

## LED Traffic Signal

Series 438 12Vdc / 24Vdc  
200 mm / 300 mm



View of blackened lens  
type signal when off

- **High efficiencies as a result of the new High Flux Reflector Technology and Central Light Source**
- **No Colour Phantom when fitted with the blackened (smoked effect) lens**
- **Unrivalled reading contrast**

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## Optical advantages and characteristics

	Typical Data		Standard		Definition	
	200 mm	300 mm	200 mm	300 mm	200 mm	300 mm
<b>Luminous Intensity</b> Red Yellow Green	350 cd 350 cd 350 cd	400 cd 400 cd 400 cd	EN 12368, 6.3, Tab. 1		B 2/1 Type W	B3/1 Type N
<b>Light distribution</b>	Wide angle	Narrow angle	EN 12368, 6.4, Tab. 3	EN 12368, 6.4, Tab. 5	Type W, category B	Type N, category B
<b>Uniformity</b>	minimum 1: 2,2	minimum 1: 2,4	EN 12368, 6.5		>1:10	>1:15
<b>Phantom light</b>	No colour phantom (black lens)		EN 12368, 6.6		No 'false' signal in direct sunlight	
<b>Ratio signal light / reflection</b>	Red > 16 Yellow > 16 Green > 16	Red > 16 Yellow > 8 Green > 16	EN 12368, 6.6		class 5 class 5 class 5	class 5 class 4 class 5
<b>Light colours</b>	Red, Yellow, Green, White		EN 12368, 6.7 DIN 6163, Part 5			

Data based on the black outer lens type

measured at room temperature

## Electrical characteristics: Preliminary

	Typical power consumption		Current	
	12 VDC	24 VDC	12 VDC	24 VDC
<b>Red</b>	7 Watt	6 Watt	580 mA	250 mA
<b>Yellow</b>	7 Watt	6 Watt	580 mA	250 mA
<b>Green</b>	7 Watt	6 Watt	580 mA	250 mA
<b>White</b>	7 Watt	6 Watt	580 mA	250 mA

measured at room temperature. Input Voltage range 9VDC to 30VDC

## Ambient Conditions

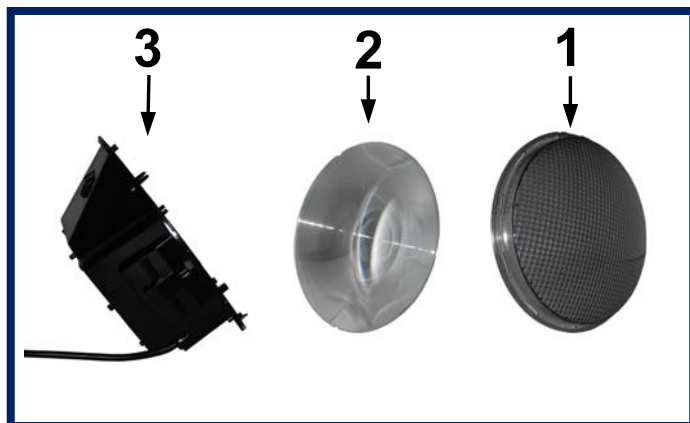
<b>Storage temperature</b>	<b>-20°C to +60°C</b>
<b>Storage relative humidity</b>	<b>Max. 70%</b>
<b>Operating temperature</b>	<b>-40°C to +60°C</b>

## Part Numbers

	Blackened outer lens	Coloured outer lens
<b>200mm</b>	<b>Red 143954</b>	<b>Red 143962</b>
	<b>Amber 143955</b>	<b>Amber 143963</b>
	<b>Green 143956</b>	<b>Green 143964</b>
	<b>White 143960</b>	<b>N/A</b>
<b>300mm</b>	<b>Red 143957</b>	<b>Red 143965</b>
	<b>Amber 143958</b>	<b>Amber 143966</b>
	<b>Green 143959</b>	<b>Green 143967</b>
	<b>White 143961</b>	<b>N/A</b>

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## Composition

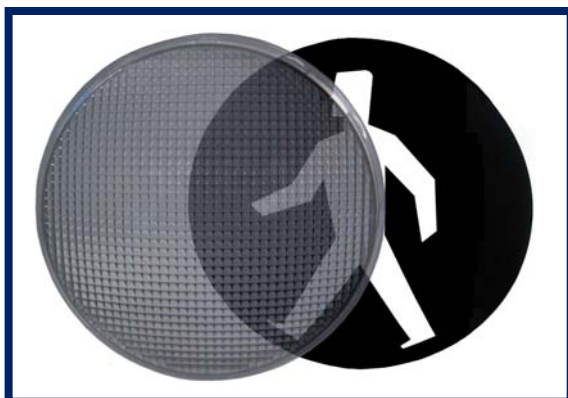


- 1. Front lens material:**  
Polycarbonate.  
(Black and colour dye lens available)
- 2. Fresnel lens material:**  
Clear Acrylic
- 3. Base housing material:**  
Polycarbonate

## Symbols

### Flexible symbol design

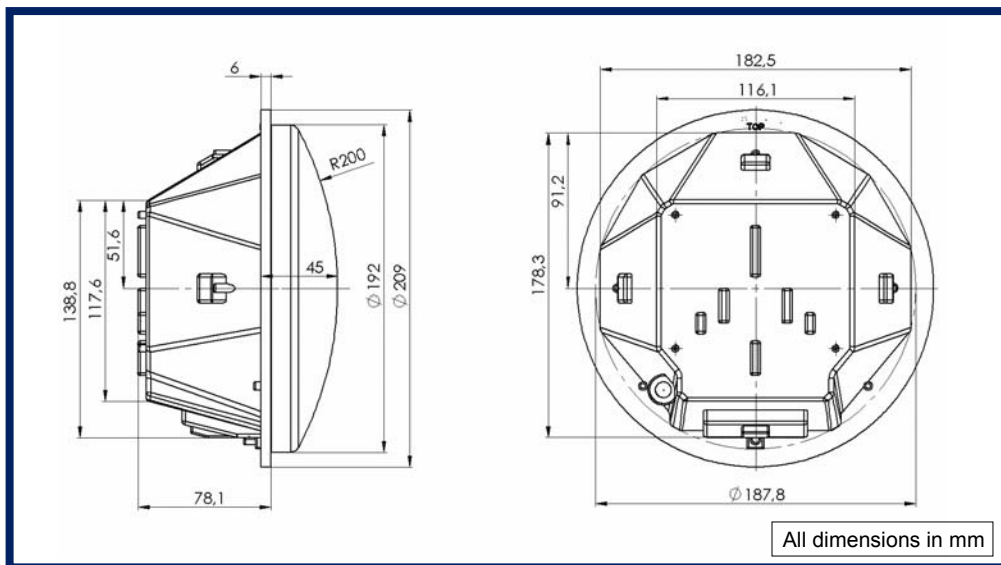
Standard or customised symbol designs can be supplied on laser-cut, polycarbonate masks. The mask is mounted inside the outer lens or supplied separately. The outer lens can be supplied in a 'semi-locked' condition to allow the mask to be swapped or removed before the lens is finally locked in position and installed.



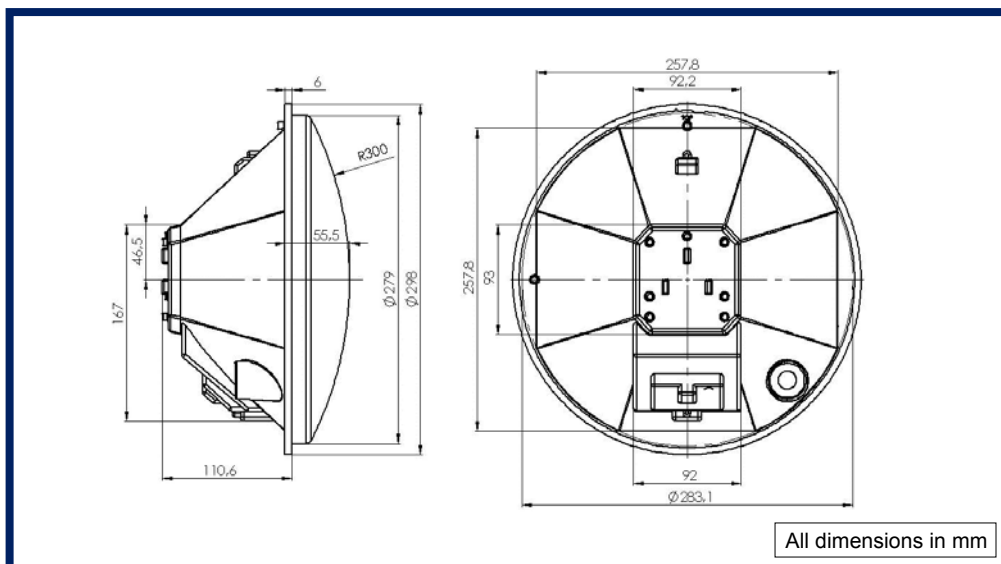
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## Dimensions

### 200mm



### 300mm



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