



SCAE



SP/LED

Led Traffic signal



The traffic signal heads based on Light-Emitting Diodes (LEDs) provide, compared to traditional signal heads based on incandescent lamp, the following advantages.

- 1) They considerably reduce the managing costs in consideration of:
 - lower power absorption (the installed power is reduced of 80%)
 - a considerably longer average life (10 years)
 - a complete absence of maintenance during life time (it is eliminated the problem of replacing preventive lamps and of corrective interventions for burnt lamps).
- 2) They exclude occasional false signalling caused by the sun beams (Phantomeffect).
- 3) They contribute to improve reliability and availability of the traffic signal plant, ensuring higher safety of people in the road traffic.

www.scae.net



LED MODULE

LED TRAFFIC SIGNAL HEADS SCAE SP

They use innovative LED modules at high intensity based on latest technology. The optical unit is composed by a unique block with IP65 protection that replaces the conventional components up-to-now used, such as lenses, reflectors, lamp holders and lamps. A limited number of Leds, maximum 4, generates a luminous coloured source with high intensity whose rays, adjusted by 2 special lenses, give the signal a high, directional and uniform visibility. Powerful and lasting optics is mounted inside a strong and elegant traffic signal head.

BENEFITS

- BETTER VISIBILITY
- HIGHER TRAFFIC SAFETY
- CONSIDERABLE ENERGY SAVING
- LONGER LIFE
- MAINTENANCE FREE

TECHNICAL DATA OF LED MODULES		
Traffic signal	210 mm	300 mm
Light intensity	Red > 400cd Yellow > 200cd Green > 400cd White > 400cd	Red > 400cd Yellow > 400cd Green > 400cd
Dimmer	Nighttime = 50%	
Color	Red/Yellow/Green/White	
Led type	High Flux	
Operating voltage	190-265Vac 12Vdc 32-42Vac 24Vac/dc	
Power consumption	< 10W	
EMC	EN 50293 : class B	
Power factor	> 0.9	
Temperature range	- 40°C + 60°C	
Rel. Humidity	< 95%	
Protection degree	EN 60529 : IP65	
Material lens/housing	Polycarbonate	
Weight	< 1.0 Kg.	< 1.5 Kg.
Dimensions (incl. Front lens)	Ø210 x 100.2 mm	Ø300 x 132.4 mm

CONFORMITY STANDARDS

SP Led traffic signals are approved by Italian Government with Homologation certificate n° 46762 and have CE certification according to EN12368 norm obtained by accredited laboratory (CE certificate n° 1328-CPR-0218 and N° 1328-CPR-0219).



COMPARISON OF POWER CONSUMPTION

Traffic signal Ø 210 mm	Incandescent optics	Led optics	Energy saving
Power	70 W	8 W	81%
Yearly power consumption	613 kW/h	113,8 KW/h	
Traffic signal Ø 300 mm	Incandescent optics	Led optics	Energy saving
Power	100 W	8 W	87%
Yearly power consumption	876 kW/h	113,8 KW/h	

SP/LED: RESULTS OF CONFORMITY TESTS CARRIED OUT BY ACCREDITED LABORATORIES

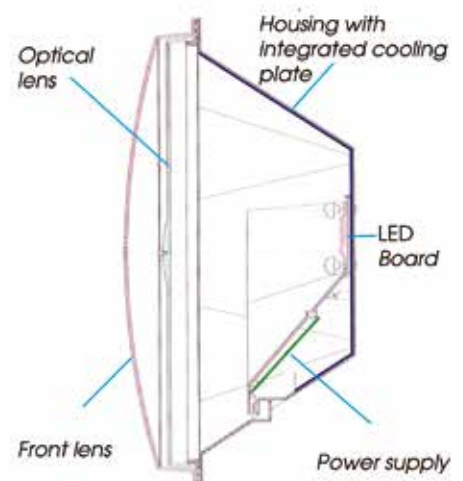
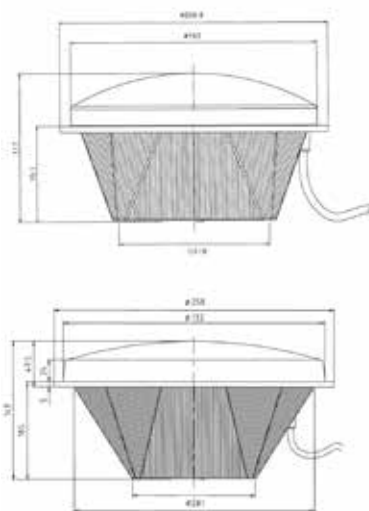
PARAMETER	210 mm				300 mm			NORM
	Green	Amber	Red	White	Green	Amber	Red	
Luminous intensity	>500 cd	>300 cd	>600 cd	>463 cd	>900 cd	>600 cd	>1200 cd	EN 12368
Intensity class	B 3/2	B 2/2	B 3/2	B 3/2	B 3/2	B 2/2	B 3/2	EN 12368
Distribution of luminous intensity	W				W			EN 12368
Lighting uniformity	> 1:10				> 1:10			EN 12368
Phantom signal class	5	5	5	3	5	5	5	EN 12368
Trichromatic coordinates	x=0,073 y=0,572	x=0,594 y=0,405	x=0,704 y=0,295	x=0,319 y=0,314	x=0,085 y=0,590	x=0,599 y=0,400	x=0,706 y=0,293	EN 12368
Environmental class	A - B - C				A - B - C			EN 12368
Protection degree	IP 55				IP 55			EN 60529
Impact resistance	IR3 (AC3)				IR3 (AC3)			EN 12368
Vibration resistance	Conform				Conform			EN 12368
Isolation class	Class II				Class II			EN 60598-2-3

*Certificates and test reports available on request

LED OPTICAL MODULE	DIMENSIONS	STRUCTURE
--------------------	------------	-----------

Excess thermal stress leads to reduced life of electrical components. The intelligent design of the housing ensures efficient removal of heat from the hermetically sealed casing. Failure of individual LEDs are detected electronically.

Intact LEDs then compensate the loss caused by defected LEDs in order to ensure a constant performance of the optics. LED optical module can be supplied assembled with the door for an easy replacement into usual traffic signals with incandescent lamps.



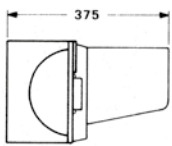


STRUCTURAL FEATURES

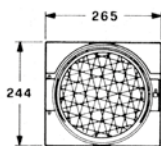
Structure with sectional elements $\varnothing 210$ mm $\varnothing 300$ mm in higher quality polycarbonate, UV stabilized, paste coloured, available in the following standard colours: Green, Yellow, Black.

- Monobloc optics with led technology.
- Available with grey lens (not coloured).
- Doors with rapid clutch and spring-lock handle.
- Visor with rapid clutch.
- Possibility of vertical or horizontal mounting.
- Fixing for wall support, bandit and for hanging up on a cantilever pole or rope.

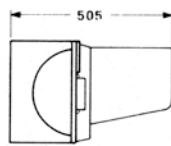
DIMENSIONS



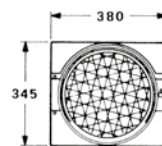
SP1/L



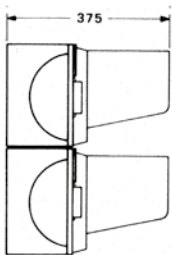
$\varnothing 210$



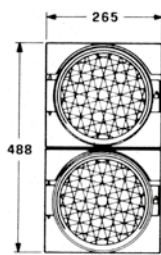
SPP1/L



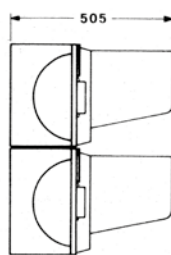
$\varnothing 300$



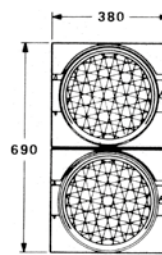
SP2/L



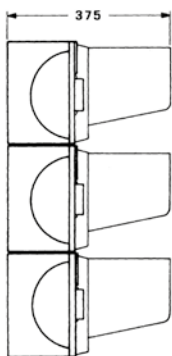
$\varnothing 210$



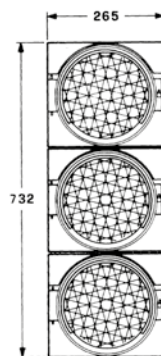
SPP2/L



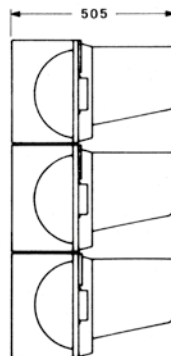
$\varnothing 300$



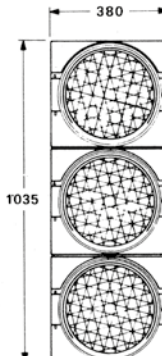
SP3/L



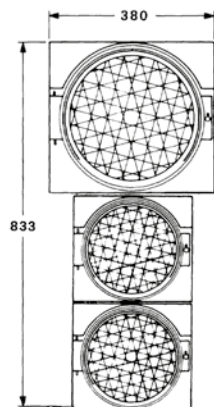
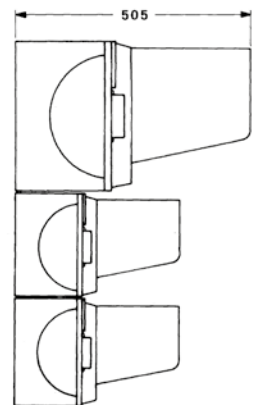
$\varnothing 210$



SPP3/L



$\varnothing 300$



SP3M/L
2 x $\varnothing 210$
1 x $\varnothing 300$

MASKS WITH SYMBOL IN BLACK POLYCARBONATE $\varnothing 210$ AND $\varnothing 300$



SEMAFORI • CONTROLLI • AUTOMAZIONE • ELETTRONICA

SCAE S.p.a. - 20090 Segrate - MILANO (ITALY) - Via Volta, 6

Tel. +39 02 26 930.1 - Fax +39 02 26 930.310

Cap. Soc. 3.000.000,00 i.v. Reg. Imprese MI 679633 C.F. e P. IVA 00857000152

www.scae.net - e-mail: info@scae.net