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Requirements for dimmable DALI control gears for fluorescent lamps and LED

Version 3

Manufacturer: **Osram GmbH** **Marcel-Breuer-Straße 6** **D-80807 München**	**Type / description:** **ECG-type: OTi DALI 10/220-240/700 NFC (ident code: AM07730)**		**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 ☒ NO ☐
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 ☒ NO ☐
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: Δ I in sum < 250 mA are allowed	YES ☒ NO ☐
only for flourescent lamps: Control gear complies with the standard:	**DIN EN 60929**	AC and/or DC-supplied electronic control gear for tubular fluorescent lamps - Performance requirements	YES ☐ NO ☐
only for flourescent lamps: 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	YES ☐ NO ☐
only for LED: Control gear complies with the standard:	**DIN EN 62384**	DC. Or AC supplied electronic control gear for LED modules - Performance requirements	YES ☒ NO ☐
only for LED: 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 ☒ NO ☐
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 ☒ NO ☐
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 ☒ NO ☐
Fullfilled the standard:	**DIN EN 61547**	Equipment for general lighting purposes — EMC immunity requirements	YES ☒ NO ☐
Fullfilled the DALI standards:	**DIN EN 62386-101 /-102 / -207***	**Control gear must have the DALI Logo***	YES ☒ NO ☐

Note: VDE 0108 is not a standard for ECG, marking is not applicable

Features:	**CEAG-Data:**	**Explanation:**	**Manufacturer information:**
Important for function test! 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 ☒ NO ☐
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.	Unlocked ☐ 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)	**15%**

Note: Important for the planning - Max. no. Of luminiares per circuit

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+ => 250 A** **SU S+ => 250 A**	**I-peak=3A Th=29µs** / pcs 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)

*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

** The DC-Light Level preset value ex factory (luminous flux in case of DC-voltage) can be adjusted project depending via DALI Magic and T4 Tronic in **AC-operation** To enable the adjustment of the luminous flux via the DALI - Module V-CG-SB.1, the DC detection has to be deactivated via T4T.

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.

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Requirements for electronic non-dimmable control gears for fluorescent lamps and LED	EATON Powering Business Worldwide

Manufacturer: OSRAM GmbH Marcel-Breuer Str. 6 D-80807 München	Product: **OTi DALI 10/220-240/700 NFC**	OSRAM

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)
OTi DALI 10/220-240/700 NFC	Umin, Imin	12,86	13,63	4,81	4,42	7,34	7,84
	Umin, Imax	24,13	23,40	6,68	5,93	5,57	6,67
	Umax, Imin	38,39	37,38	10,00	8,83	8,14	7,72
	Umax, Imax	53,45	51,60	12,75	11,17	10,26	9,68
	Open Load	5,51	8,64	4,14	4,13	4,21	4,35
	Short Load	5,51	6,10	4,14	4,13	4,21	4,35

Maximum inrush current for ECG in AC Operation Ipeak= 3 A
TH= 29 µs