



GRAYHILL

SERIES 26

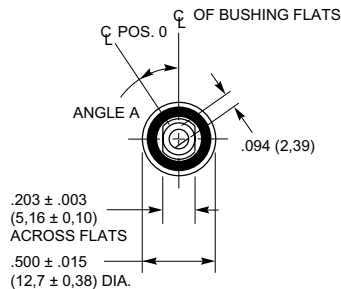
Binary and Gray Code

AVAILABLE CODES

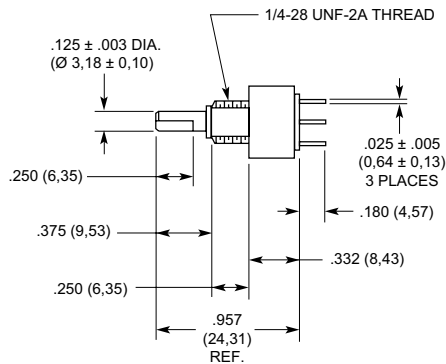
- Hexadecimal
- Octal
- BCD (Adjusted)
- Quadrative
- Custom (4-Bit, 16 position maximum)
- RoHS Compliant



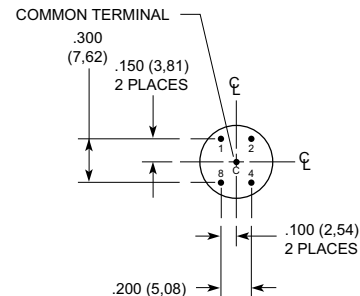
DIMENSIONS in inches (and millimeters)



| Maximum Switch Positions | Angle A |
|--------------------------|---------|
| 8 | 67.5° |
| 16 | 33.75° |



Unless specified otherwise, all tolerances are $\pm .015$ (0,38)



Grayhill part number and date code marked on label. Customer part number marked on request.

SPECIFICATIONS

Electrical Ratings

Rated: 25,000 cycles with logic compatible loads. Make and break 200 mA.

Contact Resistance: 500 milliohms maximum (less than 100 milliohms initially)

Insulation Resistance: 1000 megohms minimum (10,000 megohms initially)

Dielectric Strength: 250 Vac minimum

Materials and Finishes

Panel Seal: Silicone Rubber

Shaft Seal: Fluorosilicone

Mounting Nut (mounting hardware—one per switch): Brass, tin/zinc-plated

Internal Tooth Lockwasher (mounting hardware): Steel, tin/zinc-plated

Detent Balls: Carbon steel, nickel-plated

Detent Spring: Pretinned music wire

Detent Rotor: Thermoplastic

Shaft, Stop Arm and Stop Pins: Stainless steel

Bushing: Zamak II tin/zinc alloy, zinc-plated

Switch Base: Diallyl phthalate

Printed Circuit Board: NEMA Grade FR-4.

Terminals: Brass, gold-plated over nickel plate

Contacts: Copper alloy, gold-plated over nickel plate

Additional Characteristics

Rotational Torque: 4 to 8 oz-in initial

Vibration Resistance: 10 to 55 Hz at 0.060" double amplitude; no damage and no contact openings per MIL-STD-202, Method 201A

Shock Resistance: Passes medium requirement MIL-DTL-3786 (MIL-STD-202, Method 213)

Stop Strength: 5 in-lbs minimum

Relative Humidity: 90-95% at 40°C for 240 hours (MIL-STD-202 Method 103, Test Condition A)

Thermal Cycling: per MIL-STD-202, Method 107, Test Condition A, with an exception of -65°C as the low temperature

Shaft and Panel Seal

All switches are provided with a shaft and panel seal.

OPTIONS

Adjustable Stop Switches

The switch may have continuous rotation, or be adjusted to limit the rotation. The panel seal ring can be removed to expose the stop pin holes on the front of the switch. Two stop pins and panel seal o-ring are supplied with the switch. One or both may be used to limit the rotation as desired.

Custom encoders with options such as custom code output, 1/4" shaft diameter, factory set stops and longer shaft terminal lengths are available by contacting the Grayhill sales office.

CODE AND TRUTH TABLE

| Switch Position | Code Position | BCD Output* | | | | Gray Output* | | | |
|-----------------|---------------|-------------|---|---|---|--------------|---|---|---|
| | | 1 | 2 | 4 | 8 | 1 | 2 | 4 | 8 |
| 1 | 0 | | | | | | | | |
| 2 | 1 | ● | | | | ● | | | |
| 3 | 2 | | ● | | | ● | ● | | |
| 4 | 3 | ● | ● | | | | ● | | |
| 5 | 4 | | | ● | | | ● | ● | |
| 6 | 5 | ● | | ● | | ● | ● | ● | |
| 7 | 6 | | ● | ● | | ● | | ● | |
| 8 | 7 | ● | ● | ● | | | | ● | |
| 9 | 8 | | | | ● | | | ● | ● |
| 10 | 9 | ● | | | ● | ● | | ● | ● |
| 11 | 10 | | ● | | ● | ● | ● | ● | ● |
| 12 | 11 | ● | ● | | ● | | ● | ● | ● |
| 13 | 12 | | | ● | ● | | ● | | ● |
| 14 | 13 | ● | | ● | ● | ● | ● | | ● |
| 15 | 14 | | ● | ● | ● | ● | | | ● |
| 16 | 15 | ● | ● | ● | ● | | | | ● |

*Dot indicates terminal tied to common.

