

Certification Process: Book 18 Zhaga-D4i Modules



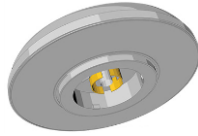
Organisation



Associate or regular membership of the DALI Alliance is required. [How to join.](#)



Associate or regular membership of Zhaga is required. [Joining Zhaga.](#)



Process

- 1 Product self tested or tested by a DALI accredited test house
- 2 Submit results to the DALI Alliance for verification and D4i certification.
- 3 Submit product documentation to Zhaga Test Center
- 4 Tested for compliance against Zhaga specifications
- 5 Product awarded Zhaga-D4i certification and use of Zhaga and D4i logos

Comment

'Control Devices' are DALI application controllers and/or DALI input devices. The DALI Alliance specification Part 351 lists four luminaire-mounted control device types: Type A, B, C and D.

Zhaga-D4i certification starts with D4i certification and is based on at least parts 101, 103 and Part 351, as well as relevant parts 3xx. For a device to be compliant and qualify for Book 18 Zhaga-D4i certification, it must be a multi-master device and therefore a Type A or Type B device only.

For Zhaga Book 18, both Type A and B devices should include an application controller, but a Type B device will disable its application controller if a Type A device is detected on the same bus. The Type A device will take over controlling the drivers. In this case, the Type A devices are typically communication modules and therefore allocated a larger power budget. Type B devices are typically sensor input devices and are allocated a smaller power budget. Power budgets must be met to gain certification.

Once D4i certification is achieved, a product can be submitted to a Zhaga Test Center for Zhaga Book 18 testing. This is typically a paperwork exercise to confirm the products meet the requirement of Book 18.

Either a Type A or a Type B control device can be plugged into a luminaire, or both a Type A and a Type B device can be used together. But not two Type A or two Type B devices.

Zhaga-D4i certification requires that a product is tested and certified to both Zhaga Book 18 and the DALI Alliance D4i requirements.

A List of Zhaga approved test centers can be found [here](#). Only specific test centers can certify for specific books. Test centers can offer advice and direction with product approval, and some can also offer DALI and D4i testing.

Certification Process: Book 18 Zhaga-D4i Luminaires

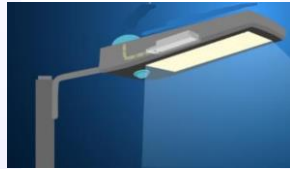


Organisation



Consortium

Associate or regular membership of Zhaga is required. [Joining Zhaga.](#)



Process

- 1 Compile required documentation and submit to Zhaga Test Center
- 2 Tested for compliance against Zhaga specifications
- 3 Product awarded Zhaga-D4i certification and use of Zhaga and D4i logos

Comment

A compliant luminaire will have 1 or 2 Zhaga interfaces for a dedicated Zhaga architecture or 1 ANSI and 1 Zhaga interface for a hybrid architecture.

A compliant luminaire will use D4i drivers or DALI-2 certified drivers with either a separate or integrated 24Vdc auxiliary power supply. In the case where the D4i luminaire contains DALI-2 drivers, which are not D4i certified, then a separate DALI bus power supply will also be included. All interfaces must be wired to the DALI bus and the 24Vdc rail and the DALI bus power supplies in the D4i drivers must be turned on. Power supplies must be capable of delivering the power budget to all interfaces. This is to ensure interoperability of the luminaire for the whole of its life. Certification is typically a paperwork exercise to confirm the products meet the requirement of the book.

To certify a luminaire only Zhaga Consortia membership is required.

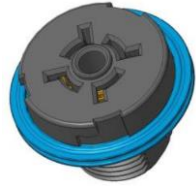
A List of Zhaga approved test centers can be found [here](#). Only specific test centers can certify for specific books. Test centers can offer advice and direction with product approval, and some can also offer DALI and D4i testing.

Certification Process: Book 18 Zhaga Components

Organisation



Associate or regular membership of Zhaga is required. [Joining Zhaga.](#)



Process

- 1 Compile required documentation and sample and submit to Zhaga Test Center
- 2 Tested for compliance against Zhaga specifications
- 3 Product awarded Zhaga certification and use of Zhaga logos

Comment

Both documentation, including a measurement report, and samples of the product are required to be submitted to an approved test center. A compliant component will meet all the requirements of Book 18.

The test center will confirm that the submitted measurement report demonstrates that the product meets the dimensional and tolerance requirements of Book 18. The test center will also conduct physical testing confirming that the mating and unmating torque limits are met.

To certify a component only Zhaga Consortia associate or regular membership is required.

A List of Zhaga approved test centers can be found [here](#). Only specific test centers can certify for specific books. Test centers can offer advice and direction with product approval, and some can also offer DALI and D4i testing.