

SELC 2000 - 50/70/100 Watt Electronic Low Frequency Smart Ballasts

SELC 2000

50/70/100 Watt Key Features

- Power factor better than 99%
- Crest factor less than 1.5%
- Total harmonic distortion less than 8%
- No acoustic resonance
- Slew angle patented power waveform
- Maintains full power
- Available with integral light sensor
- Lamp end of life detection, reporting and shut down
- Extended lamp life
- Smart power waveform with patented slew angle
- Less power required to provide light energy. (e.g. 70 watts of light power for only 79 watts of power)
- Eliminates arc tube blackening (commonly called lamp sputtering)
- Can communicate stored data to a monitoring and control network



The SELC 2000-50 Watt

SELC 2000

50/70/100 Watt Applications

- Street and road HID lighting
- Tunnel and pedestrian underpass lighting
- All types of store and warehouse high bay lighting
- Amenity and security lighting
- Whenever a high intensity discharge is used

The SELC 2000

50/70/100 Watt offers...

1. Remote monitoring and control
2. Maintained full power
3. Attached light Sensor
4. Dimming of all HID Lamps
5. End of lamp life prediction
6. Less inventory
7. Powering a wide variety of lamps.
8. Full compliance with standards

The SELC 2000 range of Electronic Low Frequency Ballasts provide High Pressure Sodium and Metal Halide (including CDM) H.I.D. Lamps with a low frequency controlled power waveform. Lamps from 50 Watts to 100 Watts are catered for within the range. Full power output is maintained throughout lamp life even though the mains input voltage could dip 20V or 40V below its nominal. Conventional gear reduces power to the lamp by 12% if there is a 4% decrease in mains voltage.

Conventional Magnetic Ballast's will cause the lamp to cycle sometimes long before the end of its useful life. The SELC 2000 prevents this happening and maintains the lamp in an operational state well beyond this point, and will switch it off at the end of it's life. A major feature of the SELC 2000 is its ability to predict end of lamp life well in advance. This information can be fed to either the interactive communications systems or to a fault enunciation lamp mounted outside the luminaire. This will warn maintenance personnel of impending lamp failure.

The SELC 2000 ballasts can be programmed with interactive communications software to allow two-way communication with external systems and can be configured as part of a LonWorks® system. The SELC 2000 can communicate the lamp burning time (hours and minutes), lamp status, voltage across the lamp, lamp power, ballast temperature, mains input voltage, lamp diagnostics, lamp technology and power rating. In addition the external system can switch the lamp on and off and set its' power to a defined level. See the product 'Candelon suite' for further information.

1. Remote Controlled

The SELC electronic ballasts are remotely controlled via the nodes also mounted in the luminaries. The communication media may be powerline or radio and the communication is all based on the open standard EIA-709 (LonWorks®).

2. Maintained full power

The SELC 2000 Range of electronic ballasts control high pressure sodium lamps (SON) and metal halide (HID) lamps using low frequency power waveform ensuring that the lamps maintain their specifications through their life cycle. Designed and protected against mains variations, dips and fluctuations, maintaining full power. The lamp will try to restrike the lamp up to 10 tries.

3. Attached light sensor

Ballasts equipped with light sensor can switch 'on' at dusk or 'off' at dawn and use this time reference to evoke a factory set timing functions. The ballasts can make use of the attached light sensor to set its internal clock. It can then dim and return to full power at factory set times.

4. Dimming of all HID lamps

The ability to dim the lamp to factory set levels even if there is no communications systems present in the installation.

5. End of lamp life prediction

The ability to predict impending lamp failure.

6. Less inventory

Only one component fitted if a light sensor is not required therefore reduced inventory at the OEM or Maintenance Stage.

7. Powering a wide variety of lamps

Compatible with all HID Son/Metal Halide CDM lamps

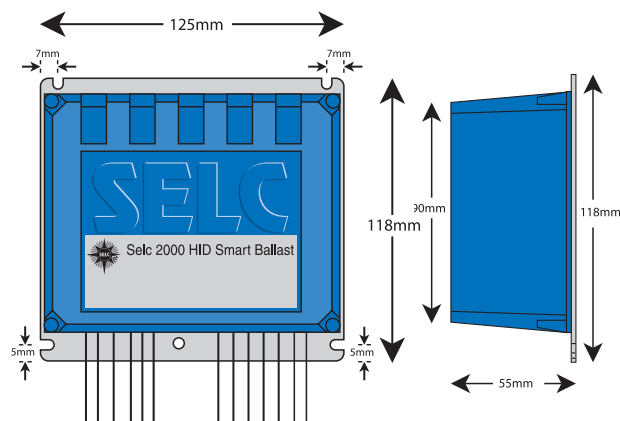
8. Full compliance with standards

Full compliance with standards throughout life.

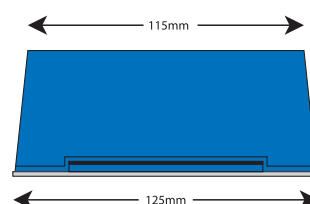
The SELC 2000 - 50/70/100 Watt Multiple Features

- Low frequency supplied to the lamps, therefore NO lamp resonance.
- A very wide mains input voltage range. (180V — 260V RMS 50/60Hz)
- Power Factor close to unity (>0.99). This is maintained throughout lamp life and over the specified operating voltage and dimming range.
- Supplies a low crest factor current waveform to power the lamp.
- Can be configured to operate with or as part of a variety of third party control systems.
- The SELC 2000 is lightweight in comparison to magnetic ballast's and requires very little wiring. (No wiring loom as with conventional ballast's, therefore reducing fitting and installation charges).
- Requires less power 'in' for the correct power 'out'.
- Maximum ballast to lamp distance 12ft. Special wiring for longer distance.

SELC 2000 - 50/70/100 Watt Dimensions



Front Elevation



The Effective Control of High Intensity Discharge Lighting

full manufacturers 5 year guarantee



**Specifications SELC 2000
50/70/100 Watt**

Mains Input Voltage	180 - 260 Volts 50/60 Hz
Power Factor	>0.99
Ballast Power Consumption	>2.5 watt
Lamp Types	SON, Metal Halide and CDM
Lamp Wattages	50-100 Watts (factory set)
Maximum Case Temperature	75°C
Standard Compliance	EN55015:2002 Emissions EN61000-3-2:1995 +A14:2000 Steady State & fluctuating harmonics EN61000-3-3:1995 +A1:2002 Flicker Test EN61547:1995 +A1:2000 Immunity EN60928:1995 General Safety Requirement EN60598: Relevant Requirements I.S. EN ISO 9001:2000 Manufacturing
Load Current Crest Factor	<1.1
Power Waveform Frequency	80 Hz Slew Angle Waveform
Lamp Power Variation	Over 180V to 265V: Less than 3%
Lamp Currents	50 Watt 1.5A 70 Watt 2A 100 Watt 4A
Lamp Ripple Current	less than 5% of lamp current
Ambient Operating Temperature	-20°C to + 85°C

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SELC products

