

Quick-Start Guide Light Controller XSW-E6/-E64/-64 stand-alone

General Safety Information

- LiCS products must be installed and commissioned only by authorised and suitably qualified staff.
- Please read these instructions carefully before installing and commissioning the system to ensure safe and correct handling.
- Devices must be disconnected from the mains before any work is carried out on them.
- All valid safety and accident prevention regulations must be observed.
- Products must never be inexpertly opened since electrical voltage poses a danger to life. Repairs must always be carried out by the manufacturer.
- On no account may mains voltage or any other external voltage be applied to the DALI control line as this can destroy individual system components.



Mounting

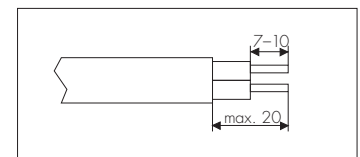
- 186517/186605: Independent mounting
- 186516: luminaire and mounting rail installation
- Surface: solid, must not permit the product to sink into insulating material
- Fixed using 4 mm screws
- 186516: the extended antenna can be flexibly positioned inside the luminaire or mounting rail casing to ensure optimum range.
- Running cabling alongside the metal casing should be avoided.

Overview of Functions

Light Controller	XSW-E6 186516	XSW-E64 186517	XSW-64 stand-alone 186605
Standalone Mode	Yes	No	Yes
Sensors at network IP DALI mode	max. 1	max. 32	No
Mesh network IP DALI mode	No	No	No
Max. No. of DALI addresses in the mesh network	58	-	-
Max. No. of controllers in the mesh network	9	-	-
Max. No. of devices in the network with IP DALI	4	4	-
Compatible with VS MultiSensors	yes (mesh-mode)	yes	yes

Installation Notes

- Conductor cross-section for all screw terminals (186517): 0.75 mm² - 2.5 mm²
- Conductor cross-section for all push-in terminals (186516): 0.5–1.5 mm²
- Cable preparation (see right)
- Screw terminals: max. torque = 0.4 Nm
- An overvoltage (surge) protection device (10 A) must be connected upstream.
- The device must be installed in such a way as to ensure users have no direct access to the vicinity of the mains connection terminal after installation. (186517: independent variant; 186516: installation variant).
- By default, the DALI bus features only basic insulation. All DALI cables must therefore be suitable for mains voltage.
- 186516: in total a maximum of 6 DALI control gear units as well as a maximum of 1 VS MultiSensor can be connected, which collectively must not exceed 12 mA.
- 186517: in total a maximum of 64 DALI control gear units as well as up to 36 VS MultiSensors can be connected, which collectively must not exceed 200 mA. Please refer to the table at the end of the operating manual for the maximum number of DALI components per respective light controller.
- Laying the DALI bus lead alongside the mains lead in a single cable is permitted up to a maximum length of 100 m, e.g. using NYM 5 x 1.5 mm².



Configuration (186517)

- The XSW-E64 Light Controller does not need to be configured. Operating mode 1 "Network" is available.

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- Further setup steps can be found in the following under "Software".

Configuration (186605)

- The XSW-64 stand-alone Light Controller does not need to be configured. Operating mode 3 "stand-alone" is available.
- Further setup steps can be found in the following under "Software".

Configuration (186516)

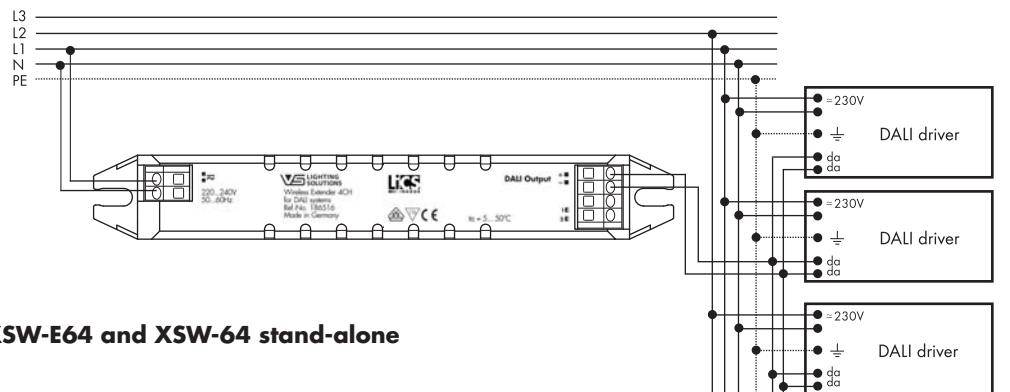
- The XSQ-E6 Light Controller must be in a voltage-free state prior to configuration.
- For configuration purposes there are two switches next to the connection terminals.
- By default, all switches are in the "-" position (operating mode 1 "Network").
- Configuration unit (next to the DALI terminal)

Operating mode		Switch position	
No.	Description	1	2
1	Network	-	-
2	Mesh network	ON	-
3	Standalone	-	ON
4	"not permissible"	ON	ON

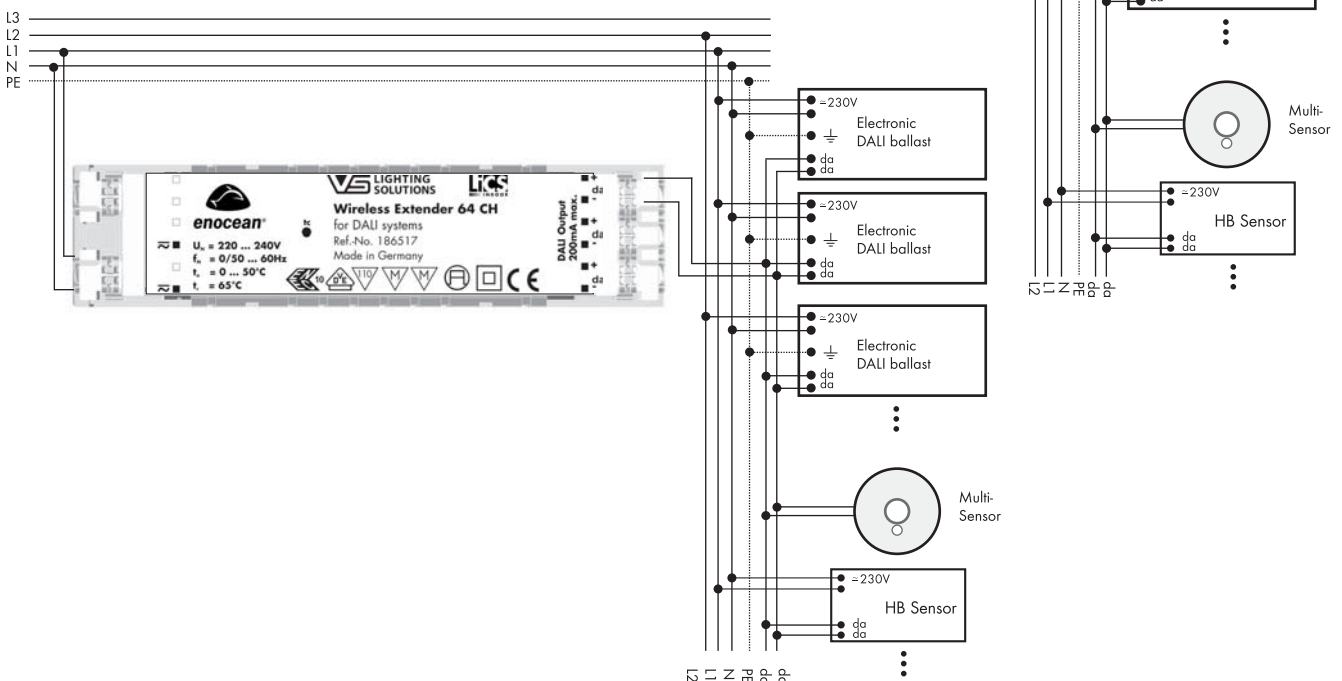
Additional Notes

- The outputs of different XSW-E6/-E64 Light Controllers must not be interconnected.
- 186517/186605: to ensure safe operation of XSW Light Controllers, the maximum permissible casing temperature at the measuring point (t_c) must not be exceeded.

Circuit of Light Controller XSW-E6



Circuit of Light Controller XSW-E64 and XSW-64 stand-alone



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Light Controller	XSW-E6 186516	XSW-E64 186517 XSW-64 stand-alone 186605
Supply voltage	220 – 240 V AC, 50 – 60 Hz	220 – 240 V AC/DC, 0/50 – 60 Hz
Power consumption	1 W	6.7 W
Ambient temperature t_a	5 to 50 °C	0 to 50 °C
DALI Output (da+/-)	Max. 12 mA consumption	Max. 200 mA consumption
No. of control gear units (DALI electronic ballasts, DALI sensors)	Max. 6 units per controller	Max. 64 units per controller
No. of sensors (MultiSensor, DALI key)	Max. 1 unit per controller (not for "Mesh Network" and "Standalone" modes)	Max. 32 units per controller
RF Interface	Yes	
Wireless Module	EnOcean	
Degree of Protection	IP20	
Protection Class	II	
Weight	40 g	127 g

■ SOFTWARE IN OPERATING MODE 1 "NETWORK" (FOR 186516 AND 186517)

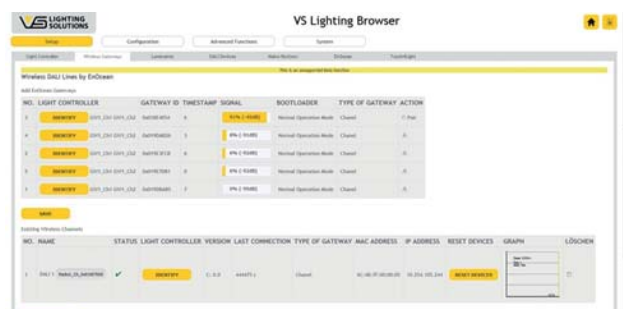
Commissioning

Connect the XSW-E6/-E64 Light Controller to mains voltage and the DALI bus under consideration of the named protection measures and in accordance with the wiring diagram.

Functional Description

Commissioning the XSW-E6/-E64 Light Controller in operating mode "Network" requires at least one IP W Light Controller (186485 or 186340, not included in the scope of delivery) as well as the software for the IP W Light Controller (downloadable from the product page at www.vossloh-schwabe.com).

1. Up to 4 XSW-E6/-E64 Light Controllers can be coupled to an IP W Light Controller. Information regarding network commissioning and the coupling procedure can be found in the manual of the IP W Light Controller, available from the product page at www.vossloh-schwabe.com.



2. Signal quality can be checked directly from the commissioning menu of the IP W Light Controller's software.
3. The coupling process needs to be performed only once, after which devices connected to the XSW-E6/-E64 Light Controller will be integrated and configured as a fully-fledged DALI channel. **IMPORTANT:** a permanently high rate of data transfer can slow down communication between the devices. In such a case, reducing the number of sensors per XSW-E6/-E64, for instance, can improve response time.
4. The device is now ready for operation and fully functional.

■ SOFTWARE IN OPERATING MODE 2 "MESH NETWORK" (ONLY FOR 186516)

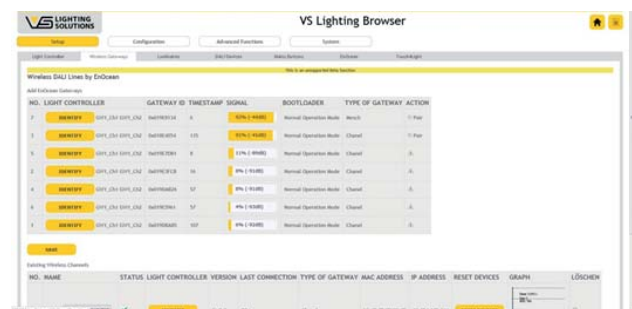
Commissioning

Connect the XSW-E6 Light Controller to mains voltage and the DALI bus under consideration of the named protection measures and in accordance with the wiring diagram.

Functional Description

Commissioning the XSW-E6 Light Controller in operating mode "Mesh Network" requires at least one IP W Light Controller (186485 or 186340, not included in the scope of delivery) as well as the software of the IP W Light Controller (downloadable from the product page at www.vossloh-schwabe.com).

1. Up to 58 XSW-E6 Light Controllers can be coupled to a single IP W Light Controller; the maximum number of 58 DALI devices in total must not be exceeded. Information regarding commissioning the network and the coupling procedure can be found in the manual of the IP W Light Controller, downloadable from the product page at www.vossloh-schwabe.com.
2. All XSW-E6 Light Controllers (incl. DALI devices) that need to be integrated into a mesh network must be supplied with voltage within 1.5 seconds. All available light controllers will then be displayed in the software of the IP W Light Controller. Note: in the interest of greater clarity only one mesh network (master and slaves) should be in operation at any one time.
3. Signal quality can be checked directly via the commissioning menu of the IP W Light Controller's software.



4. Select one of the XSW-E6 Light Controllers to act as a master in the software. Note: ideally this should be the light controller with the best signal quality.

5. The system will then take 15 minutes to automatically integrate all further controllers.

IMPORTANT: the position of the light controllers must not be changed, nor must any new light controllers be supplied with voltage during this time.

6. The coupling process needs to be performed only once, after which devices connected to the XSW-E6 Light Controller will be integrated and configured as a reduced DALI channel (only luminaires).

7. The device is now ready for operation and fully functional.

Should you encounter problems during commissioning, please contact our team by email or by telephone.

■ SOFTWARE IN OPERATING MODE 3 "STANDALONE" (FOR 186516 AND 186605)

Commissioning

Connect the XSW-E6 Light Controller to mains voltage and the DALI bus under consideration of the named protection measures and in accordance with the wiring diagram.

Functional Description

Commissioning the XSW-E6 Light Controller requires an EnOcean USB drive (186563, not included in the scope of delivery) and the VS Wireless Config software tool (downloadable from the product page at www.vossloh-schwabe.com).

1. Should you not already have done so, install the necessary Windows driver to run the EnOcean USB drive. The PC software runs without requiring prior installation.
2. Start the VS Wireless Config software.
3. Select the correct COM port and click "Open/Close selected port" at the top.

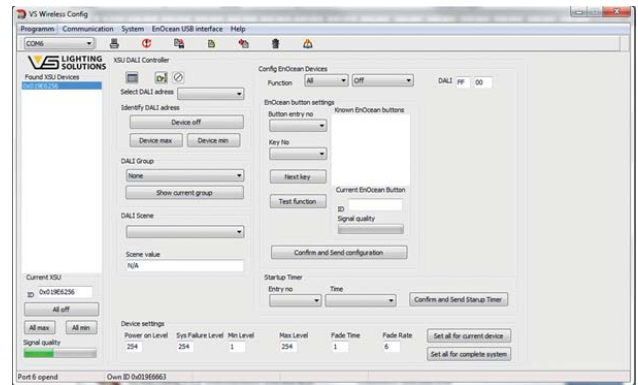


4. The software will establish a connection with the XSW-E6 Light Controller via the EnOcean USB drive. Depending on whether and if so how many DALI electronic ballasts and/or drivers have already been connected to the Light Controller, this process can take up to approx. 30 seconds.


IMPORTANT: please make a note of the ID of the Light Controller that needs to be integrated. Also make a note of the ID of the EnOcean USB drive as the Light Controller will be permanently coupled to this ID.

Note: although it will not be possible to automatically find an already integrated XSW-E6 Light Controller, its ID can be entered instead to re-establish communication.

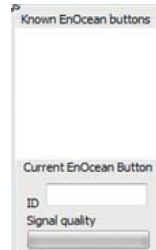
5. The left-hand side of the Explorer should now display the controller with its ID. Should several operational XSW-E6 Light Controllers be within the range of the EnOcean USB drive, these will also be listed.



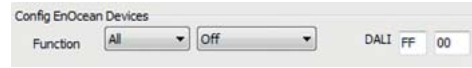
6. Clicking on  will integrate all connected DALI devices.

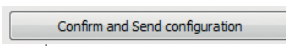
7. Once the DALI address has been selected  groups and scenes can be individually defined and configured.

8. Whenever an EnOcean button is pressed, this will be shown and must be selected with a double click.



An individual function can be assigned to every entry ("Button Entry Number") and every key ("Key No.").



Clicking on  will save the assignments made.

9. The device is now ready for operation and fully functional.

Should you encounter any problems with commissioning, please contact our team by email or by telephone.

New EnOcean USB drive or lost ID

If the USB flash drive is damaged or lost, it is possible to program a new flash drive by using the training function:

For 186516

Disconnect the controller from the mains, place the dip switches in position 1 (off / off), then switch them on again. Again, disconnect the device from the mains. Now you can switch back to stand-alone mode and the controller ID is again visible until the controller has been configured again.

For 186605

After switching on, short-out the DALI bus within 2 to 8 seconds, then within 3 minutes program the new USB drive.

Note: during this reset all data stored in the controller are lost. The controller must be reconfigured.