

# ÖKOSTART

## Electronic Starter

- ◆ Electronic starter for 4 - 125W single fluorescent lamp circuits (OKO 6 model)
- ◆ Provides a reliable and quick lamp start
- ◆ Extends lamp life by up to double

### Features

- ◆ 10 year replacement guarantee
- ◆ Soft starts fluorescent tube compared to “hard” start from traditional “flicker” starters
- ◆ Eliminates flickering or flashing fluorescent lamps through instant shut off
- ◆ Reduces your Fluorescent tube maintenance and replacement costs
- ◆ Suitable for energy management switching
- ◆ Passes and/or exceeds Australian & New Zealand compliance standards
- ◆ German designed and engineered

### Applications

- ◆ Commercial ceiling & office fluorescent lighting
- ◆ Retail ceiling & display cabinet fluorescent lighting
- ◆ Airports, factories, schools, sportshalls
- ◆ Any location where fluorescent lamps are used



# Technical Information - ÖKOSTART (ÖKO6) Electronic Starter

## Product Specific Characteristics

**Name:** OKOSTART 6

**Product Code:** 21520010

**Operating Voltage:** 200-250V AC (50/60Hz)

**Preheat Time:** 2.3 secs nominal @ 20° C

**Pulse Height:** 1500V maximum

**Safety Shutdown:** Within 3 secs @ 20° C

**Warranty:** Ten (10) years

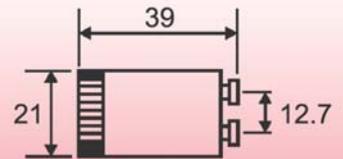
**Operating Temp:** -20 to 100° C

**Storage Temp:** -50 to 105° C

## ÖKOSTART 6 Electronic Starters Operate with the following Lamp types

- 4 - 125W Linear T5/T8/T12 (not 100W 2.4mm lamps)
- 10 - 38W 2D (TC-DD)
- 11W PLS (TC)
- 10-26W PLC (TC-D)
- 18-36W PLL (TC-L)
- 20-60W Circular & U-Tube (T-R, T-U)
- for more details check the website at: [www.palmstep.com](http://www.palmstep.com)

## ÖKOSTART 6 Electronic Starters Dimensions & Materials



All dimensions in millimetres

- **Canister:** Polycarbonate translucent green
- **Pins:** Nickel plated brass
- **Base:** Polycarbonate

## ÖKOSTART 6 - 4-125W Electronic starter for single fluorescent lamp circuits - Method of Operation

### 1. SOFT START

The soft start system utilised in the OKO6 electronic starter initially pre-heats the lamp cathodes to working temperature, before applying a controlled voltage pulse to strike the arc. This method of ignition prevents cathode damage and significantly lengthens lamp life.

### 2. CONTINUOUSLY PROMOTES SAFE OPERATION

A safety monitoring system shuts down the system in the event of a fault, preventing dangerous overheating and the annoying flashing associated with glow type starters.

### 3. ADVANCED TECHNOLOGY

Refined circuit methods permit us to provide a 10 year no quibble guarantee for this product which has a proven design life exceeding twenty (20) years. Housed in a two-pin canister with dimensions meeting IEC 60155, for the direct replacement of glow starters without circuit modification.

## OKOSTART 6 - Electronic Starters meet these International Standards

**IEC 60155**  
Glow starters for fluorescent lamps

**IEC 61347-1 (Ed. 1)**  
Lamp Control Gear - Part 1: General and Safety requirements

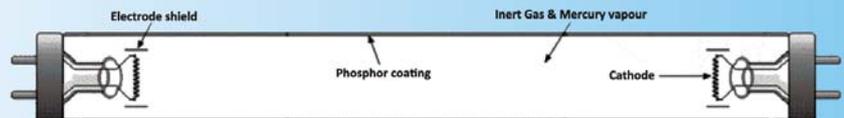
**IEC 61347-2-1 (Ed. 1)**  
Lamp control gear Part 2: Particular requirements Section One - Starting Devices (other than glow starters)

**IEC 60927 (Ed 2.2-2004)**  
Auxiliaries for lamps - Starting devices (other than glow starters) - Performance requirements

## The FACTS on electronic starters & Fluorescent Lamps

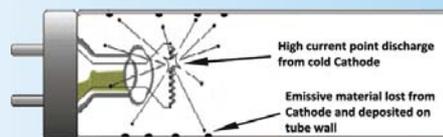
### 1. Most fluorescent lamp failures are caused by filament depletion

The service life of a fluorescent lamp is primarily controlled by the durability of the cathode filament assemblies, similar to those in an ordinary lamp. The filaments help to ionise the gas and free mercury inside the lamp to enable electricity to flow through the lamp. The ionised gas produces ultraviolet light, converted to visible light by the white phosphorous, coating the tube wall. Rare earth metals covering the filament produce the ionisation and when the emissive coating is exhausted, no ionisation is possible and the lamp fails.



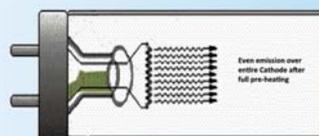
### 2. Conventional starters REDUCE the service life of a fluorescent lamp

Once a lamp is burning consistently, only a very small amount of emissive material is used. During ignition by a conventional (glow) starter however, a large amount of emissive material is dislodged from the cathodes - often equivalent to more than a full day of operation. This is due to the very rapid heating of the cathode and the "explosive" nature of the high energy starting pulse that seeks the path of least resistance i.e. weak spots on the filament.



### 3. Electronic starters EXTEND the service life of a fluorescent lamp

By minimising stress on the filaments during startup, lamp life is maximised. An electronic starter achieves this by gradually heating the cathodes, at low voltage, to full ionisation temperature and then delivering a low energy starting pulse. At the end of the pre-heat period, the cathodes will be emitting freely over their entire area therefore avoiding the explosive start of a conventional starter described above. The starter automatically adjusts pre-heating times relative to ambient conditions.



Due to complete pre-heating and the low energy pulse, the Cathodes suffer no measureable wear during the start cycle and the lamps burn for many hours as if they were operated continuously without restarting.



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