PVH

Internally Illuminated Guidance Signs with Halogen Lamps



Compliance with Standards

ICAO: Annex 14, Volume I, para 5.4 and Appendix 4. CENELEC: pr ENV 50235/1996. NATO: STANAG 3316 Various national standards.

Uses

On Civil Aerodromes:

- Mandatory instruction signs
- Information signs
- VOR check-point sign

On Military Airbases: as above, plus:

- Runway distance-to-go signs
- Arrester barrier signs.

Features

- Reliable start and operation from -55°C to +55°C.
- High power factor, non-distorting load.
- Modular construction : commonality of mechanical and electrical components throughout entire sign range.
- 48 W 1500 hours cold mirror prefocus halogen lamp, common to all sizes.
- Good color contrast and sign legibility in daytime and night time conditions.
- No internal reflectors to achieve photometric requirements.
- Multi-lamp design and the use of lamp cut-outs safeguards signal availability in case of partial lamp failure.
- · Removable top panel for easy relamping.
- Message symbols obtained by self adhesive film, vacuum applied on panel inner face.
- Seamless message panels (up to 3.7 m long) made of long life, selfextinguishing polycarbonate; U.V., abrasion and high temperature resistant.
- 4 mm panel thickness exceeds industry standards for improved resistance to high winds and jet blast.
- 6.6 A series power supply, 50/60 Hz.

- Low mass, frangible yet rigid construction based on aluminum extrusions and panels.
- Frangibility according to ICAO or FAA requirements, withstanding wind velocities up to 322 km/h.
- IP34 protection class (IP44 in option)

Materials and Finish

Corrosion-proof, maintenance-free concept.

- Body: aluminum extrusions, panels, corner leg supports and mounting legs.
- Legend panel: long-life polycarbonate, UV- and abrasion-resistant, self-extinguishing.
- Plain stainless steel hardware.
- · Baked polyester powder coating, color: white RAL 9016.

Sign Selection

Extensive guidance material on the selection and the definition of the length of signs is provided in chapter 5.4 and Appendix 4 of ICAO Annex 14.

Sign sizes are governed by:

- 1. the runway code they are associated to (for their height)
- 2. their type: Mandatory or Information
- **3.** the message length.

Mandatory signs are used to identify a location beyond which an authorization from the tower is required to proceed. They include: road-, taxi- and Cat I, II and III holding position signs, runway designation signs and "NO ENTRY" signs. They have white legends on red background.

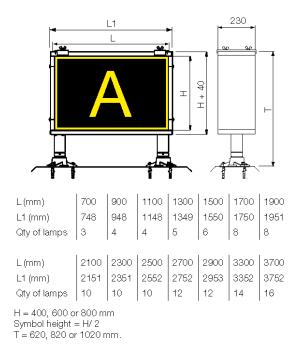
Information signs are all other signs (except runway distance signs) providing information on routing (direction or destination) and on location. Information signs have black lettering on yellow background, except location signs.

Location signs have a yellow legend on a black background. The message on stand-alone location signs is surrounded by a yellow border.



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Dimensions



Outline Dimensions (mm)

Standard Options

Bird deterrent

These polycarbonate strips with bayonet spikes, to deter the birds from sitting on the PVH, are located on the sign cover. An adhesive tape on the bottom of the strips and the provision for joining several strips, makes them easy to install.

Safety switch

This switch disconnects the power supply from the sign to allow safe maintenance.

Safety ropes

ADB Safegate strongly recommends the use of safety ropes in order to prevent signs flying around in case of accidental blow down due to exceptional wind gusts or jet blast.

Photometric Performances (Typical Values)

Lamp(s): 48 W, cold-mirror prefocus halogen, 1500 hours rated at full intensity

Average sign luminance

Calculated as per ICAO Annex 14, Appendix 4, Fig. 4.1.

| Color | Luminance (cd/m ²) | Min. ICAO requirement RVR <800 m | | |
|--------|--------------------------------|--|--|--|
| Red | 62 | 30 | | |
| Yellow | 225 | 150 | | |
| White | 320 | 300 | | |

- Red/White ratio: 1/7.1 (Specified :1/5 < Ratio < 1/10)
- Uniformity factor: 2.5/ 1 (Specified : <5/1) between maximum and minimum values over whole sign area.

Additional information

Colorimetry of sign in night condition

According to CIE no 39-2 (TC - 1,6) 1983 Fig. 4

| Color | x | У | |
|--------|---------|---------|--|
| Red | 0.68849 | 0.30517 | |
| Yellow | 0.53966 | 0.45563 | |
| White | 0.41179 | 0.40003 | |

Illuminant : internal source

CIE 1931 2. Standard Colorimetric Observer.



PVH

Power Consumption

| Qty of lamps | Series supply – 2.8 to 6.6 A | | | | | |
|--------------------|---------------------------------------|------------------|--|--|--|--|
| | ADB RST series transformers (W) | CCR load (VA) | | | | |
| 1 | 150 | 150 | | | | |
| 4 | 200 | 200 | | | | |
| 5 | 300 | 250 | | | | |
| 6 | 300 | 300 | | | | |
| 8 | 2 x 200 | 400 | | | | |
| 10 | 1 x 300 | 500 | | | | |
| | 1 x 200 | 500 | | | | |
| 12 | 2 x 300 | 600 | | | | |
| 14 | 1 x 300 | 700 | | | | |
| | 2 x 200 | 700 | | | | |
| 16 | 1 x 200 | 200 | | | | |
| | 2 x 300 | 800 | | | | |

Electrical Supply

Series: 2.8 to 6.6 A; through (a) suitable series transformer(s) (Fig.6). 2-core cable (length: 1 m) with FAA L-823, 2-pole plug supplied with the PVH.

Provision for earthing.

Ordering Code

PVH 06 4 23 0 S

| Face Height (H) 1 04 = 400 mm 1 06 = 600 mm 1 08 = 800 mm 1 | | |
|---|---|--|
| Power Supply 4 = Series circuit 6.6 | • | |
| Length (L) 07 = 700 mm 09 = 900 mm 11 = 1100 mm 13 = 1300 mm 15 = 1500 mm 17 = 1700 mm 19 = 1900 mm 21 = 2100 mm 23 = 2300 mm 23 = 2300 mm 33 = 3300 mm 37 = 3700 mm 0 | • | |
| S = Special requirements to be specified in full text | • | |

N.B: Each ordering code shall be completed with the legend panels and colors



PVH

Packing Data

| Length code | H = 400 | | | H = 600 | | H = 800 | | | |
|----------------|-----------------------|-----------------------|-------------------------|-----------------------|-----------------------|-------------------------|-----------------------|-----------------------|----------------------|
| | Net Weight (kg) | Packing sizes (mm) | Gross Weight (kg) | Net Weight (kg) | Packing sizes (mm) | Gross Weight (kg) | Net Weight (kg) | Packing sizes (mm) | Gross Weight (kg) |
| 07 | 19 | 350 × 630x 800 | 24 | 24 | 350 × 830 × 800 | 29 | 29 | 350 × 1030 × 800 | 34 |
| 09 | 21 | 350 × 630 × 1000 | 30 | 26 | 350 × 830 × 1000 | 35 | 31 | 350 × 1030 × 1000 | 40 |
| 11 | 25 | 350 × 630 × 1200 | 34 | 30 | 350 × 830 × 1200 | 39 | 35 | 350 × 1030 × 1200 | 44 |
| 13 | 29 | 350 × 630 × 1400 | 38 | 34 | 350 × 830 × 1400 | 43 | 39 | 350 × 1030 × 1400 | 48 |
| 15 | 34 | 350 × 630 × 1600 | 43 | 39 | 350 × 830 × 1600 | 48 | 44 | 350 × 1030 × 1600 | 53 |
| 17 | 40 | 350 × 630 × 1800 | 50 | 47 | 350 × 830 × 1800 | 57 | 56 | 350 × 1030 × 1800 | 66 |
| 19 | 42 | 350 × 630 × 2000 | 54 | 51 | 350 × 830 × 2000 | 61 | 58 | 350 × 1030 × 2000 | 70 |
| 21 | 44 | 350 × 630 × 2200 | 58 | 52 | 350 × 830 × 2200 | 65 | 60 | 350 × 1030 × 2200 | 74 |
| 23 | 49 | 350 × 630 × 2400 | 65 | 59 | 350 × 830 × 2400 | 75 | 69 | 350 × 1030 × 2400 | 85 |
| 25 | 53 | 350 × 630 × 2600 | 70 | 63 | 350 × 830 × 2600 | 80 | 73 | 350 × 1030 × 2600 | 90 |
| 27 | 58 | 350 × 630 × 2800 | 75 | 68 | 350 × 830 × 2800 | 85 | 78 | 350 × 1030 × 2800 | 95 |
| 29 | 63 | 350 × 630 × 3000 | 80 | 73 | 350 × 830 × 3000 | 90 | 83 | 350 × 1030 × 3000 | 100 |
| 33 | 69 | 350 × 630 × 3400 | 87 | 79 | 350 × 830 × 3400 | 97 | 89 | 350 × 1030 × 3400 | 107 |
| 37 | 79 | 350 × 630 × 3800 | 97 | 89 | 350 × 830 × 3800 | 107 | 99 | 350 × 1030 × 3800 | 117 |

Note: N.B. Panel height 1200 mm available on request.

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Product specifications may be subject to change, and specifications listed here are not binding. Confirm current specifications at time of order.