

NEW PRODUCT DATA

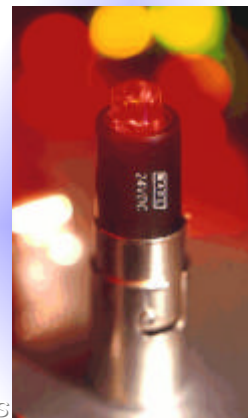
Introducing...

SOLO

The next generation of LED
filament bulb replacements

**Lighting Innovation...
The NEW SOLO**

- Direct Replacement for T3¹/₄ BA9s
- Single product for multi-voltage operation
- Reduces stock and maintenance costs



SOLO:- This unique product is the first of its kind and offers you the opportunity to reduce your stock and inventory costs, as one product suits the full range of voltages, 8-48 Vac/dc.

LEDs

TECHNICAL INFORMATION

OVERVIEW

Lighting Innovation - SOLO... Stock One LED Only

This unique product is the first of its kind, worldwide and provides a total solution to LED bulb replacements. Intelligent circuitry allows operation at either AC or DC supply voltages, as utilised in Marl International's new range of bi-polar products, but the new SOLO offers a further significant benefit never before used in lighting technology. It has a unique ability to operate consistently at its optimum brightness level, for voltage inputs of between 8 and 48 volts. This offers you the additional benefit of reduced inventory/stock costs as the capabilities of the products operation now eliminates the requirement for the differing voltage options and stock profiles, normally used in instrumentation and equipment.

When combined with the 'standard' Marl product attributes of full internal encapsulation, which ensures total protection against shock and vibration, lower heat generation, which prevents burning of the switch tops and lenses and has been proven to extend lens cap life expectancy and MTBF figures of 100,000 hours continuous use, this new generation of products will provide a cost effective and completely reliable solution to your indication problems, allowing you to concern yourself with other, more important issues.

Call Keely Walsh now for a quotation: +44 (0) 1229 582430

MATERIALS

Mounting Cap:	Nickel Plated Brass
Rear Contact:	60/40 Solder
Internal Potting Compound:	Epoxy Resin
Extension Sleeve:	Acetal
LED Lens:	Water Clear Epoxy

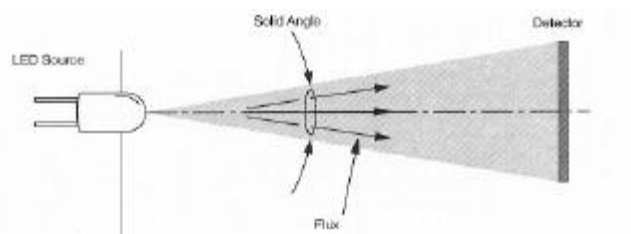
APPLICATIONS

Replacement of incandescent lamps with LEDs increases system reliability, and reduces maintenance costs, with applications including control and relay panels, rail signal box and industrial controls. Due to the saturated colour of an LED, the correct colour LED must be matched to the optical filter already present in the panel. This optical filter may form the front of an illuminated switch, or be an integral part of a mimic panel. In this respect, the white bipolar is most appropriately utilised as a replacement for a "white" filament lamp when used with white or clear lenses. Marl provide a wide range of colours to suit most applications.

By including new SOLO Circuitry, these LEDs can be inserted into the panel with confidence, ignoring the polarity of the wiring to the host lamp holder. This also reduces spares holding requirements. The lamp functions on both a.c. and d.c. supplies. In addition, resistors are included to suit a wide range of operating voltages.

INTENSITY

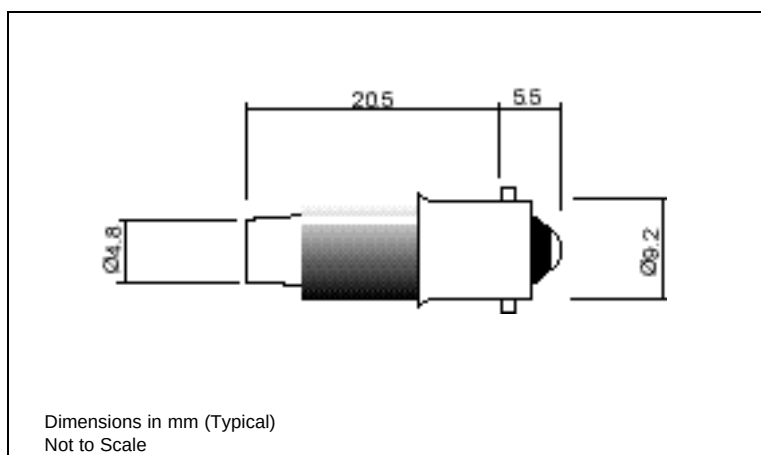
The small physical size of an LED chip means that it can be regarded as a point source to a very good approximation. The light output of an LED is therefore expressed in terms of luminous intensity, which is defined as the flux, in lumens (lm), emitted per unit solid angle in steradians (sr). The SI unit of luminous intensity is the candela (cd).



RELATED DOCUMENTS

These products are designed and manufactured in the UK to International Quality Standard BS EN ISO9001 : 1994.

FILAMENT REPLACEMENT LEDs - T3¹/₄ Bayonet Cap



- Direct replacement for T3¹/₄ BA9s
- Unique SOLO technology - Single product for multi-voltage operating range 8-48Vac/dc
- Reduces stock and maintenance costs
- Resistant to vibration and shock



255 SERIES

MLQ = 10

Ordering Information & Typical Technical Characteristics (Ta = 25°C)

Mean Time Between Failure = 100,000 Hours. Luminous intensity figures refer to the unmodified discrete LED.

PART NUMBER	COLOUR	LENS	VOLTAGE AC/DC Vopr	CURRENT DC Iopr	LUMINOUS INTENSITY Iv@20mA	WAVE LENGTH λp	VIEWING ANGLE	OPERATING TEMP Topr	STORAGE TEMP Tstg
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HIGH INTENSITY

255-501-64-38	Red	Water Clear	8 - 48	10	2750	660	Wide	-20 ~ +50	-30 ~ +80
255-521-64-38	Yellow		8 - 48	10	4500	590			
255-532-64-38	Green		8 - 48	10	6000	525			
255-930-64-38	Blue		8 - 48	10	2000	470			
255-997-64-38	White		8 - 48	10	3000	*			
UNITS			Vac/dc	mA	mcd	nm		°C	°C

* Typical emission colour: x = 0.31, y = 0.32. Colour temperature 8000K.

Intensities (Iv) and colour shades of white (x,y co-ordinates) may vary between LEDs within a batch.

Please note - This product will illuminate below 8Vac/dc but will not stabilise at 10mA until the 8 Volt threshold has been reached.
Absolute maximum input voltage is 50Vac/dc.



● Lighting Innovation - Introducing SOLO... Stock One LED Only

MY REQUIREMENTS

Notes and My Requirements for SOLO:

Quantity Required:

Colour:

My Reference:

Delivery Required:

My Name:

Company Name:

Contact Telephone / Email:

If you would like a quotation for the above requirements,
please photocopy this sheet and fax it back to Marl International on:

FAX: 01229 585155

for a prompt reply