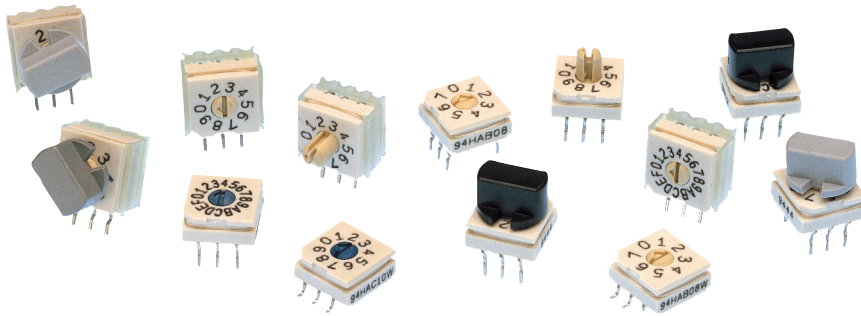


SERIES 94H
Binary Coded



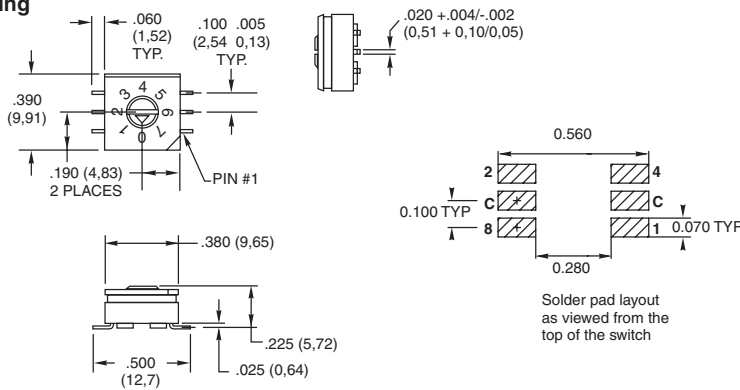
FEATURES

- Sealed Construction; No Tape Seal Required
- Surface Mount or Thru-Hole Style
- Tube or Tape and Reel Packaging
- Octal, BCD, and Hexadecimal Code
- In Standard or Complement
- Standard and Right Angle Mount
- Flush or Extended Actuators
- Gold-Plated Contacts
- RoHS Compliant

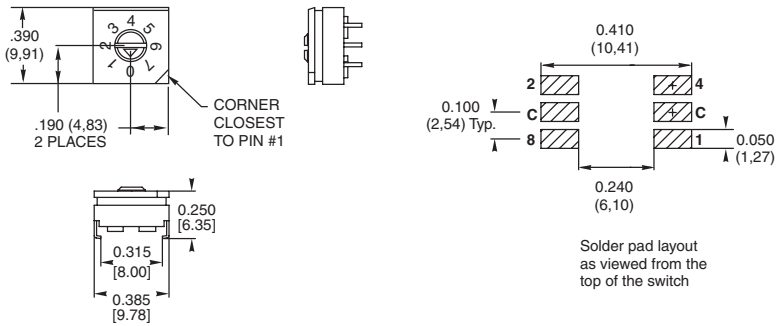
DIMENSIONS in inches (and millimeters)

Tolerances are $\pm .010$ inches unless specified otherwise.

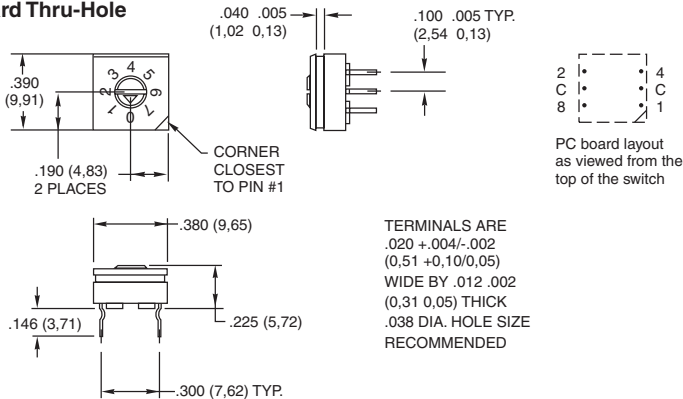
Surface Mount Gullwing



Surface Mount J-Lead



Standard Thru-Hole



ACTUATOR STYLES



Octal-8 position



BCD-10 position



Hex-16 position



Figure 2
"F" style rotor

Figure 1
"A" style rotor

All actuation types are available in octal (8), binary coded decimal (10), or hexadecimal (16) codes; with either standard or complement output. Standard code outputs have natural color rotors; complements in a contrasting color.

EXTENDED ACTUATOR TYPES

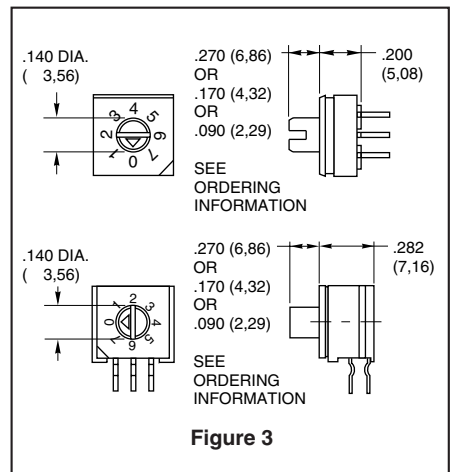
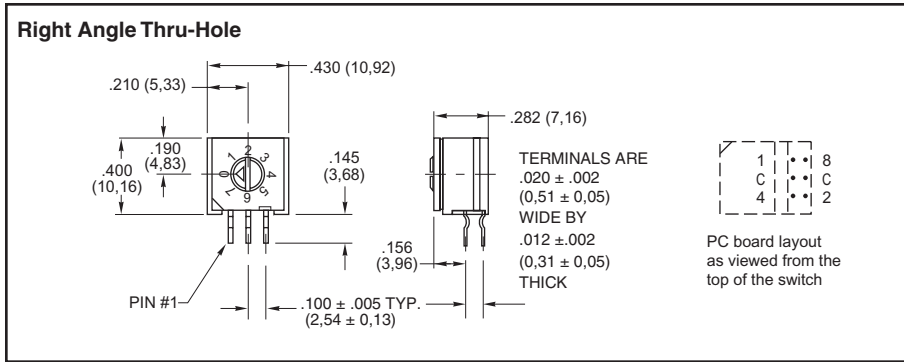
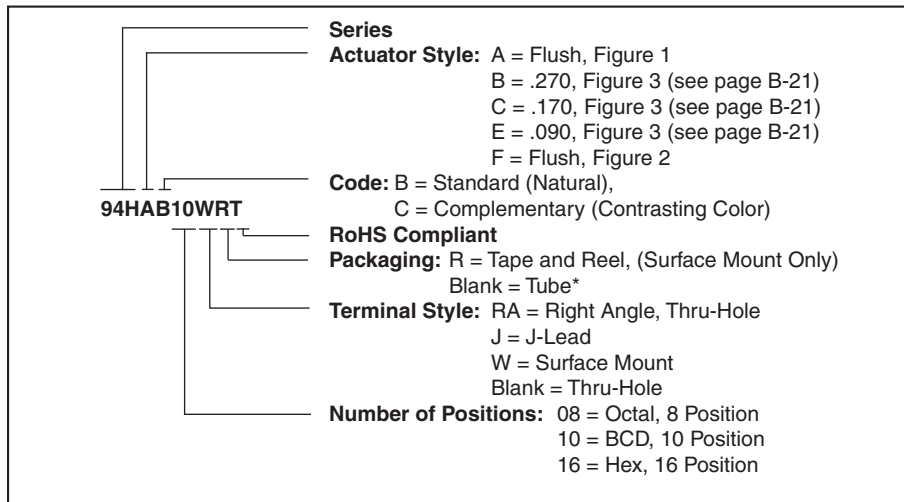


Figure 3

DIMENSIONS in inches (and millimeters)

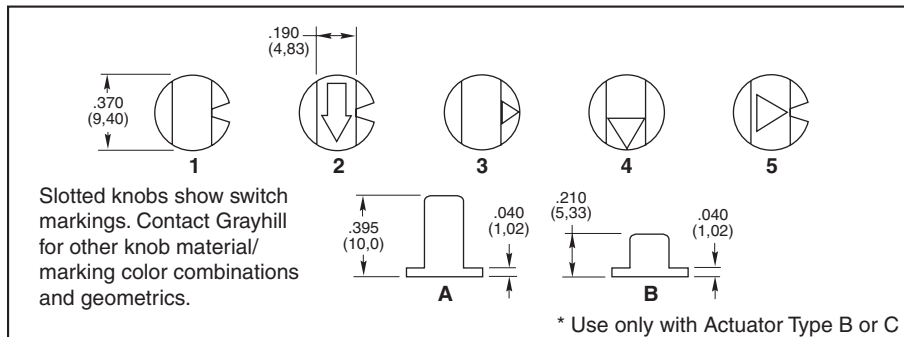


ORDERING INFORMATION: Series 94H



* 27 Pieces per tube for surface mount and thru-hole, 24 pieces per tube for right angle switches.

SERIES 94 High Temperature Knobs: For Shaft Extensions

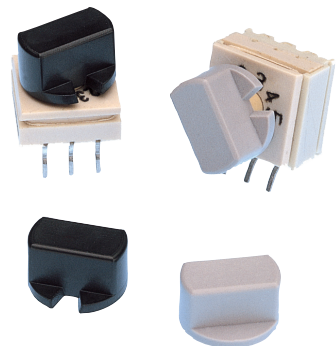
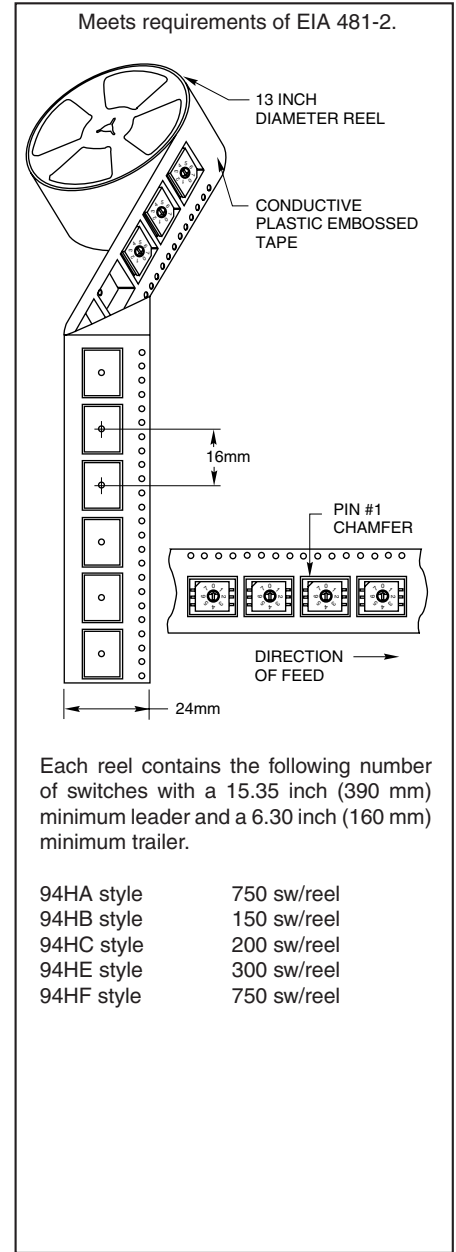


ORDERING INFORMATION: Series 94 High Temperature Knobs*

| Knob Style and Height | Knob Color | Arrow Color | Part Number |
|-----------------------|------------|-------------|-------------|
| 1A | Gray | N/A | 947706-001 |
| 5A | Gray | Black | 947706-005 |
| 1B | Black | N/A | 947705-001 |
| 1B | Gray | N/A | 947705-012 |
| 2B | Gray | White | 947705-004 |
| 3B | Gray | Black | 947705-017 |
| 4B | Gray | Black | 947705-018 |
| 1B | Natural | N/A | 947705-009 |
| 4B | Black | White | 947705-010 |
| 5B | Gray | Black | 947705-019 |

*Ordered as a separate item. B = Standard (Natural), C = Complementary (Contrasting Color).

TAPE AND REEL PACKAGING: Series 94H



Available from your local Grayhill Distributor. For prices and discounts, contact a local Sales Office, an authorized Distributor or Grayhill.

SPECIFICATIONS

Electrical Ratings

Make-and-break Current Rating: 30 mA at 30 Vdc for 10,000 cycles of operation.

Carrying Current Rating: 100 mA at 50 Vdc

Contact Resistance: 50 mohms maximum initially (measured at 10 mA, 50 mVdc). 150 mohms maximum after life.

Insulation Resistance:(measured at 100 Vdc across open switch contacts)

Initial: 5000 Mohms minimum. After Life: 1000 Mohms minimum.

Dielectric Strength: (measured across open switch contacts) Initial: 500 Vac RMS minimum. After Life: 250 Vac RMS

Mechanical Ratings

Mechanical Life: 10,000 cycles of operation. One cycle is a rotation through all positions and a complete return through all positions.

Mechanical Shock: 1000g's, 0.5mS, half sine per MIL-STD-202F, Method 213, Test Condition E.

Vibration Resistance: 10-2000 Hz at 15G or 0.060" double amplitude per MIL-STD-202F, Method 204, Test Condition B.

Operational Torque: 2 to 6 inch-ounces initially and 1.2 inch-ounces minimum after life.

Environmental Ratings

Operating Temperature Range: -40° to +85°C.

Storage Temperature Range: -40° to +85°C.

Moisture Resistance: 240 hours with temperature cycling and polarization. Passes insulation resistance and dielectric strength per MIL-STD-202F, Method 106 following exposure.

Materials and Finishes

Rotor and Switch Body: Plastic (UL94V-O)

Contact Material: Copper alloy plated. 30 microinches minimum gold over 50 microinches minimum nickel.

Shorting Member: Copper alloy plated. 30 microinches minimum gold over 50 microinches minimum nickel.

Terminals: Copper alloy, matte tin plated over nickel barrier.

Internal O-ring: Rubber BUNA-N

Soldering Information

*For the most current soldering & cleaning processing guidelines, reference Grayhill Dip Switch Processing Information, Bulletin 1234

Soldering Temperature: 260° C maximum.
Cleaning: Acceptable solutions include 1-1-1 Trichlorethane, Freon (TF, TE, or TMS), Isopropyl Alcohol and detergent (140°F maximum). Solutions which are not recommended include Acetone, Methylene Chloride, and Freon TMC.

CODE & TRUTH TABLES

All switches are continuous rotation.

Dot indicates terminal to common connection.

Octal and Octal Complement outputs are 0 thru 7 positions.

BCD and BCD Complement outputs are 0 thru 9 positions.

Hexadecimal and Hexadecimal Complement outputs are 0 thru F positions.

Standard codes have natural color rotors. Complements have rotors in a contrasting color.

| | | Standard Output | | | | Complement Output | | | |
|-----------------|---|-----------------|---|---|---|-------------------|---|---|---|
| | | CODE OUTPUT | | | | CODE OUTPUT | | | |
| | | 1 | 2 | 4 | 8 | 1 | 2 | 4 | 8 |
| SWITCH POSITION | 0 | | | | | ● | ● | ● | ● |
| | 1 | ● | | | | | ● | ● | ● |
| | 2 | | ● | | | ● | | ● | ● |
| | 3 | ● | ● | | | | ● | ● | ● |
| | 4 | | | ● | | ● | ● | | ● |
| | 5 | ● | | ● | | | ● | | ● |
| | 6 | | ● | ● | | ● | | ● | ● |
| | 7 | ● | ● | ● | | | | | ● |
| | 8 | | | | ● | ● | ● | ● | |
| | 9 | ● | | | ● | | ● | ● | |
| | A | | ● | ● | | ● | ● | | |
| | B | ● | ● | ● | | | | ● | |
| | C | | | ● | ● | ● | ● | | |
| | D | ● | | ● | ● | | ● | | |
| | E | | ● | ● | ● | ● | | | |
| | F | ● | ● | ● | ● | | | | |