to a PC, shown as tables and handled under Windows. Supporting *SoftManager* permits the communication with Windows.

mV Voltages 0-27mV or 0-540mV for calibration of strain gauges amplifiers, transmitters and small signal instruments. The output voltage can be resolved up to 0.001mV.

Thermocouples J, K, N, R, S, T, B, and E are simulated across the entire DIN ranges. The output is via T/C plug with automatic compensation of the junction. The compensation can be switched-off.

RTD Thermometers Pt-100...1000 and Ni-1000 are simulated and are at the output terminals as real resistors. The display shows the temperature values.

Resistance Source is a generator of real resistance values from 45 to 3000 Ohm with 0.5Ohm resolution.

Transients: Eight memory slots are available for storing of fast signals at the multimeter input. Each transient can individually be shown at the LCD display as graphics. The data can also be transferred to a PC and by using the *SoftManager* shown as tables and graphics under Windows.



OC505 is powered from an internal rechargeable battery which permits operation of up to 8 hours. All ranges and functions can individually be soft re-calibrated from the keypad. The Terminals are 4mm gold plated plugs. A copper T/C plug is used for Thermocouple Outputs and mV Signals. USB terminal is available for Data Transfer.

SPECIFICATIONS - CALIBRATOR

DC-A	0 - 22 mA	Source or Sink, Resolution 0.001mA.
DC-V	0 - 25 V	Resolution 0.001V.
mV Outputs	0-27 mV 0-540mV	Resolution 0.001mV. Resolution 0.01mV.
Value Selection	Direct entry: Steps: Ramps:	From the keypad, 5-Digit resolution. Freely selectable, rising or falling. Raising or falling ramps with selectable steps
Thermocouples	-270 °C up to max. (°C): According to ITS 90	J (1200 °C), K (1370 °C), N (1300 °C), R (1760 °C), S (1760 °C), T (400 °C), B (1820 °C), E (1000 °C).
RTD Thermometer	Pt-100, 200, 500, Pt-1000 Ni-1000	-200 °C to 850 °C -60 °C to 170 °C
Resistors	45 Ohm to 3000 Ohm	Resolution 0.5 Ohm
Accuracy	DC-V, DC-I Thermocouples RTD Ohm Source	± (0.05% from value + 0.1% from range) ± (0.3 to 2.5 °C) ± (0.2% from value + 1 °C) ± (0.2% from value + 0.5 Ohm)
Temp. Coefficient:	± 25ppm / K	

SPECIFICATIONS - MULTIMETER

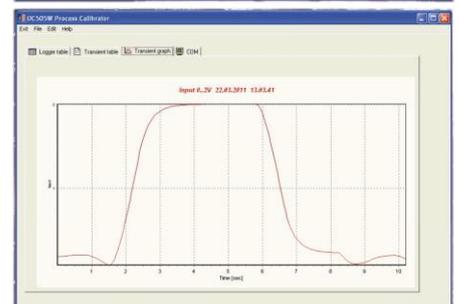
2 V DC	Impedance: 1.38 M Ohm
20 V DC	Impedance: 593 k Ohm
200 V DC	Impedance: 563 k Ohm
100 mA DC	Impedance: 10 Ohm
Accuracy	± (0.1% from Range + 1 Digit)
Sampling time	2 samples / sec.

DATALOGGER OC505-D

The generated signals at the calibrator input and the signals at the Multimeter input are stored as tables, with date and time added from internal RTC. A measuring Window and two Time Intervals can be set. When the input signal is within the window, the data are stored with one interval. Outside the window they are stored with the second interval. The data can be uploaded to a PC and shown as tables and graphics. The *SoftManager* supports the communication under Windows.

Example: Calibrator output Pt-100 is applied to a Process Transmitter with 0-10V output connected to the Multimeter input.

No.	Date	Time	Unit	Output	Units	Error
07	24.02.2011	16:32:04	V	17.0000	2V	-2.9566
08	24.02.2011	16:32:09	V	0.0000	2V	-2.9566
09	24.02.2011	16:32:10	V	0.0000	2V	-2.9566
10	24.02.2011	16:32:16	V	13.0000	2V	-2.9566
11	24.02.2011	16:32:19	V	17.0000	2V	-2.9566
12	24.02.2011	16:32:19	V	0.0000	2V	-2.9566
13	24.02.2011	16:32:11	V	0.0000	2V	-2.9566
14	24.02.2011	16:32:12	V	13.0000	2V	-2.9566
15	24.02.2011	16:32:13	V	17.0000	2V	-2.9566
16	24.02.2011	16:32:15	V	0.0000	2V	-2.9566
17	24.02.2011	16:32:16	V	0.0000	2V	-2.9566
18	24.02.2011	16:32:17	V	13.0000	2V	-2.9566
19	24.02.2011	16:32:18	V	17.0000	2V	-2.9566
20	24.02.2011	16:32:19	V	0.0000	2V	-2.9566
21	24.02.2011	16:32:20	V	0.0000	2V	-2.9566



TRANSIENTS

Fast signals at the Multimeter input can be stored in up to 8 memory slots with a sampling rate of 1ms. Each Transient contains 256 points and can be assigned to a time period selectable from 0.25s to 300s. The trigger level is programmable. The *SoftManager* permits the Transients download to a Windows PC.



OC505 with all accessories

ACCESSORIES OC505

- Mains Charger 95 - 240VAC
- Two Signal Cables, T/C plug K
- Calibration Sheet, Owner's Manual
- SoftManager* for Windows
- Carrying Case.

TO ORDER:

- OC505** Calibrator-Multimeter
- OC505-D** Calibrator-Multimeter with Function Datenlogger

ORBIT CONTROLS AG

Zürcherstrasse 137
CH-8952 Schlieren/Zürich
Tel.: +41 44 730 2753

info@orbitcontrols.ch
www.orbitcontrols.ch

© orbit controls 21908