



e-Aspect is a railway wayside LED signal developed according to SIL4 safety integrity level criteria and produced with local resources with its LED modules and outer body compatible with different interlocking systems

e-Aspect LED module aims to safely display the visual notifications provided by the control units in rail systems such as railroads, subways and trams that form an interface between the interlocking and the driver.

Technical Specifications:

- Control unit installed with 1oo2 architecture that meets safety critical and RAMS requirements
- Constant current within the operating voltage range (same current value for Day and Night mode)
- Day/Night mode with external voltage input or variation of input voltage
- LED matrix for long lasting and high quality light
- Aluminum housing withstands harsh environmental conditions
- 5 different color options (Yellow, Red, Green, Green, Blue, White) and different pin order connector for each color
- Long distance visibility with the use of LEDs with 15° dispersion angle
- Increase the brightness of non-faulty LEDs in case of failure of some of the LEDs (up to 30%)
- Current graph with resistive characteristics for compatibility with conventional signaling systems
- **Operating Temperature Range:** -40 °C / +70 °C
- **Protection Class:** IP65
- EMC compliance according to **EN-50121-1** and **EN-50121-4** standards
- Compliance with environmental requirements according to **EN-60068-2-11/27/30/64**
- SIL4 safety integrity according to **EN-50126**, **EN-50128** and **EN-50129** standards
- **MTBF**>1.750.000 hour(40°), **Life Time**>15 year, **Availability**>%99.999



E/ASPECT

RAIL SYSTEMS
WAYSIDE
ALPHANUMERIC SIGNAL

Elsitel e-Aspect Alphanumeric signal is a signal lamp that can be integrated into wayside signals, designed with fully led notification, showing both direction and speed information of the next signal for the train driver.



Technical Specifications:

- Automatic switching to Day/Night mode depending on outdoor brightness
- Single housing for 5 different aspects
- Constant current within the operating voltage range (same current value for Day and Night mode)
- Optional 20W or 50W $\pm 10\%$
- LED matrix for long lasting and high quality light
- Long distance visibility with the use of LEDs with 15° dispersion angle
- **Operating Temperature Range:** -40 °C / +70 °C
- **Housing:** Aluminum Etial-171, RAL 7001(Chassis), RAL 9005 (Front visible parts) UV resistant paint, IP65 and IK05 Protection
- **Front Face:** Solid Polycarbonate with UV resistant
- EMC compliance according to **EN-50121-1** and **EN-50121-4** standards
- Compliance with environmental requirements according to **EN-60068-2-11/27/30/64**

E/ASPECT

RAILWAY SYSTEMS
WAYSIDE LED
SIGNAL

e-Aspect outer body is a modular solution developed and produced with local resources.

Technical Specifications:

- Aluminium Etial-171* alloy body
- RAL 9005* coded UV resistant paint
- IP 66 protection class
- Thanks to its modular structure, it can be used as high or dwarf signals with 2, 3, 4 aspect with the same body unit.
- Body which allows internal transformer usage
- Complete signal solution with prewired LED modules.

* It can be changed according to customer requirements

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References: Ankara-Sivas High Speed Train Line (Kayaş-Yerköy Line Section), Gaziray Project