

# Electronic transformers (EVGs) Dimmable via external control voltage (0 - 10 V)

**hansen**

## General description

The EVG 50/2D is a dimmable electronic ballast for use with cold cathode fluorescent tubes.

It is connected to the mains (on the primary side) and to the tubes (on the secondary side) by means of non-detachable cables. The housing and the connected cables are completely sealed and encapsulated by an elastic artificial resin compound. The unit is waterproof (IP 65) and provided with radio interference suppression according to EN 55015.

## Protective circuits

The EVG features an integrated earth leakage trip and open circuit protection making it suitable for installation into systems according to EN 50107.

The mains input is protected by a 2A safety fuse.

The control input is protected against polarity reversal and a maximum voltage of 250 V.

## Control input

The two-pole control input can be used to dim the current using a control voltage of 0 to 10 V. The input impedance is 100 - 500 kOhm against earth potential. Protection against polarity reversal and overvoltage is also provided. Different input characteristics are available for adaptation to the different control devices.

## Tube output

Without dimming, the EVG delivers a tube current of 50 mA. Via the control input, the current can be dimmed continuously down to a minimum current of 7.5 mA.

The secondary voltage automatically adapts to the tube length up to a maximum voltage of 2,000 V (open circuit). The operating frequency varies within the range of 16 - 40 kHz depending on the tube load and the dimming.



Dimensions:  
Length: 260 mm  
Width: 62 mm  
Height: 46 mm  
Weight: 1,350 g

## Tube load

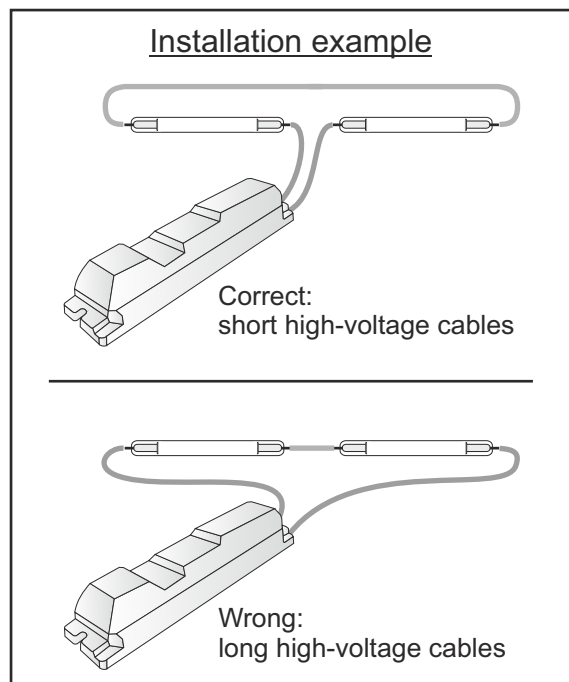
The secondary voltage is earthed centrally. The maximum value of 2,000 V results in a specific maximum connectable tube length which must not be exceeded (see specification sheet).

Experience has shown that a very good and even dimming effect can be obtained with a maximum tube length of 4 meters, split into 2 individual fluorescent tubes (18 - 22 mm diameter, blue discharge).

## Installation advice

The EVG 50/2D can be mounted on metal, plastic or wood. A sufficient volume of cooling air should be provided around the unit in order to prevent accumulation of heat. The surface temperature should not exceed 80°C. A minimum distance of 10 mm should be provided between two EVGs.

The EVG and the tubing must be installed close to each other. The high-voltage cable connected to the EVG (length: 1,500 mm) must not be extended and installed in the direct vicinity of the neon tubes. Basically, the high-voltage cable from the EVG to the tubing should be kept as short as possible as this improves the dimming quality considerably.



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