General

Electronic Hardware has been a manufacturer of transilluminated knobs for aircraft crew stations and related equipment for over 40 years. We are QPL approved to MIL-K-25049 and manufacture our knobs in accordance with SAE-AS-7788, NASM3926, MIL-L-85762, NVIS Green A and NVIS Green B. We are a major supplier to airframe manufacturers and their avionics equipment suppliers. We also supply directly to the government and the FAA.

Electronic Hardware Company's total capability to manufacture transilluminated knobs to your requirements starts with a complete review of your requirements. Our in-house capabilities include engineering, mold design, tooling, fabrication, marking, finishing and light testing. Our quality system is in accordance with MIL-1-45208 and certified to ISO 9001-2008. We have over 25,000 square feet dedicated to knob manufacture. Our unique molding method provides low cost tooling for your requirement. We utilize cellular manufacturing for assembly and finishing which provides superior quality and efficiency, and results in lower costs to you, our customer.

The knobs shown are made to industry and or MIL standards. The shaft depth counter bore depth, diameter, set screw position, marking, and color can be altered by request.

Illumination

Shall be shown as a percent of transmittance, defined as the percentage ratio of the brightness of the marking to the brightness of the light source applied at the bottom of the knob.

These readings are determined through the use of a light source which presents an evenly diffused circular lighted area. The shaft hole of the knob under test shall be plugged with an opaque material and the knob shall be placed concentrically over the circle of light and shall overlap it by .06 inch on all sides.

Light measurements shall be at five points along the index line, except over the metal insert on the top of the knob.

Markings

To enhance lighting and angle of visibility, knurling or flutes in the area of marking may be removed. We utilize laser engraving, pad printing, and hot stamping to provide excellent definition of marking while maintaining cost effectiveness.

Specifications

Plastic: Thermoplastic molding compound, clear for transilluminated knobs and colored for non-illuminated knobs. The material used meets the requirements of SAE-AS-7788, MIL-L-85762, and NASM3926.

Inserts: Brass in accordance with QQ-B-626 (or equivalent).

Set Screws: Style to be NASM51021.

Finish: Knob Colors:

White, Color Number 37875 per FED-STD-595 reflectance may be reduced to 50% minimum. Markings shall meet daylight contrast of 9 minimum.

Gray, Color Number 36231 per FED-STD-595.

Black, Color Number 37038 per FED-STD-595.

Other colors are available upon request.

Bottom surface of illuminated knobs shall have no coating and shall be clear.

Inserts:

Nickel plated per QQ-N-290, Grade G, Class 2.

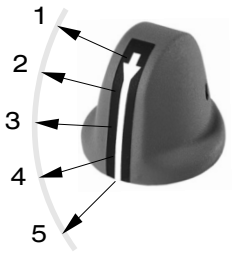
Tolerances: Dimensions are in inches.

Three-place decimal ±.010

Two-place decimal ±.02

Angles ±2°

Illumination: Unless specified, illumination ratio to be .05±25%, ex.Type III NVIS



This illustration is the method we utilize in obtaining brightness ratios. A uniformly illuminated source set to a specific brightness in foot lamberts. Photometric measurements are taken at 5 equally spaced locations along the marking, no readings are taken in the area above the metal insert. The average of the measurements (1-5) is the percentage of the brightness of markings to the brightness of the source. This is the brightness ratio, expressed as a decimal.