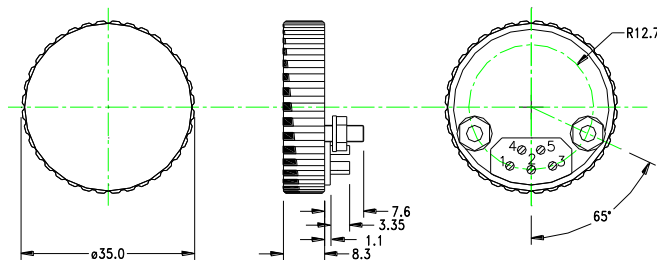


HEAD UP DISPLAY (HUD) THUMBWHEEL POTENTIOMETERS

Consolite's thumbwheel potentiometers and switches have been specially developed for illumination control on military avionics equipment. Consolite is the sole supplier of these devices for the F-16 fighter head-up display, where they have proven their reliability in many years of trouble free service. Consolite supplies similar units for Eurofighter Typhoon, F22, F5, T50, C-17 and Airbus A400M.

10k Ω L/H linear potentiometer switch



Both switching and non-switching versions are available in left or right hand configurations. Standard resistances of 1k Ω , 2k Ω , and 10k Ω , with both linear and logarithmic models can be supplied. Optical and mechanical encoders are also available in this format.

An example is shown in the illustration below. This unit is a 10k Ω L/H linear potentiometer switch used on the F-16. A smaller unit is manufactured with a 25mm diameter used on the Boeing C-17. A four position rotary switch is also produced in this size.

In excess of 40,000 units from this product family have been supplied Worldwide.



COMMERCIAL-IN-CONFIDENCE

Potentiometer Switch - Typical Specification

The following is a specification for a 10k Ω linear potentiometer switch of the type shown in the top illustration.

Technical Data.

Resistance 10 k Ω +/-20%
Power 0.5W +/-5% at 70°C

Potentiometer

Voltage 28V DC as Mil Std 704
Dielectric Strength 350V rms
Electrical Angle 303°

Switch

Voltage 28V DC as Mil Std 704
Current Rating 0.5A resistive
Contact Resistance 25M Ω max.

Mechanical Data.

Running Torque 5/7 Ncm
Switch 'on' Torque 10/15 Ncm
Switch 'off' Torque 10/15 Ncm
Weight 16g
Endurance 50k cycles

Environmental Data.

Mil Std 810C Method 507 proc 1 Humidity
Mil Std 810C Method 505 proc 1 Sunshine
Mil Std 810C Method 509 proc 1 Salt Spray
Mil Std 810C Method 510 proc 1 Sand and Dust
Mil Std 810C Method 511 proc 1 Explosive
Mil Std 810C Method 508 proc 1 Fungus Resistance
Mil Std 810 Method 519 proc 2 Gunfire/Vibration
Mil Std 108 Moisture

Temperature Range.

Operating Temperature -40°C to +71°C
Non Operating Temperature -54°C to +95°C