


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

Manufacturer: <b>OSRAM GmbH</b> <b>Marcel-Breuer-Str. 6</b> <b>D-80807 Munich</b>	Type / Description:
	Luminaire: EVG: Ot 40/170-240/1A0 4DIMLT2 G2 CE (ident code: AM04628)
	LED:
Project / Place / Project ID:	Specified by: Name: D.Graser
	Company: OSRAM GmbH
	Date: 23.01.2018

Features	Techn. data / INOTEC requirements	Expla	Fulfilled (Yes / No)
1 Voltage range AC	230V ± 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 DC detection completely deactivable ?	The DC detection of the input voltage must be completely deactivated	The control gear may not respond to a change of the input voltage (DC or "Joker"). The control of the control gear is taken by the DALI-SV-module in this case.	YES
7 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
8 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
9 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
10 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	YES
11 Control gear complies with the standard:	DIN EN 55015 (Measurement on AC and DC)	Limits and methods of measurement of radio interference	YES
12 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 ≤ 16 A per phase)	YES
13 Control gear complies with the standard:	DIN EN 61547	Equipment for general lighting purposes — EMC immunity requirements	(*3) YES
14 Control gear complies with the DALI-standards:	DIN EN 62386-101 /-102 / -207	Control gear must have the DALI Logo	(*1) 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
15 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	See Table1
16 Projected light output level at <b>DC- or Joker-voltage</b>		The light output level for DC- or Joker-voltage can be set at the DALI-SV-module. Important for lighting design of the emergency lighting	(*4) 100%
17 Nominal current of the control gear with connected illuminant in <b>DC- operation (216V) and with set light output level</b>		Selection guide for the calculation of the necessary battery capacity	See Table1
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	25A / 161 µs (*2)

Luminaires, which should work as emergency lighting, have to be in accordance with DIN EN 60598-2-22. (Particular requirements - Luminaires for emergency lighting)

Notes:

- (\*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 taken into consideration!
- (\*3): Not to be used in high risk areas, special release required
- (\*4): The light input level is not locked in DC-operation. Factory setting is **100%** of the current level. It is possible to change the behavior of the controlgear in DC-operation.

For the correctness:

Munich, 23.01.2018

Place, Date




DS D SST  
Dr. Kay Schmidtman  
Signature

DS QM LAB&SQM  
Bernhard Schönbauer  
Signature

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Table1:

Manufacturer: OSRAM GmbH Marcel-Breuer Str. 6 D-80807 München	Product:  <b>Ot 40/170-240/1A0 4DIMLT2 G2 CE</b>	
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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)
<b>Ot 40/170-240/1A0 4DIMLT2 G2 CE</b>	Umin, Imin	33,00	32,96	27,14	24,06	22,22	20,70
	Umin, Imax	99,22	88,80	118,42	101,81	91,10	83,79
	Umax, Imin	67,32	65,52	79,02	68,51	60,61	56,17
	Umax, Imax	219,19	209,16	205,14	173,24	156,13	143,57
	Open Load	15,39	19,23	2,62	2,43	2,43	2,47
	Short Load	16,20	20,78	6,87	5,86	4,36	4,75

Maximum inrush current for ECG in AC Operation

I<sub>peak</sub>= 25 A  
T<sub>H</sub>= 161 μs

