



Long Life Electronic Low Frequency Smart Ballasts

SELC 6000 HID Ballast Range



SELC 6000 35 – 55 Watt Range

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The SELC 6000 35 - 55W smart ballast controls every type of high pressure sodium and metal halide lamp with a 80Hz power waveform with characteristics close to optimum for powering the most modern long life HID lamps.

Unlike conventional magnetic gear, the power supplied to the lamp by the SELC 6000 ballast is not sensitive to mains supply voltage fluctuations within its supply operating voltage range. Conventional ballasts can vary the lamp power by 12% if there is a 4% fluctuation in the supply voltage. This can reduce lamp life especially new modern HID lamps.

The SELC 6000 Range can be supplied with a data interface that allows it to communicate with all types of control and monitoring equipment – DALI, Lon Works, 0-10V and Candelon (the "equipment").

The SELC 6000 ballast can switch the lamp ON and OFF, dim it and can communicate data to the equipment on the percentage of rated power at which the lamp is running, the lamp voltage, the mains supply voltage, the ballast temperature and other diagnostic information depending on the type of system deployed to monitor and control the road and street lights.

The SELC 6000 Range of smart ballasts' ambient light sensor can control the ballast to switch its lamp ON and OFF. Also, if the part-night feature is activated (factory configured) part-night dimming by the SELC 6000 ballast is possible without any additional monitoring or control equipment using the light sensor or the group switching astro clock to set an internal clock. This saves energy and reduces carbon emitted during times of low vehicle or footfall activity.

Key Features

- » Unity Power Factor
- » Lamp current crest factor less than 1.4 (typically less than 1.1)
- » Total supply current harmonic distortion less than 15% (typically less than 8%)
- » No acoustic resonance regardless of type of lamp
- » Ignition and control circuit design allows the powering of all types of Son and Metal Halide HID lamps. (Streetwise, CMH, Cosmo, Lucalox XO, AURA, Powerball etc)
- » Available with an integral light sensor technology so as to eliminate the requirement for a NEMA socket and an luminaire canopy mounted photocell. (Note: The ambient light sensor can be ordered separately)
- » Lamp end of life shutdown and reporting feature
- » A drive waveform close to optimum for all new and old HID lamps
- » One component (better inventory and maintenance control)
- » Efficiency @ >90%
- » Thermal Performance <50% at full power

The SELC 6000 Range offers...

- » The powering and control of all of the old and new (HID) lamps
- » Calculated energy and data storage
- » Greatly reduced arc tube blackening at each Switch "ON" and "OFF" lamp sputtering eliminated
- » Dimming to selected dimming preferences with or without an external monitoring & control system
- » Integral light sensing technology incorporated
- » Innovative and safety splash proof cover
- » Reduced temperature operation
- » Extended ballast and lamp life
- » No requirement for a NEMA socket or one-part photocells

The SELC 6000 smart ballasts can make use of the attached light sensor or the group switching astro clock to set its internal clock. It can then be set to dim and return to full power at the customer set times before dispatch.

High Intensity Discharge Ballast's will cause the lamp to cycle sometimes long before the end of the lamp useful life. The SELC 6000 Range prevents this happening and maintains the lamp in an operational state well beyond this point, and will switch it off at the end of its life regardless of negative or positive rectification.

Range Applications

- » Road and Street lighting
- » Ideal for Tunnels and Pedestrian Underpass (HID) Lighting
- » High Bay Lighting
- » Amenity and Security Lighting (Car Parks, Homes, Shopping Malls etc)
- » Airport and Railway Lighting
- » Decorative Monuments and Buildings

Range Features

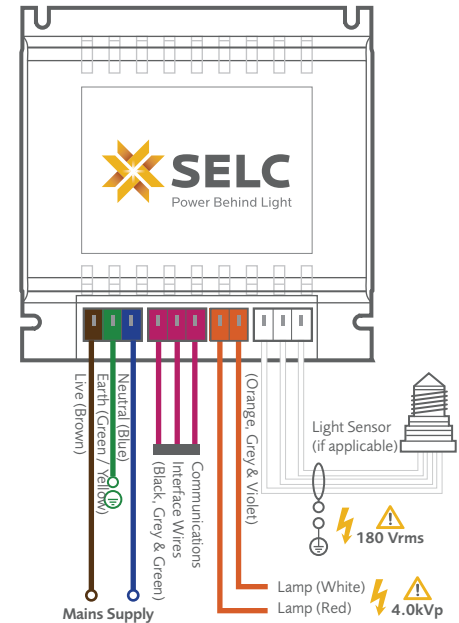
- » A very wide mains input voltage range (180V - 260V RMS 50/60Hz)
- » Supplies a low crest factor current waveform to power the lamp
- » Designed to operate with all International Monitoring & Control Systems
- » It is has the ability to predict impending lamp failure
- » The ability to dim the lamp to factory set levels even if there is no communications systems present in the installation, providing a light sensor is connected to the ballast or there is an astro clock fitted in the control cabinet
- » The SELC 6000 Range of ballasts are lightweight in comparison to other ballast's
- » Only one component fitted within the luminaire, therefore reduced inventory at the OEM or Maintenance Stage

Technical Specifications

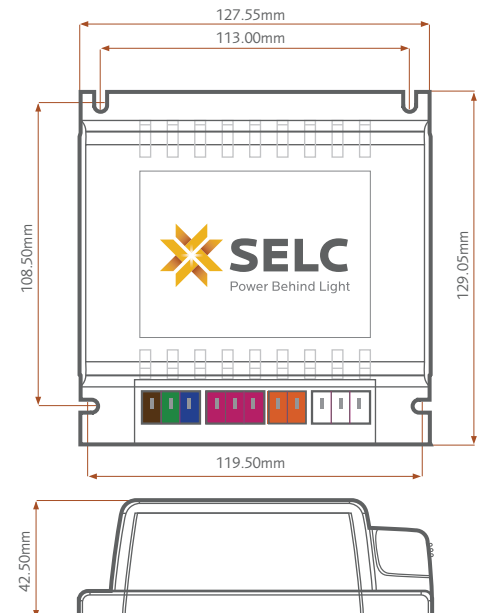
Full Manufacturers 6 Year Guarantee

Mains Input Voltage	180 - 260 Volts 50/60Hz
Power Factor	Typically >0.98
Ballast Power Consumption	<1 watt
Lamp Types	All HID Lamps
Lamp Wattage	35 - 55 Watts
Maximum Case Temperature	75°C
Minimum Case Temperature	-20°C
Load Current Crest Factor	<1.4 (typically less than <1.1)
Power Waveform Frequency	80Hz
Lamp Power Variation	Less than 3% over 180V to 260V supply voltage
Efficiency	>90%
Harmonic Distortion & EMC	EN 55015 EN 61547 EN 61000-3-2 EN 61000-3-3
Manufacturing Quality	IS EN ISO 9001:2008
Ripple Current	Less than 3.6%
Ignition	3.2KV
Crest Factor	1.1%
Communication	DALI, Lon Works, 0-10V, Candelon
Note:	Ambient Light Sensor Technology Incorporated Low profile enclosure Not suitable for lamps with internal ignitors

SELC 6000 Range Wiring Diagram



SELC 6000 Range Dimensions



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