



SECURITE & SIGNALISATION



Luminance

Dynamic Message Signs

Dynamic



New expectation

SES launches a new DMS solution with the Luminance range.

What guided us during the Luminance development phase?

- To be innovative and use a simple and reliable technology
- To anticipate and answer our clients needs when installing DMS
- To improve DMS system operation by offering easy and cost saving maintenance actions

Luminance innovations are:

- A great display modularity to answer all your needs
- An advanced but simple electronic architecture for more reliability
- An innovative mechanical design
- A global solution for a successful traffic management

Luminance is a whole range of solutions for performing information and traffic management.

Standard evolution with EN 12966

Today, all DMS that are to be installed in the European Union shall be **CE** marked and certified by independent laboratories according to EN 12966 standard.

What is the European standard about?

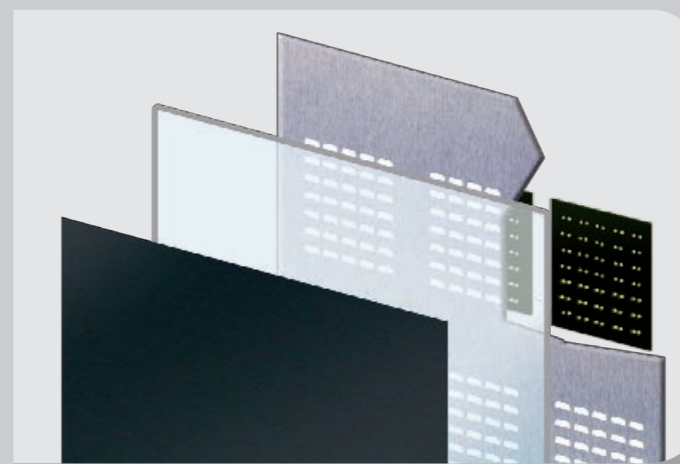
It modulates optical performances of the DMS according to the roads on which DMS are installed. Mechanical, environmental and electrical criteria are also defined to reach a high level of resistance to loads and environment. With the combination of all these criteria, **CE** marked Luminance DMS reach the best message legibility.

These criteria are:

- luminance of the DMS
- contrast ratio
- angularity
- LED chromaticity
- ...

All models of Luminance DMS are certified by independent laboratories according to EN 12966 and NEMA TS4 standards.

SES is certified ISO 9001: 2000.



High performance display

SES mask™, patented system, helps achieve Luminance outstanding optical performances.

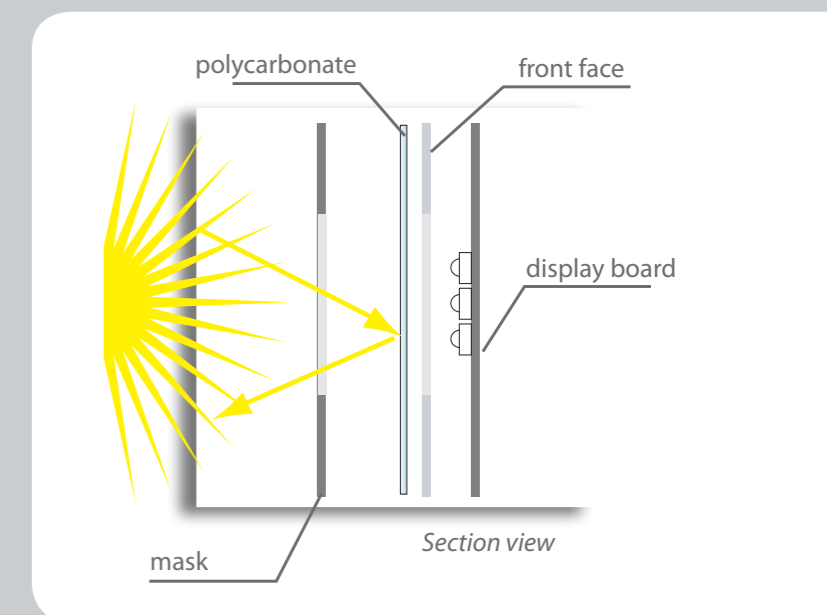
The mask is the main element of the display system; it is covered with a black adhesive that diverts the ambient light away from the drivers' field of vision. It highly increases contrast ratio and LEDs luminosity.

The mask acts as a screen and protects LEDs from sun light. They do not reflect ambient light. Then, messages can be perfectly read in any conditions.

The mask also protects the housing from reaching high temperature.

Space between the mask and the front face allows an air circulation that helps cool the air inside the sign and maintain an optimum temperature.

Electronic components are protected and operate in their optimum range of temperature. It ensures long life of every component.



The modular design of Luminance allows many possibilities in terms of display.

With 3 different colours and an angularity perfectly adapted to DMS installed on highways, Luminance offers the latest LED technology.

Our last generation of display boards have very few components and an optimized power consumption: these innovations allow saving running costs as for energy and maintenance.

With SES mask, LEDs can reflect very little ambient light: this technology has a major role in reaching a high contrast in any conditions. Then, messages are always legible and display is homogeneous.

Luminance : a complete and flexible solution

• Flashers

In order to enhance your message, 2 or 4 flashers (equipped with Surface Mounted LEDs) can be integrated into the contrast borders, on each side, at the end of the top and bottom line for instance.

• Access

SES proposes several choices to provide access to the sign such as Walk In, Canopy doors, Rear and Front access.



*maintenance tunnel
(aluminium or canvas)*



canopy door



rear access



walk-in

• Housing

Luminance housing is made of several modules using an aluminium profile with a specific design. This modular design combines lightness and rigidity.

• Graphics

SES designed three different sizes of matrix graphic area in order to harmonize display of graphics and lines. The graphic area can be red, amber or white.

A line matrix can be added to complete graphics visual impact.

• Messages

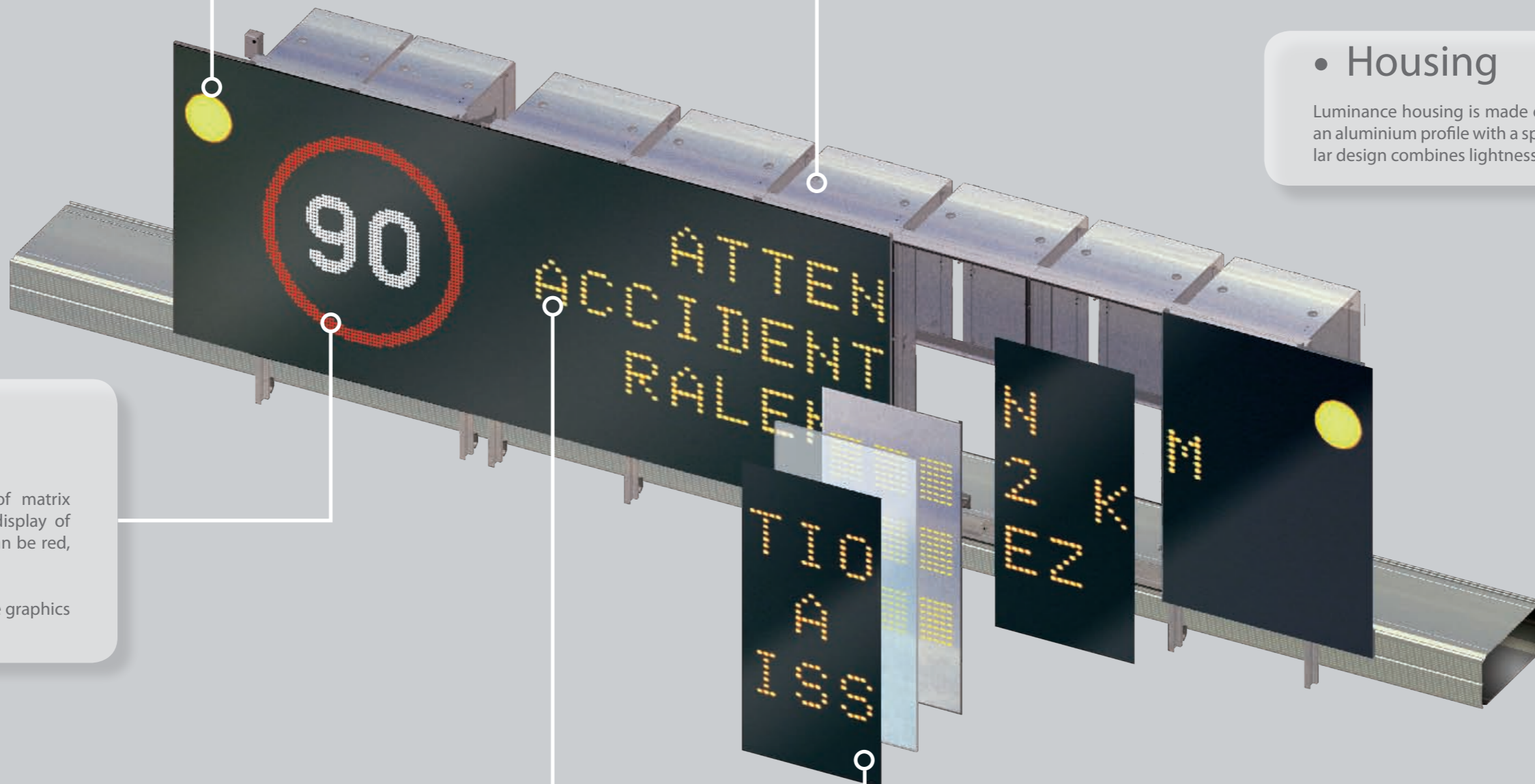
Pixels are organized in a matrix to make a character. These characters form lines and matrix areas in amber, white or red colour.





Several display styles are available:

- Fixed messages
- Flashing messages
- Scrolling messages
- Alternating two messages

• Mask

The outstanding optical performances of Luminance are reached thanks to SES patented mask system.



Models (character height)	Display	Graphics
Luminance 16 (160mm)	 Character matrix	 32 x 32 pixels 48 x 48 pixels 64 x 64 pixels
Luminance 20 (200mm)	 Line matrix	
Luminance 25 (250mm)	 Line matrix	Line matrix under graphics
Luminance 32 (320mm)		1L 55 pixels 160 mm character size 1L 55 pixels 200 mm character size
Luminance 40 (400mm)		Flashers
Luminance 46 (457mm)		200 mm diameter 300 mm diameter
Luminance 47 (464mm)		

Models	Character matrix		Line matrix		Full matrix	
	Number of lines	Number of characters	Number of lines	Length (in pixels)	Height (in pixels)	Length (in pixels)
16	1 / 2 / 3 / 4	12 / 15	-	-	-	-
20		12 / 15	1 / 2 / 3	75 / 90	21 / 28	75 / 90
25		15 / 18	-	-	-	-
32		12 / 15 / 18	1 / 2 / 3	75 / 90 / 110	21 / 28	75 / 90 / 110
40		15 / 18 / 21	-	-	-	-
46		12 / 15 / 18 / 21	1 / 2 / 3	75 / 90 / 110 / 125	21 / 28	75 / 90 / 110 / 125
47*	-	-	2	160 / 200 / 240	-	-

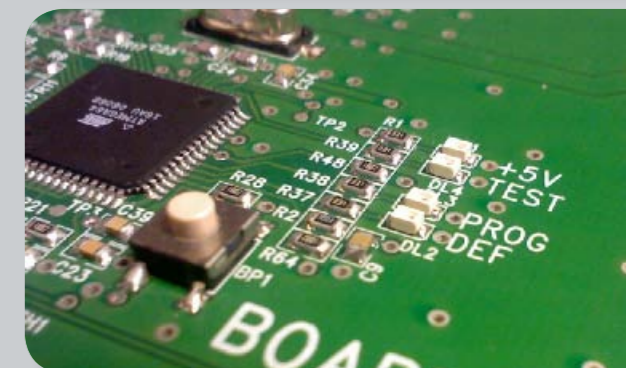
* Model dedicated to languages such as Arabic, Chinese...

All electronic components (display boards, flashers, temperature and light sensors...) are linked on the same RS485 data bus.

The integration of electronic components:

- simplifies maintenance due to a continuous auto diagnosis of components,
- increases reliability of electronics as there are fewer connexions,
- and provides a perfect communication path between all components.

Every display board is "intelligent". It has its own visual indicators and communicates continuously with the controller.



New generation controller

SCU6 - SES new generation of controller - is designed to offer a high flexibility in variable message signs control.

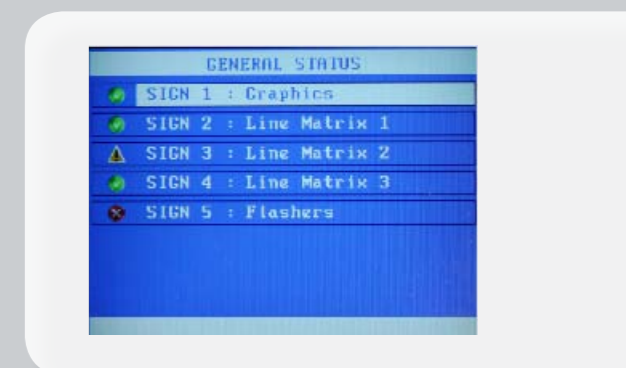
Performance: memory and processor rates are increased.

Versatility: NTCIP and LCR languages

Open system: the user is free to choose between several ports of communication (two RS232, two RS485, two Ethernet and 8 digital I/O).

Ergonomics: a user-friendly color screen for an immediate and simple diagnosis.

Mobility: a WiFi access to the screen menus via a PDA or laptop.





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