

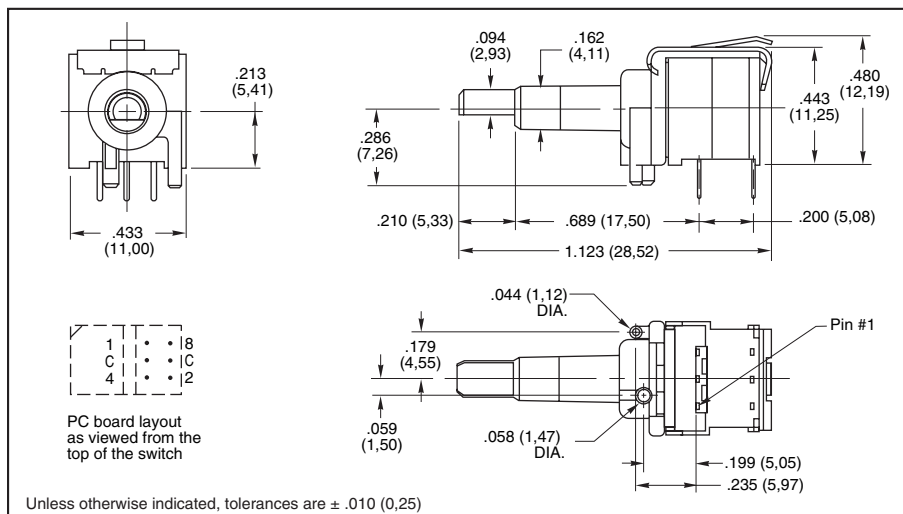
SERIES 94R

Economical, Binary Coded

FEATURES

- 10,000 Cycles of Operation
- Gold-Plated Contacts
- Sealed Contact System
- Right Angle Mount
- Octal, BCD & Hexadecimal Codes
- Standard or Complement
- RoHS Compliant

DIMENSIONS in inches (and millimeters)



CODE & TRUTH TABLES:

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

Dot indicates terminal to common connection. All switches are continuous rotation.

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.

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.

ORDERING INFORMATION: Series 94R

| Continuous Rotation Versions | | | |
|------------------------------|------------------|---------------------------|------------------------|
| Code | No. of Positions | Standard Code Part Number | Complement Part Number |
| Octal | 8 | 94RB08CT | 94RC08CT |
| BCD | 10 | 94RB10CT | 94RC10CT |
| Hexadecimal | 16 | 94RB16CT | 94RC16CT |
| Rotational Stop Versions* | | | |
| Code | No. of Positions | Standard Code Part Number | Complement Part Number |
| Hexadecimal | 16 | 94RB16FT | 94RC16FT |

* Consult Grayhill for 8 or 10 position