

LED AIRFIELD GUIDANCE SIGNS

General

TWOY guidance sign (TGS) is LED illuminated new design according to ICAO ANNEX 14 Section 5.4.

It is rigid, robust, service free and easy to install. Also, with features like long life time, water resistance, homogeneous illumination and linear load.

TGS has compact design where all technics are located inside the frame to ease installation, transportation and storage of the signs.



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
 - Aerodrome design manual part 4&6
 - IEC61827
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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 front 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 life time of light source
- Normally maintenance free
- LED modular light source
- Homogenous illumination

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 IP55/67

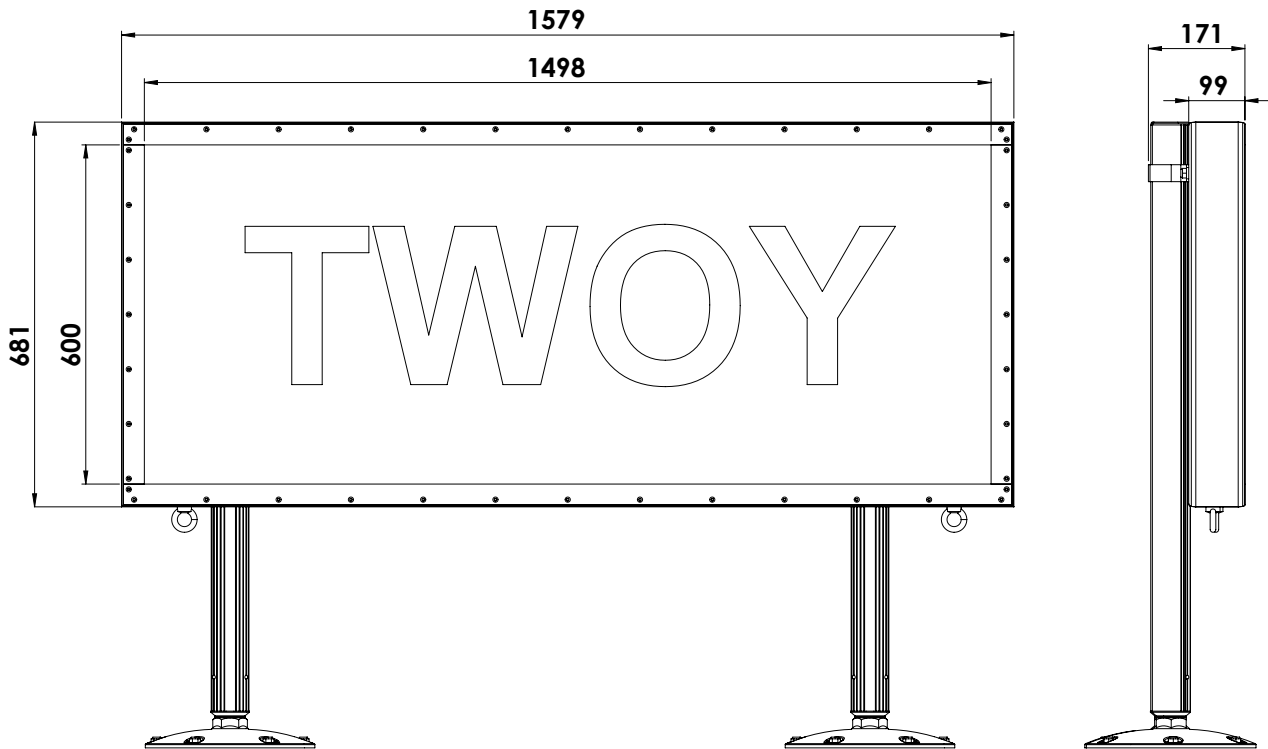


Design Characteristics

- 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 IP55/67
- 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.

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Dimensions



Nominal Front plate size (mm)	Overall dimensions (mm)
TGS 0650	681x570
TGS 06100	681x1070
TGS 06150	681x1579
TGS 06200	681x2088
TGS 06250	681x2597
TGS 06300	681x3106

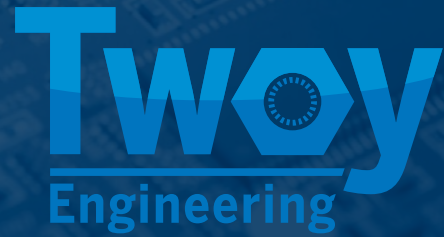
Nominal Front plate size (mm)	Overall dimensions (mm)
TGS 0850	881x570
TGS 08100	881x1070
TGS 08150	881x1579
TGS 08200	881x2088
TGS 05250	881x2597
TGS 08300	881x3106

Other sizes available on demand

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

Your necessity – our solution



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 chromaticities of aeronautical ground lights with solid state light sources, e.g. LEDs, CIE:n x-y-colour coordinate Tway TGS fulfil easily the requirements of ICAO, Annex 14 Aerodromes Volume 1, July 2016.

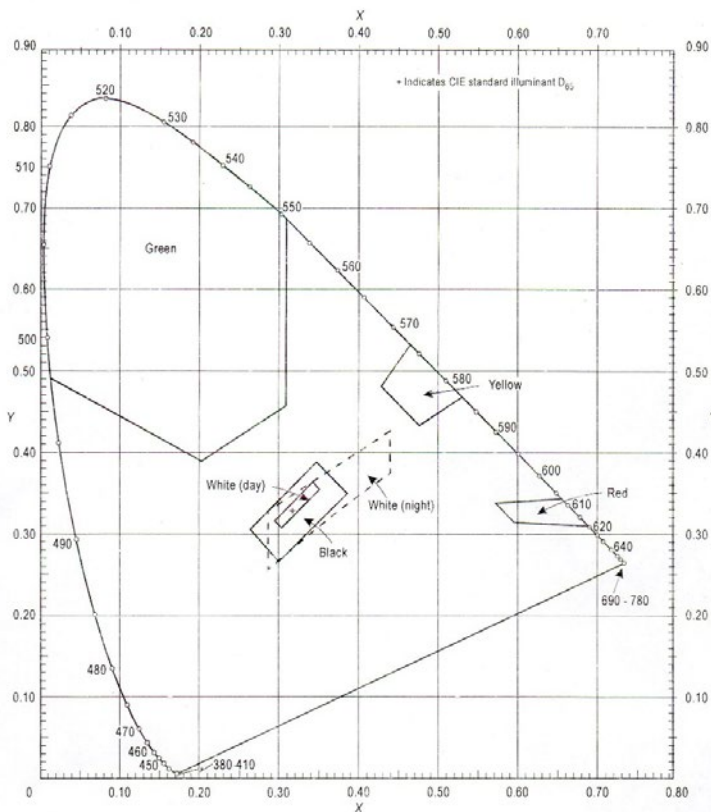


Figure A1-4. Colours of luminescent or transilluminated (internally illuminated) signs and panels

