

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 30/220-240/700 NFC S (AM31184)		<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	(*2) YES
Fullfilled the DALI standards:	DIN EN 62386-101 /-102 / -207*	<b>Control gear must have the DALI Logo*</b>	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>
<u>Important for function test!</u> 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
<u>Important for DC operation:</u> DALI light level	<b>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 !</b>	In DC-emergency case the DALI-Light Level is locked to prevent unwanted changes of the luminous flux.	LOCKED
<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) 15%
<b>Note: Important for the planning - Max. no. Of luminaires per circuit</b>			
<u>Important for the contact load SKU:</u> Max. inrush current each converter/luminaire in AC-operation:	<b>Max. permitted inrush current per circuit:</b> 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 = 200 μs</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: 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.			
*2: Not to be used in high risk areas, special release required. <b>Max. one DALI- Driver to wire with one EL-monitoring module</b>			

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Table 1

Values for load range	AC-operation		DC-Operation ( Current measured at driver`s default DC level of 15% )			
	AC-operation @ 230V ( mA )	AC-operation @ 240V ( mA )	186V ( mA )	216V ( mA )	240V ( mA )	260V ( mA )
Minimum Load /mA Uout= 20 V Iout= 350 mA P= 7 W	48	61	14	14	14	14
Mid Load /mA Uout= 21 V Iout= 700 mA P= 15 W	62	80	21	20	20	20
Maximum Load /mA Uout= 38 V Iout= 1050 mA P= 40 W	143	138	34	31	28	27
Short Load	20	20	12	12	12	12
Open Load	20	20	12	12	12	12

Remarks:

This table shows the currents consumption of the driver at three different operating points (Pmax, Pmid, Pmin) for AC and DC operation. In DC operation the output current is reduced to 15% light level according default parameter setting. This level can be changed via T4T.