FAQ

DALI

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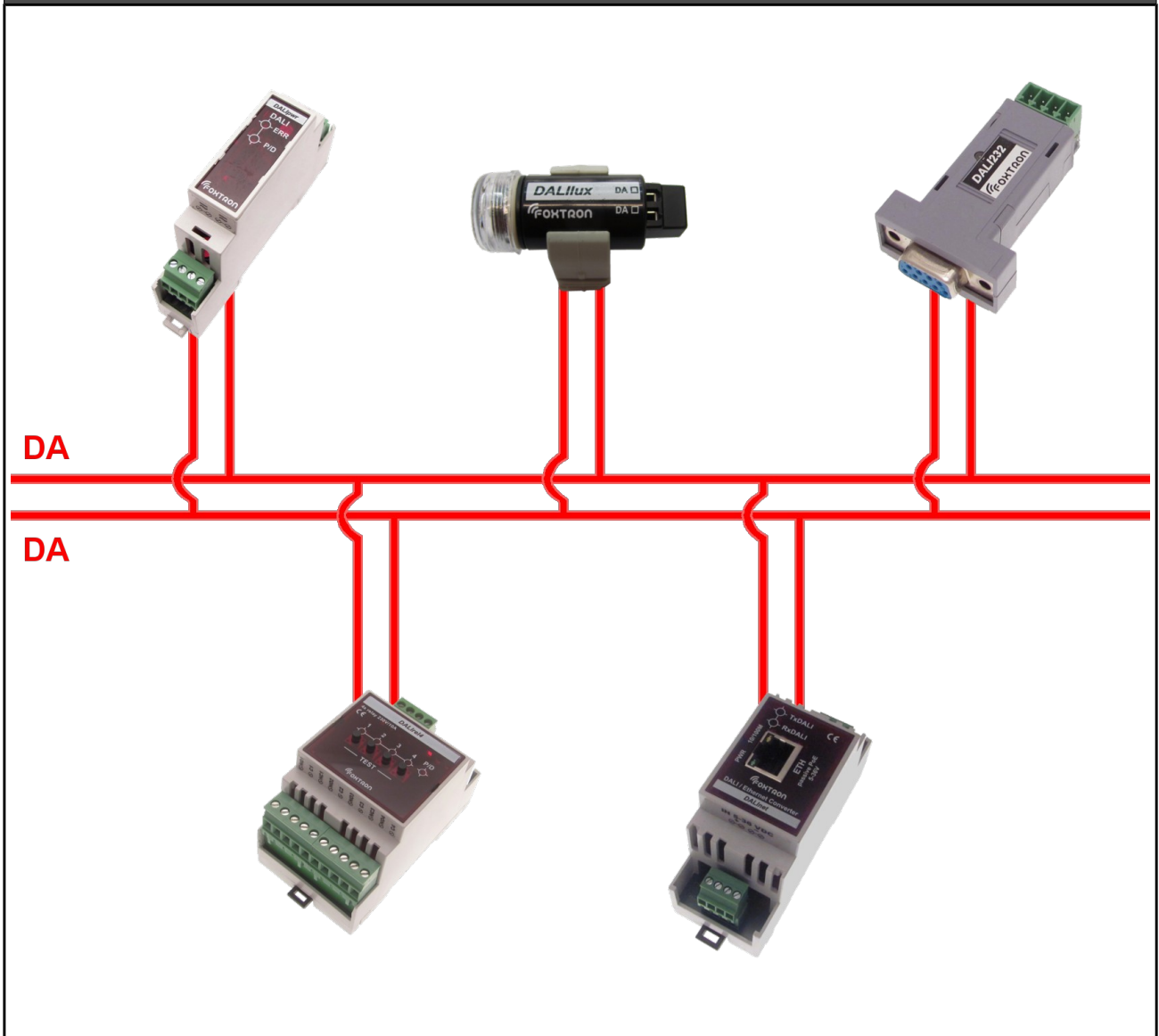
What is DALI?

DALI (Digital Addressable Lighting Interface) is international standard for lighting regulation according to the norm IEC 62386. All DALI manufacturers has to comply with this standard and therefore their products are compatible with product of other DALI manufacturers.

How is the DALI line organized?

DALI line is being led in two wires. Those wires can be connected any way (star, circle, tree, etc.). The only important is not to short-circuit the DALI line.

What are the technical parameters of those wires?

Wires can be used almost any. The only important parameter is the cross-section which depends on the length of the wires. In the following table are stated minimal cross section for specific lengths (copper wire):

Distance	Wires cross-section
Up to 100 meters	$0,5 \text{ mm}^2$
100 – 150 meters	$0,75 \text{ mm}^2$
150 – 200 meters	1 mm^2
200 – 300 meters	$1,5 \text{ mm}^2$
More than 300 meters	Connection of new DALI bus

How are units connected to the DALI bus?

Most manufacturers make the terminals interchangeable so it does not matter how are the units connected.

How many devices can be connected on one DALI bus?

There can be up to 64 light ballasts and 64 drivers on one DALI bus. This limit is given by addressing of each device. It is also important which power supply is used to power DALI bus. The norm states that DALI power supply can provide maximally 250 mA. One light ballast can consume maximally 2 mA. There is no restriction on drivers.

Example: Power supply will provide 200 mA. We have 64 light ballasts on DALI line and each consumes 2 mA. There will be left 72 mA for drivers. Each driver consumes 4 mA so we can connect additional 18 drivers to those 64 light ballasts.

Note: In reality the light ballasts usually consumes less than 2 mA and power supply provides more mA (e.g. DALIpwr 240 mA)

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Is it possible to connect more than 64 light in one installation?
Yes, it is solved by multiple DALI buses (each has 64 ballasts) which are being aggregated with suitable units.
Example: In the hall is the necessity to control 300 lights. Those lights will be grouped by 64 pieces in 5 DALI buses (fifth DALI bus will have just 44 lights). Buses will be aggregated using DALInet into the touch panel which will control all 300 lights.

What is the maximal number of scenes and groups on DALI bus?
According to the norm there can be maximally 16 scenes and 16 groups.

Is it necessary to have special power supply for DALI bus?
Yes, DALI bus needs special power supply (e.g. DALIpwr)

Can be from DALI bus powered connected devices?
Yes, some devices can be powered directly from DALI bus (e.g. DALI4sw, DALIlux,…). Some devices requires external power supply.

Any further questions please send to info@foxtron.cz

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