

Assembly instructions for mounting and installing of electronic control-gear for LED's

Regulations

DIN VDE 0100	Regulations for erection of power installations with nominal voltages up to 1000 V
EN 61347-1	Devices for lamps – part 1: general and safety requirements
EN 61347-2-13	Lamp control gear - Part 2-13: Particular requirements for DC or AC supplied electronic control-gear for LED modules
EN62384	DC or AC supplied electronic control gear for LED modules – Performance requirements
EN 61000-3-2	Electromagnetic Compatibility (EMC) – part 3: maximum values – main section part 2: maximum values for mains harmonics (device input current up to and including 16 A per conductor)
EN 55015	Maximum values and methods of measurement for RFI suppression in electrical lighting installations and similar electrical appliances
EN 61547	Installations for general lighting purposes – EMC immunity requirements
EN 62386	Digital addressable lighting interface

Mechanical mounting of LED-control gears

Mounting position any position is allowed

Clearance min. of 0.1 m from walls, ceilings, insulation; min. of 0.1 m from other electronic converters: min. of 0.25 m from sources of heat (lamp)

Surface Solid; device must not sink into insulating material

Mounting location In dry rooms or in luminaries, cases, casings or similar in the instance of built-in or independent converters

Fastening By screws, \varnothing 4 mm.

Heat transfer If for installation in a luminary by sufficient heat transfer must be ensured between the control gear and the luminary casing. During operation, the tc point must not exceed the specified value (see temperature stated on the label)

VS control gear safety functions

Overheating The over temperature switch off the output current of the control gear. After cooling down the control gear switch on again automatically.

Short circuit The control gear is electronically protected in the event of a short-circuit on the secondary side; once the short-circuit has been eliminated, the converter will switch on again automatically.

No Load The control gear is protected against no load operation.

Should any of the above-mentioned safety functions be triggered, disconnect the converter from the power supply, then find and eliminate the cause of the problem.

Protection against
Transient mains peaks Values compliant with EN 61547 (immunity)

Dimming – frequency 122Hz, ratio 1:200 (0.5%)

Mounting instruction ECXd700.026 ECXd1050.020
ECXd700.026
ECXd1050.020



- Push dimmable with usual push key.
- DALI Complete implementation of the DALI – standard according to EN 62386-102 (control gear), EN 62386-207 (LED modules), addressable, memory store for scenes and groups, bidirectional communication

Selection of automatic cut-outs for VS converters

Release reaction Release reaction of automatic cut-outs in accordance with VDE 0641, part 11 for B-, C-characteristics. The following values are guidelines and may vary depending on the respective circuit breaker system.

No. of converters The maximum number of VS converters applies to cases where the devices are switched on simultaneously. Specifications apply to single-poled fuses. The number of permissible ballasts must be reduced by 20 % for multi-pole fuses. The considered circuit impedance equals 400 mΩ (approx. 20 m [2.5 mm²] of conductor from the power supply to the distributor and a further 15 m to the luminary).

Possible number of control gear						
Current source	Type of automatic cutout					
	B10 A	B13 A	B16 A	C10 A	C13 A	C16 A
ECXd 1050.020	32	39	52	32	39	52
ECXd 700.026	45	56	73	45	56	73

Electrical installation

Conductors Primary & Secondary conductor cross section: min. 0.5mm² and max 1.5 mm²

Cross section	Max. lead length of secondary conductors (build in or independent)
0,5 mm ²	1 m
0,75 mm ²	1 m
1,0 mm ²	1 m
1,5 mm ²	1 m

Connections Push in terminals.

Terminals primary 1x4 – poles (1xPush, 2xMains, 1xEarth)
1x2 – DALI

Terminals secondary 1x4 – poles (2xSecondary, 2xExt.supply)

Wiring Primary wires must be as short as possible, and shouldn't cross or be besides with secondary wires.

Secondary load The RFI requirements according EN 55015 for in series connected LED-Modules are fulfilled when the sum of forward voltages of LED-loads isn't below or above the values showed in table 1 under USEC.

Parallel connection Secondary side parallel connection not admissible

Switching on and off On the secondary side NOT admissible

Change load Change of LED load only with switched off control gear.

Mounting instruction ECXd700.026 ECXd1050.020

ECXd700.026
ECXd1050.020

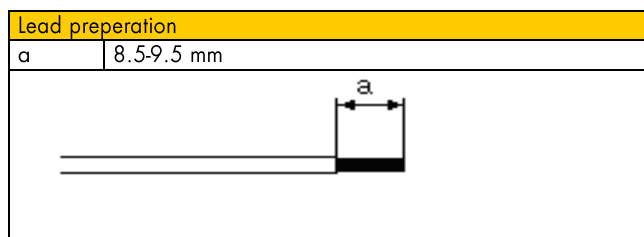


Table 1

Electronic control gear for LEDs												
Type	Ref. no.	UPRI 0/ 50/60 Hz [V]	Nominal Input current (IPRI) [mA]	USEC (with load) [V]	USEC (max) [V]	PSEC max. [W]	Nominal output current (ISEC) [A]	Max. tc temp. tc (°C)	Min/Max. Ambient temperature ta [°C]	Protec tion class	Degree of protecti on	Weig ht [g]
ECXd 1050.020	186196 186197	176/26 4 220/24 0	380/252 305/275	20-57	60	60	1.05	80	-20/50	I	IP20	220 250
ECXd 700.026	186221 186222	176/26 4 220/24 0	280/185 230/200	20-57	60	40	0.7	75	-20/50	I	IP20	186 223