simac

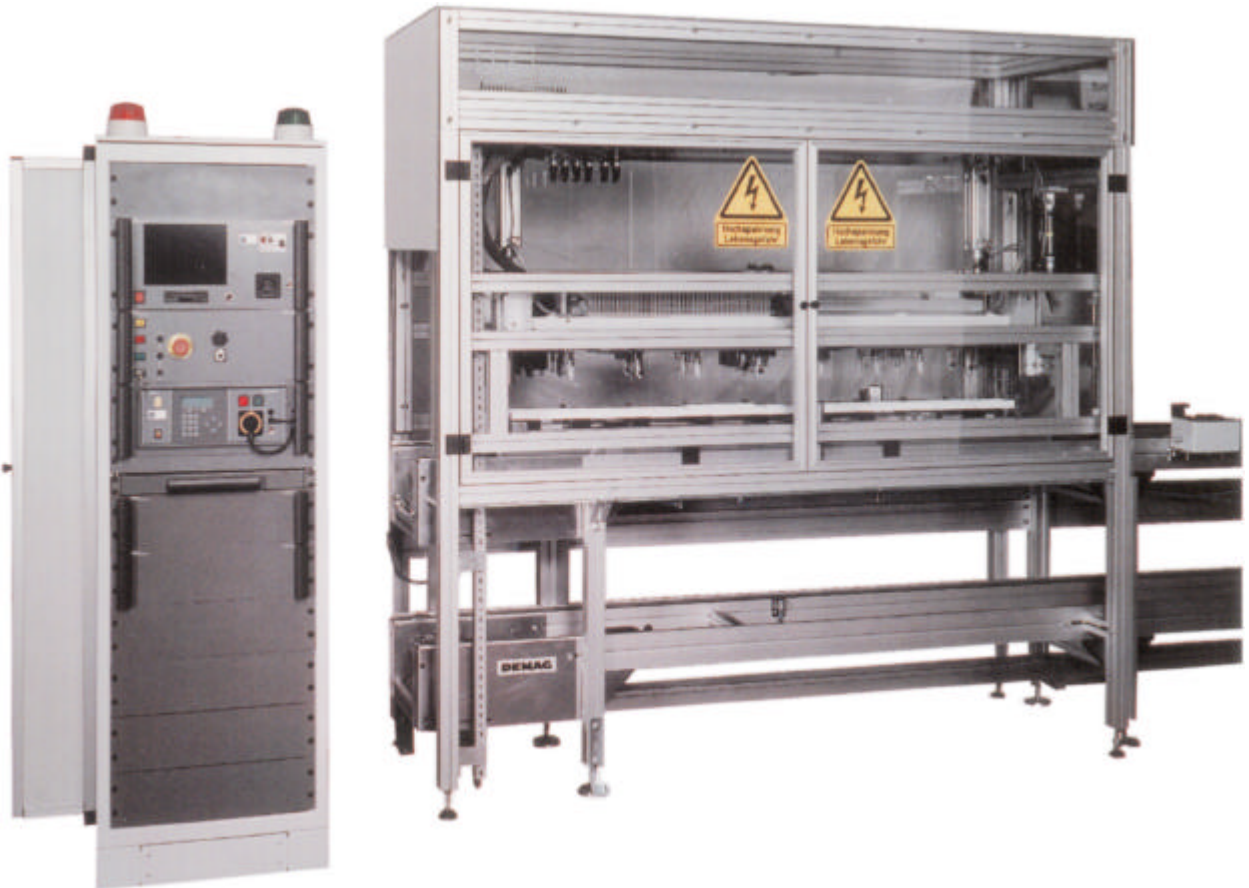# System Example Lighting

- **PC controlled, fully automatic test system**
- **modular and expandable design**
- **test ranges:**
  - **- continuity test**
  - **– earth bond test**
  - **– insulation test**
  - **– high voltage test**
  - **– function test**
- **automatic contact system for terminal block with simultaneous assembly function**
- **WINDOWS operating system, intuitive software**

Simac Electronics
volgens de nieuwste norm gecertificeerd!

ISO9001:2000

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System Example Lighting

Individual systems

Our lighting test systems are adapted to the respective and individual requirements of our customers. In most cases the original illuminant will suffice. In most cases this is a safe and very economical solution. If the number of DUT type's increases or the test time becomes critical, the application of a dummy load for the electronic ballast would be useful. The ballast can also start faulty lamps. Therefore different continuity tests can be performed in these dummy loads and the consumption capacity of helical currents and gas path currents is evaluated. Thus a 100 % test of the lamp wiring is achieved.

System example

The test system shown is a safety and function test system with integrated assembly step, for single or double flame long field fittings. For the function tests test dummies with different capacities are available. LED sensors test the ignition of the fluorescent lamps.
This compact test system tests all of the protective conductor connections and performs the high voltage and insulation resistance tests. The assembly task implemented here is to bunch the cables laid from element to element, to shift them into the channel provided and to bend the respective holding straps. A pneumatic drive and mechanically made bending punch solves this task quite easily.
At the start of the test run all required test points must be contacted. Here these are the supply terminals (connections L, N, PE) and the socket connections. As an option a PASS label can be made after the end of each test.

Easy programming and quick testing

The Windows software we use is very user friendly. With the editor, programmes can be created and parameters set with a simple mouse click.
As programmed in the editor the tests are run sequentially. During the test the test times and the measured values can be read on the display. There is a statistics display included in the test software which is shown during operation. In it the results of the single test steps and the DUT results are incremented and displayed according to results. In case of a faulty test step the set and the actual value is shown on the display. Upon request a test protocol can be printed. All test results are stored and gathered in a protocol file.

Testing

When the "Ready" signal of the external SPS appears the DUT is loaded as above. Then the programmed tests will commence. Usually the first test is the protective conductor test. A current up to 25 A is applied to the test prods consecutively. Next are the insulation and the high voltage tests. These may be performed simultaneously at both DUTs and only if faulty must the lamps be tested individually. The function test which then follows shows the current drawn as a function of the time in a diagram. The set thresholds are checked and the function tested via LDR sensors. At the end the result of the test is indicated on the display and on the operator control panel. The PASS DUTs are punched. For FAIL DUTs there is an audible warning which has to be acknowledged with a key. The doors open and the next DUT can be inserted into the test cage.