



3600 SERIES

One Inch Multi-Deck Enclosed Rotary Switches

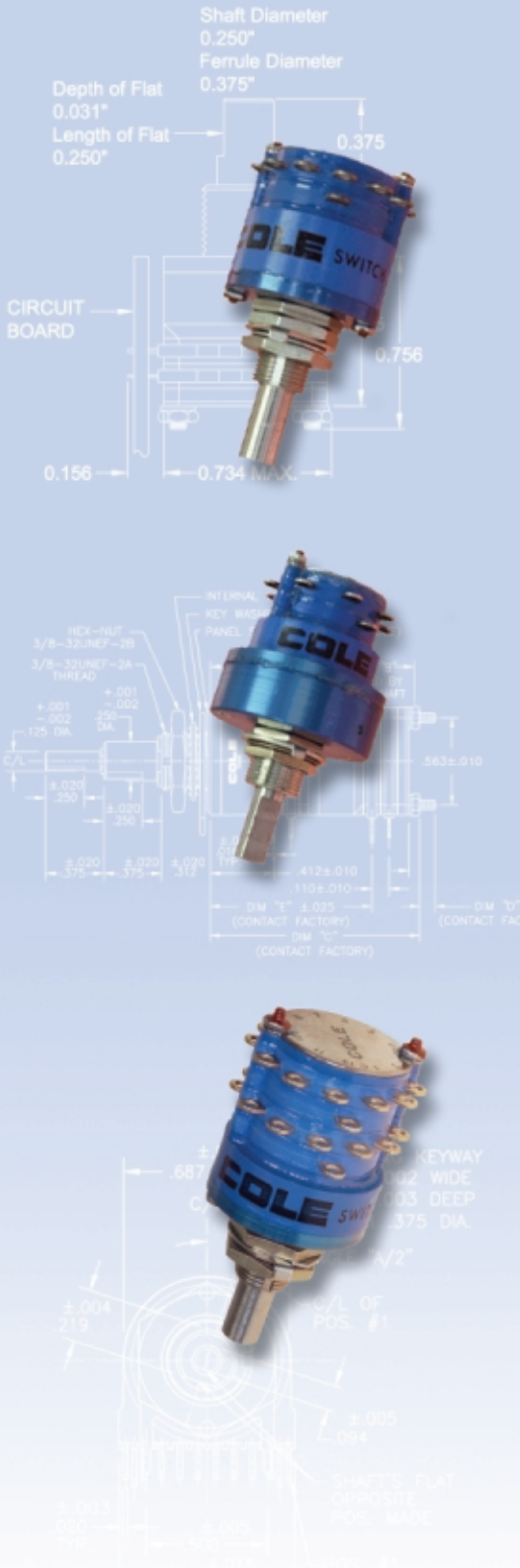
Cole's Series 3600 one inch diameter rotary switch is designed for instrumentation, industrial controls, medical equipment, military, aircraft, weapons, as well as ground support electronics equipment.

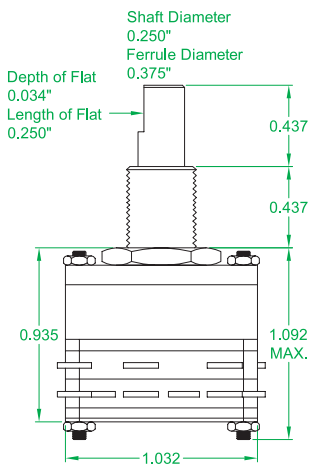
This new 3600 Series switch was designed for low and high level current switching and virtually eliminates flux contamination which has been a problem to the industry utilizing rotary switches.

These switches are available with 30°, 36°, 45° and 90° indexing and one to six poles per deck.

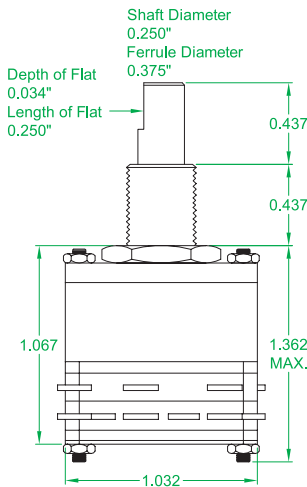
Quality construction features include: self cleaning contacts for low level switching and low contact resistance through the life of the switch (25,000 cycles). Hardened steel sprocket and ball bearing detent mechanism provide smooth, positive detent action and a mechanical life in excess of 100,000 cycles. In the 3600, the terminals and commons are molded in diallyl phthalate thermosetting plastic to eliminate flux contamination seeping inside the switch during soldering or during the cleaning process. Rotors are molded of thermo-plastic glass fill. These and many other quality features will provide the ultimate in mechanical and electrical reliability, during the life of the switch.

In addition to the full QPL'd MIL switch, a commercial version is available.

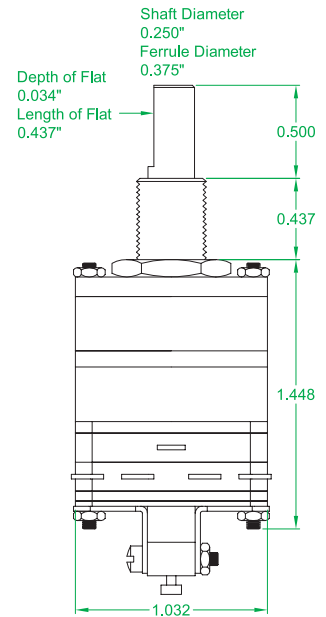




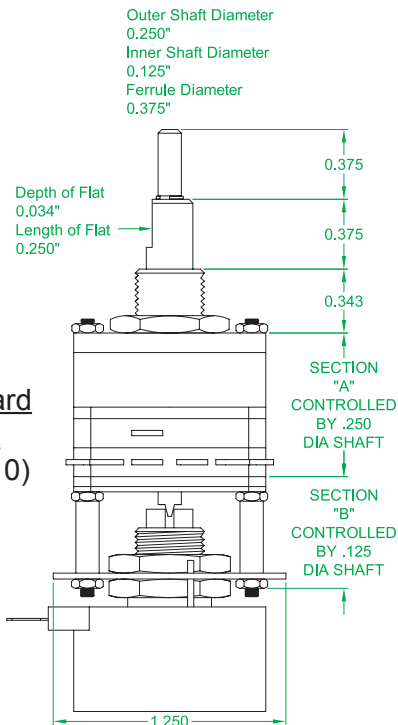
3600 Standard
(See Page 3)



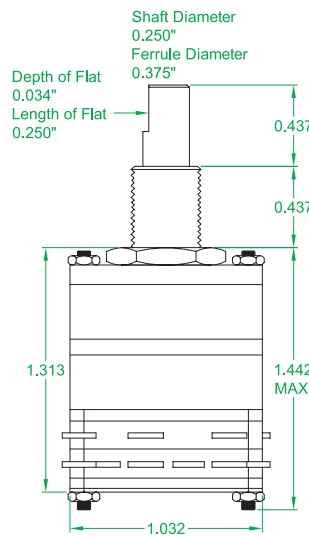
3600 Spring Return
(See Page 7)



**3600 Standard Add
A Snap Action Switch**
(See Page 11)



**3600 Standard
Add A Pot**
(See Page 10)



3600 Push/Pull
(See Page 5)

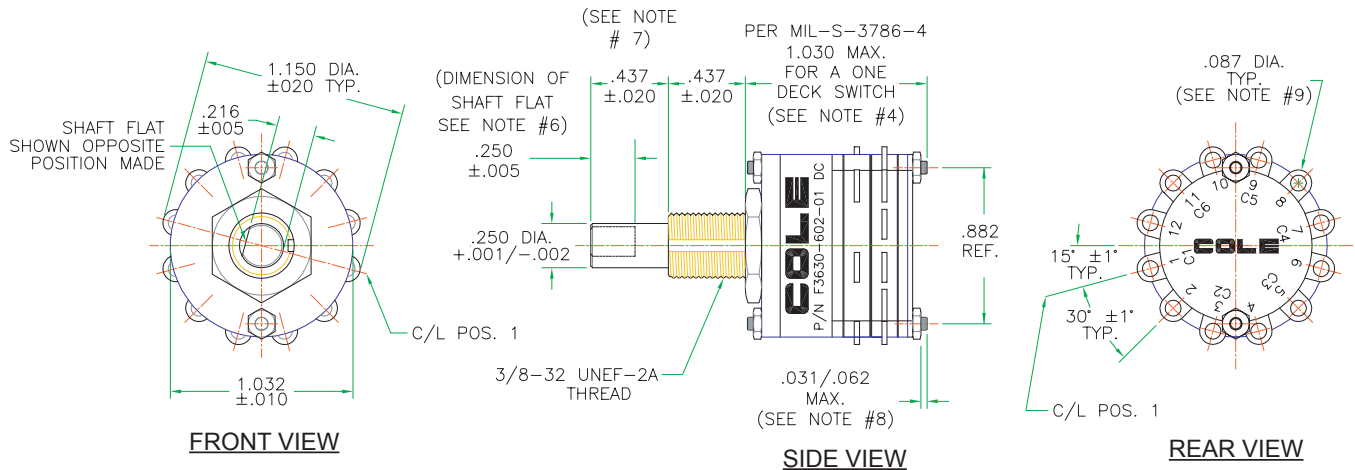
NOTE:
PUSH/PULL SHAFT TRAVEL = 0.070 INCH.

NOTES:

- 3600 Standard - .250 Shaft Dia., .375 Ferrule Dia., 1.032 Body Dia., (See Page 3).
- 3600 Push/Pull - .250 Shaft Dia., .375 Ferrule Dia., 1.032 Body Dia., (See Page 5).
- 3600 Spring Return - .250 Shaft Dia., .375 Ferrule Dia., 1.032 Body Dia., (See Page 7).
- 3600 Standard - Add A Pot - .250 Shaft Dia., .375 Ferrule Dia., 1.032 Body Dia., (See Page 10)
- 3600 Standard - Add A Snap Action - .250 Shaft Dia., .375 Ferrule Dia., 1.032 Body Dia., (See Page 11)



3600 STANDARD



3600 Series Features:

- Flux contamination free.
- MIL-S-3786 tested.
- 6 Amp. power switching.
- 100,000 plus operation life cycle.
- Ball bearing-smooth detent indexing.
- Constant low contact resistance.
- Rugged, high impact construction.

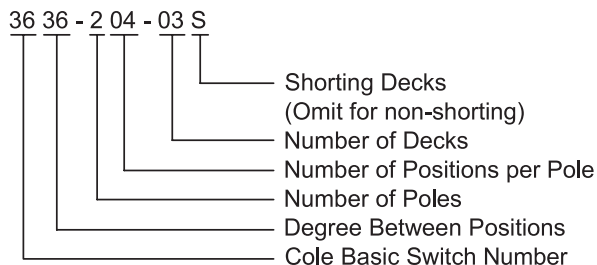
NOTES:

1. Dimensions are in inches.
2. Unless otherwise specified, tolerances are ± .005 and ± 3° on angles (non-accumulative).
3. Shaft flat opposite position being made.
4. Add .312 to the length for each additional deck.
5. Non-turn washer for .432 hole spacing, also available.
6. For standard, shaft flat is .375
7. For standard, shaft length is .500 ± .020
8. For switches with more than 5 decks the stud projection is .312 ± .060
9. Switches are provided with full circle of terminals, regardless of the number of active position.

**ORDERING INFORMATION
MULTIDECK SWITCHES**

Add the total number of decks required as a dash No. after the part number.

SAMPLE CODE



Switch shown in the sample code is a 36° indexing, 2 pole per deck, 4 positions per pole, 3 decks, with shorting type contacts.

OPTIONS

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

Options listed in alphabetical order only.

- A = Adjustable stops.
- F = Fixed stop between the first and last position on the full-turn switch.
- G = RFI-EMI shielding.
- L = Dry circuit (low level).
- P = Panel and shaft seals.
- S = Shorting type switch. (available in all configurations)
- SD = Screwdriver Slot.
- W = Washable
- Y = Non-turn washer.

Screw Terminals available (contact factory for special part number)



BASIC PART NUMBER FOR SINGLE DECK SWITCHES

| 30° NON-SHORTING | | |
|------------------|-----------|-----------------|
| POSITIONS | PART NO. | NUMBER OF POLES |
| 2 | F3630-102 | SINGLE POLE |
| 3 | F3630-103 | SINGLE POLE |
| 4 | F3630-104 | SINGLE POLE |
| 5 | F3630-105 | SINGLE POLE |
| 6 | F3630-106 | SINGLE POLE |
| 7 | F3630-107 | SINGLE POLE |
| 8 | F3630-108 | SINGLE POLE |
| 9 | F3630-109 | SINGLE POLE |
| 10 | F3630-110 | SINGLE POLE |
| 11 | F3630-111 | SINGLE POLE |
| 12 | F3630-112 | SINGLE POLE |
| 2 | F3630-202 | DOUBLE POLE |
| 3 | F3630-203 | DOUBLE POLE |
| 4 | F3630-204 | DOUBLE POLE |
| 5 | F3630-205 | DOUBLE POLE |
| 6 | F3630-206 | DOUBLE POLE |
| 2 | F3630-302 | 3 POLES/DECK |
| 3 | F3630-303 | 3 POLES/DECK |
| 4 | F3630-304 | 3 POLES/DECK |
| 2 | F3630-402 | 4 POLES/DECK |
| 3 | F3630-403 | 4 POLES/DECK |

| 36° NON-SHORTING | | |
|------------------|-----------|-----------------|
| POSITIONS | PART NO. | NUMBER OF POLES |
| 2 | F3636-102 | SINGLE POLE |
| 3 | F3636-103 | SINGLE POLE |
| 4 | F3636-104 | SINGLE POLE |
| 5 | F3636-105 | SINGLE POLE |
| 6 | F3636-106 | SINGLE POLE |
| 7 | F3636-107 | SINGLE POLE |
| 8 | F3636-108 | SINGLE POLE |
| 9 | F3636-109 | SINGLE POLE |
| 10 | F3636-110 | SINGLE POLE |
| 2 | F3636-202 | DOUBLE POLE |
| 3 | F3636-203 | DOUBLE POLE |
| 4 | F3636-204 | DOUBLE POLE |
| 5 | F3636-205 | DOUBLE POLE |

| 45° NON-SHORTING | | |
|------------------|-----------|-----------------|
| POSITIONS | PART NO. | NUMBER OF POLES |
| 2 | F3645-102 | SINGLE POLE |
| 3 | F3645-103 | SINGLE POLE |
| 4 | F3645-104 | SINGLE POLE |
| 5 | F3645-105 | SINGLE POLE |
| 6 | F3645-106 | SINGLE POLE |
| 7 | F3645-107 | SINGLE POLE |
| 8 | F3645-108 | SINGLE POLE |
| 2 | F3645-202 | DOUBLE POLE |
| 3 | F3645-203 | DOUBLE POLE |
| 4 | F3645-204 | DOUBLE POLE |
| 2 | F3645-402 | 4 POLES/DECK |

| 60° NON-SHORTING | | |
|------------------|-----------|-----------------|
| POSITIONS | PART NO. | NUMBER OF POLES |
| 2 | F3660-102 | SINGLE POLE |
| 3 | F3660-103 | SINGLE POLE |
| 4 | F3660-104 | SINGLE POLE |
| 5 | F3660-105 | SINGLE POLE |
| 6 | F3660-106 | SINGLE POLE |
| 2 | F3660-202 | DOUBLE POLE |
| 3 | F3660-203 | DOUBLE POLE |

| 90° NON-SHORTING | | |
|------------------|-----------|-----------------|
| POSITIONS | PART NO. | NUMBER OF POLES |
| 2 | F3690-102 | SINGLE POLE |
| 3 | F3690-103 | SINGLE POLE |
| 4 | F3690-104 | SINGLE POLE |
| 2 | F3690-202 | DOUBLE POLE |

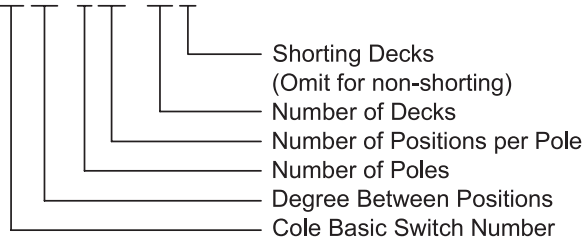
ORDERING INFORMATION

MULTIDECK SWITCHES

Add the total number of decks required as a dash No. after the part number.

SAMPLE CODE

36 45 - 2 04 - 03 S



Switch shown in the sample code is a 45° indexing, 2 pole per deck, 4 positions per pole, 3 decks, with shorting type contacts.

OPTIONS

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

Options listed in alphabetical order only.

- A = Adjustable stops.
 - F = Fixed stop between the first and last position on the full-turn switch.
 - G = RFI-EMI shielding.
 - L = Dry circuit (low level).
 - P = Panel and shaft seals.
 - S = Shorting type switch.
- (available in all configurations)

SD = Screwdriver Slot.

W = Washable

Y = Non-turn washer.

Screw Terminals available (contact factory for special part number)

STYLE AVAILABLE:

Cole Instrument offers other styles which include: spring return (momentary), add-a-pot, concentric shaft, push and pull to turn switches.

All the above switches can include combinations of shorting and non-shorting contacts, extended through bolts for rear mounting and sealed enclosures with switches pre-wired to connectors. For switches that incorporate these, and other features, contact the factory with your special requirements.



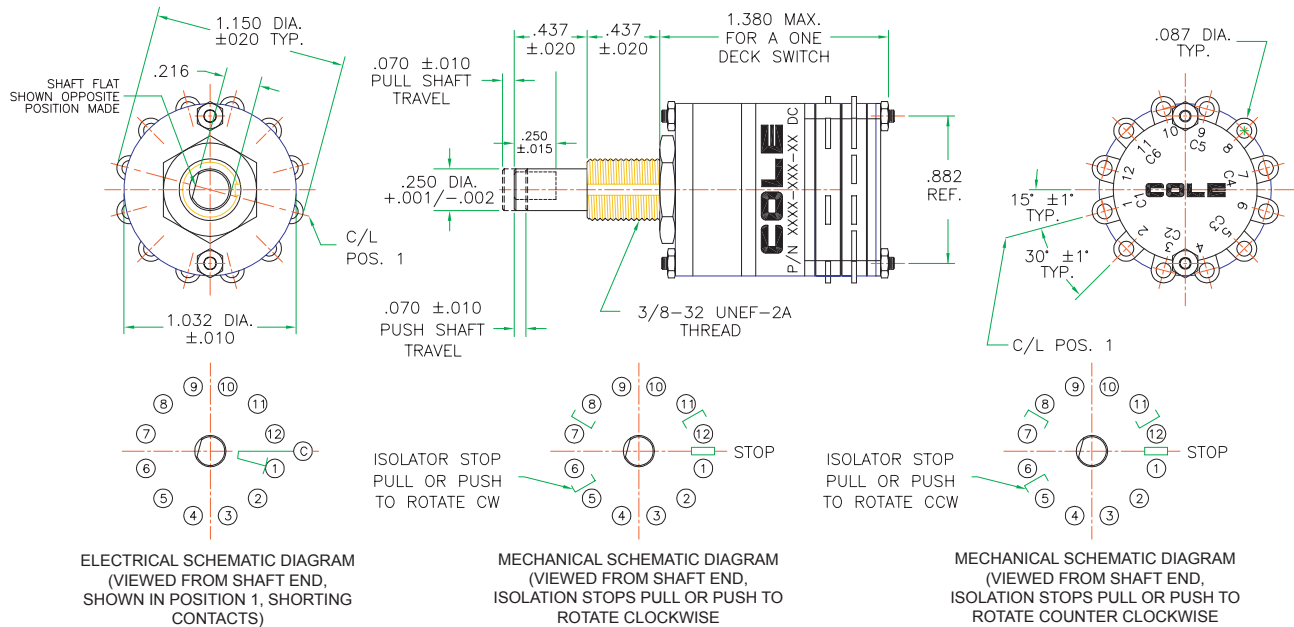
COLE
INSTRUMENT CORP.

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

3600 PULL/PUSH



NOTES:

1. Dimensions are in inches.
2. Unless otherwise specified, tolerances are ± 0.005 and $\pm 3^\circ$ on angles (Non-accumulative).

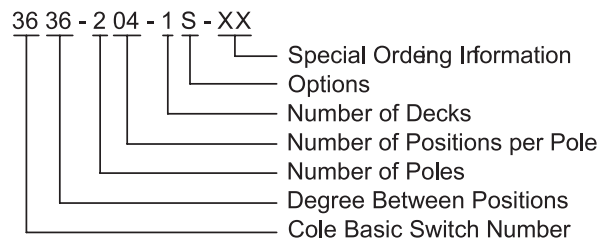
DESCRIPTION:

A rotary switch can be configured such that one or more positions can't contacted without pulling or pushing the switch shaft, in addition of the required torque.

The isolated switch has the flexibility of ordering which position or combination of positions to be isolated. The isolation posts to be inserted adjacent to the position to be isolated. For multi-pole, the first pole isolation post and stop location will determine the isolation pattern for the additional poles.

ORDERING INFORMATION

Create the part number using this example:



SPECIAL ORDERING INFORMATION

Indicate this as SPECIAL switch to ensure that no error is made when the order is entered and create the special ordering information using the following conventional symbols:

D = Specifying Detent Position

STOP = Specifying stops

PL = Specifying actuation by pulling the shaft out

PS = Specifying actuation by pushing the shaft in

Sample part number:

SPECIAL
 3636 - 205 - 1S
 STOP1PS2PS3PS4D5STOP

This sample part number orders a series 3600, 36° indexing, 2 poles, 5 position per pole shorting, 1 deck, and push to turn isolation posts between positions 1-2, 2-3 and 3-4.

Although somewhat long, use of this numbering scheme will prevent error in orders processing. Upon receipt of your order, a special number will be issued unique to this switch. These numbers will not relate to the coding system and will be logged as "special". The acknowledgment of your order will identify this number. Your specific switch will be the only one identified by this number

FOR DIFFERENT REQUIREMENTS PLEASE CONTACT THE FACTORY.



3600 ISOLATED POSITION SWITCH DESCRIPTION

A special feature of rotary switches is available known as "isolated position". This feature allows switch shaft rotation that requires the user to either pull or push the shaft before it will respond to rotational torque. The user identifies the position or positions affected by the isolation mechanism.

Incorporation of the isolated position feature in COLE'S SERIES 3600 switches will add 0.315 inches to the length. In multipole switches, the initial position that is isolated determines the pattern for the additional poles.

SPECIFYING POSITIONS

The Cole System for identifying isolation positions lets you perform the selection by inserting isolation posts next to the positions to be isolated. An 3600 series switch with 36° indexing and continuous rotation is shown below with no isolation position identified in the spaces between the terminals.

10_1_2_3_4_5_6_7_8_9_10

If you isolate positions 1, 2 and 3, the isolation post insertion points are identified by the letters PL (for actuation by pulling the shaft out), or PS (for actuation by pushing the shaft in) as shown below:

10PL1PL2PL3PL4 5 6 7 8 9 10

This indicates that you can only get to positions 1, 2 and 3 by pulling on the shaft while all other positions can be achieved with normal rotational torque on the shaft.

if positions 1 and 2 are isolated from all other position but nor from each other:

10PS12PS3 4 5 6 7 8 9 10

In this case you need to push on the shaft to get to position 1 from position 10 as well as position 2 from position 3. However, to get from position 1 to position 2 merely requires rotational torque on the shaft.

As a special feature, certain positions on the switch can be isolated in unidirectional mode. That means that the positions can be achieved with normal rotational torque on the shaft, but requires a push or pull action to get to the next position (Ramp-In). Conversely, reaching the isolated position with a push or pull action on the shaft but requiring normal rotational torque (Ramp-out) for the next position, is also available. Please consult the factory for special features.

SPECIFYING STOPS

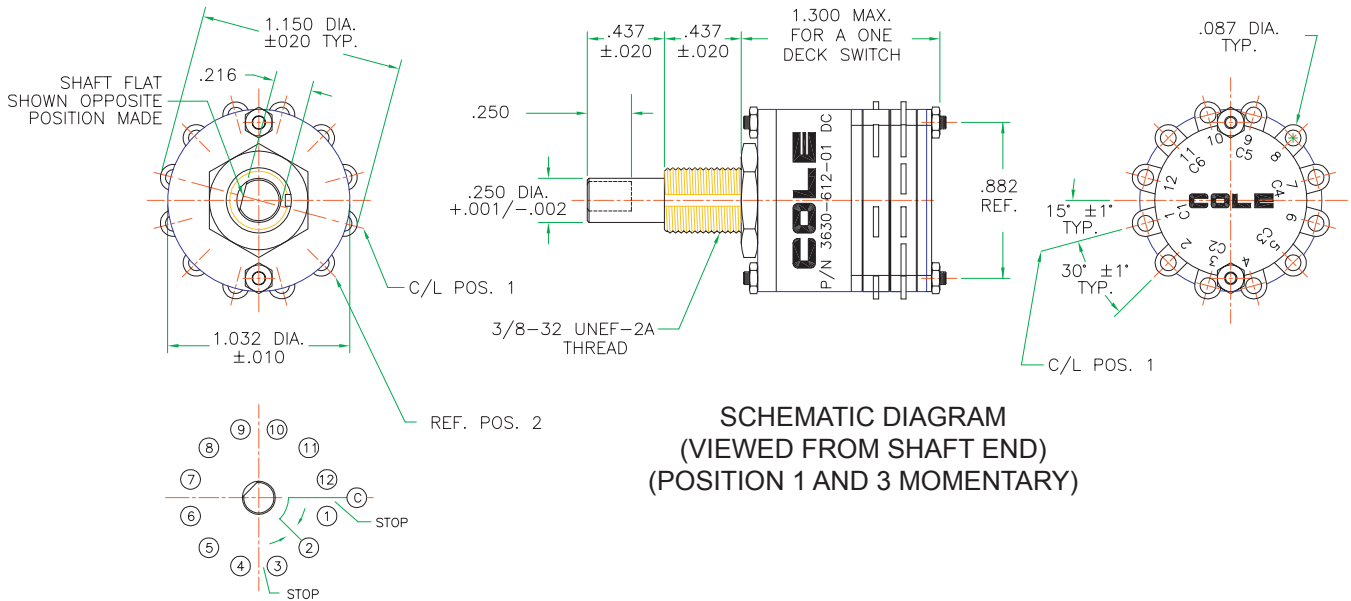
Stops must be incorporated when a switch has multiple poles or specifies less than the numbers of positions available. If a switch with 36° indexing is specified as an 8 position switch with position 1 isolated with push actuation required, the designation would be:

STOP1PS2 3 4 5 6 7 8STOP

Since the stop mechanism is inserted between positions 10 and 1, the isolation post is only required between positions 1 and 2. The stop mechanism inserted between terminals 8 and 9 serves to limit the switch to 8 positions. When stop and isolation mechanism are used in multipole switches, all poles are slaved to the first pole in the case of a 2 pole, 10 position switch with 36° indexing, isolating position 1 will automatically isolate position 6. (Refer to the standard switch schematics for 36° indexing switches, page No. 3



3600 SPRING RETURN



**SCHEMATIC DIAGRAM
(VIEWED FROM SHAFT END)
(POSITION 1 AND 3 MOMENTARY)**

NOTES:

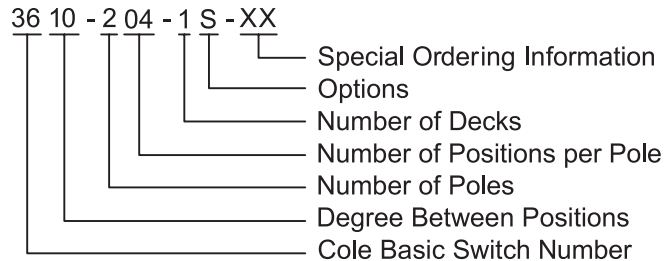
1. Dimensions are in inches.
2. Unless otherwise specified, tolerances are $\pm .005$ and $\pm 3^\circ$ on angles (non-accumulative).
3. Shaft flat opposite position being made.

DESCRIPTION:

A spring return rotary switch requires that manual torque be maintained at the desired switch position. Releasing the force allows the spring to return the contact to a normal, or detent positions. Arrows in the CONFIGURATIONS AND RESTRICTIONS TABLE indicate the direction the spring will return the contact so it assumes a normal detent position, the "D" designates a normal detent position.

ORDERING INFORMATION

Create the part number using this example:



SPECIAL ORDERING INFORMATION

Indicate this as SPECIAL switch to ensure that no error is made when the order is entered and create the special ordering information using the following conventional symbols:

D = Specifying Detent Position

STOP = Specifying stops

Direction of Spring Return

Sample part number:

SPECIAL
3645 - 204 - 1S
STOP1D2D3 4STOP

This sample part number orders a series 3600, 45° indexing, 2 poles, 4 position per pole shorting, 1 deck, momentary terminal 4 returning to terminal 3 (8 to 7 is slaved).

Although somewhat long, use of this numbering scheme will prevent error in orders processing. Upon receipt of your order, a special number will be issued unique to this switch. These numbers will not relate to the coding system and will be logged as "special".

The acknowledgment of your order will identify this number. Your specific switch will be the only one identified by this number

FOR DIFFERENT REQUIREMENTS PLEASE CONTACT THE FACTORY.



3600 SPRING RETURN ROTARY SWITCH DESCRIPTION

A rotary switch with a spring return mechanism allows certain selected positions to have momentary action wherein they can be maintained only with positive force on the shaft. Releasing the shaft will return the switch to its previous position. This feature is available in the COLE SERIES 1800, 1830, and 3600 switches. The spring return feature in the SERIES 3600 switch is available in those with 36°, 36° and 45° angles of throw as a standard.

Addition of this mechanism to the SERIES 3600 switch adds 0.315 inches to its length; all other dimensions remain unchanged. Custom requirements can be accommodated by contacting the factory.

CONFIGURATIONS AND RESTRICTIONS TABLE

| INDEXING | Part No. | Switch Action | Poles/Deck | No. of poles and Decks | Positions Per Pole | Terminal Opposite to Flat |
|-------------------------|-------------|---------------|-----------------|------------------------|--------------------|---------------------------|
| 30° SPRING RETURN | 3601 | 1->2 | 1, 2, 3, 4, & 6 | * | 2 | 2 |
| | 3602 | 1<-2 | 1, 2, 3, 4, & 6 | * | 2 | 1 |
| | 3603 | 1->2D3 | 1,2,3 & 4 | * | 3 | 2 |
| | 3604 | 1D2<-3 | 1,2,3 & 4 | * | 3 | 1 |
| | 3605 | 1->2<-3 | 1,2,3 & 4 | * | 3 | 2 |
| | 3606 | 1->2D3D4 | 1,2 & 3 | * | 4 | 2 |
| | 3607 | 1D2D3<-4 | 1,2 & 3 | * | 4 | 1 |
| | 3608 | 1->2D3<-4 | 1,2 & 3 | * | 4 | 2 |
| | 3609 | 1->2D3D4D5 | 1 and 2 | * | 5 | 2 |
| | 3610 | 1D2D3D4<-5 | 1 and 2 | * | 5 | 1 |
| | 3611 | 1->2D3D4<-5 | 1 and 2 | * | 5 | 2 |
| | 3612 | 1->2D3D4D5D6 | 1 and 2 | * | 6 | 2 |
| | 3613 | 1D2D3D4D5>-6 | 1 and 2 | * | 6 | 1 |
| | 3614 | 1->2D3D4D5<-6 | 1 and 2 | * | 6 | 2 |
| 36° SPRING RETURN | 3660 | 1->2 | 1 and 2 | * | 2 | 2 |
| | 3661 | 1<-2 | 1 and 2 | * | 2 | 1 |
| | 3662 | 1->2D3 | 1 and 2 | * | 3 | 2 |
| | 3663 | 1D2<-3 | 1 and 2 | * | 3 | 1 |
| | 3664 | 1->2<-3 | 1 and 2 | * | 3 | 2 |
| | 3665 | 1->2D3D4 | 1 and 2 | * | 4 | 2 |
| | 3666 | 1D2D3<-4 | 1 and 2 | * | 4 | 1 |
| | 3667 | 1->2D3<-4 | 1 and 2 | * | 4 | 2 |
| | 3668 | 1->2D3D4D5 | 1 and 2 | * | 5 | 2 |
| | 3669 | 1D2D3D4<-5 | 1 and 2 | * | 5 | 1 |
| 3670 | 1->2D3D4<-5 | 1 and 2 | * | 5 | 2 | |
| 45° SPRING RETURN | 3650 | 1->2 | 1, 2 & 4 | * | 2 | 2 |
| | 3651 | 1<-2 | 1, 2 & 4 | * | 2 | 1 |
| | 3652 | 1->2D3 | 1 and 2 | * | 3 | 2 |
| | 3653 | 1D2<-3 | 1 and 2 | * | 3 | 1 |
| | 3654 | 1->2<-3 | 1 and 2 | * | 3 | 2 |
| | 3655 | 1->2D3D4 | 1 and 2 | * | 4 | 2 |
| | 3656 | 1D2D3<-4 | 1 and 2 | * | 4 | 1 |
| 3657 | 1->2D3<-4 | 1 and 2 | * | 4 | 2 | |

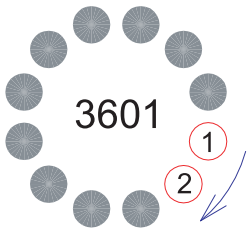
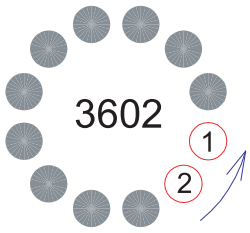
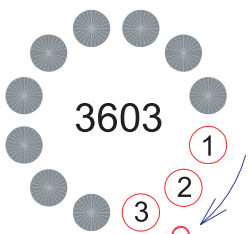
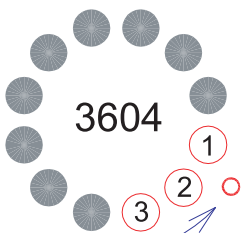
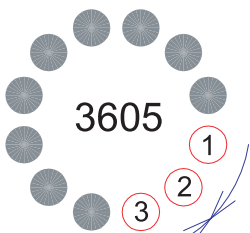
*THE MAXIMUM NUMBER OF POLES PER SWITCH IS 24 AND DECKS IS 12.

-> DIRECTION OF SPRING RETURN <-

FOR DEFFERENT REQUIREMENTS PLEASE CONTACT THE FACTORY.



CONFIGURATIONS AND RESTRICTIONS TABLE

| Indexing | Part No. | Switch Action | Switch Action Description | Poles per Deck | Positions per Pole | Terminal Opposite To Flat |
|----------|----------|---|---------------------------|----------------|--------------------|---------------------------|
| 30° | 3601 |  | 1 → 2 | 1,2,3,4,& 6 | 2 | 2 |
| 30° | 3602 |  | 1 ← 2 | 1,2,3,4,& 6 | 2 | 1 |
| 30° | 3603 |  | 1 → 2D3 | 1,2,3,& 4 | 3 | 2 |
| 30° | 3604 |  | 1D2 ← 3 | 1,2,3,& 4 | 3 | 1 |
| 30° | 3605 |  | 1 → 2 ← 3 | 1, 2,3,& 4 | 3 | 2 |

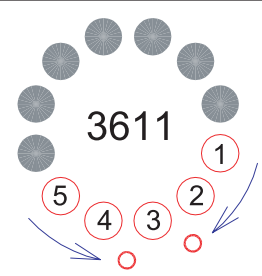
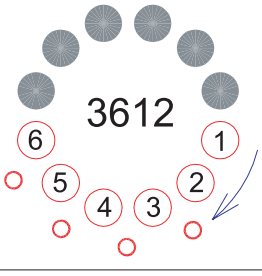
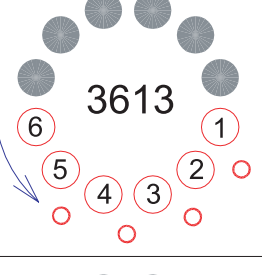
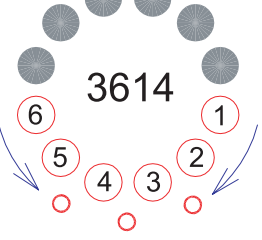


CONFIGURATIONS AND RESTRICTIONS TABLE

| Indexing | Part No. | Switch Action | Switch Action Description | Poles per Deck | Positions per Pole | Terminal Opposite To Flat |
|----------|----------|---------------|---------------------------|----------------|--------------------|---------------------------|
| 30° | 3606 | | 1→2D3D4 | 1, 2, & 3 | 4 | 2 |
| 30° | 3607 | | 1D2D3←4 | 1, 2, & 3 | 4 | 1 |
| 30° | 3608 | | 1→2D3←4 | 1, 2, & 3 | 4 | 2 |
| 30° | 3609 | | 1→2D3D4D5 | 1 or 2 | 5 | 2 |
| 30° | 3610 | | 1D2D3D4←5 | 1 or 2 | 5 | 1 |

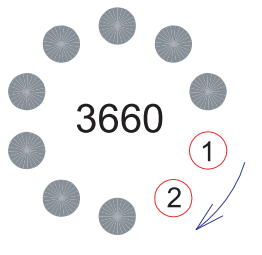
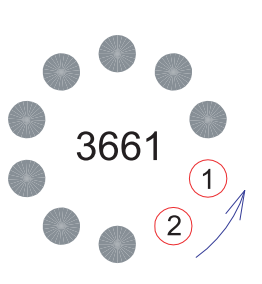
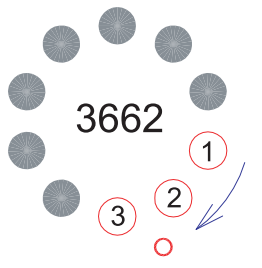
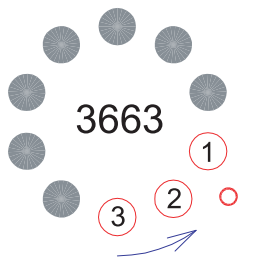
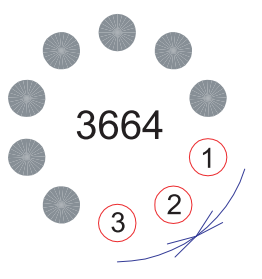


CONFIGURATIONS AND RESTRICTIONS TABLE

| Indexing | Part No. | Switch Action | Switch Action Description | Poles per Deck | Positions per Pole | Terminal Opposite To Flat |
|----------|----------|---|---------------------------|----------------|--------------------|---------------------------|
| 30° | 3611 |  | 1→2D3D4←5 | 1 or 2 | 5 | 2 |
| 30° | 3612 |  | 1→2D3D4D5D6 | 1 or 2 | 6 | 2 |
| 30° | 3613 |  | 1D2D3D4D5←6 | 1 or 2 | 6 | 1 |
| 30° | 3614 |  | 1→2D3D4D5←6 | 1 or 2 | 6 | 2 |



CONFIGURATIONS AND RESTRICTIONS TABLE

| Indexing | Part No. | Switch Action | Switch Action Description | Poles per Deck | Positions per Pole | Terminal Opposite To Flat |
|----------|----------|---|---------------------------|----------------|--------------------|---------------------------|
| 36° | 3660 |  | 1 → 2 | 1 or 2 | 2 | 2 |
| 36° | 3661 |  | 1 ← 2 | 1 or 2 | 2 | 1 |
| 36° | 3662 |  | 1 → 2D3 | 1 or 2 | 3 | 2 |
| 36° | 3663 |  | 1D2 ← 3 | 1 or 2 | 3 | 1 |
| 36° | 3664 |  | 1 → 2 ← 3 | 1 or 2 | 3 | 2 |



CONFIGURATIONS AND RESTRICTIONS TABLE

| Indexing | Part No. | Switch Action | Switch Action Description | Poles per Deck | Positions per Pole | Terminal Opposite To Flat |
|----------|----------|---------------|---------------------------|----------------|--------------------|---------------------------|
| 36° | 3665 | | 1→2D3D4 | 1 or 2 | 4 | 2 |
| 36° | 3666 | | 1D2D3←4 | 1 or 2 | 4 | 1 |
| 36° | 3667 | | 1→2D3←4 | 1 or 2 | 4 | 2 |
| 36° | 3668 | | 1→2D3D4D5 | 1 or 2 | 5 | 2 |
| 36° | 3669 | | 1D2D3D4←5 | 1 or 2 | 5 | 1 |



CONFIGURATIONS AND RESTRICTIONS TABLE

| Indexing | Part No. | Switch Action | Switch Action Description | Poles per Deck | Positions per Pole | Terminal Opposite To Flat |
|----------|----------|---------------|---------------------------|----------------|--------------------|---------------------------|
| 36° | 3670 | | 1→2D3D4←5 | 1 or 2 | 5 | 2 |
| 45° | 3650 | | 1 → 2 | 1 or 2 | 2 | 2 |
| 45° | 3651 | | 1 ← 2 | 1 or 2 | 2 | 1 |
| 45° | 3652 | | 1 → 2D3 | 1 or 2 | 3 | 2 |
| 45° | 3653 | | 1D2 ← 3 | 1 or 2 | 3 | 1 |

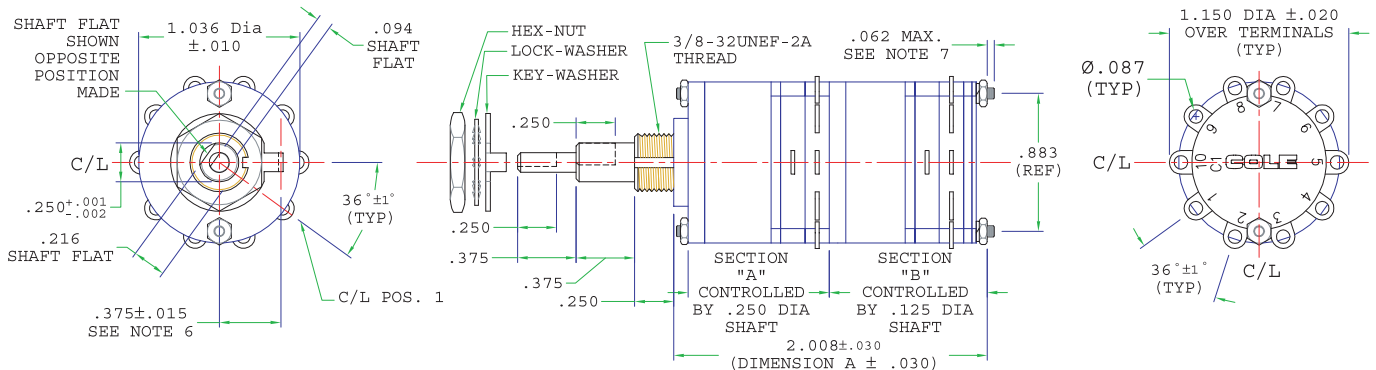


CONFIGURATIONS AND RESTRICTIONS TABLE

| Indexing | Part No. | Switch Action | Switch Action Description | Poles per Deck | Positions per Pole | Terminal Opposite To Flat |
|----------|----------|---------------|---------------------------|----------------|--------------------|---------------------------|
| 45° | 3654 | <p>3654</p> | 1 → 2 ← 3 | 1 or 2 | 3 | 2 |
| 45° | 3655 | <p>3655</p> | 1 → 2D3D4 | 1 or 2 | 4 | 2 |
| 45° | 3656 | <p>3656</p> | 1D2D3 ← 4 | 1 or 2 | 4 | 1 |
| 45° | 3657 | <p>3657</p> | 1 → 2D3 ← 4 | 1 or 2 | 4 | 2 |



3600 Series Concentric Shafts

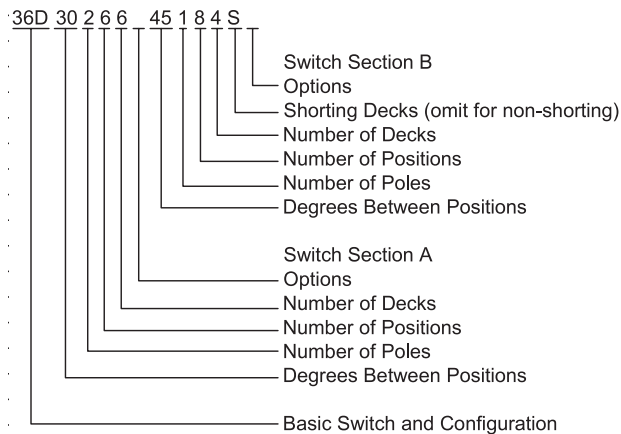


NOTES:

1. Dimensions are in inches.
2. Unless otherwise specified, tolerances are ± .005 and ± 3° on angles (non-accumulative).
3. Shaft flat opposite position being made.
4. Switch can have up to twelve (12) decks. For more than 12 decks, contact factory.
5. Add .312 to the length for each additional deck.
6. Non-turn washer for .432 hole spacing, also available.
7. For switches with 6 or more decks the stud projection is .312 ± .060
8. Switches are provided with full circle of terminals, regardless of the number of active position.

ORDERING INFORMATION

Sample Code



OPTIONS:

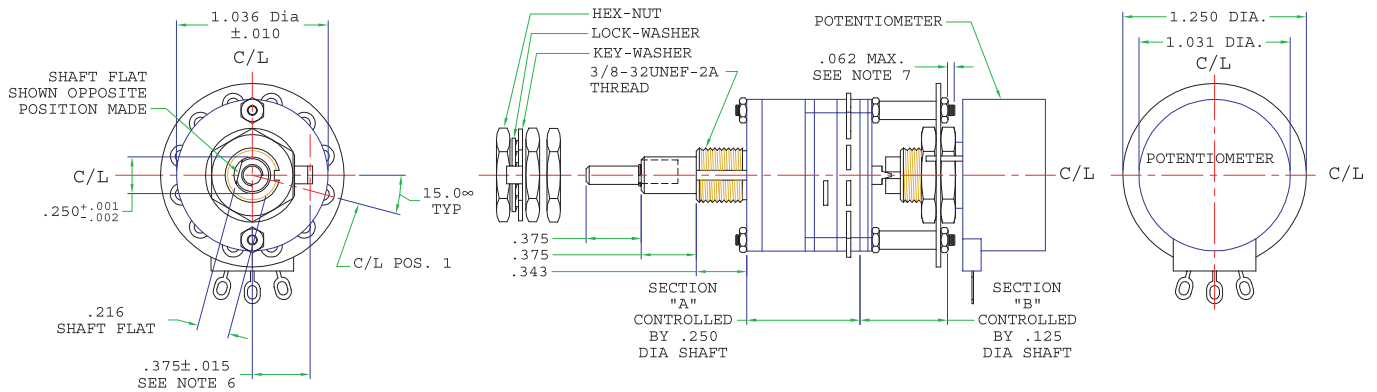
The following options can be added to each section of the switch. Simply add the letters under the "Options" heading.

- A = adjustable stops
- F = Fixed stops between first and last positions
- G = RFI -EMI shielding
- L = Low Level Gold contacts
- P = Shaft and panel seals
- Y = Non-Turn Washer for 3/8-32 UNEF-2A Ferrule

Switch shown in the sample code is a dual In-Line series 3600 switch with a 0.25 inch shaft actuating section "A" (closest to the shaft), and a concentric 0.125 inch shaft actuating section "B" (furthest from the shaft).
 Section "A" has 30° Indexing, 2 Poles, 6 Positions/Pole, 6 decks, Non-Shorting Contacts.
 Section "B" has 45° Indexing, one Pole, 8 Positions/Pole, 4 decks, Shorting Contacts.
 Upon providing the factory with full coded identification, a unique 4 digit part number shall be assigned.



3600 Standard Series - Add A Pot Switch



NOTES:

1. Dimensions are in inches.
2. Unless otherwise specified, tolerances are plus or minus .005 and plus or minus 3 degrees on angles.
3. Shaft flats are opposite to position being made.
4. Switch can have up to five (5) decks for section "A". For more than 5 decks, contact factory.
5. Add .312 to the length for each additional deck.
6. Non-turn washer for .432 hole spacing, also available.
7. For switches with 5 or more decks, the stud projection is $.312 \pm .060$.
8. Switches are provided with full circle of terminals, regardless of the number of active positions.

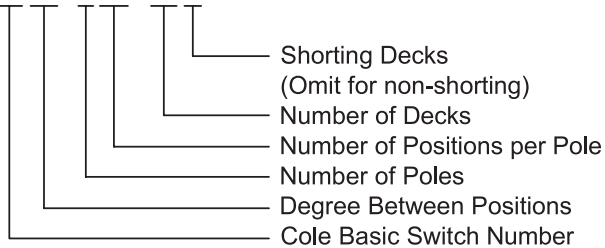
ORDERING INFORMATION

MULTIDECK SWITCHES

Add the total number of decks required as a dash No. after the part number.

SAMPLE CODE

36 36 - 2 04 - 03 S



Switch shown in the sample code is a 36° indexing, 2 pole per deck, 4 positions per pole, 3 decks, with shorting type contacts.

OPTIONS

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

Options listed in alphabetical order only.

- A = Adjustable stops.
- F = Fixed stop between the first and last position on the full-turn switch.
- G = RFI-EMI shielding.
- L = Dry circuit (low level).
- P = Panel and shaft seals.
- S = Shorting type switch. (available in all configurations)

SD = Screwdriver Slot.

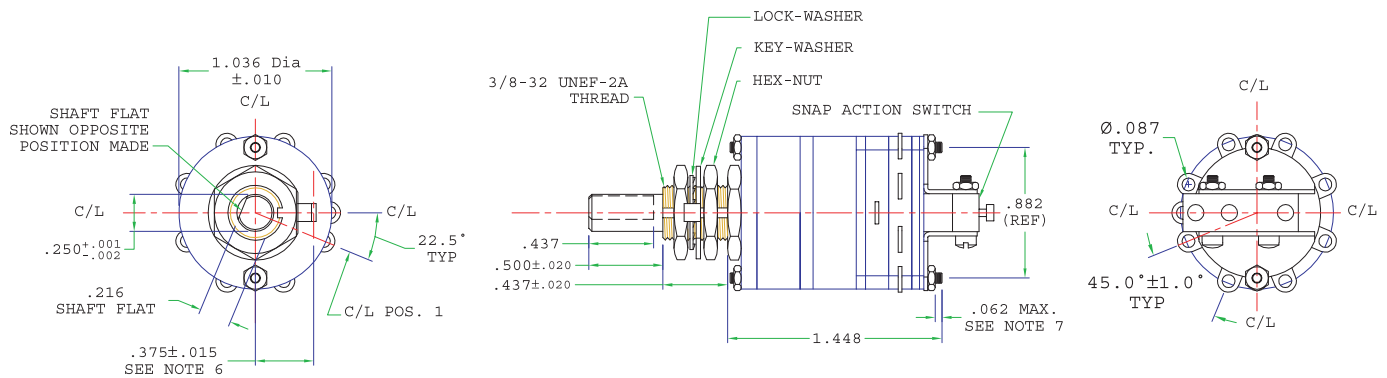
W = Washable

Y = Non-turn washer.

Screw Terminals available (contact factory for special part number)



3600 Standard Series - Add A Snap Action Switch



NOTES:

1. Dimensions are in inches.
2. Unless otherwise specified, tolerances are plus or minus .005 and plus or minus 3 degrees on angles.
3. Shaft flats are opposite to position being made.
4. Switch can have up to five (5) decks for section "A". For more than 5 decks, contact factory.
5. Add .312 to the length for each additional deck.
6. Non-turn washer for .432 hole spacing, also available.
7. For switches with 5 or more decks, the stud projection is .312 ± .060.
8. Switches are provided with full circle of terminals, regardless of the number of active positions.

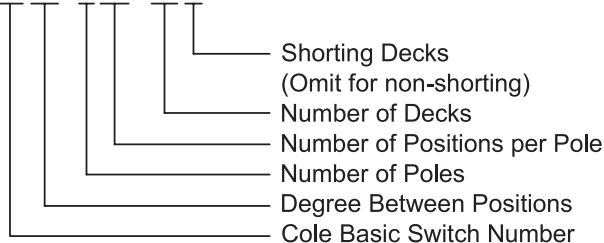
ORDERING INFORMATION

MULTIDECK SWITCHES

Add the total number of decks required as a dash No. after the part number.

SAMPLE CODE

36 36 - 2 04 - 03 S



Switch shown in the sample code is a 36° indexing, 2 pole per deck, 4 positions per pole, 3 decks, with shorting type contacts.

OPTIONS

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

Options listed in alphabetical order only.

- A = Adjustable stops.
- F = Fixed stop between the first and last position on the full-turn switch.
- G = RFI-EMI shielding.
- L = Dry circuit (low level).
- P = Panel and shaft seals.
- S = Shorting type switch. (available in all configurations)

SD = Screwdriver Slot.

W = Washable

Y = Non-turn washer.

Screw Terminals available (contact factory for special part number)



3600 TYPICAL FEATURES

**SCHEMATIC DIAGRAMS
(VIEWED FROM SHAFT END AND SHOWN IN POSITION #1)**

30° INDEXING

1 POLE/DECK 2 POLE/DECK 3 POLE/DECK 4 POLE/DECK 6 POLE/DECK

36° INDEXING

1 POLE/DECK 2 POLE/DECK 45° INDEXING 1 POLE/DECK 2 POLE/DECK 4 POLE/DECK

60° INDEXING

1 POLE/DECK 2 POLE/DECK 3 POLE/DECK 90° INDEXING 1 POLE/DECK 2 POLE/DECK

INTERNAL TOOTH LOCK-WASHER

HEX-NUT PER MS25082-20

KEY WASHER

RECOMMENDED PANEL CUTOUT

NOTES:

1. Dimension are in inches.
2. Unless otherwise specified, tolerances are $\pm .005$ and $\pm 3^\circ$ on angles (Non-accumulative).
3. Shaft flat opposite position being made.
4. Add .315 to the length for each additional deck.
5. Non-turn washer for .432 hole spacing, also available.
6. For standard, shaft flat is .375
7. For standard, shaft length is $.500 \pm .020$
8. For switches with more than 5 decks the stud projection is $.312 \pm .060$
9. Switches are provided with full circle of terminals, regardless of the number of active positions.



Series 3600 Technical Data

| Specification | Unit | Value | Note: |
|--|-----------------|--------------------------|---|
| Military Specifications | | MIL-S-3786 Style SR04 | |
| Continuous (Non-Switching) Current Carrying Capacity | Amps | 10 | at 28 VDC, with max. contact temperature rise of 20°C |
| Switching Current Capacity at 28 VDC resistive | Amps | 6 | at Atmospheric pressure with 85°C and at reduced Barometric pressure with 25°C |
| Switching Current Capacity at 115 VAC resistive | Amps | 6 | |
| Switching Current Capacity at 28 VDC inductive (2.8 H.) | Amps | 3 | |
| Switching Current Capacity at 28 VDC Lamp Load | Amps | 3 | |
| Low Level max. capacity | mA | 10 | at 30 millivolts DC max. |
| Dielectric Strength, min. | VRMS | 1,000 | |
| Contact resistance, max. (initial) | milliohms (mΩ) | 5 | |
| Contact resistance, max. (after life) | milliohms (mΩ) | 20 | |
| Insulation resistance, min. (initial) | megaohms (MΩ) | 100,000 | at 100 VDC |
| Insulation resistance, min. (after life) | megaohms (MΩ) | 60,000 | at 100 VDC |
| Switching Life | cycles | 25,000 | at rated loads, sea-level, 25°C, 68% relative humidity |
| Mechanical Life | cycles | 100,000 | |
| Rotational Torque, min. | inch ounces | 16 | |
| Rotational Torque, max. | inch ounces | 80 | |
| Stop Strength, max. | inch pounds | 15 | |
| Mounting Ferrule Strength | inch pounds | 15 | |
| Withstanding Shaft Push Force | pounds | 150 | |
| Weight | grams | 48 | |
| Molded Parts | | thermoplastic | |
| Contact Surfaces | | Silver Plated | Gold Plate is an option |
| Altitude | feet | 80,000 | typical pressure at 80,000 feet: 0.4 psi |
| Temperature, min. | degrees Celsius | -55 | |
| Temperature, max. | degrees Celsius | 125 | |
| Vibration Tested | | Meets | Per MIL-S-3786, MIL-STD-202, Method 204, test condition "B", vibration grade 3 |
| Impact Shock, Medium | | Meets | MIL-STD 202; Method 213 |
| Impact Shock, High | | Meets | at 100g, MIL-STD 202, Method 207 |
| Moisture Resistant | | 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 | | No | |
| EMI/RFI | | Meets | MIL-S-3786, 2 ohms Shaft to ground max. |
| Maximum total contacts on all decks | | 48 | |

