Technical requirements for electronic control gears for LED- / fluorescent- luminaires for connection at INOTEC central battery systems

INOTEC Sicherheitstechnik GmbH

Manufacturer:	Type / Description:
OSRAM GmbH Marcel-Breuer-Str. 6 D-80807 München	Luminaire: EVG: OT FIT 50 220-240 250 D L LED:
Project / Place / Project ID:	Specified by: Name: Daniel Graser Company: OSRAM GmbH Date: 12.08.2016

	Features	Techn. data / INOTEC requirements	Explanation	Fullfilled (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 3s**	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 ≤ 16 A per phase)	Yes
12	Control gear complies with the standard:	**DIN EN 61547**	Equipment for general lighting purposes — EMC immunity requirements	Yes

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

Technical requirements for electronic control gears for LED- / fluorescent- luminaires for connection at INOTEC central battery systems

INOTEC Sicherheitstechnik GmbH

Manufacturer: OSRAM GmbH Marcel-Breuer-Str. 6 D-80807 München	Type / Description: Luminaire: EVG: OT FIT 50 220-240 250 D L LED:
Project / Place / Project ID: sdv	Specified by: Name: Daniel Graser Company: OSRAM GmbH Date: 12.08.2016

	Features	Techn. data / INOTEC requirements	Explanation	Manufacturer information
13	Nominal current of the control gear with connected illuminant in **AC- operation (230V)**		Selection guide for the calculation of the max. number of luminairs per circuit	265 mA
14	Nominal current of the control gear with connected illuminant in **DC- operation (216V)**		Selection guide for the calculation of the necessary battery capacity	287 mA
15	Nominal current of the control gear with connected illuminant in **DC- operation (186V und 260V) and pre-set luminous flux**	J-SV-Modul/S (5-120W): > 20mA = OK J-SV-Modul.2/S (20-300W): > 70mA = OK J-SV-Modul.3/S (2-30W): > 12mA = OK J-SV-Modul.4/S (18-120W): > 70mA = OK J-SV-Modul.L/S (20-120W): > 20mA = OK J-SV-Modul T/S (20-100W): > 60mA = OK	Selection guide for determination of the monitoring module: The values are not to be undercut within the voltage range 186VDC - 260VDC to recognise a normal working lamp correctly.	321 mA (186V) 233 mA (260V)
16	Luminous flux in DC- operation **(186V)**		Important for the safety lighting design	100 %
17	Standby current of the control gear with no illuminant connected or with defective illuminant in **DC-operation (186V and 260V) *1**	J-SV-Modul/S (5-120W): < 10mA = n.OK J-SV-Modul.2/S (20-300W): < 45mA = n.OK J-SV-Modul.3/S (2-30W): < 8mA = n.OK J-SV-Modul.4/S (18-120W): < 45mA = n.OK J-SV-Modul.L/S (20-120W): < 10mA = n.OK J-SV-Modul T/S (20-100W): < 50mA = n.OK	Selection guide for determination of the monitoring module: The values are not to be exceeded within the voltage range 186VDC - 260VDC to recognise a lamp failure correctly.	27.6 mA (186V) 25 mA (260V)
18	Max. inrush current of the control gear with connected lamp in **AC operation (230V)**	Max. permitted inrush current per circuit / monitoring module: SK 4x2A: 250A / 500µs SK 2x4A: 250A / 500µs SK 2x3A: 250A / 500µs SK 1x6A: 250A / 500µs J-SV-Modul T/S: 40A / 500µs all other J-SV-modules: 80A / 500µs	Describes the max. inrush current of all ballasts in a circuit, to calculate the maximum contact rating of the circuit	20 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: The J-SV-monitoring modules monitor the current consumption on the primary side of the control gear for LED modules within the specified limits. Failures of individual LEDs (low-impedance) on the secondary side do not inevitably lead to a modification of current consumption on the primary side, and in such cases cannot be detected as a failure.

Notes:

**) Messurement with universal LED Load

For the correctness:

Garching, 12.8.16
Place, Date

Schmuck
Signature