



## Outdoor Fluorescent Signage Ballasts

Tunewell Transformers Limited are pleased to announce its latest innovation the Insignia “High Energy Instant Start” Electronic Ballast range, which is designed specifically for outdoor, all weather use. Only one ballast is required for all “T8” lamps and one for all “T5HE” lamps.

The insignia 100 range, will power all T8 and T5 HE fluorescent tubes. Designed specifically for the outdoor sign market, we overcame all of the problems associated with High Frequency fluorescent installations:

### Ballast life - Weatherproofing

The insignia 100 ballasts are designed specifically for outdoor signage. All Insignia 100 units are rated at IP65 in accordance to the standard IEC 60529. (Remember units rated at IP20 are not satisfactory for outdoor use and failure outdoors due to water ingress will invalidate most ballast manufacturer’s guarantee)

### Ballast life - Temperature

The Insignia 100 can be used in temperatures ranging from -20/+50°C, with transient temperatures in excess of 70°C.



Insignia A31 used in the signage rebrand of Morrisons, summer 2008



Insignia A20 & A31 as used in the Citibank project across Europe

### Ballast life - >100,000hrs

Elimination of the weakest component (the supply electrolytic) coupled with high electrical efficiency extends life by over five times under similar conditions

### Lamp life – ALR

The lamps are wired up by a single wire in series. A “stand by” lamp can then be wired in parallel. When the lamp in series fails to strike, the Insignia senses the failure and will in turn strike the “stand by” lamp. The added cost of the extra “stand by” lamp is nothing in comparison to a lamp replacing programme. Depending on the lamps\* used this could mean up to 100,000 hours.

**Tunewell**  
The Power to Illuminate



Tunewell Transformers Limited, 2, Maple Park, Essex Road, Hoddesdon, EN11 0EX ENGLAND  
Tel: 01992 801 300 Fax: 01992 801 301 Email: sales@tunewell.com www.tunewell.com

## Lamp life – Lamp ignition

The Insignia 100 has a very high energized instant start ignition process, ensuring a long lamp life. Over 50,000 rapid cycling switches achieved\* (16sec on / 65 sec off) on the Automatic Lamp Replacement system.

## Multiple lamps

The insignia 100 range can power multiples of lamps, for example it can run 8 x 18W T8 2ft (4 in “stand by” mode) or 10 x 14W T5 550mm (5 in “stand by” mode).

## Environmental and legal requirements

With the new European Directive 2000/55/EC in place, all high loss magnetic ballasts (Class D) and moderate loss magnetic ballasts (Class C) are now banned. The Insignia 100 in most cases is equivalent to the CELMA rating A2 (maximum lamp loading) or at worst A3 (minimum lamp loading). This ballast rating will also help companies trying to implement the environmental standard ISO 14001.

## Safety

The Insignia 100 range fully incorporates open circuit detection circuitry. If a tube is broken the insignia will sense the break and remove all output power.

## Mains Transients

The Insignia 100 contains comprehensive surge suppression to Zone B (3000A). This has been incorporated into the Insignia, because of the transients that can exist in outdoor lighting circuits. Most electronic ballasts designed for indoor lighting luminaries, contain no transient suppression or are rated to Zone A (500A).

## Dimensions

Height	32mm
Length	250mm
Width	44mm
Weight	0.75kgs



## Lamp Matrix –

Not including “stand by” Lamp

### INS-1-A31

15W T8	x	4	
18W T8	x	4	
30W T8	x	3	
36W T8	x	3	
58W T8	x	2}	Reduced lumens
70W T8	x	2}	Reduced lumens
24W T5HO	x	3	
39W T5HO	x	2	

[You can mix lamps - up to 90 watts/4 lamps](#)

### INS-1-A20

14W T5	x	5	
21W T5	x	4	
28W T5	x	3	
35W T5	x	2	

[You can mix lamps - up to 90 watts/5 lamps](#)

## Input

Voltage (Un)	220/240V
Current (In)	0.4A
PF	> 0.95
Fn (Hz)	50/60
Cable	2 Metres

## Output

Lamp current	200 or 310mA
Fn (Hz)	50kHz nom
O/C voltage	<1000V to ground
Cable	1.5 Metres

### **DO NOT EXTEND OUTPUT LEADS**

**IF USING METAL TERRY CLIP HOLDERS ON AN EARTHED SURFACE, INSULATE CLIP WITH SLEEVING, FROM TUBE SURFACE.**

Tunewell recommend \* Philips master TLD Extreme T8 tubes and T5 GE tubes

**Tunewell**  
The Power to illuminate

**INSIGNIA**



Tunewell Transformers Limited, 2, Maple Park, Essex Road, Hoddesdon, EN11 0EX ENGLAND  
Tel: 01992 801 300 Fax: 01992 801 301 Email: sales@tunewell.com www.tunewell.com