

Technical requirements for dimmable DALI control gears for fluorescent lamps and LED

Manufacturer:	Type / Description:
OSRAM GmbH	Luminaire: ---
Marcel-Breuer-Str. 6	EVG: OTi DALI 15/220-240/1A0 LT2
D-80807 Munich	LED: ---
Project / Place / Project ID:	Specified by:
	Name: Buenyamin Ocak
	Company: OSRAM GmbH
	Date: 2016-02-29

Features	Techn. data / INOTEC requirements	Explanation	Fulfilled (Yes / No)
1 Voltage range AC	230V $\pm$ 10%	Voltage range in normal mains operation	Yes
2 Voltage range DC	186V - 260V	Possible voltage range in emergency operation	Yes
3 Control gear suitable for "Joker-Voltage" ?	B2-rectification of the AC voltage (without smoothing)	Pulsating DC voltage 	Yes
4 Control gear compatible with change-over time of the system?	Change-over time: 150 - 1000ms	Typical change-over time of INOTEC systems between mains- and battery operation	Yes
5 Starting behavior of the control gear in DC operation	Stable current consumption within 1,6s	Necessary for individual lamp monitoring (SV)	Yes
6 Control gear complies with the standard: (only for fluorescent lamps)	DIN EN 60929	AC and/or DC-supplied electronic control gear for tubular fluorescent lamps - Performance requirements	not relevant
7 Control gear complies with the standard: (only for fluorescent lamps)	DIN EN 61347-2-3 (incl. Attachment J)	Particular requirements for AC and/or DC supplied electronic control gear for fluorescent lamps	not relevant
8 Control gear complies with the standard: (only for LED)	DIN EN 62384	DC or AC supplied electronic control gear for LED modules - Performance requirements	Yes
9 Control gear complies with the standard: (only for LED)	DIN EN 61347-2-13	Lamp control gear - Part 2-13: Particular requirements for DC or AC supplied electronic control gear for LED modules	Yes
10 Control gear complies with the standard:	DIN EN 55015 (Measurement on AC and DC)	Limits and methods of measurement of radio interference	Yes
11 Control gear complies with the standard:	DIN EN 61000-3-2	Electromagnetic compatibility (EMC) - Part 3-2: Limits - Limits for harmonic current emissions (equipment input current $\leq$ 16 A per phase)	Yes
12 Control gear complies with the standard:	DIN EN 61547	Equipment for general lighting purposes — EMC immunity requirements	Yes
13 Control gear complies with the DALI-standards:	DIN EN 62386-101 / -102 / -207 *1	Control gear must have the DALI Logo	Yes

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

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Features	Techn. data / INOTEC requirements	Explanation	Manufacturer information
14 Nominal current of the control gear with connected illuminant in AC- operation (230V)		Selection guide for the calculation of the max. number of luminaires per circuit	117,88 mA
15 Nominal current of the control gear with connected illuminant in DC- operation (216V)		Selection guide for the calculation of the necessary battery capacity	48,12 mA
16 Behavior control gear in DC operation: - Unlocked light output level - Locked light output level (Dimming on DC)	The DC-light output settings on the DALI-SV-Module is only active if control gear is unlocked	In case of locked DC light output level, the DC level of the DALI-SV-Module is not active!	locked
17 Light output level in DC operation with locked light output level (Dimming on DC)	No control of light output level from DALI-SV-Module in DC operation possible	Locked light output level in %. Important for lighting design.	15 *) %
18 Using the DALI command 146 (Query Lamp Failure) acc. IEC 62386 Part 102	According to IEC 62386 Part 102	Important for function test: To detect a lamp failure, the DALI-SV-Module send the DALI command query 146 to the DALI driver Attention: The query is made after 2 / 2,5 / 3 seconds	Yes
19 Max. inrush current of the control gear with connected illuminant in AC operation (230V)	Max. permitted inrush current per circuit: SK 4x2A: 250A / 500µs SK 2x4A: 250A / 500µs SK 2x3A: 250A / 500µs SK 1x6A: 250A / 500µs	Describes the max. inrush current of all ballasts in a circuit, to calculate the maximum contact rating of the circuit (*2)	5A / 45µs A / µs
Luminaires, which should work as emergency lighting, have to be in accordance with DIN EN 60598-2-22. (Particular requirements - Luminaires for emergency lighting)			

*1: Control of DALI-SV-Module to the DALI driver is 100% done via DALI-commands according to IEC 62386-101 /-102, so the DALI driver must sign with the DALI logo.

*2: For calculation the inrush current of the monitoring module must be considered!

Notes:

*) The light input level is locked in DC-operation. Factory setting is 15% of the maximum level. It is possible to change the behavior of the controlgear in DC-operation. For this the software DALI magic is needed.

For the correctness:

2016-02-29

Place, Date



Signature