

LED Traffic Signal

Series 438 230Vac

Astrin 1+
(Dimmable 160Vac)

200mm / 300mm
Blackened Lens



- 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

Dialight Garufo GmbH
Gewerbepark Spörrerau 25, 85368 Wang, Deutschland
Tel.: +49(0)8709/9249-0 Fax: +49(0)8709/9249-10
Email: sales@dialightgarufo.com
Internet: www.dialightgarufo.com

Optical advantages and characteristics

	Typical Data		Standard		Definition	
	200 mm	300 mm	200 mm	300 mm	200 mm	300 mm
Luminous Intensity Red Yellow Green	500 cd 450 cd 450 cd	500 cd 450 cd 450 cd	EN 12368, 6.3, Tab. 1		A 3/1 Type W	A 3/1 Type W
Light distribution	Wide angle	Wide angle	EN 12368, 6.4, Tab. 3	EN 12368, 6.4, Tab. 3	Type W, category A	Type W, category A
Uniformity	minimum 1 : 3,1	minimum 1 : 3,4	EN 12368, 6.5		>1 : 10	>1 : 10
Phantom light	No colour phantom (black lens)		EN 12368, 6.6		No 'false' signal in direct sunlight	
Ratio signal light / reflection	Red > 8 Yellow > 8 Green > 8	Red > 8 Yellow > 5 Green > 8	EN 12368, 6.6		class 4 class 4 class 3	class 4 class 3 class 3
Light colours	Red, Yellow, Green, White		EN 12368, 6.7 DIN 6163, Part 5			

measured at room temperature

Electrical characteristics: Preliminary

	Typical power consumption Bright Mode 230Vac	Typical power consumption Dim Mode 160Vac	Current at 230Vac	Current at 160Vac
Red	12 Watt	7.5 Watt	52mA	47mA
Yellow	12 Watt	7.5 Watt	52mA	47mA
Green	13.5 Watt	9 Watt	58mA	56mA
White	13.5 Watt	9 Watt	58mA	56mA

measured at room temperature

Ambient Conditions

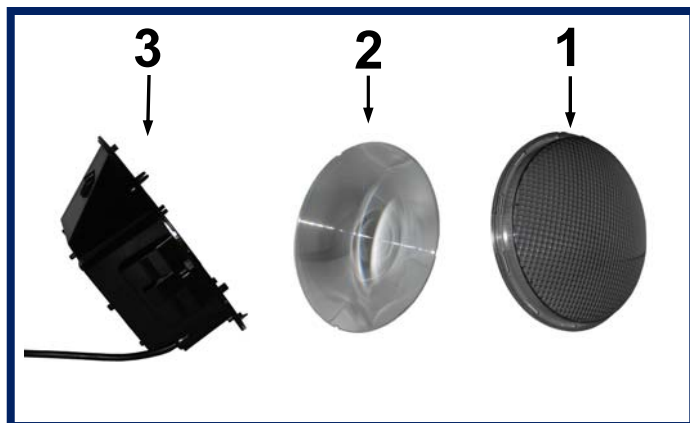
Storage temperature	-20°C to +60°C
Storage relative humidity	Maximum 70%
Operating temperature	-40°C to +60°C

Part Numbers

	Black outer lens
200mm	Red 143932
	Amber 143933
	Green 143934
	White N/A
300mm	Red 143935
	Amber 143936
	Green 143937
	White N/A

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Composition

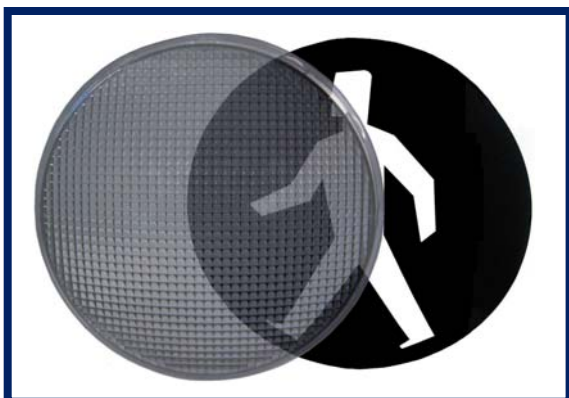


- 1. Front lens material:**
Polycarbonate.
(Black and colour dye lens available)
- 2. Fresnel lens material:**
Clear Acrylic
- 3. Base housing material:**
Polycarbonate

Symbols

Flexible symbol design

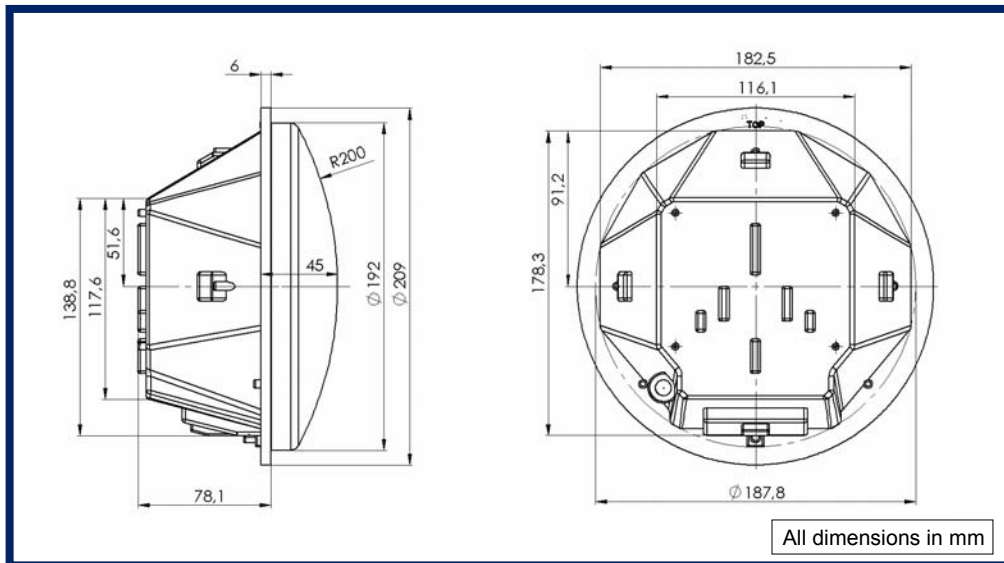
Standard or customised symbol designs can be supplied on laser-cut, polycarbonate masks. The mask is mounted inside the outer lens or supplied separately. The outer lens can be supplied in a 'semi-locked' condition to allow the mask to be swapped or removed before the lens is finally locked in position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



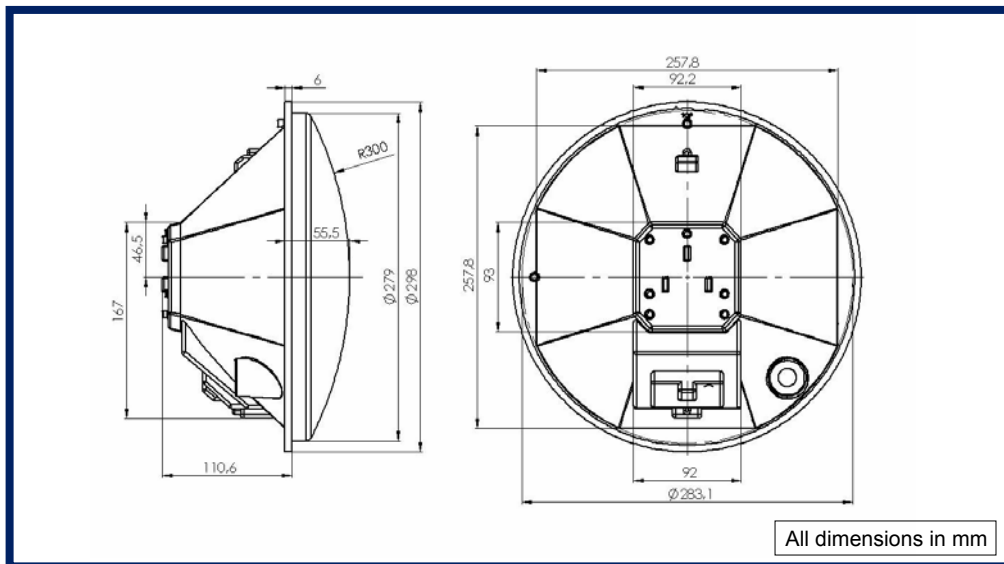
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Dimensions

200mm



300mm



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