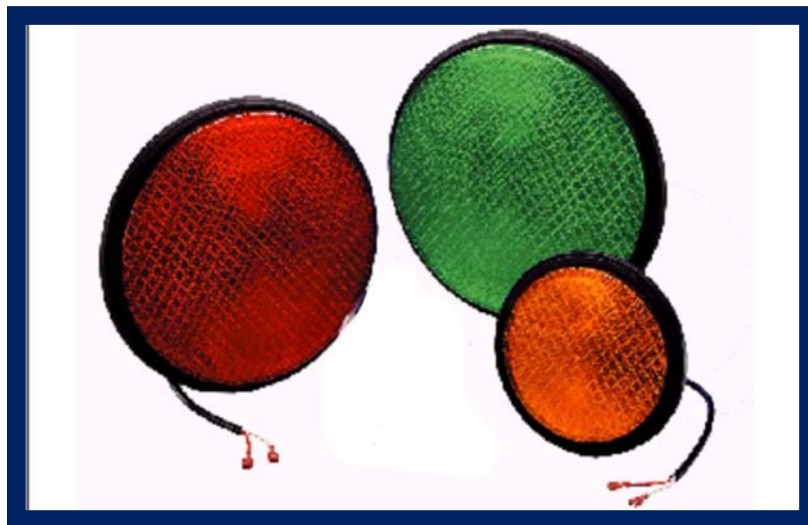


# LED Traffic Signal

## 433 Series



12 VDC

### Features:

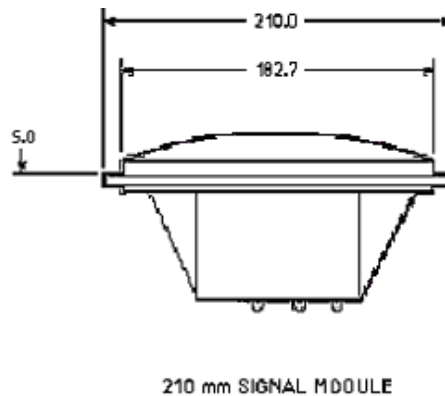
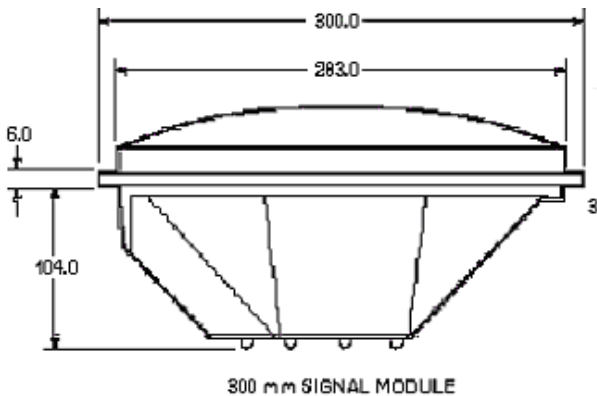
- Clustered LED's as Light Source
- Sealed for Life Unit
- Durable Materials
- Rim Dimensions Matching Existing Housings

### Benefits:

- Low Energy Consumption
- Uniform Luminance of the Front Lens
- Long and Reliable Service Life
- Easy Installation in the Door of a Signal Housing

A fully contained low wattage LED Traffic Signal Module meeting European specification EN12368 class A2/1 type W. The module is primarily intended for use as a retrofit unit for traffic signals that are currently equipped with incandescent, low voltage Krypton or Halogen light sources. The LED Traffic Signal Module comprises a high Flux LED light source, Fresnel lens, and tinted or non tinted front lens. The Fresnel lens is sealed to the housing to create a dust and waterproof system. Key features of the signal are very low power consumption and a smooth, uniform appearance when illuminated. The optics and drive circuits are designed so that the failure of a single LED will neither create a dark spot, nor reduce the signal intensity.

### Dimensions:



### Optical Characteristics:

at  $T_A = 25\text{ }^\circ\text{C}$  (Typical Values 210 mm Unless Otherwise Stated)

Parameter	Symbol	Red	Amber	Green	Units
Light distribution (210mm & 300mm)		A2/1 type W	A2/1 type W	A2/1 type W	
Luminous Intensity	$I_V$	300	300	400	cd
Dominant Wavelength	$\lambda_d$	615-631,5	585-597	498,5-508	nm
Luminance Uniformity		>1:10	>1:10	>1:10	$L_{min}:L_{max}$
Phantom Class tinted lens		3	3	5	$I_s:I_{ph}$
Phantom Class non tinted lens		1	1	1	$I_s:I_{ph}$

### Electrical Characteristics:

at  $T_A = 25\text{ }^\circ\text{C}$

12VDC Version					
Parameter	Symbol	Red	Amber	Green	Units
Maximum Power Consumption	$P_{MAX}$	5	8	5	W
Voltage Range	VDC	10.8 - 13.2			V

### Thermal Characteristics: (All Part Numbers)

Parameter	Symbol	210 mm	300 mm	Units
Operating Temperature <sup>[1]</sup>	T <sub>OP</sub>	-40 to +60		°C
Thermal Resistance, Junction to Ambient <sup>[2]</sup>	R <sub>ΘJ-A</sub>	2,5	2	K/W

Notes:

- 1.Refers to the ambient temperature range when power is applied to the module.
- 2.At 60 °C based on total dissipated system power.

### Mechanical Data:

Parameter	210 mm	300 mm	Units
Minimum Weight	1,53		kg
Vibrations	IEC 68-2-34		
Impact Lens	EN 60598-1 Clause 4.13.4,Class IR3		
Protection Grade	EN 60529 test 13 and 14,rating IP 65		
Relative Humidity	Up to 95%		
Flammability	V-0 (US requirement)		
Minimum Cable Length Outside of Housing	1		m
Symbols	Painted on the outer lens		
Packing	12 signals per box	6 signals per box	

#### Part Numbers

##### 210mm

143364 Red (coloured lens)  
 143365 Amber (coloured lens)  
 143366 Green (coloured lens)  
 143397 White (clear lens)

##### 300mm

143376 Red (coloured lens)  
 143367 Amber (coloured lens)   
 143377 Green (coloured lens)   
 143400 White (clear lens)

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