BJB///OEM-Line

Final testing of luminaires in LED applications

Test passed!

Your Connection to Light


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Flexible test systems with modular configuration capability

Autonomous test procedure allows parallel work processes

Camera system and parameterisation of control gear as option

Final testing of luminaires in LED applications

Current requirements for the final testing of luminaires necessitate the use of flexible test systems. For this purpose, we are offering modularly configurable test stations which have been specially developed for LED applications.
The core element of the system is a test bench with an automatically lowerable protective cover made of tinted polycarbonate. This provides visual and accidental contact protection during the test process. The protective cover also enables a test procedure to be carried out without supervision. With this configuration, therefore, it is possible to perform other work simultaneously.
In order to minimise damage to LEDs caused by electrostatic discharge, the test bench is ESD-protected and has an earth bonding point for the operating staff.

For the test process itself, there are two different devices available. In the basic version, the test bench is equipped with a GLP 1 class compact tester for the protective conductor resistance test, the insulation resistance test and the functional test.
Alternatively, there is the PC-based GLP 3 combination tester. In addition to the standard tests performed by the GLP 1, this can carry out further tests via the DALI/DSI interface as well as the 1-10 V interface for luminaires with dimming function.
An industrial camera system can be connected to both devices for the visual inspection of LED luminaires. With the GLP 3, ECGs can also be parameterised electronically by means of software tools before the final testing of the luminaire.

Test systems of the BJB///OEM-Line are a feature of the automated production of LED applications with ADS systems. They can, however, also be employed as independent solutions. The appropriate equipment is then tailored to the individual requirements of the user.


Industrial camera for the functional testing of LED luminaires
Automatically lowerable protective cover made of tinted polycarbonate
Luminaire
Test bench

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Windows PC for GLP 3

Rack with GLP 3 combination tester installed
(Optional: GLP 1 compact tester for installation in the test bench)

BJB test systems and options

Test station with compact tester GLP 1

Protective conductor resistance test
This test is carried out with 10 A AC, 50 Hz at max. 12 V. There is constant electronic regulation of the current, which is also monitored during testing. If the current is below 10 A, an error message is issued.

Insulation resistance test
The insulation resistance test is carried out with 500 V DC at max. 3 mA. The voltage is regulated electronically. If the voltage is below 500 V or the current above 3 mA, an error message is issued.

Functional test
The functional test is carried out with a voltage of 0-260V / 2A. The power consumption can be defined within the desired tolerances.

Equipment
- Test bench with automatically movable protective cover
- Protective conductor resistance test
- Insulation resistance test
- Functional test
- Connections for mains voltage and PE
- **Option:** camera system

Test station with compact tester GLP 3

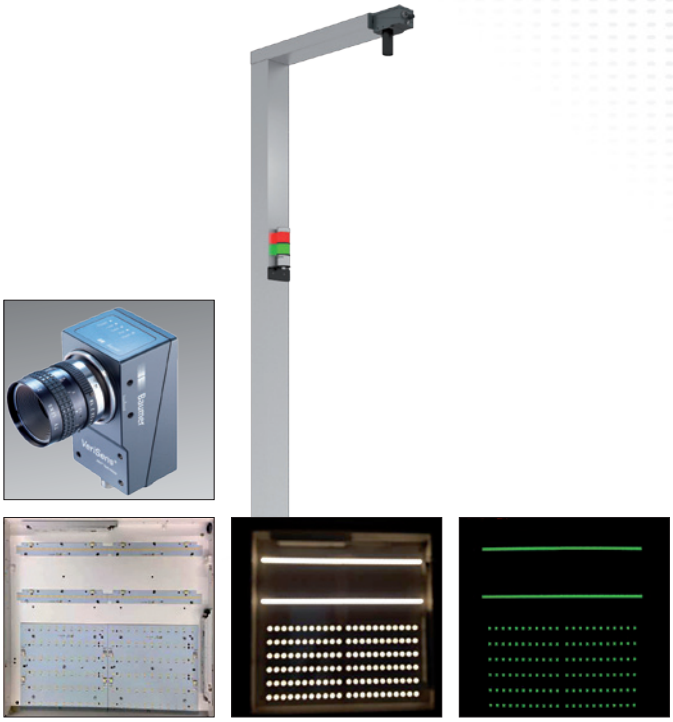
Alternatively, the test station can be equipped with the PC-based compact tester GLP 3. In addition to the standard tests performed by the GLP 1, the following tests can then be carried out:

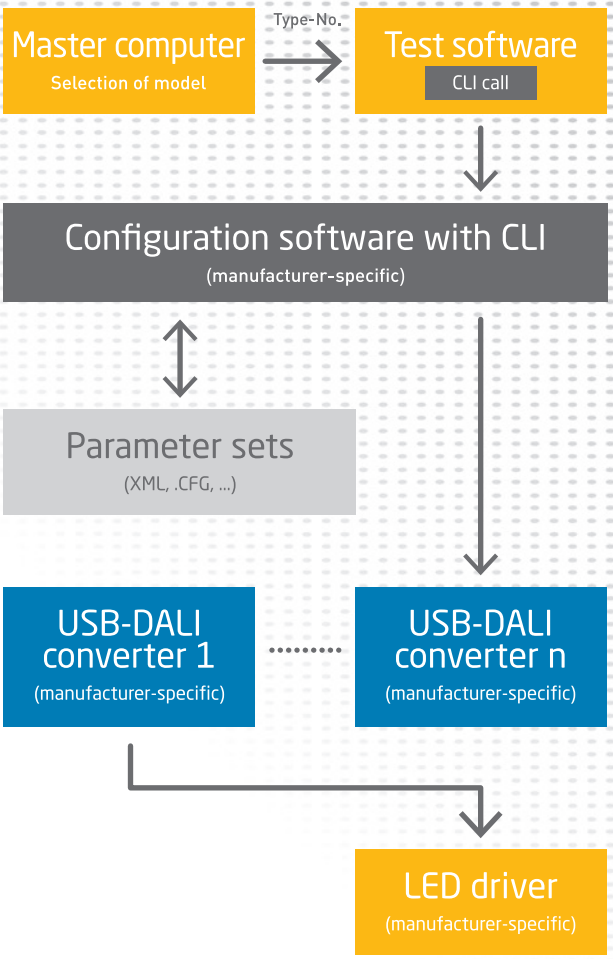
DALI / DSI interface
With this interface, luminaires with DALI/DSI ECGs can be tested. It is also required for the parameterisation of DALI ECGs.

1-10 V interface
With this interface, luminaires with 1-10 V dimming function are tested.

Recording of test results
Test results are stored in an Access or SQL database. The tested parameters can be viewed via the serial number of the luminaire. A standard label printer can be connected.

Equipment
- Test bench with automatically lowerable protective cover
- Protective conductor resistance test
- Insulation resistance test
- Functional test
- Functional test of DALI / DSI interface
- Functional test of 1-10 V interface
- Recording of test results in an ACCESS or SQL database
- Connections for mains voltage and PE
- **Option:** parameterisation of DALI ECGs
- **Option:** camera system





Option: camera system

A camera can be integrated into the test station with the compact tester GLP 1 or GLP 3 for the visual inspection of LED luminaires. For this purpose, the test bench is also equipped with a camera mounting bracket and a camera. Once the protective cover is closed, the compact tester starts the test process automatically, including the optical functional check.

Functional principle
The functional test is started and the LEDs light up. The test system compares the number of illuminated LEDs with the pre-defined number in the specified test window. The test result can be seen on the monitor. If the test result is positive, the LEDs are displayed in green. If the result is negative, they are displayed in red.
No lighting parameters (e.g. luminous flux, colour temperature) are checked in this functional test.

Interaction between test system and ADS systems
If the test system is integrated into an ADS system, the appropriate test program and the necessary parameterisation values for the ECG are accessed automatically when the wiring program is selected.

Option: Programming of ECGs

With this option for the GLP 3, ECGs can be parameterised via the DALI interface before final testing of the luminaire. The parameters are established via the individual configuration software of the ECG manufacturer and can be loaded by the test system and automatically transferred to the ECG during the test procedure. For the parameterisation of ECGs, the appropriate manufacturer-specific "programming devices" have to be integrated into the test system. Altogether, there are five spaces available for this purpose.

Advantages
- Just-in-time programming
- Parameterisation can be carried out before the final test of the luminaire
- No need for of a separate parameterisation workstation
- Elimination of one work stage
- Reduced logistics requirement (no interim storage required)
- Avoidance of errors in final assembly
- Flexible processing of luminaires through extension of system hardware to support up to five different ECG manufacturers
- When using new ranges of devices, communication and coordination can be carried out directly with the equipment manufacturer
- Current cooperation with the manufacturers BAG, Osram and TCI

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