



The Schröder ITERRA ZHAGA NODE BLE4 is the base communication module in the ITERRA control system that converts a wired DALI signal into BLE wireless communication in a mesh network.

The node offers a solution to seamless control for site lighting through a mesh Bluetooth™ 4.0 network. Each control node stores information about its configuration and the configuration of the rest of the network. Electrical connection and mechanical mounting are achieved by tool-free twist and lock on a standard Zhaga Book 18 socket.

Configuration and control can be managed from a mobile phone or tablet using the free Schröder ITERRA mobile App, available for iOS and Android devices. Adding a node to the network is done individually using the mobile App close to one unit from the mesh network. To control the nodes, it is only necessary to be within the scope of one of them and use the Schröder ITERRA mobile App or a Schröder ITERRA PRESS remote control. When a node receives a firmware update, it is automatically retransmitted to the other ones (up to 100 nodes per network). Communication security is provided by encrypted messages. Various communication profiles can be configured to match the luminaire requirements.

The primary use is to control outdoor lighting applications (IP 66 UV-resistant enclosure), although indoor applications are also possible.

KEY ADVANTAGES

- > **Plug-and-play: easy mounting on any Zhaga socket**
- > **Compatible with any DALI, DALI-2 or D4i drivers**
- > **Scalable solution: a Schröder ITERRA network can manage up to 100 nodes**
- > **Wireless mesh: network coverage of up to 100m between nodes. The nearest node acts as a range extender for the other ones.**
- > **Controlled by the Schröder ITERRA App and XPRESS remote control**

DIMENSIONS AND MOUNTING

Diameter (mm inch)	48.0 1.89
Height (mm inch)	44.0 1.73
Weight (g lbs)	100 0.22
Mounting possibilities	Twist and lock on Zhaga Book 18 connector
Min recommended installation height (m ft)	5 16.4

HOUSING AND FINISH

Housing	Polycarbonate with anti-UV treatment
Impact resistance	IK 09

ENVIRONMENTAL

Ta	-40°C to +65°C -40°F to +149°F
Degree of protection	IP 66
Internal temperature monitoring	Yes (displayed in Schröder ITERRA App)

ELECTRICAL

Rated Input Voltage	24VDC SELV
Maximum absolute rated voltage	18-30VDC SELV
Power consumption stand-by	<0.75W (@24Vdc, 1 DALI device connected)
Power consumption average	<1.5W (@24Vdc, 1 DALI device connected)
Power consumption pulsed	<2W (@24Vdc)
Electrical class	Class II EU (double insulation)
Protection	Against overheating
Output control interface	DALI/ DALI-2
Integrated DALI voltage source	16VDC [can be disabled to use the bus power from a DALI D4i driver or a DALI bus power supply]
DALI output current	40mA to max. 60mA
Dimming range	0-100%

STANDARDS & APPROVALS

DALI-2™	Yes
D4i	Yes
DALI standards	IEC 62386 part 101, 102, 201, 203, 207, 250, 251, 252, 253
CE mark	Yes
LvD 2014/35/UE	Yes
REACH 1907/2006	Yes
RED 2014/53/UE	Yes
RoHS 2011/65/UE	Yes

EMC AND IMMUNITIES

Radio disturbance	EN 55015:2013
Equipment for general lighting purposes - EMC immunity requirements	EN 61547:2011
Limits for harmonic current emissions	EN 61000-3-2
Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems	EN 61000-3-3
Electromagnetic compatibility and radio spectrum matters (ERM); Electromagnetic compatibility (EMC) standard for radio equipment and services; Part 1: common technical requirements	EN 301489-1
Electromagnetic compatibility (EMC) standard for radio equipment and services - Part 17: specific conditions for broadband data transmission systems	EN 301489-17

SAFETY

Luminaires	EN 61347-1:2016 & EN 61347-2-11:2003
Protections	UL773 part 15

RADIO FREQUENCY SPECIFICATIONS

RF communication interface	Bluetooth 4.0 (BLE)
Frequency range	2402–2483 MHz
Network type	Self-healing, frequency-hopping, spread spectrum mesh technology
Maximum transmission power	+8dBm
Wireless class	Class 2

COMMUNICATION FEATURES

Data security	AES128 bit encryption + elliptical cryptography (see also the security overview document)
Firmware update	OTA (Over the air)
Real time counter	Internal counter; update with the Schröder ITERRA App, an external timer or gateway
DALI details available	<p>Real-time update of the following DALI details through the app (if the driver is compatible with parts 251 and 252):</p> <ul style="list-style-type: none"> • Device type • Total energy • Resettable energy counter • Active power • System on time • Lamp on time • Mains voltage • Mains current
Network coverage (outdoor and with a clear view)	100m

