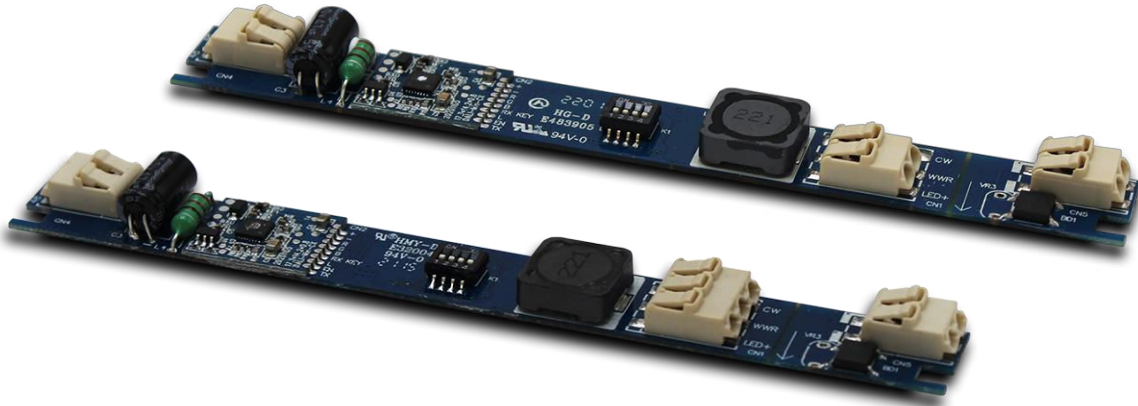


DC/DC converter suitable for Stucchi low-voltage track systems or similar



Features

- DALI Standard DT6 or Tunable White DT8
- PCB dimension: 125x14x10mm
- Ultra-slim size design suitable for low-voltage Stucchi track systems or similar
- DC 24V input, max. output power 16W, DC 48V input, max. output power 32W
- One (DT6) or two (DT8) channels 100-700mA constant current output, dip switch to select multi-operation current
- Deep and smooth dimming to 0.1%, flicker free
- Compliant with IEC 62386-101:2014, IEC 62386-102:2014, IEC 62386-207 Ed2, IEC 62386-209:2011
- Built-in DALI-2 interface
- DALI DT8 device to control Warm White and Cool White output by single DALI address
- Dimming and color temperature adjustment
- Compatible with DALI masters that support DT8 commands
- Configuration via DALI master USB interface
- Waterproof grade: IP20
- 5 years warranty



Applications



Indoor



Commercial



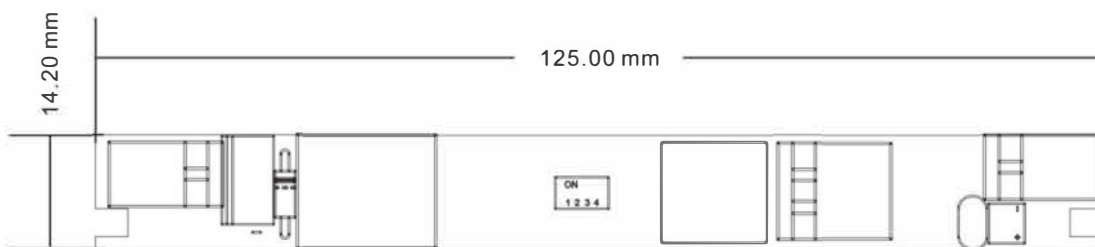
Spotlight

DC/DC converter suitable for Stucchi low-voltage track systems or similar

Dimming parameters				Electrical parameters			
Code	Dimming Input	Dimming Output	Dimming Range	Power supply	Output Voltage	Output Current	Rated Power
DSSRP48V30WDT6	DALI DT6 Single Channel	Linear dimming: 1-100% PWM dimming: 0.1-1%	0.1-100%	24Vdc \pm 5% (Polarity Free)	6-21V	100mA to 700mA Step 50mA	16W @24Vdc
				48Vdc \pm 5% (Polarity Free)	6-42V		32W @48Vdc
DSSRP48V30WDT8	DALI DT8 Dual Channel	Linear dimming: 1-100% PWM dimming: 0.1-1%	0.1-100%	24Vdc \pm 5% (Polarity Free)	6-21V	100mA to 700mA Step 50mA	16W @24Vdc
				48Vdc \pm 5% (Polarity Free)	6-42V		32W @48Vdc

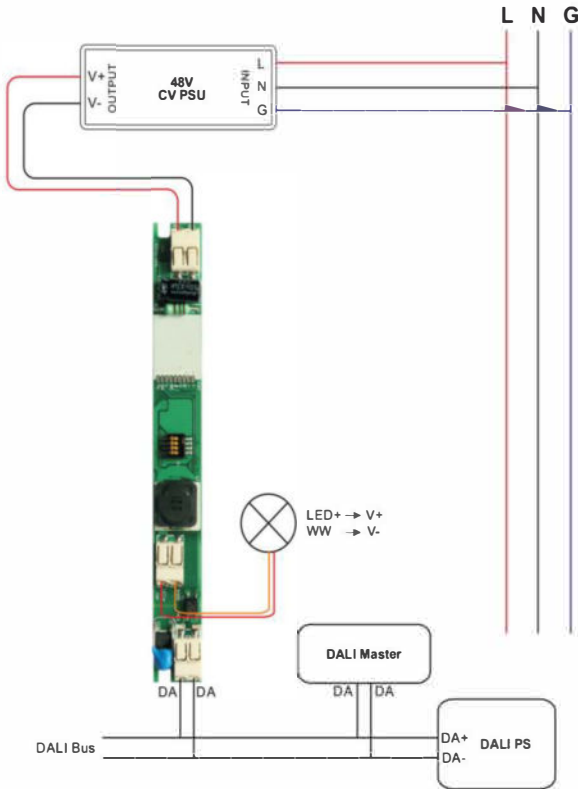
Other specifications	
Dimming Interface	DALI-2 (DALI consumption < 2 mA)
Current	0.65A @ full load
Efficiency	95%
Standby Power	<0.5W
Over load protection	When the load voltage is out of range, the current drops until the power is turned on again.
Non-load protection	It prevents damage to the load when it is powered on.
Short circuit protection	Output close and auto recovery after removing the fault.
Anti-reverse protection	It prevents driver and load damage.
Working temperature	-20°C ~ +45°C
Working humidity	10% ~ 95% RH non-condensing
Storage temperature & humidity	-40°C ~ +80°C, 10% ~ 95% RH

Dimensions

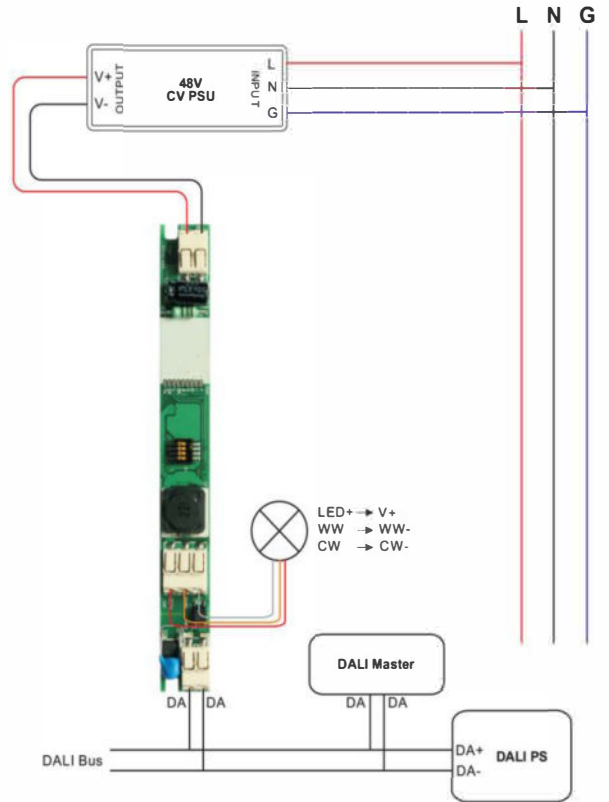


DC/DC converter suitable for Stucchi low-voltage track systems or similar

Wiring Diagram – DT6

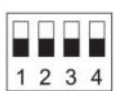


Wiring Diagram – DT8



Current Setup

Dips to set the operation current



	1	2	3	4
100mA	○	○	○	○
150mA	○	○	○	●
200mA	○	○	●	○
250mA	○	○	●	●
300mA	○	●	○	○
350mA	○	●	○	●
400mA	○	●	●	○
450mA	○	●	●	●

	1	2	3	4
500mA	●	○	○	○
550mA	●	○	○	●
600mA	●	○	●	○
650mA	●	○	●	●
700mA	●	●	○	○

Assembly and Safety Information

Installation must be carried out under observation of the relevant regulations and standards. The LED modules are designed for operation within a casing or luminaire. Installation must be carried out in a voltage-free state (i.e. disconnection from the mains).

The following advice must be observed; non-observance can result in the destruction of the LED assembly modules, fire and/or other hazards.

- Consider safety regulations acc. EN 60598 in the luminaire design, especially when the operating LED driver is not galvanic isolated.
 - In mode of operation regard to sufficient isolation.
 - Live parts must not be touched in operation mode. Danger in life!!!
- ESD (electrostatic discharge) protection measures must be observed when handling and installing the LED modules. See VS's application notes on ESD protection.
- Adequate anti-static electricity measures, including the use of conductive shoes, ionizers, work bench grounding, wrist straps, flooring and stools should be used.
- LED assembly modules must not be subjected to any undue mechanical stress, e. g.:
 - do not treat as bulk cargo
 - avoid shear and compressive forces during handling and installation
 - do not damage circuit paths
 - avoid any pressure on the light emitting surface
- Safe operation only possible by the use of external constant current sources (Imax. see table "Electrical Characteristics").
- Operation only with power supply units that feature the following protection:
 - Short-circuit protection
 - Overload protection
 - Overheating protection
- The module can be fixed with M3 screws. Fixation only with flat or cylinder head screws (M3) (no countersank screws) Max. torque: 1.2 Nm (M3)
- Please ensure the correct polarity of the leads prior to commissioning. Reversed polarity can destroy the modules.
- For interconnection the LED modules is equipped with push-in terminals (WAGO 2060).
- Safety regulations acc. to EN 60598 (or further standards) has to be observed if the maximum output voltage exceed the permitted touchable value.
- The following points must be observed when connecting LED modules in parallel:
 - All LED strings that are wired in parallel must contain the same number of LEDs (symmetrical loading).
 - Owing to differing forward biases, there can be a difference of up to 10% in brightness between modules connected in parallel.
- To ensure problem-free operation, the specified maximum temperature at the tp point (see "Operating Life") must be observed (and measured in accordance with EN 60598-1). To satisfy this point, it may be necessary to put measures in place to ensure any heat is dissipated from the PCB to the environment.
- In the event of outdoor applications or applications in damp locations, care must be taken to protect LED assembly modules against humidity, splashes and jets of water. Any corrosion damage resulting from humidity or contact with condensation will not be recognized as a defect or manufacturing fault. LED assembly modules are not specially protected against foreign bodies or dust. Depending on the type of application, further protection must be ensured to prevent dust and foreign bodies from entering.
- Due to the manufacturing process, the PCBs of the LED assembly modules can have sharp edges and corners. Care must therefore be taken during handling and installation to avoid injury.
- For optimal load of used constant current driver the modules can only be connected in series. The quantity of LED modules is limited by the sum of forward voltage and the capacity of used constant current driver. Safety regulations acc. to EN 60598 has to be observed if the sum of forward voltage exceed the permitted touchable value.
- Operating LED modules in the presence of certain chemical substances or in chemically enriched (aggressive) environments can impair module functionality or even cause total module failure.
- The photobiological safety of the LED modules must be classified into risk groups in accordance with IEC / TR 62778:
 - risk group 1 (except HB, 6500 K, > 500 mA: risk group 2)

Applied Standards

IEC / EN 62031
LED modules for general lighting – Safety specifications

IEC / TR 62778
Application of IEC 62471 for the assessment of blue light hazard to light sources and luminaires