

DALI & DALI-2

A comparison



zencontrol

zencontrol.com

What is DALI-2?

DALI-2 adds additional functionality, solves existing issues and maintains backwards compatibility. The addition of control devices and specifications allows for the standardization of electronic control devices.



Mandatory certification



Standardized controls



Issues and gaps fixed



New features



DALI "version "1



What has changed from DALI to DALI-2?

With DALI-2 comes a new organisational body to deal with DALI licencing and trademarks, the Digital Illumination Interface Alliance (DiiA).



Mandatory certification

- Control systems can now be certified
- Tighter control on the use of the DALI-2 trademark
- DALI power supply has better definition and can now be certified



Standardized controls

- Extension for control devices, added part 103 of IEC62386
- An overview of IEC62386-103 can be found on the [DiiA website](#)
- Single master and multi-master control has been defined
- Now with standards for switch and sensor control
- Definition of an application controller made



Fixed issues and gaps related to "V1"

- Restructuring of specification, dedicated system description
- Error corrections (particularly in regards to the test-procedures)
- More detailed specifications, leading to less risks of misinterpretations
- Less risk for malfunctions due to more precise specification of electrical tolerances



New features

- An increase in the number of tests and their quality
- New commands and features, including new "prolonged fade-time"
- Fades from 0.1 seconds up to 16 minutes are now possible

Comparison

of electronic control devices

	DALI	DALI-2
Protocols	<ul style="list-style-type: none"> ✗ Proprietary control for sensors and switches 	<ul style="list-style-type: none"> ✓ DALI standard ✓ Standardised under IEC62386-103
Control specifications	<ul style="list-style-type: none"> ✓ Vendor specific products only, some used a 25-bit packet, like Tridonic's eDALI specification 	<ul style="list-style-type: none"> ✓ Instance type 4: Light sensor (IEC 62386-304) ✓ Instance type 3: Motion sensor (IEC 62386-303) ✓ Instance type 1: Manual control unit (IEC 62386-301)
Controller type	<ul style="list-style-type: none"> ✓ Multi- or single master control ✗ No certification 	<ul style="list-style-type: none"> ✓ Multi-master or single master control ✓ Standardisation of a controller named an "application controller" ✓ Can now be certified

New commands introduced in DALI-2

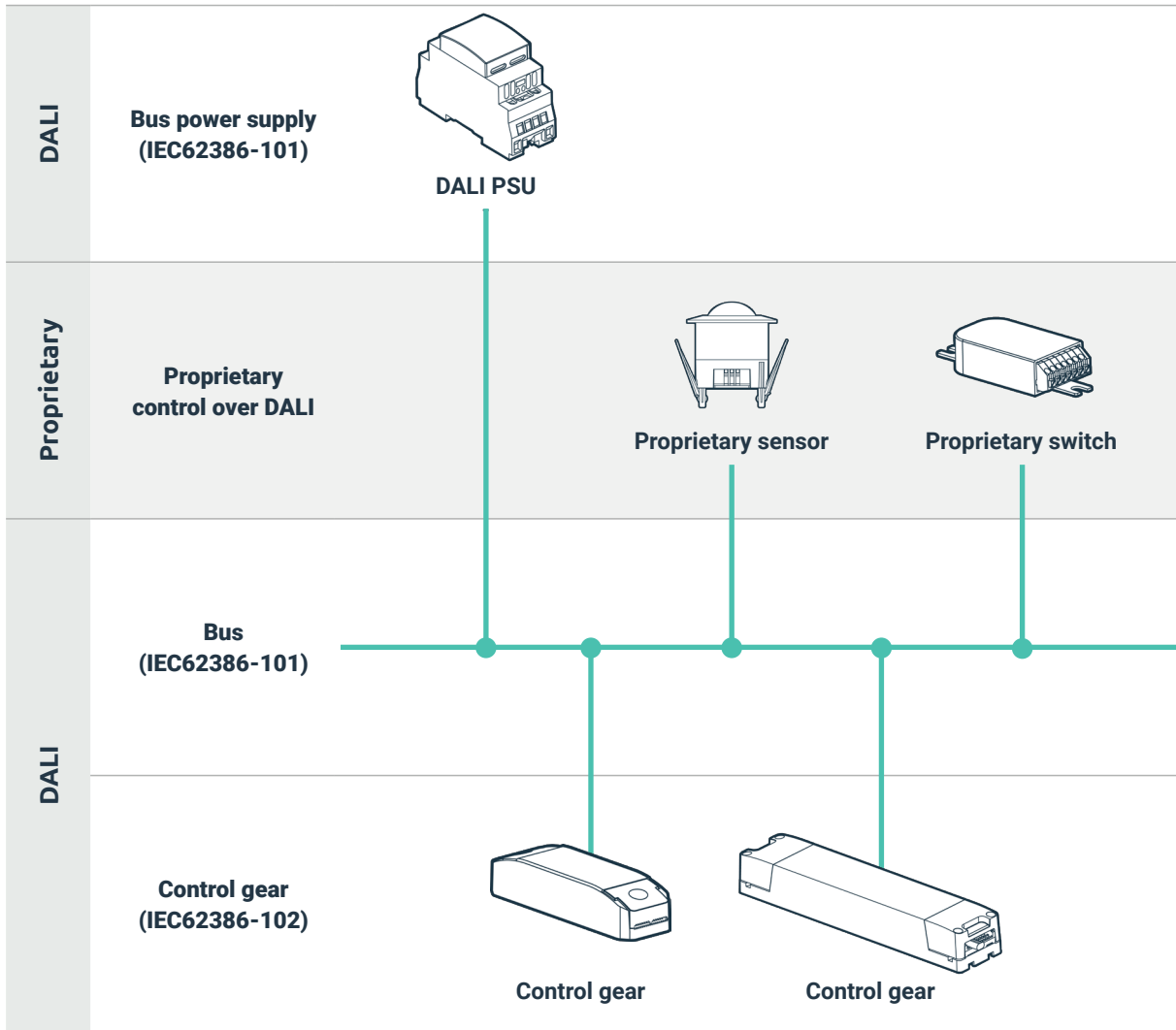
for electronic control devices

	Command / feature	Description
✓	Query control gear failure	Detailed error inquiry
✓	Query operating mode	Query of the operating mode
✓	Identify device	Identifies (localises) a device
✓	Query extended fade time	Readout of the extended fade-time
✓	Set extended fade time (dtr0)	Allows to set the "extended fade-time"
✓	Set operating mode (dtr0)	Allows configuring the operating mode
✓	Query light source type	Information to the connected light source
✓	Reset memory bank (dtr0)	Resets the memory bank to its default values
✓	Query next device type	Readout of the supported device types / functions
✓	Go to last active level	IAP (Indirect Arc Power command), last active level will be called
✓	Save persistent variables	Persistent variables are stored in a non-volatile memory / storage area

System structures

DALI system structures

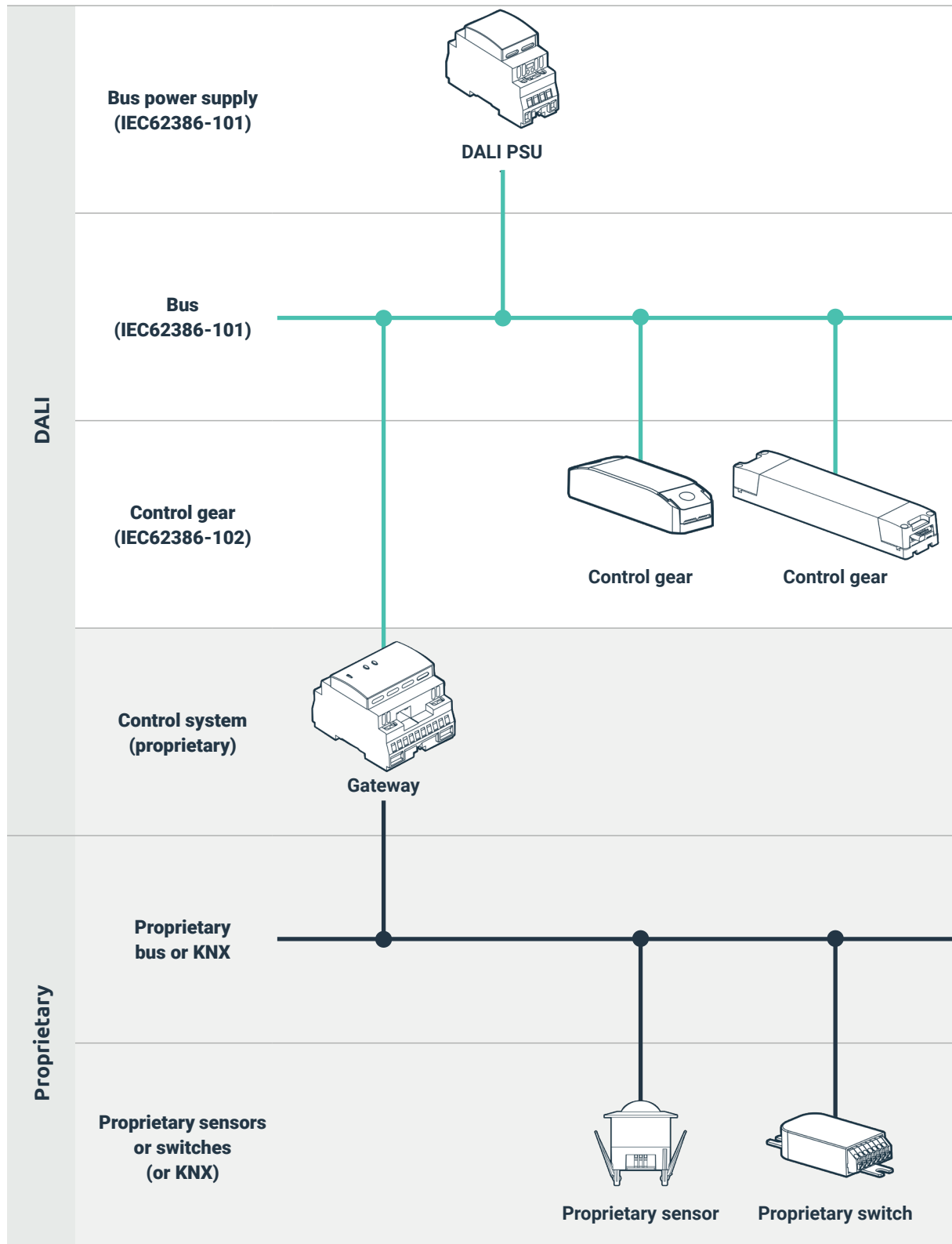
› with proprietary sensors and switches on same bus



Preliminary information is subject to change without notice, E&OE

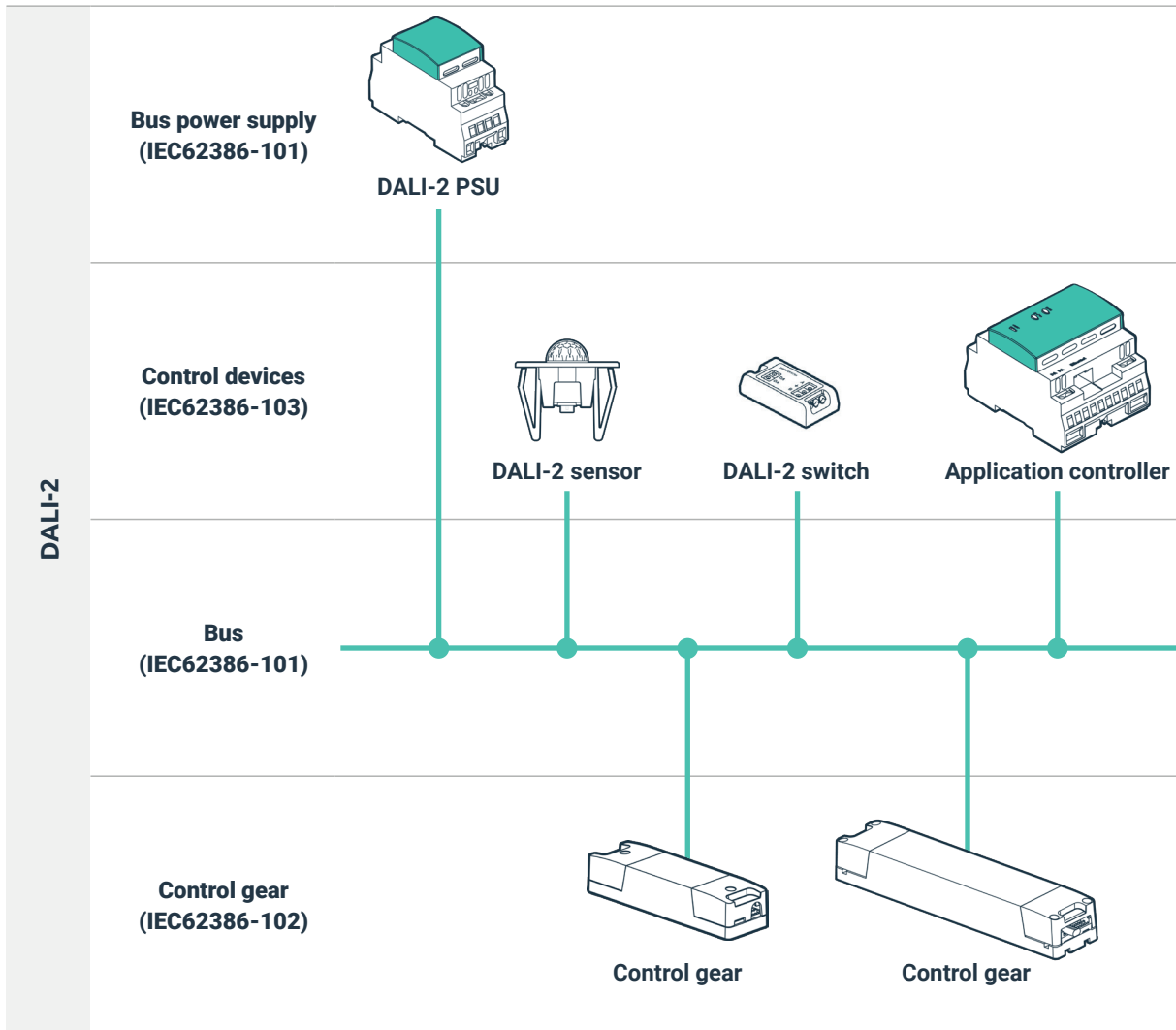
DALI system structures

› with proprietary or KNX sensors and switches on a different bus



DALI-2 system structures

› now with sensors and switches on same bus



Preliminary information is subject to change without notice, E&OE

zencontrol

zencontrol is modern lighting control, **fully DALI compliant and certified**

Built upon a “just works” philosophy, we remove the complication associated with lighting control with the use of smart software and systems.



zencontrol.com



visit us at
zencontrol.com

zencontrol

