

Requirements for dimmable DALI control gears for fluorescent lamps and LED			Version 3
<b>Manufacturer:</b> OSRAM GmbH Marcel-Breuer-Str. 6 D-80807 München	<b>Type / description:</b>  ECG-type: OTi DALI 35/220-240/700 LT2 L G2 AN00953		<b>Manufacturer information</b> Complies: YES/NO
<b>Features:</b>	<b>CEAG data:</b>	<b>Explanation:</b>	
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 <sup>+</sup> Systems required)	YES
Control gear compatible with the switch-over time of the system?	<b>Switch-over time:</b> 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:	<b>Stable current consumption after less than 1.6 sec. maximum.</b>	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: Δ I 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	(*3) YES
Fullfilled the DALI standards:	DIN EN 62386-101 /-102 / -207*	<b>Control gear must have the DALI Logo*</b>	(*1) YES
Note: VDE 0108 is not a standard for ECG, marking is not applicable			
<b>Features:</b>	<b>CEAG-Data:</b>	<b>Explanation:</b>	<b>Manufacturer information:</b>
Important for function test! According to IEC 62386 Part 102 Support of : <b>DALI command 145</b> (Query Control Gear) <b>DALI command 146</b> (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
Important for DC operation: 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.	LOCKED
Important for lighting design: 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)	(*2) 15%
<b>Note: Important for the planning - Max. no. Of luminaires per circuit</b>			
Important for the contact load SKU: 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 <sup>+</sup> => 250 A SU S <sup>+</sup> => 250 A	<b>I<sub>peak</sub> = 20 A, TH = 168 us</b>  Describes the max. inrush current of all ballasts in a circuit, to calculate the maximum contact rating of the circuit.	
<b>Luminaires, which are used for emergency lighting, must be according to the standard DIN EN 60598-2-22 (particular requirements - Luminaires for emergency lighting)</b>			
*1: Communication between V-CG-SB.1 and 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% 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.			
*3: Not to be used in high risk areas, special release required.			
<b>Max. one DALI- Driver to wire with one EL-monitoring module</b> 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.			

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Table 1

Values for load range	AC-operation		DC-Operation			
	AC-operation @ 230V ( mA )	AC-operation @ 240V ( mA )	186V ( mA )	216V ( mA )	240V ( mA )	260V ( mA )
Maximum Load /mA Uout= 52 V Iout= 700 mA P= 36,5 W	183	176	44	38	35	33
Short Load	34	34	< 15	< 15	< 15	< 15
Open Load	34	34	< 15	< 15	< 15	< 15