

SYSTEM DOCUMENTATION

VINCI SYSTEM

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Description	Smart controllable replacement bulbs. The data is sent over 2 wire AC cables by proprietary controller and protocol.
Basic system components	Controller - Bulbs - Wiring - Smartphone APP
Supported bulbs	Vinci bulbs
Coexistence with non-Vinci bulbs (tungsten, halogen, ...)	This depends on the type of bulbs. Should be tested
Voltage	220-240Vac 50 +-1Hz

VINCI BULBS

Independently addressable bulbs	Max 128 Vinci bulbs with a unique ID. More bulbs can be used but several bulbs will share the same ID. Vinci controller can control each individual bulb with specific colors
Setting ID of bulbs	Automatic procedure: bulbs receive a new ID when inserted into a socket. Bulbs store their ID in non-volatile memory
Color control	4 control channels per bulb (Red, Green, Blue, Filament or White)

DATA PROTOCOL

Communications speed	25 FPS for all bulbs (DMX compatible speed) 128 x 4 control channels (channel assignment depends on bulbs type eg RGBW)
Communications data protocol from controller to bulbs	Proprietary Power-line Communication protocol
External noise	Noise on the AC powerline can cause data errors or malfunctions. Noise can be harmonic distortion, voltage spikes, low or high frequency noise,.. We advise a clean AC power source. In case of noise problems, filters can be used. Or in the worst situations an online UPS should be used.

WIRING AND MAX CAPACITY

Max number of bulbs on 1 controller	We use the ac wires to transfer the data. This means the AC-line should also be considered as a signal line. This signal will weaken when cable lengths get longer and more bulbs are used. So there will be a limit when bulbs will stop receiving correct data. See the "wiring topologies" section for more details about these limits.
Maximum individual controllable bulbs on 1 controller. (= addresses)	128 More bulbs can be used, but some bulbs will have duplicate addresses and will display same "color" and brightness
Wiring	Use standard 2 wire socket wire and extension cables to connect the bulbs to the controller
Wiring topologies	See "wiring topologies" documentation

DATA TERMINATOR

Terminator or end stop	It is mandatory for the data reception to use a data terminator at the end of the wiring. The data terminator (V-DT1-EU) is a schuko plug with built-in terminator circuit.
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