



DENVER
metrología electrónica, S.L.



CALYS 1000

Table documented multifunction
calibrator

CALYS 1000 is a documenting laboratory multifunction calibrator within CALYS range. It is the perfect tool for advanced process maintenance and use on test bench in all industries. Suitable for all field and lab measurements, it can simultaneously measure, generate and record over two isolated channels various signals of temperature, pressure, resistance, process and frequency in one single instrument.

Description

CALYS 1000 is a field documenting multifunction calibrator within CALYS range. It is the perfect tool for advanced process maintenance and use on test bench in all industries.

Suitable for all field and lab measurements, it can simultaneously measure, generate and record over two isolated channels various signals of temperature, pressure, resistance, process and frequency in one single instrument.

Providing extended functionalities (temperature simulation, scaling, steps, synthesizer, statistical functions, user-programmable configurations...), CALYS 1000 makes advanced data exploitation and full data traceability easier, as well as quick access to functions by menus.

The instrument simultaneously measures and simulates:

- Temperature: Up to 0,014% RDG
- Resistance: Up to 0,012% RDG, 4 k Ω range
- Current: Up to 0,0175% RDG, 50 mA range + 24 V loop supply
- Voltage: Up to 0,013% RDG, 50 V range
- Frequency: Up to 0,005% RDG, 20 kHz range (10 kHz in simulation)
- Pressure: with an external pressure module (ref. ACL433) (comparison calibration with a pressure pump).

Calibration procedures and DATACAL software

Using this user-friendly instrument, calibration tasks can be quickly carried out over the whole process chain. Take the documenting process calibrator to the field with you during the whole week with 10 calibration procedures stored in the device.

Run the procedure after connecting the probes to the instrument and save the results for onsite easy and quick calibration. Back to the office, you can then upload the data on a computer in order to issue customized calibration certificates with dedicated calibration software DATACAL.

Innovative and ergonomic design



- Metal housing for enhanced robustness
- Capacitive touch panel
- USB communication
- Carrying handle
- Battery and main powered

Graphic screen and display resolution

CALYS 1000 allows the digit number after the dot to be selected: This function is justified by the needs of users who want or not to display the best resolution for calibration or on the contrary limit it for simple verifications.

CALYS 1000 dual display indicates permanently the measurement value, and also the emitted value, the gauge and the used functions.

On the top date, time and also external temperature are also indicated.

During measuring average, maximum, minimum and the number of measurements are displayed on the left. While for emission this part of screen displays all details of ramps, steps and constant value emission functions.

Drop-down menus are used with the navigator, and an on-line help is available to make easier connections of probes and wires.

Specifications

Performances & technical specifications in temperature @23°C ±5°C

Uncertainty is given in % of reading + fixed value.

Resistive probes: Measurement and simulation

Probe type	Range	Measurement		Emission	
		Resolution	Accuracy / 1 year	Resolution	Accuracy / 1 year
Pt50 (a = 3851)	-220°C to +1200°C	0.01°C	0.012 % R + 0.06°C	0.03°C	0.014 % R + 0.18°C
Pt100 (a = 3851)	-220°C to +850°C	0.01°C	0.012 % R + 0.05°C	0.02°C	0.014 % R + 0.12°C
Pt100 (a = 3916)	-200°C to +510°C	0.01°C	0.012 % R + 0.05°C	0.02°C	0.014 % R + 0.12°C
Pt100 (a = 3926)	-210°C to +850°C	0.01°C	0.012 % R + 0.05°C	0.02°C	0.014 % R + 0.12°C
Pt200 (a = 3851)	-220°C to +1200°C	0.01°C	0.012 % R + 0.12°C	0.10°C	0.014 % R + 0.33°C
Pt500 (a = 3851)	-220°C to +1200°C	0.01°C	0.012 % R + 0.07°C	0.03°C	0.014 % R + 0.18°C
Pt1000 (a = 3851)	-220°C to +850°C	0.01°C	0.012 % R + 0.05°C	0.02°C	0.014 % R + 0.08°C
Ni100 (a = 618)	-60°C to +180°C	0.01°C	0.012 % R + 0.03°C	0.01°C	0.014 % R + 0.08°C
Ni120 (a = 672)	-40°C to +205°C	0.01°C	0.012 % R + 0.03°C	0.01°C	0.014 % R + 0.08°C
Ni1000 (a = 618)	-60°C to +180°C	0.01°C	0.012 % R + 0.03°C	0.01°C	0.014 % R + 0.08°C
Cu10 (a = 427)	-70°C to +150°C	0.10°C	0.012 % R + 0.18°C	0.01°C	0.014 % R + 0.10°C
Cu50 (a = 428)	-50°C to +150°C	0.01°C	0.012 % R + 0.06°C	0.03°C	0.014 % R + 0.15°C

Resistive probes measurements in 2, 3 or 4 wires: automatic recognition of number of connected wires, with indication on screen.

Accuracies are given for 4-wire mounted probes.

Take into account particular error of temperature sensor used and implementation conditions.

Temperature coefficient: < 10% of accuracy /°C

Measuring current: 0.25 mA (Measurement) or from 0.1 to 1 mA (Emission)

Settling time: < 1 ms (Simulation on quick transmitters)

Thermocouples: Measurement and simulation

Type	Measurement			Simulation		
	Range	Res	Accuracy / 1 year	Range	Res	Accuracy / 1 year

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Models and accessories

Instrument:

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Delivered in standard with:

- Quick start manual
- Battery charger
- Set of 6 testing leads
- Factory test report

Accessories:

ACL433 External digital pressure sensor, range to be specified at the order:

Absolute or relative pressure: Range from -1 -> 1; 3; 10; 30 bar

Absolute pressure: Range from -1 -> 100; 300; 1000 bar

ACL9311 Set of 6 measuring cables with removable crocodile clips

ER 49504-000 USB cable

Software:

DATA CAL Calibration software for CALYS 1000 / 1200 / 1500

Supplied with USB cable

Certification:

QMA11EN COFRAC certificate of calibration

With all relevant data points where the device has been tested

Packing information:

Size 340 x 245 x 130 mm

Weight 4 kg

Standard delivery 6 weeks



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