



SCAE



SP/LED LED Traffic Signal

Traffic lights with LED optics offer the following advantages compared to traditional traffic lights with incandescent lamp optics:

1. Significantly reduced operating costs, thanks to:
 - Lower power consumption (installed power is reduced by 89%).
 - Much longer average lifespan (approximately 10 years).
 - No maintenance required throughout the product's life cycle (eliminates the need for preventive bulb replacement and corrective interventions for burnt-out lamps).
2. Elimination of false signals caused by sunlight reflections (Phantom effect).
3. Increased reliability and availability of the traffic light system, contributing to greater safety for road users.



MODULO LED



SCAE SP traffic lights feature innovative optical modules equipped with next-generation high-intensity LEDs. The optical unit is a monoblock with IP55 protection that replaces all traditional components such as lenses, reflectors, lamp holders, and bulbs.

A limited number of LEDs—no more than three—generate a high-intensity colored light source. The beam, focused through two special lenses, provides a bright, directional, and uniform signal.

The powerful and long-lasting optical system is housed inside a robust and elegant traffic light body.

Advantages

- Improved visibility
- Enhanced traffic safety
- Significant energy savings
- Longer service life
- Maintenance-free operation

| TECHNICAL SPECIFICATIONS – LED MODULES | | |
|--|---|--|
| Diameter | 210mm | 300mm |
| Luminous Intensity | Red > 400cd Yellow > 200cd Green > 400cd White > 400cd | Red > 400cd Yellow > 400cd Green > 400cd |
| Dimmer | Night mode =50% | |
| Color | Red/Yellow/Green/White | |
| LED Type | DRAGON High Flux | |
| Operating Voltage | 190-265Vac 12Vdc 32-42Vac 24Vdc | |
| Power Consumption | <10W (12/24V LE version <3W) | |
| EMC | EN50293: class B | |
| Power | >0.9 | |
| Temperature Range | -40°C +60°C | |
| Relative Humidity | <95% | |
| Protection Rating | EN60529: IP65 | |
| Material | Polycarbonate | |
| Weight | <1.0 Kg | <1.5 Kg |
| Dimensions | Ø210 x100.2mm | Ø300 x132.4mm |

Standards Compliance

SCAE SP LED traffic lights are approved by the Italian Ministry with homologation certificate no. 46762 and are CE certified in accordance with the EN12368 standard, issued by an accredited laboratory (CE Certificate No. 1304-CPR-0062).

| ENERGY COMPARISON | | | |
|--------------------|---------------------|-------------|---------|
| Lantern Ø 210 mm | Incandescent optics | LED Optics | Savings |
| Power | 70W | 8W | 81% |
| Annual Consumption | 613 KW/h | 113,80 KW/h | |
| Lantern Ø 300 mm | Incandescent optics | LED Optics | Savings |
| Power | 100W | 8W | 87% |
| Annual Consumption | 876 KW/h | 113,80 KW/h | |



| COMPLIANCE TEST RESULTS – AT ACCREDITED LABORATORIES | | | | | | | |
|--|--|--------------------|--------------------|--|--------------------|--------------------|--------------|
| Parameter | 200mm (230Vac) | | | 300mm (230Vac) | | | Standard |
| | Green | Yellow | Red | Green | Yellow | Red | |
| Class TYPE N (Narrow beam signal) | A2/1, A3/1, B2/2, B3/2 | | | A3/1, B2/2, B3/2 | | | EN 12368 |
| Class TYPE W (Wide beam signal) | A2/1, A3/1, B1/2, B2/1 B2/2, B3/2 | | | A3/1, B1/2, B2/2, B3/2 | | | EN 12368 |
| Class TYPE M (Medium beam signal) | A2/1, A3/1, A2/2, A3/2 | | | A3/1, A2/2, A3/2 | | | EN 12368 |
| Luminance Uniformity | ≥10(for Type E, W and M) ≥15 (for Type N) | | | ≥10(for Type E, W and M) ≥15 (for Type N) | | | EN 12368 |
| Phantom Class | 5 | | | 5 | | | EN 12368 |
| Trichromatic Coordinates | x=0,076 y=0,572 | x=0,585 y=0,414 | x=0,700 y=0,300 | x=0,071 y=0,578 | x=0,590 y=0,409 | x=0,707 y=0,295 | EN 12368 |
| Temperature Range Classes | A, B, C | | | A, B, C | | | EN 12368 |
| IP | IP55 | | | IP55 | | | EN 60529 |
| Impact Resistance | IR3 (AC3) | | | IR3(AC3) | | | EN 12368 |
| Vibration Resistance | Compliant | | | Compliant | | | EN 12368 |
| Insulation Class | Class II | | | Class II | | | EN 60598-2-3 |

LED MODULE

DIMENSIONS

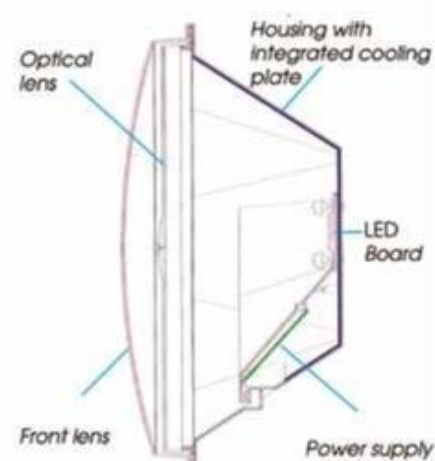
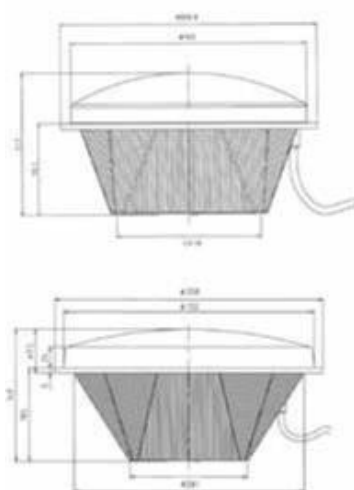
COMPOSITION

An excessive operating temperature reduces the lifespan of electronic components.

An intelligent housing design allows for efficient heat dissipation from the sealed enclosure.

Any faults in individual LEDs are electronically detected. These losses are compensated by the functioning LEDs to ensure consistent optical performance.

The optical module can be supplied pre-mounted on the door for quick replacement in conventional incandescent lamp traffic lights.



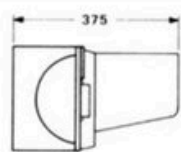


Construction Features

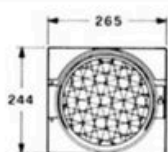
Modular design with combinable elements \varnothing 210 mm and \varnothing 300 mm, made of high-quality UV-stabilized polycarbonate, colored in the mass and available in standard colors: Green, Yellow, Black.

- Monoblock LED technology optics.
- Quick-insert front covers with snap-lock handle.
- Available with grey (colorless) lenses.
- Quick-insert sun visors.
- Vertical or horizontal mounting options.
- Fittings for pole mounting, bandit brackets, and suspension on cantilever or wire.

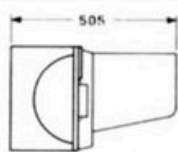
Dimensions



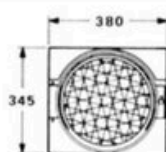
SP1/L



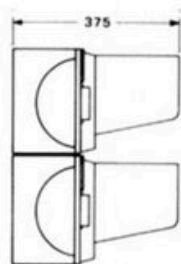
\varnothing 210mm



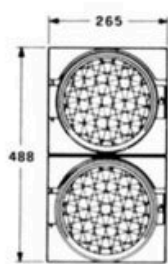
SPP1/L



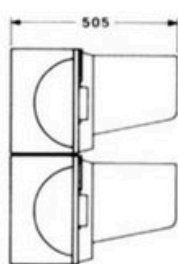
\varnothing 300mm



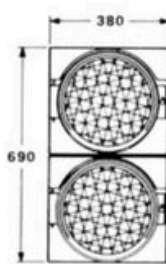
SP2/L



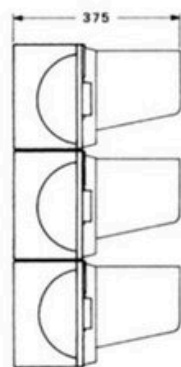
\varnothing 210mm



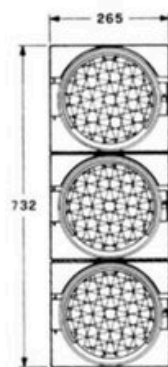
SPP2/L



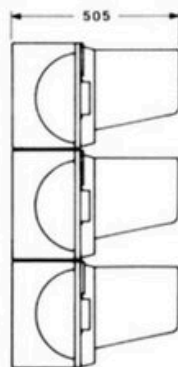
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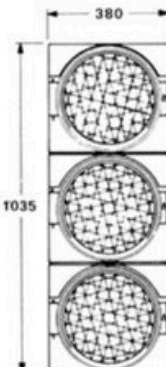
SP3/L



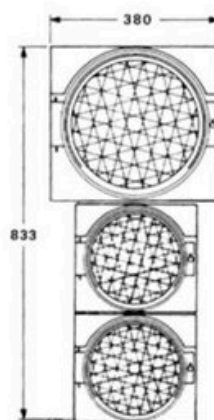
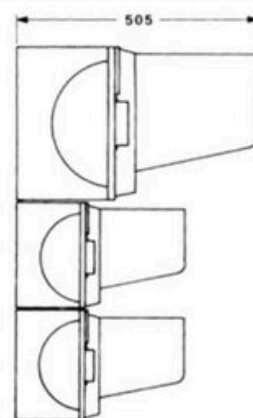
\varnothing 210mm



SPP3/L



\varnothing 300mm



SPP3/L 2 x \varnothing 210mm
1 x \varnothing 300mm

Black polycarbonate symbol masks \varnothing 210 mm and \varnothing 300 mm



SEMAFORI • CONTROLLI • AUTOMAZIONE • ELETTRONICA

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