



CELMA

*Federation of National Manufacturers Association for
Luminaires and Electrotechnical Components for
Luminaires in the European Union*

CELMA Guidance to check whether the control gear has failed in case the luminaire does not function

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The professional manufacturers of control gear for lighting use ensure that their products meet the safety and performance requirements laid out in the relevant Directives and safety and performance standards. They are also determined to ensure that their control gear is reliable in use.

To guide the luminaires manufacturers to develop luminaires that fulfil the design constraints of the control gear, clear limits are published for each set of control gear to ensure the safe operation and full life of the control gear. Special care has to be taken to ensure that the temperature limits of the control gear are observed. Therefore, maximum temperature limits of T_a (ambient temperature) and the temperature on the T_c point (reference test point on the ballast surface) must not be exceeded.

Although luminaires manufacturers have designed their luminaires properly to take care of the correct operating conditions of the control gear, there are situations occurring with the installation that indicates that the control gear has failed. Usually, this is a wrong diagnosis as statistics show that nearly 50% of control gears returned to the manufacturer do not have faults. The following guidance should be followed to ensure correct identification of failed control gear and not false claims:

Installer: Checks to be made on site;

- ❖ Check that the mains supply to the luminaire is connected and live.
- ❖ Check that the internal wiring of the luminaire is correct and the connection into the terminals fully connects the circuit
- ❖ Check that there is the correct voltage at the terminals of the control gear

- ❖ The lamp should be checked that it will work in another luminaire and that it is correctly located in the lamp holder of the luminaire being tested.

- ❖ Reset the circuit in the control gear by switching off and then switching on the luminaire at the mains supply switch or suitable location. This checks whether the control gear safety shut down has operated thereby stopping operation of the lamp. Resetting it in this way should allow the lamp circuit to operate.

Luminaire manufacturer: If the control gear has been returned to the luminaire manufacturer, the luminaire manufacturer should make the following checks;

- ❖ Do not send the control gear back to the control gear manufacturer until you have confirmed that, following connection of the control gear into a luminaire circuit and check the functional operation of the control gear, the control gear is failed.
- ❖ In case the control gear works properly, return the control gear to site for installation into its original luminaire.

Through the use of these measures CELMA would anticipate an improved customer satisfaction of the use of electronic control gear within luminaires as well as allowing the control gear manufacturers the opportunity to provide improved corrective action within a shorter time frame.