

Requirements for dimmable DALI control gears for fluorescent lamps and LED			Version 3
Manufacturer: OSRAM GmbH Marcel-Breuer-Str. 6 D-80807 München	Type / description: ECG-type: OT 165/170-240/1A0 4DIMLT2 G2 CE (AM27702)		Manufacturer information Complies: YES/NO
Features:	CEAG data:	Explanation:	
Control gear suitable for a DC voltage range:	186V - 260V DC (for Lead-Battery)	Possible voltage range of the battery in emergency mode. (Not for AT-S* Systems required)	YES
Control gear compatible with the switch-over time of the system?	Switch-over time: 180 ms - 450 ms	Typical switch-over time of CEAG systems between mains supply and emergency power supply	YES
Starting behavior of the control gear:	Stable current consumption after less than 1.6 sec. maximum.	A stable operation of the control gear after 1.6 seconds of start up is required for the right functionality of the individual monitoring. With max. 20 luminaires for one current circuit: ΔI in sum < 250 mA are allowed	YES
<u>only for fluorescent lamps:</u> Control gear complies with the standard:	DIN EN 60929	AC and/or DC-supplied electronic control gear for tubular fluorescent lamps - Performance requirements	Not Relevant
<u>only for fluorescent lamps:</u> Control gear complies with the standard:	DIN EN 61347-2-3 (incl. Attachment J)	Particular requirements for AC and/or DC supplied electronic control gear for fluorescent lamps	Not Relevant
<u>only for LED:</u> Control gear complies with the standard:	DIN EN 62384	DC. Or AC supplied electronic control gear for LED modules - Performance requirements	YES
<u>only for LED:</u> Control gear complies with the standard:	DIN EN 61347-2-13	Lamp controlgear — Part 2-13: Particular requirements for d. c. or a. c. supplied electronic controlgear for LED modules	YES
Fullfilled the standard:	DIN EN 55015 (Measurement on AC And DC)	Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment	YES
Fullfilled the standard:	DIN EN 61000-3-2	Electromagnetic compatibility (EMC) — Part 3-2: Limits — Limits for harmonic current emissions (equipment input current ≤ 16 A per phase)	YES
Fullfilled the standard:	DIN EN 61547	Equipment for general lighting purposes — EMC immunity requirements	(*2) YES
Fullfilled the DALI standards:	DIN EN 62386-101 /-102 / -207*	Control gear must have the DALI Logo*	YES
Note: VDE 0108 is not a standard for ECG, marking is not applicable			
Features:	CEAG-Data:	Explanation:	Manufacturer information:
<u>Important for function test!</u> According to IEC 62386 Part 102 Support of: DALI command 145 (Query Control Gear) DALI command 146 (Query Lamp Failure)	According to IEC 62386 Part 102	To detect a lamp failure, the V-CG-SB.1 module send DALI command queries (145/146) to the DALI LED driver. These DALI commands are necessary to ensure the lamp failure detection, and must be support by the control gear.	YES
<u>Important for DC operation:</u> DALI light level	In case of locked DALI light level in DC operation (EOF=Emergency Output Level), the V-CG-SB.1 can not change the light level !	In DC-emergency case the DALI-Light Level is locked to prevent unwanted changes of the luminous flux.	UNLOCKED
<u>Important for lighting design:</u> If DALI-Light level is locked, the value of the preset DC-Lightlevel (in %) is required		Pre-set DC-Light Level ** e.g. 15% (DALI-value 185 for logarithmic dimming curve)	(*1) 100%
Note: important for the planning - Max. no. Of luminaires per circuit			
<u>important for the contact load SKU:</u> Max. inrush current each converter/luminaire in AC-operation:	Max. permitted inrush current per circuit: SKU 2 x 3A (CG) => 120 A SKU 1 x 6A (CG) => 180 A SKU 4 x 1,5A CG-S => 60 A SKU 2 x 3A CG-S => 250 A SKU 1 x 6A CG-S => 250 A SOU CG-S // S* => 250 A SU S* => 250 A	$I_{peak} = 77$ A, $T_H = 172$ μs Describes the max. inrush current of all ballasts in a circuit, to calculate the maximum contact rating of the circuit.	
Luminaires, which are used for emergency lighting, must be according to the standard DIN EN 60598-2-22 (particular requirements - Luminaires for emergency lighting)			
*1: The DC Output Level is locked in DC Mode to 100% as preset factory setting. This preset value (luminous flux in case of DC-voltage) can be adjusted project depending via DALI Magic and T4 Tronic. To enable the adjustment of the luminous flux via the V-CG-SB.1, the DC detection has to be deactivated via T4T.			
*2: Not to be used in high risk areas, special release required. Max. one DALI- Driver to wire with one EL-monitoring module			

Requirements for electronic non-dimmable
control gears for fluorescent lamps and LED



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Table 1

LED controller type	Values for load range	IN in AC-operation (230V) / mA (trms)	IN in AC- operation (240V) / mA (trms)	IN in DC-operation (186V) / mA (trms)	IN in DC- operation (216V) / mA (trms)	IN in DC- operation (240V) / mA (trms)	IN in DC- operation (260V) / mA (trms)
OT 165/170-240/1A0 4DIMLT2 G2 CE	Minimum Load /mA Uout= 130 V Iout= 200 mA	148	146	165	141	128	121
	Medium Load /mA Uout= 157 V Iout= 525 mA	394	378	483	415	373	345
	Maximum Load /mA Uout= 157 V Iout= 1050 mA	781	748	795	681	612	565
	No Load	48	50	8	5	5	4
	Short Load	47	49	1	1	2	2

Maximum inrush current for ECG in AC Operation: I_{peak} = 77 A TH = 172 μs