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## Sigmaguard LED Style L Signal

LED Signal Technology at Incandescent Prices



### Benefits

Housings for 1, 2, 3 or 4 aspects
Low whole-of-life cost
Reliability far surpasses incandescent signals
Integral mounting for PJ1 Single Arm junction route indicators
Long service life
Low power consumption
Phantom-free design
High strength, lightweight, polycarbonate LED Element enclosure, IP65 rated
200 mm diameter
5-year standard warranty

### Exceptional Value

Benefit from the superior performance of premium LED signals for a price similar to incandescent signals.

### Exceptional Reliability

Multiple LEDs and parallel circuitry combined with the exceptional reliability of LED technology leads to lower maintenance costs and fewer train delays than incandescent lamps—essential for today's rail industry.

### Application

The Style L signal housing is designed for Siemens LED signal modules. It allows the full benefit of LED technology without sacrificing the essential functional requirements of mounting, rigidity and adjustment.

## Description

Houses 1, 2, 3 or 4 high-reliability LED modules.

Powder coated, marine grade aluminium housing exploits the full benefits of LED signal elements.

Rear access through a single hinged door is not hindered by aspect separators required for incandescent signals. Abundant room for cable termination, internal wiring and replacement or maintaining of modules.

Two series:

- Standard—suitable for most applications
- 92G—optimised for use with VHLC, EC-4, EC-5, Electrologix, MicroLok II, GenraKode and VPI

## Reliability

Doesn't rely on a single light source for safety-critical signalling applications: multiple LEDs in the signal elements are arranged as an interconnected matrix.

Not only are LEDs over 1000 times more reliable than incandescent lamps, but the light output will never reduce by more than 5% if one fails.

Siemens confidently provides a 5-year warranty.

## Lenses

An individual built-in lens for each LED improves beam deflection and provides greater light concentration.

Lens options are:

- medium spread
- intermediate
- long range

## Construction

High strength polycarbonate LED element enclosure provides:

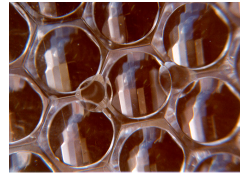
- clarity and superior optical properties
- resistance to heat distortion
- resistance to impact
- UV stability
- sealing to IP65 rating

## Lamp Proving Load Options

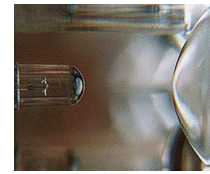
Please discuss your requirements with us.

## See also:

- Datasheet 1A-8—LED retrofit kits for colour light signals
- Datasheet 9A-3—flashing light LED signals and retrofit kits
- Datasheet 1A-11—140 mm subsidiary LED signal applications



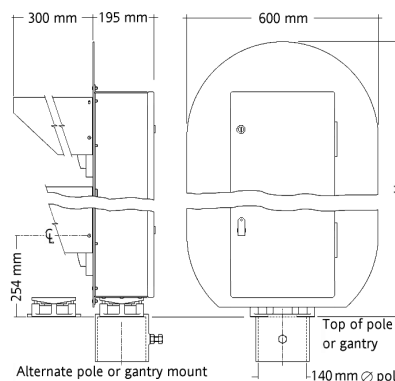
Individual multi-faceted lenses put the light precisely where it's needed



Closeup of a single LED with individual lens

## Specifications

	12 Vdc	110 Vac	
<b>Supply voltage range</b>	6.0–16 Vac 8.0–16 Vdc	85–135 Vac	
<b>Nominal power—Standard series</b>	<b>Medium</b>	<b>Intermediate</b>	<b>Long</b>
at 12 Vdc, or 110 Vac	Red 7.0 W Yellow 11.0 W Green 8.0 W White 8.0 W Blue 8.0 W	7.0 W 7.8 W 8.0 W 8.0 W 8.0 W	7.0 W 7.8 W 8.0 W 8.0 W 8.0 W
<b>Nominal current—92G series @ 12 Vdc</b>	Red 1.7 A Yellow 1.7 A Green 1.5 A White 1.5 A	1.5 A 1.5 A 1.5 A 1.6 A	
This family of signals do not draw constant power; power increases with voltage There are no ac versions			
<b>Guaranteed off voltage</b> (signal will always be totally dark below this voltage)	7.3 Vdc 3.5 Vdc	45 Vac (59 Vac for -70)	
<b>Total harmonic distortion</b> (ac only)	< 20% over full Vac range		
<b>Power factor</b> (ac only)	> 0.9 over full Vac range		
<b>Surge protection</b>	Applied for 80 ms	45 Vrms	360 Vrms
<b>Electrical noise</b>	AREMA part 11.5.1 Class A FCC title 47 B section 15		
<b>Operating temperature</b>	-40°C to +74°C		
<b>Resistance to dust and moisture</b>	IP65		
<b>Resistance to vibration</b>	AREMA Section 11 Class B		
<b>Weight of head</b> (approx)	1 aspect 14 kg, 3 aspect 25 kg		
<b>Module diameter</b>	200 mm (nominal)		
<b>Illuminated aspect diameter</b>	180 mm (nominal)		
<b>Colour</b>			
Wavelength and chromaticity	Red 630 nm, Yellow 592 nm, Green 508 nm, White 0.310, Blue 0.130	x=0.704, x=0.592, x=0.089, x=0.310, x=0.130	y=0.295, y=0.406, y=0.475, y=0.320, y=0.075
(white & blue to special order)			
<b>Typical sighting distances</b>	Medium spread (suburban and low speed country use)	600 m	against bright skyline
	Intermediate (country use)	1.5 km	against bright skyline
	Long (country use with long sighting distances)	2.5 km	against bright skyline



Number of aspects	H mm	Aspect spacing
1	560	280 mm
2	840	
3	1120	
4	1400	

## Ordering

Please provide:

- number and colours of aspects
- lens type
- supply voltage
- module options
- top-of-post or gantry mounting
- housing back colour

See our Product List or call our sales staff.

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