

SERIES 56

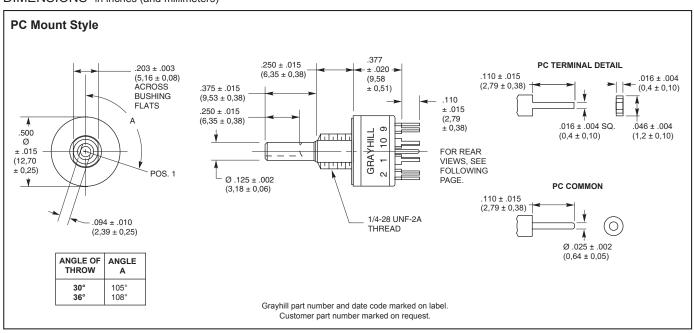
0.5" Diameter, 200mA, .355" Behind Panel

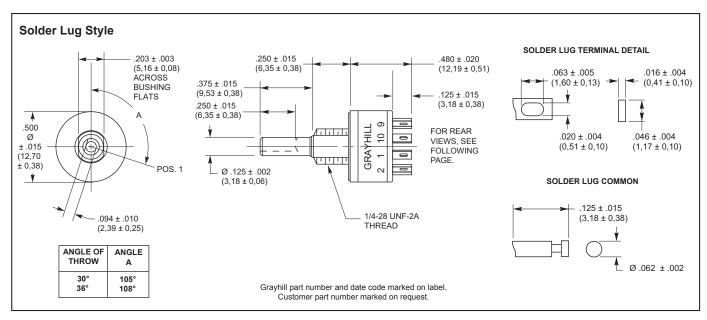
FEATURES

- Requires Minimum Distance Behind the Panel
- Adjustable Stop Types Provide Prototypes Immediately
- Industrial Quality, Economically Priced
- RoHS Compliant



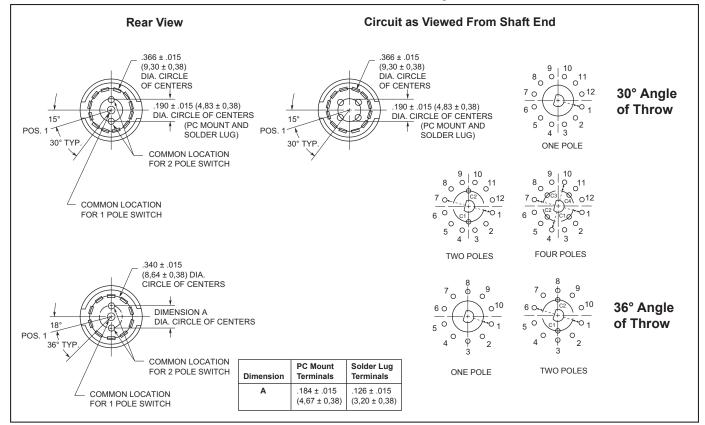
DIMENSIONS in inches (and millimeters)







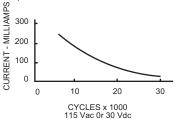
CIRCUIT DIAGRAMS AND REAR VIEWS: PC Mountable AND Solder Lug Terminals



SPECIFICATIONS

Electrical Ratings

Chart shown for non-shorting (break before make) contacts, resistive load.



One cycle is 360° rotation clockwise and 360° return. The data for the curve was measured at sea level, 25°C and 68% relative humidity with the life limiting criteria which follows.

Contact Resistance: 100 milliohms maximum, (15 milliohms initially).

Insulation Resistance: 10,000 Mohms minimum between mutually insulated parts (50,000 Mohms initially).

Voltage Breakdown: 600 Vac minimum between mutually insulated parts at standard atmospheric pressure.

Life Expectancy: As determined from the load-life curve for the current to be switched. Contact GRAYHILL for more information if any of the following is true: the life limiting criteria are more critical than those listed; longer operation is required; a larger make and break current is required; the operating environment includes elevated temperatures or reduced pressures. Contact Carry Rating: Switch will carry 6 amperes continuously with a maximum contact temperature rise of 20°C.

Additional Characteristics

Contact Type and Forces: Shorting or nonshorting wiping contacts with over 25 grams of contact force.

Shaft Flat Orientation: Flat opposite contacting position of pole number one (see circuit diagrams).

Terminals: Switches have the full circle of terminals, regardless of number of active positions.

Stop Strength: 7.5 lb-in. minimum

Rotational Torque: 3.5 to 9 oz-in. (21-53 mN-m), depending on the number of poles. Bushing Mounting: Required for switches with stops, and recommended for switches without stops.

Meets MIL-DTL-3786 for:

High and medium shock; Vibration (10 to 2,000 Hz); Thermal shock (-65° to 85 ° C); Salt spray; Explosion; Stop strength (7.5 in-lbs. minimum (.85 N-m); Terminal strength; Sealed styles withstand water pressure of 15 PSI minimum (103 KPa) without leakage.

Materials and Finishes

Housing: Zinc die cast. Tin Zinc or Sulfamate

Nickel Plated

Mounting Nut: Brass. Tin Zinc or Sulfamate

Nickel Plated

Lockwasher: Spring steel, zinc plated

Panel Seal: Silicone rubber

Shaft and Stop Arm: Machined, 303 Stainless Steel, or Cold Formed, 430 Stainless Steel

Retaining Ring: Stainless steel Shaft Seal: Fluorosilicone rubber Stop Pins: Stainless steel

Detent Rotor: Molded thermoplastic **Detent Spring:** Music wire

Detent Balls: Steel, nickel-plated Contact Spring: Stainless steel

Rotor Contact: Brass or zinc alloy, silver over

nickel plate

Common Ring: Brass, gold over silver over

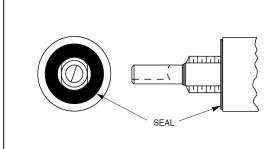
nickel plate

Terminals: Brass, gold over silver over nickel

plate



SHAFT AND PANEL SEAL: Style S

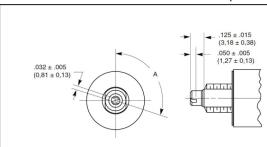


Panel is sealed by a flat rubber seal washer at the base of bushing. Shaft is sealed by an O-ring inside the bushing. After the switch is mounted, seals do not alter the dimensions of the unsealed style.



Shaft and Panel Seal

SCREWDRIVER SLOTTED SHAFT: Option



Series 56 rotary switches are available with a screwdriver slotted shaft with dimensions as shown. Available in the styles. angles of throw and pole/positions combinations shown in the choice and limitations chart.



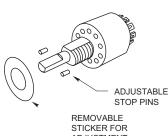
Screwdriver **Slotted Shaft**

Adjustable

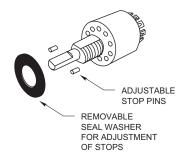
Stop

ADJUSTABLE STOP SWITCHES

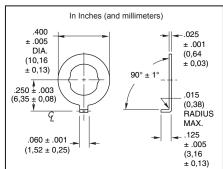
Two stop pins and an adhesive backed sticker or seal washer are provided. Sticker is temporarily removed to locate stop pins as desired to limit the shaft rotation. All dimensions are identical to the fixed stop switch counterpart.



ADJUSTMENT OF STOPS



ACCESSORY: Non-Turn Washer



Part No. 50J1066

Cut round hole for the bushing and for the non-turn tab. Washer fits the double D bushing flats. Washer is sold only when accompanied by an order for a like number of switches. Washer is 302 stainless steel.

SUGGESTED ADJUSTABLE STOP SUBSTITUTION GUIDE

| Fixed Stop | Adjustable Stop | Fixed Stop | Adjustable Stop | | |
|------------|------------------|------------|------------------|--|--|
| Style | Style Equivalent | Style | Style Equivalent | | |
| 56A | 56D | 56B | 56BD | | |
| 56S | 56SD | 56BS | 56BSD | | |
| 56P | 56DP | 56BP | 56BDP | | |
| 56SP | 56SDP | 56BSP | 56BSDP | | |



CHOICES AND LIMITATIONS: Series 56

A = Standard, 1/8" Shaft

P = PC Mount Terminals

B = Screwdriver Slot Shaft D = Adjustable Stop (Adj. Stop) S = Shaft/Panel Seal (S/P Seal)

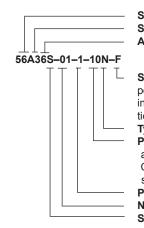
| | FEATURES | | | | Screwdriver | Angle | Number | Number Of | Shorting Or |
|----------------------|-------------------------|-----------------------|---------------------|----------------------------------|-----------------------------|-------------|-------------|-----------------------|--------------------------|
| Style Designation | Solder Lug Terminals | PC Mount Terminals | Shaft/Panel Seal | Adjustable Stops ¹ | Slotted Shaft Equivalent | Of Throw | Of Poles | Positions Per Pole | Non-Shorting Contacts |
| Α | Х | | | | В | | | | |
| S | X | | × | | BS | | 1 | 02 thru 12 | N or S |
| Р | | X | | | BP | 30° | 2 | 02 thru 06 | N or S |
| SP | | X | X | | BSPD | | 4 | 02 or 03 | N or S |
| X | | | × | BD | | | | | |
| SD | X | | × | X | BSD | | 4 | 02 thru 10 | N or S |
| DP | | X | | X | BDP | 36° | 2 | 02 thru 05 | N or S |
| SDP | | X | Х | X | BSDP | | _ | | |
| | | | | | | | | | |

¹ Adjustable stop versions allow selection of 2 positions to the maximum number of positions per pole.

STANDARD OPTIONS

Available from your local Grayhill Distributor For prices and discounts, contact a local Sales Office, an authorized local Distributor, or Grayhill. Not available thru Distributors when Intermixing of shorting and non-shorting contacts. Contact Grayhill.

ORDERING INFORMATION



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Style: Letters from Choices Chart **Angle of Throw:** 30 or 36°

Stop Arrangement: The suffix C or F must be added to a one pole per deck switch with the maximum number of positions to indicate continuous rotation (C) or fixed stops (F) between position 1 and the last position.

Type of Contacts: N = Non-shorting, S = Shorting

Positions Per Pole: 02 as a minimum to the maximum allowable for the angle of throw and number of poles per the Choices Chart. Use the letters AJ in this location if adjustable stop switch is to be ordered.

Poles per Deck: Limited by angle of throw. See chart

Number of Decks: 01 only

Shafts: S= Machined, Blank= Cold Formed

X-ON Electronics

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Other Similar products are found below:

57HS22-02-2-06N 57M22-02B16N 57M22-09A16N 58J1007 58J8A45-01B05N 59M18-02A20N M3786/39-3BA M3786/39-LMC
M3786/4-0007 M3786/4-0073 M3786/4-0182 M3786/4-0640 M3786/4-0873 M3786/4-0881 M3786/4-3187 M3786/4-3267 M3786/4-5272
M3786/4-5568 M3786/4-5876 M3786/4-6029 71ESF30-05204N MC06L1NCGF FA201BKGN 84986-26 9003K2C003GA PLR3251
PLR3262 PS3 A019305 A019306 A019501 A165W-T2AR R2AA2133NNNN R2AA4455NNNN R2BB4455NNNN ACSNO-6123-FB-C6002 DR75-AMSF-10R-B 14-520.0360 BCK1006 1703.3201 HW1MS-0202-101 C6P0206N-A 24002-03S A019109 A029101 A165W-T3MR A22NS-3BM-NRA-G120-NN ACSNO-129-YB-C1014 ACSNO-134-RR-YB-C1005 ACSNO-353-SB-C3016