



Requirements for dimmable DALI control gears for fluorescent lamps and LED

Version 0

Manufacturer: Osram GmbH Marcel-Breuer-Straße 6 D-80807 München	Type / description: ECG-type: Oti DALI 60/220-240/550 LT2 L (ident code: AM00138)		
Features:	CEAG data:	Comment:	Complies: (Yes/No)
Control gear suitable for a DC voltage range:	186V - 260V DC (for Lead-Battery) 186V - 275V DC (for NiCD-Battery)	Possible voltage range of the battery in emergency mode. <i>(Not for AT-S* Systems required)</i>	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.	Necessary for an individual monitoring. $\Delta I < 12,5 \text{ mA}$ per luminaire, with max. 20 luminaires per circuit $\Delta I \text{ sum} < 250 \text{ mA}$	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 $\leq 16 \text{ A}$ per phase)	Yes
Fullfilled the standard:	DIN EN 61547	Equipment for general lighting purposes — EMC immunity requirements	(*3) Yes
Fullfilled the DALI standards:	DIN EN 62386-101 / -102 / -207	Control gear must have the DALI Logo	(*1) Yes
<small>Note: VDE 0108 is not a standard for ECG, marking is not applicable</small>			
Features:	CEAG-Data:	Comment:	Manufacturer's instructions:
<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	Yes
<u>Important for DC light output:</u> Behavior in DC operation: - Unlocked DC light output level - Locked DC light output level	DC light output settings on V-CG-SB.1 only active if control gear is unlocked!	In case of locked DC light output level, the DC level of V-CG-SB.1 is not active !	Unlocked DC [] Locked DC [x]
<u>Important for lighting design:</u> If locked DC light output the lightout level in % is required	No control of light output level from V-CG-SB.1 in DC operation possible!	Locked light output level in %, e.g. 15%	(*2) 15%
<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	Describes the max. inrush current of all ballasts in a circuit, to calculate the maximum contact rating of the circuit.	Ip=23 A / Th=193 µs
<u>Important for lighting design:</u> Luminous flux ratio: DC-operation at 186 V in comparison to 230 V AC operation	-	Light output in battery operation of the ballast, for the light calculation	(*2) 15%
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: Control of V-CG-SB.1 to the DALI LED driver is 100% done via DALI-commands according to IEC 62386-101 / -102 so the DALI LED driver must sign with the DALI logo			
*2: The DC Output Level is locked in DC Mode to 15%, it is possible to unlock with DALI magic and Tuner 4 Tronic			
*3: Not to be used in high risk areas, special release required			
Max. 1 DALI- Driver to wire with 1 V-CG-SB.1			
In use of manifold ballasts, the different lamp failure detection of the manufacturer must be consider! Some devices don't detect a failure if one lamp is defect.			
Date: 22.June.2017			

Requirements for electronic non-dimmable control gears for fluorescent lamps and LED	 <i>Powering Business Worldwide</i>
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Manufacturer: OSRAM GmbH Marcel-Breuer Str. 6 D-80807 München	Product: Oti DALI 60/220-240/550 LT2 L	
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LED controller type	Values for load range	I _N in AC- operation (230V) / mA (trms)	I _N in AC- operation (240V) / mA (trms)	I _N in DC- operation (186V) / mA (trms)	I _N in DC- operation (216V) / mA (trms)	I _N in DC- operation (240V) / mA (trms)	I _N in DC- operation (260V) / mA (trms)
Oti DALI 60/220-240/550 LT2 L	U _{min} , I _{min}	55,24	55,02	13,78	11,75	10,77	9,66
	U _{min} , I _{max}	162,98	145,63	31,61	27,01	24,22	22,37
	U _{max} , I _{min}	149,36	144,12	36,39	31,09	27,88	25,73
	U _{max} , I _{max}	299,57	286,26	60,68	52,15	46,62	42,95
	Open Load	25,25	31,65	1,11	2,21	2,16	2,14
	Short Load	24,68	31,66	1,11	2,21	2,16	2,14

Maximum inrush current for ECG in AC Operation

I_{peak}= 23 A
 TH= 193 μs