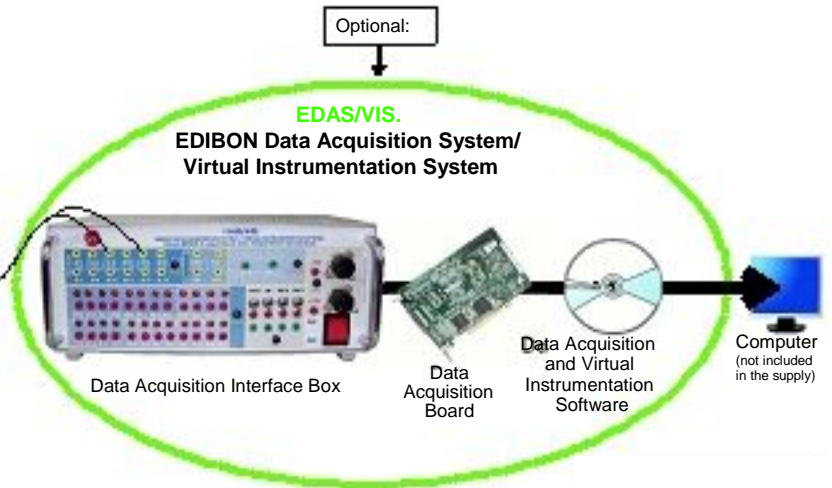
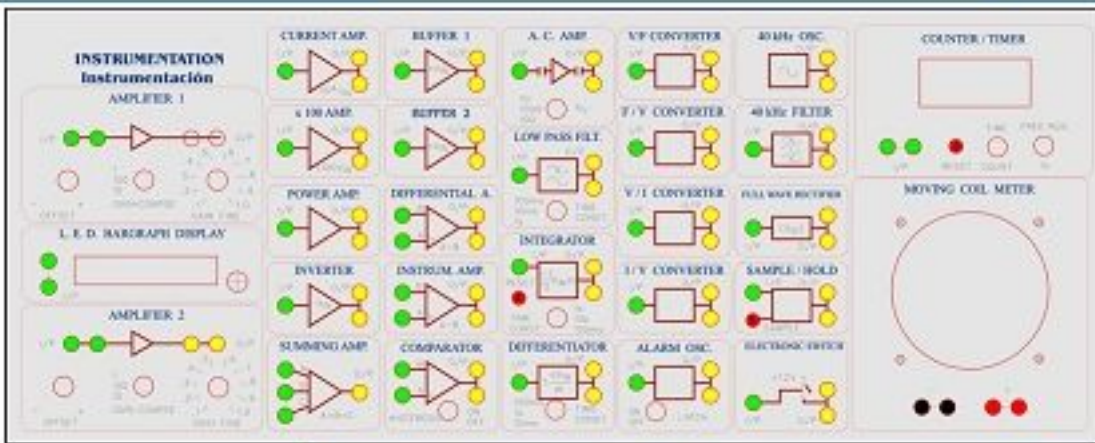




SAIT. Trainer



DIAGRAMS AND ELEMENTS ALLOCATION



Front Panel detail

Lower Panel detail



ISO:9001-2000 Certificate of Approval. Reg. No. E204034



European Union Certificate



Certificates ISO 14001: 2004 and ECO-Management and Audit Scheme (environmental management)



Worlddidac Quality Charter Certificate
Worlddidac Member

Some Practical Possibilities of the Trainer:

- 1.- Basic Control Systems description.
- Characteristics of the Control System:
- 2.- Characteristics of an ON/OFF temperature control System.
 - 3.- Characteristics of an ON/ OFF Lighting System.
 - 4.- Investigation of the Characteristics of a Positional Control System.
 - 5.- Proportional Control.
 - 6.- Proportional+Integral Control.
 - 7.- Proportional+Derivate Control.
 - 8.- Proportional+Integral+Derivate Control.
 - 9.- Characteristics of a Speed Control System.
 - 10.- Operation in Open Loop.
 - 11.- Operation in Closed Loop, Proportional Control.
 - 12.- Proportional+Integral Control.
 - 13.- Proportional+Integral+Derivate Control.
- Display devices:
- 14.- Application of the Timer/Counter as a meter of time.
 - 15.- Application of the Timer/Counter as a simple counter.
 - 16.- Application of the Timer/Counter as rev-counter or frequency-meter.
 - 17.- Characteristics of an L.E.D. bargraph display unit.
 - 18.- Characteristic of a Mobile Coil Meter.
 - 19.- Comparison of Digital, Bargraph and Mobile Coil meters.
 - 20.- To widen the voltage index of the B. M. meter.
- Variable Resistance transducers in angle or linear arrangement:
- 21.- Variation of the Output Voltage for a Potentiometer used as a Position transducer.
 - 22.- The Buffer as compensator for the effect of the load on the output voltage of a potentiometer.
 - 23.- Servo potentiometer. Variation of the output voltage with respect to its position.
 - 24.- Measuring the Resistance using a Wheatstone Bridge Circuit.
 - 25.- Measuring the Voltage using "Null Balance" Procedures (Method 1).
 - 26.- Measuring Voltages using "Null Balance" Procedures (Method 2). Measuring voltages smaller than the normal available voltage.
 - 27.- Measuring Voltages using "Null Balance" Procedures (Method 2). Measuring voltages greater than the normal voltage.
- Transducers for Applications of Temperature Measurement:
- 28.- Characteristics of an Integrated Temperature Circuit.
 - 29.- Construction of a Digital Thermometer using the facilities of the TRANSDUCER TRAINER.
 - 30.- Characteristics of a Platinum Temperature Dependent Resistance (T.D.R.) Transducer.
 - 31.- The N.T.C. (Negative Temperature coefficient) Thermistor.
 - 32.- Characteristics of an N.T.C. Thermistor (Resistance measuring method).
 - 33.- Characteristics of the N.T.C. Thermistor used in an alarm circuit (double thermistor).
 - 34.- Characteristics of a Type "K" Thermocouple.
- Transducers for Light Measuring Applications:
- 35.- Characteristics of a photovoltaic cell.
 - 36.- Characteristics of a photo-transistor.
 - 37.- Luminous intensity detector.
 - 38.- The P.I.N. Photodiode.
 - 39.- Characteristics of a P.I.N. Photodiode.

- Linear Position transducers.
- 40.- Characteristics of a Linear Variable Differential Transformer (LVDT).
 - 41.- Characteristics of a Variable Resistance.
 - 42.- Characteristics of a Strain gauge Transducer.
- Transducers for Environmental Measurement Applications:
- 43.- Characteristics of a air flow transducer.
 - 44.- Characteristics of a pressure sensor.
 - 45.- Characteristics of a humidity sensor.
- Rotational Velocity Transducers and Position Measuring Applications:
- 46.- Characteristics of a slotted opto-transducers and its applications for counting and speed measurement.
 - 47.- Characteristics of the reflective opto-transducers and Gray code disk.
 - 48.- Characteristics of an inductive transducer.
 - 49.- Characteristics of a Hall effect transducer.
 - 50.- Characteristics of a D.C. permanent magnet Tachogenerator.
- Transducers for Measuring Sound:
- 51.- Characteristics of a Dynamic Microphone.
 - 52.- Characteristics of an ultrasonic receiver.
- Transducers for Sound Output:
- 53.- Characteristics of the mobile coil loudspeaker.
 - 54.- Characteristics of a Buzzer.
- Output Transducer for Linear or Angular Movement:
- 55.- Characteristics of a D.C. Solenoid.
 - 56.- Characteristics of a D.C. Relay.
 - 57.- Characteristics of a Solenoid air valve.
 - 58.- Characteristics of a Permanent Magnet Motor.
- Signal Conditioning Circuits:
- 59.- Characteristics of the Direct Current amplifiers 1, 2 and x100.
 - 60.- Characteristics of a current amplifier and application of a buffer amplifier.
 - 61.- Characteristics of Power and Buffer Amplifiers.
 - 62.- Characteristics of an Inverter Amplifier.
 - 63.- Characteristics of a Differential Amplifier.
- Signal Converter Circuits:
- 64.- Characteristics of a Voltage to Current Converter.
 - 65.- Characteristics of a Current to Voltage Converter.
 - 66.- Characteristics of a Voltage to Frequency Converter.
 - 67.- Characteristics of a Frequency to Voltage Converter.
 - 68.- Characteristics of a Full Wave Rectifier.
- Comparators, Oscillator and Filters:
- 69.- Characteristics of a Comparator.
 - 70.- Characteristics of an Alarm Oscillator circuit.
 - 71.- Characteristics of an Electronic Switch.
 - 72.- Characteristics of the Oscillator of 40 kHz.
 - 73.- Characteristics of Filters.
- Circuits that carry out Mathematical Operations:
- 74.- Characteristics of a Adding Amplifier.
 - 75.- Characteristics of an Integrator.
 - 76.- Characteristics of a Differentiator Circuit.
 - 77.- Characteristics of a Sample and Hold Circuit.

REQUIRED SERVICES

- Electrical supply: single-phase, 220V./50Hz or 110V./60Hz.
- For using EDAS/VIS. EDIBON Data Acquisition System/Virtual Instrumentation System a Computer (PC) is needed.

DIMENSIONS & WEIGHT

- SAIT Trainer: - Dimensions : 400 x 400 x 300 mm. approx.
- Weight : 10 Kg. approx.
- EDAS/VIS System: - Dimensions : 310 x 220 x 145 mm. approx.
- Weight : 2 Kg. approx.

* Specifications subject to change without previous notice, due to the convenience of improvements of the product.



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Mitra Pendidik dan Peneliti

Our Office : Jl. Pahlawan Revolusi No. 22 B, Jakarta Timur
 Phone : (021) 8611 259 Fax:(021) 8611 207
 Email : sales@alatperaga.com
 Website : www.alatperaga.com

REPRESENTATIVE:



Sengaja di kosongkan