

SHAH ELECTRONICS



Technical Datasheet SE-AGS-LED-1F SINGLE FACE LED AIRPORT GUIDANCE SIGN BOARDS

Product Name Single Face LED Airport Guidance Sign Boards

Model SE-AGS-LED-1F

Product Type Airport Guidance Sign Boards

Features

- Designed and developed as per ICAO Annex 14 and FAA Standards.
- Virtually eliminates runway shutdowns due to LED light source.
- Direct replacement for existing sign.
- Creates a highly uniform distribution of light, eliminating hot spots and shadows.
- Operates on ferroresonant or thyristor CCRs that are designed in compliance with FAA / ICAO-ANNEX-14 requirements.
- ➤ Operates on 3-step, 5-step and 6.6A series circuits.
- Eliminates re-lamping expenses and reduces on-going maintenance costs.
- ➤ Improved safety low, regulated DC voltage inside sign.
- Sign lumen maintenance of 70% (L70) minimum for greater than 5 years (assuming sign operates an average of 12 hours per day)
- **Applications:**
 - L-858Y-Direction, Destination, and Boundary (Informational Sign)
 - L-858R-Mandatory Sign
 - L-858L –Runway/Taxiway Location Sign

These signs are designed to guide pilots to a particular point on the field, identify holding positions, identify taxiway and runway intersections, and prohibit aircraft entry into designated areas.

L-858B-Runway Distance Remaining Sign

The L-858B is used at 1,000-foot intervals adjacent to the runway edge in order to provide runway distance remaining information to pilots during takeoff and landing operations.

Specifications:

1) Type of Sign Illumination : Trans illuminated signage with retro reflective sheets / regular sheets.

2) Lamp Type : LED.

3) Sign Power Input : Style-3 signs designed for operation from an airport series lighting circuit with a current range of 2.8 to 6.6 amperes or a current range of 8.5 to 20 amperes using Isolation Transformer In-between. (As per FAA - AC No: 150/5345-44F - Clause 4.1.4 – Sign Power.)

4) Wind Load and Frangibility : Legs provided with breakable coupling for frangibility; As per FAA - AC No: 150/5345-44F - Clause 4.8.3.2 Wind Load and Frangibility Test can withstand wind speed of and jet blast of 90 m/s. As per ICAO Annex 14 Ch. 11 Clause: 11.7.6.

5) Water Ingress Protection : As per FAA - AC No: 150/5345-44F - Clause - 4.8.4.5 Rain Test.

6) Low Temperature Tolerance : As per FAA - AC No: 150/5345-44F - Clause - 5.6.2.3 Low Temperature Test. 7) High Temperature Tolerance : As per FAA - AC No: 150/5345-44F - Clause - 5.6.2.4 High Temperature Test.

8) Luminance Ratio

Between red and white elements: 1:5 to 1:10 (For Mandatory Signs) (As per ICAO Annex 14 – Appendix-4 Clause: 5).

Between adjacent grid points: not more than 1.5:1 (for grid spacing 7.5 cm) (As per ICAO Annex 14 – Appendix-4 Clause: 8).

Between adjacent grid points: not more than 1.25:1 (for grid spacing 15 cm) (As per ICAO Annex 14 – Appendix-4 Clause: 8).

Maximum and Minimum Luminance over whole sign face: not more than 5:1(As per ICAO Annex 14 – Appendix-4 Clause: 8).

9) Arithmetic Average Value of Sign Luminance of (As per ICAO Annex 14- Appendix-4 Clause:4 (a))

: 30 cd/m2 Red Background : 150 cd/m2 Yellow Background White Background : 300 cd/m2

10) Sign Board Frame Work : Signage frame work contains thick anodized 2 mm thick aluminium profile work with stiffening support.

11) Sign Board Back Cover : 2 mm thick Aluminium sheet Back cover.

12) Sign Board Face : The signage face is made of 4mm thick poly carbonate glass with computerized cutting and pasting of regular vinyl or Retro-reflective vinyl of make 3M or equivalent.

: Signage Board with Built in Change over Circuit for Main and Stand-by C.C.R for automatic change over 13) Emergency Change Over

operation in case of Line / C.C.R Fault.

: Temperature: -40°F to +131°F (-40°C to +55°C) 14) Operating Temperature

To CCR-1 L-823 Connection to Isolation Transform of respective CCR To CCR- 2

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