



Porvoo, Finland

LED Airfield Guidance signs

General

Airfield guidance sign (EGS) is LED illuminated new design according to ICAO and EASA. It is rigid, robust, service free and easy to install. Also, with features like long lifetime, water resistance, homogeneous illumination, and linear load. EGS has compact design where all technics are located inside the frame to ease installation, transportation, and storage of the signs. Sign is the former Tway sign.



Applications:

- Mandatory sign - white inscription on red background
- Informative sign - black inscription on yellow background
- Other signs available on request

Certificates:

- ICAO ANNEX 14 Volume I
- EASA
- FAA



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LED Airfield Guidance signs

Following sign types are available:

- Mandatory sign - white inscription on red background
- Informative sign - black inscription on yellow background for indicate information, position, and direction.
- Arresting gear markers
- Runway distance remaining



Main Advantages:

- Aluminium frame with powder coating
- Frame default colour RAL 1021, front border colour black
- Easy access to power supplies (hatch of the back of the signs)
- Easy to install and remove
- possibility to change panel directly in field
- Fixing groove adapted with body (also frangible feature)
- Front plate made of UV resistance polycarbonate
- Legends at inner side of the from plate (high quality materials)
- Extra means to allow thermo-expansion and withstanding the jet blasts etc.

LED light source:

- Low power consumption
- Linear load (CCR Friendly)
- Long lifetime of light source
- Normally maintenance free
- LED moduler light source
- Homogenous illumination

Power supplies:

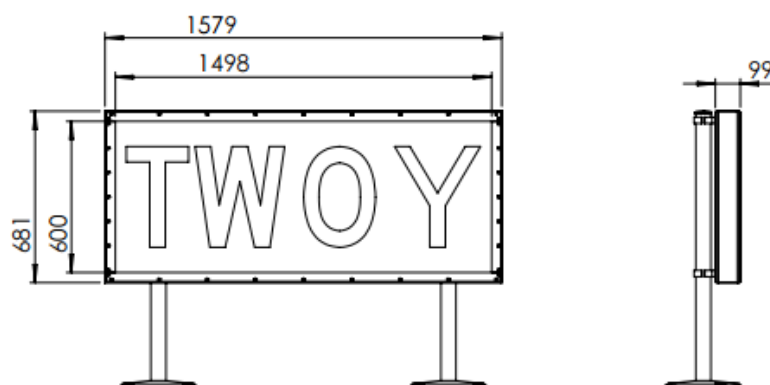
	Circuit type	Characteristics
1a	Series circuit 6.6A variable	Illumination varies according to the current
1b	Series circuit 6.6A constant	Illumination varies only slightly
2a	120V/230V	Normal mains
2b	12V/24V/48V	SELV and solar power
Low current versions available on request		

Design Characteristics

- The sign construction is design to comply with specifications in ICAO Annex 14, Volume 1
- All metal parts are either aluminium or stainless steel.
- The frame is of extruded aluminium profile and the rear panel of 1,5 mm aluminium.
- The legend face consists of 4 mm polycarbonate, which is pressed with correct force to by specially designed aluminium profile frame to the gasket.
- The joint between legend face and frame is sealed by gaskets to prevent dust and moisture passing into the sign.
- Protection class IP55/65 (With and without draining holes)
- Translucent films are fixed on the inside of the front panel.
- Tightness of connection between main body and face frame is ensured by using a gasket.
- Two drain holes at the bottom of the sign as default.

Technical characteristics

- Letters, characters and numerals according to ICAO Annex 14.
- Wind loading 240 km/h (ICAO). Wind loading 90 m/s (FAA).
- Height of the sign max 1100 mm.
- Installation on concrete pad.
- Operating humidity range 0-100
- Operating temperature range -40 +70
- Storage temperature range -60 +80
- Weight ~25kg/m
- Power factor ~0,95 (typical value with variable intensity)
- Protection glass IP55/65

Dimensions

LED Airfield Guidance signs

Nominal visible front plate size (mm)	Overall dimensions (mm)
EGS 600/500	681x570
EGS 600/1000	681x1070
EGS 600/1500	681x1579
EGS 600/2000	681x2088
EGS 600/2500	681x2597
EGS 600/3000	681x3106

Nominal visible front plate size (mm)	Overall dimensions (mm)
GS 800/500	881x570
TGS 800/1000	881x1070
TGS 800/1500	881x1579
TGS 800/2000	881x2088
TGS 800/2500	881x2597
TGS 800/3000	881x3106

Other sizes available on demand

Photometric

ICAO Annex 14 Volume 1 (5.4.1.7 b) and c) and 5.4.1.8)	ICAO	Typical value
Average luminance yellow	>150 cd/m ²	> 400cd/m ²
Average luminance red	>30 cd/m ²	>50 cd/m ²
Average luminance white	>300 cd/m ²	> 500cd/m ²
Maximum ratio between two adjacent points	< 1.5	< 1.1
Maximum ratio across sign	< 5,0	< 1.25

The chromaticity of aeronautical ground lights with solid state light sources, e.g. LEDs, CIE x-y-colour coordinate EGS fulfil easily the requirements of ICAO, Annex 14 Aerodromes Volume 1, July 2016 and EASA.

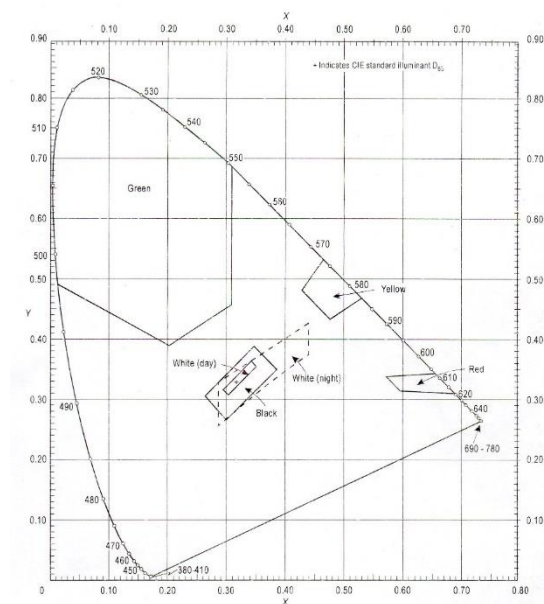


Figure A1-4. Colours of luminescent or transilluminated (internally illuminated) signs and panels