



**NicheTrafficSolutions**  
Your Ideas in Action



## Leopard™

The universal LRT Signal Aspect that CAN change its spots

### Features:

- Designed to meet the latest department of Transport Specification TR2514A Light Signals For The Control of Tramcar
- Complete housed module ready to install into new or existing systems
- Provides full lamp monitoring/UTC interface O/P
- Single circuit board design
- On board programming for enhancements / updates
- **The Leopard range of optics is a result of A continuing development program to provide state of the art solutions into the field of traffic control**

The optic benefits from the latest range of micro controllers providing a flexible and reliable programming platform.

Each optical subsystem has been designed to provide enhanced aesthetics and optical performance

### Reliability

- Each LED Leopard™ signal head is designed using the latest microprocessor control to provide optimal reliability
- LEC technology utilised in the LED Leopard™ has a MTBF of >60,000 hours driven at 300mA; the LED's are actually driven at 150mA providing for a life span of well in excess of this
- The 'Fault' output relay has a MTBF of 10,000,000 operations

### Availability

- Standard LED Leopard™ signals are available ex stock
- Custom designed and built LED Leopard™ are available on request

### Maintainability

- The LED Leopard™ signal head is designed for ease of mounting/removal via industry standard brackets
- The entire electronic/optical assembly is constructed on one single PCB secured by 4xM5 screws.
- Replacement of the entire optical door assembly can be completed in less than five minutes

### Safety

- The LED Leopard™ software controlling the optic has an integral 'watchdog' routine which continually monitors the execution of the software code; any malfunctions cause the processor to shut down with all outputs defaulted to 'fail safe' digital inputs

## Specification:

- **Supply Voltage:**  
230V AC, 110V AC, and 24V DC versions available
  - **Power Consumption:**
    - <9 Watts
  - **Operating Frequency:**
    - 50 Hz~/DC versions available
  - **Wiring:**  
Complies to BS: 7671
  - **Operating Temperature Range:**  
-15° C to +60° C.
  - **Diagnostics:**  
RS232 engineers terminal  
LED indicator mimics
  - **Optical Life Expectancy:**  
>60,000 hours
  - **Signal Chromaticity:**  
The colour of light emitted from each light emitting element for both the normal and dimmed conditions meet the requirements of BS: 1376 Class C.
  - **Contrast Ratio:**  
>18:1
- Dimming:**  
Programmable between ¼ and ½ full intensity
- **UTC**
  - Reply bit reports any LED and power failure
  - **Lamp Monitoring:**  
Compatible with most currently available traffic signal controllers
  - **Physical**  
The LRT head is approximately 420x42x250 deep and a weight of 6.5Kg complete with brackets  
The PPI head is approximately 420x42x250 deep and a weight of 5Kg complete with brackets

## Ordering

LRT Stop/Go 3 aspect	LA/001/LRT/230/W
LRT Stop/Go 2 aspect	LA/002/LRT/230/W
LRT PPI 24V DC	LA/001/PPI/24DC/W
LRT PPI 110v ~	LA/001/PPI/110/W
LRT PPI 230v ~	LA/001/PPI/230/W
LRT XOR PPI 230v ~	LA/001/XOR/230/W

The 4<sup>th</sup> code is the operating voltage and should be specified for the system voltage.  
The 5<sup>th</sup> code is the colour of the LED's and should be specified as White or Amber