



FUTURLED 3 RETROFIT MODULES: the easiest way to retrofit conventional signals with state-of-the-art LED traffic signal heads

## FUTURLED3

TRAFFIC SIGNAL MODULES – THE STANDARD FOR HIGHEST OPTICAL PERFORMANCE

With more than 2,500,000 FUTURLED3 units sold, SWARCO FUTURIT impressively underscores its outstanding position and know-how in LED signalling technology. Over 10 years of experience in the development and manufacture of LED-based signals allow us to offer highly reliable, state-of-the-art products. The central light source combined with the dual lens system enables a brilliant and very uniform signal display.



### KEY BENEFITS

- no LED dots visible, very uniform signal glow – central light source
- highest anti-phantom performance (class 5)
- lowest power consumption and brilliant light output
- all products traceable by serial number
- custom-made masks allow any symbol display
- life cycle > 5 years
- optimum heat balance reduces degradation to a minimum
- automatic light compensation in case of diode failure
- proven technology
- dimming function available
- VDE-compliant FUTURLED3 modules available
- also available with clear lens
- modules compliant to local norms available (UK, South Africa)
- optical monitoring available
- compatible with standard-conforming signal head housings



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### TECHNICAL DETAILS 230V

Diameter	100 mm	210 mm	300 mm
<b>Luminous intensity acc. to EN12368</b>	Not applicable	red > 200 cd amber > 200 cd green > 200 cd	red > 400 cd amber > 400 cd green > 400 cd
<b>Optical performance acc. to EN12368</b>	Not applicable	B2/1, W	B3/1, N
<b>Colour acc. to EN12368</b>	red 613.5 - 631 nm, amber 585 - 597 nm, green 498.5-508 nm, white 5000 – 7000 K		
<b>Uniformity of Luminance acc. to EN12368</b>	Not applicable	better than 1 : 2.5	
<b>LED type</b>	High Flux		
<b>Phantom light class</b>	Not applicable	Class 5	
<b>Power Factor</b>	> 0,9		
<b>Operating Voltage bright mode/dimmed mode</b>	196 – 265 V / n.a.	196 – 265 V / 160 V – 180 V (light output is reduced to app. 50 % of normal level if the input voltage is decreased)	
<b>Frequency</b>	45 – 55 Hz		



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<b>Power consumption: typically bright mode / dimmed mode</b>	red 5 W / n.a. amber 5 W / n.a. green 5 W / n.a. white 5 W / n.a.	red 8 W / 4 W amber 8 W / 4 W green 9 W / 4.5 W white 9 W / 4.5 W	
<b>EMC</b>	acc. EN 50293		
<b>Cable</b>	2 x 0.75 mm <sup>2</sup> ; 1 m		
<b>Ambient temperature range acc. to EN12368</b>	Class A, B, C		
<b>Protection Class</b>	Safety Class II acc. to EN 60598		
<b>Tightness</b>	IP 65 acc. to EN 60598		
<b>Impact resistance</b>	Class IR3; acc. to EN 60598-1		
<b>Material of lens / housing</b>	UV-stabilized polycarbonate		
<b>Weight</b>	< 0.25 kg	< 1.0 kg	< 1.5 kg
<b>Dimensions (incl. front lens)</b>	Ø 108 x 72 mm	Ø 210 x 117 mm	Ø 300 x 149 mm





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**TECHNICAL DETAILS 12V / 24V**

Diameter	Ø 210 mm	Ø 300 mm	Ø 210 mm	Ø 300 mm
<b>Luminous intensity acc. to EN12368</b>	red > 200 cd amber > 200 cd green > 200 cd	red > 400 cd amber > 400 cd green > 400 cd	red > 200 cd amber > 200 cd green > 200 cd	red > 400 cd amber > 400 cd green > 400 cd
<b>Optical performance acc. to EN12368</b>	B2/1, W	B3/1, N	B2/1, W	B3/1, N
<b>Colour acc. to EN12368</b>	red 613.5 - 631 nm amber 585 - 597 nm green 498.5-508 nm white 5000 – 7000 K			
<b>Uniformity of Luminance acc. to EN12368</b>	better than 1 : 2.5			
<b>LED type</b>	High Flux			
<b>Phantom light class</b>	Class 4			
<b>Power Factor</b>	> 0,9			
<b>Operating Voltage bright mode/dimmed mode</b>	12V DC (+10%; -15%)	12V DC (+10%; -15%)	24V AC/DC (+10%; -15%)	24V AC/DC (+10%; -15%)
<b>Frequency</b>	-	-	24V AC: 50 Hz (+/- 5%)	24V AC: 50 Hz (+/- 5%)



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<b>Power consumption: typically bright mode / dimmed</b>	red 4 W amber 4 W green 4 W white 4 W	red 4 W amber 4 W green 4 W white 4 W	red 12 W amber 12 W green 12 W white 12 W	red 12 W amber 12 W green 12 W white 12 W
<b>EMC</b>	acc. EN 50293			
<b>Cable</b>	2 x 0.75 mm <sup>2</sup> ; 1 m			
<b>Ambient temperature range acc. to EN1236</b>	Class A, B, C			
<b>Protection Class</b>	Safety Class II acc. to EN 60598			
<b>Tightness</b>	IP 65 acc. to EN 60598			
<b>Impact resistance</b>	Class IR3; acc. to EN 60598-1			
<b>Material of lens / housing</b>	UV-stabilized polycarbonate			
<b>Weight</b>	< 1.0 kg	< 1.5 kg	< 1.0 kg	< 1.5 kg
<b>Dimensions (incl. front lens)</b>	Ø 210 x 117 mm	Ø 300 x 149 mm	Ø 210 x 117 mm	Ø 300 x 149 mm



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**TECHNICAL DETAILS 40V / 42V**

Diameter	100 mm	210 mm	300 mm
Luminous intensity acc. to EN12368	Not applicable	red > 200 cd amber > 200 cd green > 200 cd	red > 400 cd amber > 400 cd green > 400 cd
Optical performance acc. to EN12368	Not applicable	B2/1, W	B3/1, N
Colour acc. to EN12368		red 613.5 - 631 nm amber 585 - 597 nm green 498.5-508 nm white 5000 – 7000 K	
Uniformity of Luminance acc. to EN12368	Not applicable		better than 1 : 2.5
LED type		High Flux	
Phantom light class	Not applicable		Class 5
Power Factor		> 0,9	
Operating Voltage bright mode	40V AC (+25 %; - 15%) - OCIT	40V AC (+25 %; - 15%) - OCIT 42V AC 36V - 50V AC) - ASTRIN Class II	
dimmed mode	not available	31 V AC (+10%; -15%) - ASTRIN Klasse II	
Frequency		50 Hz (+/- 10%)	



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<b>Power consumption: typically bright mode / dimmed mode</b>	red, amber, green, white 5 W / n.a.	According to OCIT-/ASTRIN Cl. II-specifications	
<b>EMC</b>	acc. EN 50293		
<b>Cable</b>	2 x 0.75 mm <sup>2</sup> ; 1 m		
<b>Ambient temperature range</b>	Class A, B, C acc. to EN12368		
<b>Protection Class</b>	Safety Class II acc. to EN 60598		
<b>Tightness</b>	IP 65 acc. to EN 60598		
<b>Impact resistance</b>	Class IR3; acc. to EN 60598-1		
<b>Material of lens / housing</b>	UV-stabilized polycarbonate		
<b>Weight</b>	< 0.25 kg	< 1.0 kg	< 1.5 kg
<b>Dimensions (incl. front lens)</b>	Ø 106 x 72 mm	Ø 210 x 117 mm	Ø 300 x 149 mm





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PICTURES







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## YOUR CONTACT

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