

# ELECTRONIC TRANSFORMER

## Installation leaflet



### installation

Check suitability of intended transformer position, free of any insulating material, where the ambient temperature during operation will not exceed the (ta) rating

- Remove transformer covers using a small terminal screwdriver inserted into slots as fig (1).
- Connect mains lead to terminals marked L&N
- If applicable connect output (sec) cable to output terminals as (fig 3).
- Fit cable clamps, install transformer and replace covers.
- Avoid connecting electronic transformers into circuits with large inductive loads or where repetitive large voltage surges are likely.
- Switches and dimmers must only be connected to the mains circuit of the transformer.

#### Wiring Notes:

Transformers with terminal block connections:

Use cable type: ref. HO3VV-F or as specified in the relevant standards, wiring and/or building regulations, etc., applicable to the installation/site concerned of adequate current rating (fig 3).

*terminated  
electronic transformers*

#### RANGE :

50VA - 60VA - 80VA  
105VA - 150VA - 210VA

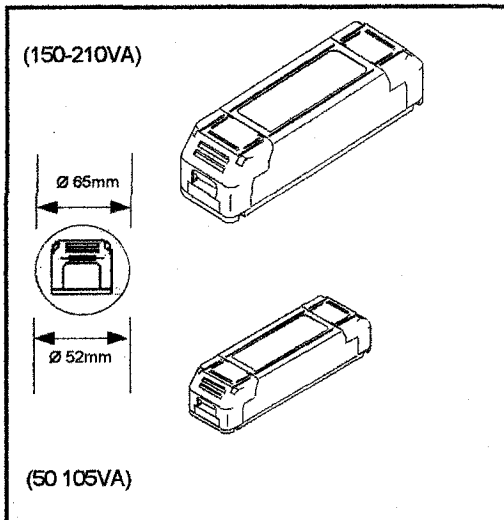
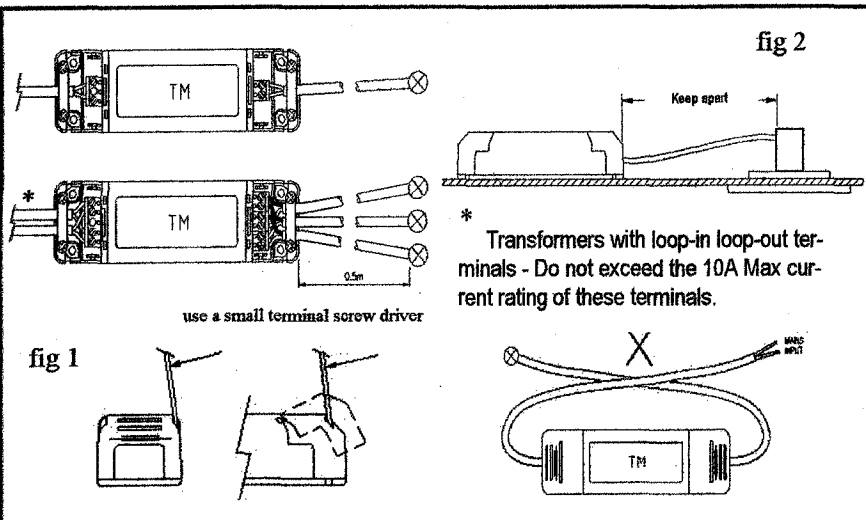
#### Transformer Ratings

Voltage	230/12V nominal
Isolation class	Class II Independent S.E.L.V
Load	see product label
Thermal	ta - 50°C (45°C 210VA) Auto-resetting thermal protection
IP Rating	IP20 Normal interior applications

All models which are marked as "dimnable" are suitable for use with resistive load dimmers when maximum load is connected.

#### RFI

In common with other electronic transformers their principle of operation leads to the generation of radio frequency interference (rfi) which although suppressed, may in certain conditions, cause some break through of interference on the; long, medium and short wave radio frequency bands.



Lamp Rating	Nominal Lamp Current
20W	1.7A
35W	2.9A
50W	4.2A

Maximum possible cable size = 4.00mm<sup>2</sup>

Transformers with integral output (sec.) cable:

This cable is for the external connection to the luminaires, it may not be suitable for use or connection internally within the luminaires.

Output (sec.) cable lengths must be kept as short as possible due to voltage drop and RFI suppression.

**WARNING**

Isolate the mains supply before undertaking any electrical wiring activities.

Isolate electronic transformers from the supply when conducting insulation testing.

Installation should be in accordance with the requirements of the current edition of the IEE wiring regulations together with any other relevant building regulations applicable to the site installation.

**Fault finding** - These electronic transformers give no, or very little output unless connected to a load of the correct rating. To measure the output voltage of an electronic transformer use a true r.m.s.a.c. voltmeter with a bandwidth of > 40KHz.

Products with the Quality Assurance Mark of Distinction for use within the EU have a 5 year guarantee. This provides that any product which fails due to faulty materials or workmanship within 5 years of its date of manufacture will be replaced free of charge (subject to full terms and conditions). This guarantee does not effect any statutory rights. These instructions are for installation guidance; they do not indicate suitability for application or use. **This instruction leaflet should be retained for future use.**

Technical Hot Line Tel: 020 8391 7501

Leaflet 55 Issue D

# TM range transformation

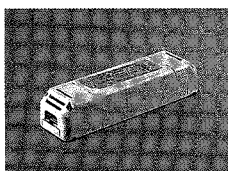


An extensive range of lightweight electronic transformers designed and developed for ease of installation with terminated or pre-wired options.

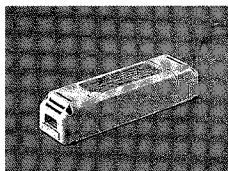
- fully dimmable with standard resistive load dimmers
- loop-in loop-out primary connections
- excellent voltage regulation
- dual stage transient protection
- through hole installation or surface mount
- compliance with the 16th Edition of the IEE Wiring Regulations for SELV installations

## standards

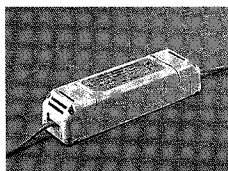
The *electronic transformation* range complies with or exceeds the requirements of BS EN 61046 (safety), BS EN 61047 (performance). All IBL Lighting's standard range of products carry the BS EN ISO 9002 assurance of quality and the IBL registered Mark of Distinction 5 year guarantee.



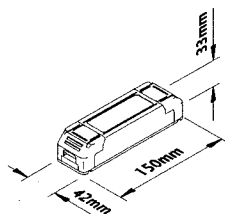
code 4201



code 4202



code 4203



## TERMINATED ELECTRONIC TRANSFORMERS

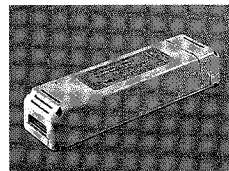
Range 20 - 210VA

## mechanical specification

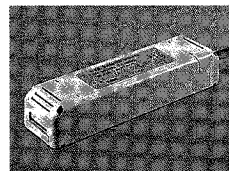
<b>overall size</b>	20-105VA = 150 mm length 35 mm height 42 mm width
	150-210VA = 198 mm length 38.5 mm height 53 mm width
<b>case construction</b>	flame retardant polycarbonate
<b>fixing method</b>	screw size 6
<b>max. ambient temperature</b>	105VA <50°C 150/210VA 45°C
<b>max. case temperature</b>	75°C 50-60VA 95°C 105 / 150 / 210VA
<b>input connections</b>	see part description
<b>output connections</b>	see part description

## electrical specification

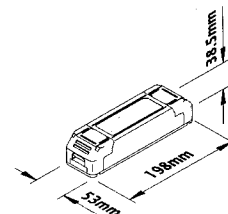
<b>input supply</b>	240Vac $\pm$ 10% 50 / 60Hz
<b>input current</b>	50VA = 0.250A 60VA = 0.285A 105VA = 0.470A 150VA = 0.660A 210VA = 0.875A
<b>output voltage</b>	11.40VAC nominal (@240Vac)
<b>power factor</b>	>0.98
<b>transformer frequency</b>	35KHz nominal
<b>transformer circuit loss</b>	<5% total load
<b>transformer protection</b>	short circuit, thermal and overload protection
<b>rfi suppression</b>	as required by BS EN55015
<b>transient suppression</b>	as required by BS EN 61047
<b>harmonics</b>	as required by BS EN 61000.3.2
<b>isolation class</b>	class II
<b>ingress protection</b>	IP20
<b>CE Mark</b>	conformance to EMC Directive
<b>safety and operation</b>	BS EN 61046, BS EN 61047
<b>connect system</b>	snap fit plug and socket system for use with connect class III luminaires



code 4211



code 4212



# ET range transformation

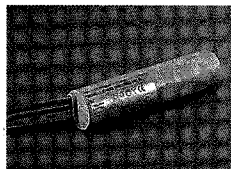
## range details

code	description	lamp wattage	weight Kg	cable sizes		connect system
				input	output	
4104.SP	20-60VA pre-wired dimmable electronic transformer in 30 way eco packaging	20-60	5.30	0.5 m x 0.75 mm <sup>2</sup>	0.5 m x 0.75 mm <sup>2</sup>	
4104.DP	20-60VA pre-wired dimmable electronic transformer in 30 way display packaging	20-60	6.60	0.5 m x 0.75 mm <sup>2</sup>	0.5 m x 0.75 mm <sup>2</sup>	
4105.00	20-75VA pre-wired dimmable electronic transformer	20-75	0.160	0.5 m x 0.75 mm <sup>2</sup>	0.5 m x 0.75 mm <sup>2</sup>	4160.00
4106.00	35-105VA pre-wired dimmable electronic transformer	35-105	0.260	0.5 m x 0.75 mm <sup>2</sup>	0.5 m x 1.00 mm	4161.00
4107.00	35-105VA pre-wired dual output dimmable electronic transformer	2 x 20-50	0.300	0.5 m x 0.75 mm <sup>2</sup>	2 x 0.5 m x 0.75 mm <sup>2</sup>	4162.00
4108.00	35-105VA pre-wired dimmable electronic transformer	35-105	0.300	1 m 2pin E-plug	0.5 m x 1.00 mm <sup>2</sup>	4163.00
4109.00	35-105VA pre-wired dual output dimmable electronic transformer	2 x 20-50	0.320	1 m 2pin E-plug	2 x 0.5 m x 0.75 mm <sup>2</sup>	4164.00

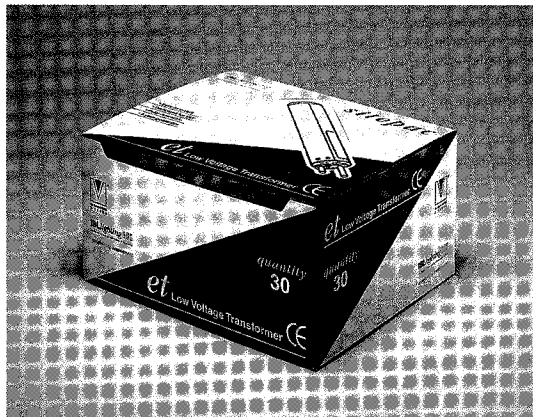
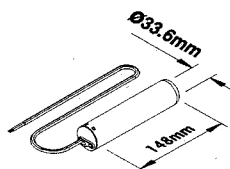
## standards

The *electronic transformation* range complies with or exceeds the requirements of BS EN 61046 (safety), BS EN 61047 (performance).

All IBL Lighting's standard range of products carry the BS EN ISO 9002 assurance of quality and the IBL registered Mark of Distinction 5 year guarantee.



code 4107



electronic transformers Sitepac

## mechanical specification

<b>overall size</b>	148 mm length 33.6 mm diameter
<b>case construction</b>	flame retardant polycarbonate
<b>encapsulant</b>	flame retardant polyurethane (105VA only)
<b>fixings</b>	optional spring clips - see accessories page 132
<b>max. ambient temperature</b>	50°C
<b>max. case temperature</b>	75°C - 75VA 85°C - 105VA
<b>input cable</b>	twin flat 0.75 mm <sup>2</sup> double insulated PVC / PVC flexible cable H03VVH2-F 2192Y
<b>output cable</b>	twin round 0.75 mm <sup>2</sup> double insulated PVC / PVC flexible cable H03VVH2-F 2192Y non-polarised

## electrical specification

<b>input supply</b>	240Vac ± 10% 50 / 60Hz
<b>output voltage</b>	11.4.VAC nominal (@240Vac)
<b>power factor</b>	>0.98
<b>transformer frequency</b>	35KHz nominal
<b>transformer circuit loss</b>	<5% total load
<b>transformer protection</b>	short circuit, thermal and overload protection
<b>rfi suppression</b>	as required by BS EN 55015
<b>transient suppression</b>	as required by BS EN61047
<b>harmonics</b>	as required by BS EN 61000.3.2
<b>isolation class</b>	class II
<b>CE Mark</b>	conformance to EMC Directive
<b>safety and operation</b>	BS EN 61046, BS EN 61047
<b>connect system</b>	snap fit plug and socket system for use with connect class III luminaires

# *TM range transformation*

## *range details*

<b>code</b>	<b>description</b>	<b>weight g</b>	<b>connect system</b>
4200.00	20-50VA non-dimmable electronic transformer terminated	125	
4201.00	20-50VA dimmable electronic transformer terminated	130	
4202.00	20-50VA dimmable electronic transformer primary terminations and secondary lead	151	4310.00
4203.00	20-50VA dimmable electronic transformer primary and secondary leads	164	4311.00
4204.00	20-60VA dimmable electronic transformer terminated	135	
4206.00	35-105VA dimmable electronic transformer terminated	152	
4207.00	35-105VA dimmable electronic transformer primary and secondary leads	186	4312.00
4208.00	2 x 35-50VA dimmable electronic transformer primary and secondary leads	203	4313.00
4209.00	3 x 35-50VA dimmable electronic transformer terminated	300	
4210.00	150VA dimmable electronic transformer primary terminals and secondary leads	338	
4211.00	4 x 35-50VA dimmable electronic transformer primary and secondary terminations	271	
4212.00	210VA dimmable electronic transformer primary terminations secondary leads	340	

new

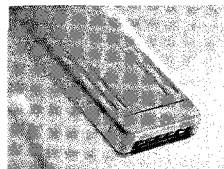
# ULP range transformation



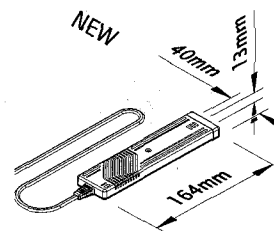
## ULTRA LOW PROFILE ELECTRONIC TRANSFORMERS Range 20-60VA

Ultra low profile high frequency electronic transformer designed and developed specifically for use with extra low voltage lighting equipment where concealment is an essential requirement or where space restrictions prevent the use of more traditional equipment

- fully dimmable with standard resistive load dimmers
- low audible noise through dimming range
- excellent voltage regulation
- dual stage transient protection
- 13 mm height
- IBL registered Mark of Distinction 5 year guarantee
- compliance with the 16th Edition of the IEE Wiring Regulations for SELV installations



code 4616



### standards

The *electronic transformation* range complies with or exceeds the requirements of BS EN 61046 (safety), BS EN 61047 (performance). All IBL Lighting's standard range of products carry the BS EN ISO 9002 assurance of quality and the IBL registered Mark of Distinction 5 year guarantee.

### mechanical specification

<b>overall size</b>	148 mm length 13 mm height 44 mm width
<b>case construction</b>	flame retardant polycarbonate
<b>max. ambient temperature</b>	60°C
<b>max. case temperature</b>	85°C
<b>input cable</b>	twin flat 0.75 mm <sup>2</sup> double insulated PVC / PVC flexible cable H03VVH2-F 2192Y
<b>output</b>	terminations screw terminals (3 pairs) 2.5 mm <sup>2</sup> max

### electrical specification

<b>input supply</b>	240Vac ± 10% 50 / 60Hz
<b>output voltage</b>	11.4.VAC nominal (@240Vac)
<b>power factor</b>	>0.98
<b>transformer frequency</b>	35KHz nominal
<b>transformer circuit loss</b>	<5% total load
<b>transformer protection</b>	short circuit and overload protection
<b>rfi suppression</b>	as required by BS EN 55015
<b>transient suppression</b>	as required by BS EN60147
<b>harmonics</b>	as required by BS EN 61000.3.2
<b>isolation class</b>	class II
<b>CE Mark</b>	conformance to EMC Directive
<b>safety and operation</b>	BS EN 61046, BS EN 61047

### range details

code	description	lamp wattage	weight g	cable sizes	
				input	output
4616.00	20-60VA pre-wired dimmable low profile electronic transformer	20-60	150	1 m x 0.75 mm <sup>2</sup>	terminated