

## 1250 SERIES

### Subminiature Shaftless Precision Rotary Switches

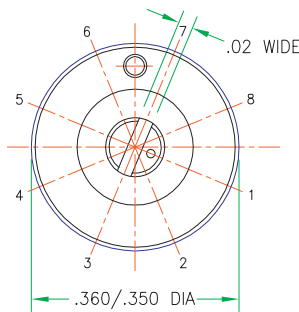
A subminiature precision rotary selector switch, the SERIES 1250 is 0.350 inches in diameter and rated at 30,000 operational cycles. It has been engineered to meet all applicable requirements of MIL-S-3786.

The basic series 1250 is available as a 1 pole, 1-8 position or a 2 pole, 2-4 position switch. It is a non-shorting switch with 45 and 60 degree indexing. It has PC terminals and shaft seal for contaminant-free operation.

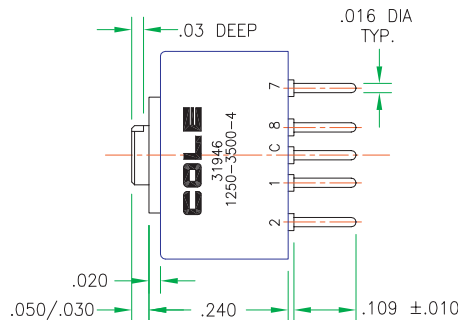
The series 1250 is ideal for avionics, communications, test equipment and command and control applications where space is limited and strict environmental reliability requirements are needed.

Superior construction, using materials that meet the strictest standards, ensure these subminiature switches provide excellent current switching capacity and constant low contact resistance. Rigorous inspection, testing requirements, and procedures ensure long life and high reliability.

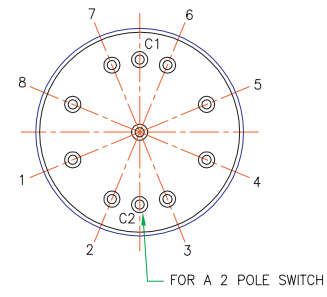
The Cole series 1250 switch provides the ultimate mechanical and electrical reliability with its unique design.



**FRONT VIEW**

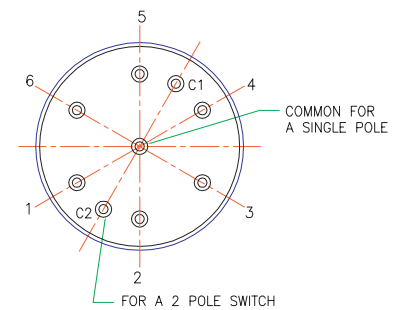
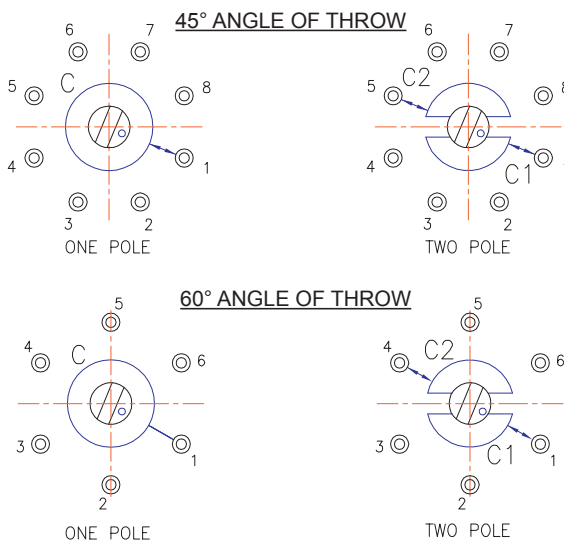


**SIDE VIEW**



**REAR VIEW**

**TYPICAL FEATURES**



**60° SWITCH 1 & 2 POLE**

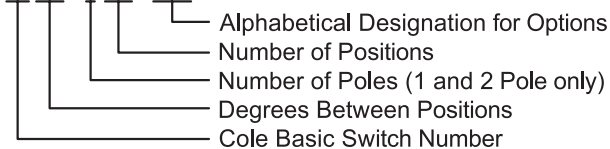
**NOTES:**

1. Dimensions are in inches.
2. Unless otherwise specified, tolerances are  $\pm .005$  and  $\pm 3^\circ$  on angles (Non-accumulative).
3. Position 1 and terminal 1 coincide.
4. Dimensions shown are typical for all angles of throw, unless otherwise specified.

**ORDERING INFORMATION**

Sample Code

12 45 - 1 08 - \*\*\*\*



Switch shown in the sample code is a 45° indexing, 1 pole per deck, 8 positions per pole.

**OPTIONS**

The following options can be added to the standard switch. When ordering, simply add the letters after the basic part number.

- F = Fixed stop between the last and the first position.
- P = Seal (Shaft Seal Only).
- S = Shorting (Contact Factory for more detail).



**COLE**  
INSTRUMENT CORP.

2650 South Croddy Way  
PHONE 714.556.3100

P.O. Box 25063 Santa Ana, California 92799-5063 USA  
SALES FAX 714.241.9061 www.cole-switches.com

ISO9001 CERTIFIED

## Series 1250 Technical Data

Specification	Unit	Value	Note:
Military Specifications		MIL-S-3786F	
Continuous (Non-Switching) Current Carrying Capacity	Amps	1	at 28 VDC, with max. contact temperature rise of 20°C
Switching Current Capacity at 28 VDC resistive	Amps	0.200	at Atmospheric pressure with 85°C and at reduced Barometric pressure with 25°C
Switching Current Capacity at 115 VAC resistive	Amps	0.250	
Switching Current Capacity at 28 VDC inductive (2.8 H.)	Amps	0.125	
Switching Current Capacity at 28 VDC Lamp Load	Amps	0.075	
Low Level max. capacity	mA	10	at 30 millivolts DC max.
Dielectric Strength, min.	VRMS	500	
Contact resistance, max. (initial)	milliohms (mΩ)	50	
Contact resistance, max. (after life)	milliohms (mΩ)	100	
Insulation resistance, min. (initial)	megaohms (MΩ)	50,000	at 100 VDC
Insulation resistance, min. (after life)	megaohms (MΩ)	25000	at 100 VDC
Switching Life	cycles	25000	at rated loads, sea-level, 25°C, 68% relative humidity
Mechanical Life	cycles	25000	
Rotational Torque, min.	inch ounces	3	
Rotational Torque, max.	inch ounces	5	
Stop Strength, max.	inch pounds	5	
Mounting Ferrule Strength	inch pounds	N/A	
Withstanding Shaft Push Force	pounds	N/A	
Weight	grams	1	
Molded Parts		thermoplastic	
Contact Surfaces		Gold plated	
Altitude	feet	70000	typical pressure at 70,000 feet: 0.64 psi
Temperature, min.	degrees Celsius	-65	
Temperature, max.	degrees Celsius	85	
Vibration Tested		Meets	Mil-Std-202, Method 204, test condition B, vibration grade 3
Impact Shock, Medium		Meets	MIL-STD 202; Method 213
Impact Shock, High		No	
Moisture Resistant	megohms	Meets	MIL-STD 202; Method 106
Salt Spray Resistant		Meets	MIL-STD 202, Method 101, Condition "B"
Explosion Proof		Meets	MIL-STD 202, Method 109
Immersion		Shaft Seal	
EMI/RFI		Meets	MIL-S-3786, 2 ohms Shaft to ground max.

