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.



The 3600 Series meets or exceeds applicable requirements of MIL-DTL-3786 Style SR04. Certified test reports available on request.

The Innovative Switch Company

The 3600 Series switch was designed for low and high level current switching and virtually eliminates flux contamination (with soldering and preparation per IPC-6IO and IPC J-STD) which has been a problem to the industry utilizing rotary switches.

These switches are available with $30^{\circ}, 36^{\circ}, 45^{\circ}, 60^{\circ}$, and $90^{\circ}$ 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.
- Hardened steel sprocket and ball bearing detent mechanics provide smooth, steady, and positive mechanical detent life in excess of 100,000 cycles.
- QPL Rated switching life of 25,000 cycles.
- Terminals and commons are molded in diallyl phthalate thermoset plastic to virtually eliminate flux contamination seeping inside the switch during the soldering or during the cleaning process (with soldering and preparation per IPC-6I0 and IPC J-STD).
- Rotors are molded of thermo-plastic glass fill for superior life.
- These and many other quality features will provide the ultimate in mechanical and electrical reliability, during the rated life of the switch.


## 3600 SERIES

One Inch Multi-Deck Enclosed Rotary Switches

The full QPL'd MIL switch is commercially available, as are all these configurations:

- 3600 Standard (page 3)
- F3600 Standard (page 4)
- 3600 Push/Pull (page 6)
- 3600 Spring Return (page 8)
- 3600 Concentric Shafts (page I7)
- 3600 Add-A-Pot (page I8)
- 3600 Add Snap Action Switch (page I9)
- 3600 Screw Terminals (page 20)

ISO 9001:2015 and AS9100:2016 Rev. D Certified

One Inch Multi-Deck Enclosed Rotary Switches
3600 Screw Terminals (See Page 20)

(See Page 4)



3600 Add A Pot (See Page 18)


3600 Add Snap Action
Switch
(See Page 19)


3600 Concentric Shafts (See Page 17)


3600 Push/Pull
(See Page 6)



INSTRUMENT CORP.


3600 SERIES FEATURES

- Flux contamination free.
- MIL-DTL-3786 tested.
- 6 Amp. power switch
- 100,000 mechanical and 25,000 switching life
- 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 $\pm .005$ and $\pm 3^{\circ}$ on angles.
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 switches with more than 5 decks, the stud projection is $.312 \pm .060$.
7. Switches are provided with full circle of terminals, regardless of the number of active positions.

ORDERING INFORMATION:

## MULTIDECK SWITCHES



Switch shown in the sample code is a $36^{\circ}$ indexing, 2 pole per deck, 4 positions per pole, 3 decks with non-shorting type contacts.

## OPTIONS

When ordering, add the letters after the basic part number.(Alphabetic order)
A $=$ Adjustable stops
F = Fixed stop between the first and last position on the full-turn switch
$\mathrm{G}=$ RFI-EMI shielding
L = Low level Gold contact
P = Panel and shaft seals
S = Shorting type switch
(Omit for non-shoting)
SD $=$ Screwdriver slot
T = Pre-tinned terminals
$\mathrm{Y}=.432$ non-turn washer
$s^{W_{/ T C H}} E^{s}$
INSTRUMENT CORP.

F3600 STANDARD - .437" (7/16") shaft exposed


3600 SERIES FEATURES

- Flux contamination free.
- MIL-DTL-3786 tested.
- 6 Amp. power switch.
- 100,000 mechanical and 25,000 switching life
- Ball bearing smooth detent indexing.
- Constant low contact resistance.
- Rugged, high impact construction.


NOTES:
. Dimensions are in inches.
2. Unless otherwise specified, tolerances are $\pm .005$ and $\pm 3^{\circ}$ on angles.
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 switches with more than 5 decks, the stud projection is $.312 \pm .060$.
7. Switches are provided with full circle of terminals, regardless of the number of active positions.


| INDEXING <br> ANGLE | POSITION <br> NUMBER | ANGLE <br> $A^{\circ}$ |
| :---: | :---: | :---: |
| $30^{\circ}$ | 12 | $15^{\circ}$ |
| $36^{\circ}$ | 10 | $36^{\circ}$ |
| $45^{\circ}$ | 8 | $22^{\circ} 30^{\prime}$ |
| $60^{\circ}$ | 6 | $15^{\circ}$ |
| $90^{\circ}$ | 4 | $22^{\circ} 30^{\prime}$ |

## ORDERING INFORMATION:

## MULTIDECK SWITCHES



Switch shown in the sample code is a $36^{\circ}$ indexing, 2 pole per deck, 4 positions per pole, 3 decks with shorting type contacts.

## OPTIONS

When ordering, add the letters after the basic part number.(Alphabetic order)
$\mathrm{A}=$ Adjustable stops
$\mathrm{F}=$ Fixed stop between the first and last position on the full-turn switch
$\mathrm{G}=$ RFI-EMI shielding
$\mathrm{L}=$ Low level Gold contact
P $=$ Panel and shaft seals
$\mathrm{S}=$ Shorting type switch
(Omit for non shorting)
SD $=$ Screwdriver slot
$\mathrm{T}=$ Pre-tinned terminals
$\mathrm{Y}=.432$ non-turn washer

## BASIC PART NUMBER FOR SINGLE DECK SWITCHES

| $30^{\circ}$ 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 |


| $36^{\circ}$ 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 |


| $45^{\circ}$ 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 |


| $60^{\circ}$ 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 |


| $90^{\circ}$ 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 |

## STYLES COMMERCIALLY AVAILABLE:

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

## PAGE

## 3600 Push/Pull (Protected/Isolated Position)



NOTES:

1. Dimensions are in inches.
2. Unless otherwise specified, tolerance are $\pm .005$ and $\pm 3^{\circ}$ on angles.
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.
6. For switches with more than 5 decks, the stud projection is $.312 \pm .060$.
7. Switches are provided with full circle of terminals,

| INDEXING <br> ANGLE | POSITIIN <br> NUMBER | ANGLE <br> $A^{\circ}$ |
| :---: | :---: | :---: |
| $30^{\circ}$ | 12 | $15^{\circ}$ |
| $36^{\circ}$ | 10 | $36^{\circ}$ |
| $45^{\circ}$ | 8 | $22^{\circ} 30^{\prime}$ |
| $60^{\circ}$ | 6 | $15^{\circ}$ |
| $90^{\circ}$ | 4 | $22^{\circ} 30^{\prime}$ | regardless of the number of active positions.

## 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


- Special Ordeing Ifformation

Options

- Number of Decks
- Number of Positions per Pole

Number of Poles
Degree Between Positions
Cole Basic Switch Number

## 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:
$\mathrm{D}=$ Specifying Detent Position
STOP = Specifying stops
$\mathrm{PL}=$ Specifying actuation by pulling the shaft out PS = Specifying actuation by pushing the shaft in Sample part number ${ }^{\text {SPECIAL }}$

3636-205-1S
STOP1PS2PS3PS4D5STOP

This sample part number orders a series 3600 , $36^{\circ}$ 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 $36^{\circ}$ 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 5678910
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 45678910

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 $36^{\circ}$ indexing is specified as an 8 position switch with position 1 isolated with push actuation required, the designation would be:

## STOP1PS2 34567 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 $36^{\circ}$ indexing, isolating position 1 will automatically isolate position 6 .
(Refer to the standard switch schematics for $36^{\circ}$ indexing switches, page No. 3

INSTRUMENT CORP.

## 3600 Spring Return (Momentary)



NOTES:

1. Dimensions are in inches.
2. Unless otherwise specified, tolerances are $\pm .005$ and $\pm 3^{\circ}$ on angles.
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 switches with more than 5 decks, the stud projection is $.312 \pm .060$.
7. Switches are provided with full circle of terminals, regardless of the number of active positions.

## 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:


This sample part number orders a series $3600,45^{\circ}$ 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 $30^{\circ}, 36^{\circ}$ and $45^{\circ}$ 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 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $30^{\circ}$SPRINGRETURN | 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 |
| $36^{\circ}$ 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 |
| $45^{\circ}$ 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 DIFFERENT REQUIREMENTS PLEASE CONTACT THE FACTORY.

CONFIGURATIONS AND RESTRICTIONS TABLE

| Indexing | Part No. | Switch Action | Switch <br> Action <br> Description | Poles <br> per Deck | Positions <br> per Pole | Terminal <br> Opposite <br> To Flat |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

CONFIGURATIONS AND RESTRICTIONS TABLE


CONFIGURATIONS AND RESTRICTIONS TABLE

| Indexing | Part No. | Switch Action | Switch Action Description | Poles per Deck | Positions per Pole | Terminal Opposite To Flat |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $30^{\circ}$ | 3611 |  | $1 \rightarrow 2 \mathrm{D} 3 \mathrm{D} 4 \leftarrow 5$ | 1 or 2 | 5 | 2 |
| $30^{\circ}$ | 3612 |  | $1 \longrightarrow 2$ D3D4D5D6 | 1 or 2 | 6 | 2 |
| $30^{\circ}$ | 3613 |  | 1D2D3D4D5 ¢ 6 | 1 or 2 | 6 | 1 |
| $30^{\circ}$ | 3614 |  | $1 \rightarrow 2 \mathrm{D} 3 \mathrm{D} 4 \mathrm{D} 5 \leftarrow 6$ | 1 or 2 | 6 | 2 |

CONFIGURATIONS AND RESTRICTIONS TABLE

| Indexing | Part No. | Switch Action | Switch <br> Action <br> Description | Poles <br> per Deck | Positions <br> per Pole | Terminal <br> Opposite <br> To Flat |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $36^{\circ}$ | 3660 |  | 3659 |  |  |  |
| $366^{\circ}$ | 3661 |  |  |  |  |  |

CONFIGURATIONS AND RESTRICTIONS TABLE

| Indexing | Part No. | Switch Action | Switch <br> Action Description | Poles per Deck | Positions per Pole | Terminal Opposite To Flat |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $36^{\circ}$ | 3665 | 3665 <br> (4) | $1 \longrightarrow 2 \mathrm{D} 3 \mathrm{D} 4$ | 1 or 2 | 4 | 2 |
| $36^{\circ}$ | 3666 | 3666 <br> (1) <br> (4) 3 <br> (2) 0 | 1D2D3 $\longleftarrow 4$ | 1 or 2 | 4 | 1 |
| $36^{\circ}$ | 3667 | 3667 <br> (1) <br> (4) <br> (3) 2 0 | $1 \longrightarrow 2 \mathrm{D} 3 \leftarrow 4$ | 1 or 2 | 4 | 2 |
| $36^{\circ}$ | 3668 |  | $1 \longrightarrow 2 \mathrm{C}$ [ 4 D 5 | 1 or 2 | 5 | 2 |
| $36^{\circ}$ | 3669 | $3669$ <br> (5) <br> 4 | 1D2D3D4 $\longleftarrow 5$ | 1 or 2 | 5 | 1 |

CONFIGURATIONS AND RESTRICTIONS TABLE

\begin{tabular}{|c|c|c|c|c|c|c|}
\hline Indexing \& Part No. \& Switch Action \& Switch Action Description \& Poles per Deck \& Positions per Pole \& Terminal Opposite To Flat \\
\hline \(36^{\circ}\) \& 3670 \& \begin{tabular}{l}
(5) (1) \\
(4) \\
(3) (2) 0
\end{tabular} \& \(1 \rightarrow 2 \mathrm{D} 3 \mathrm{D} 4 \leftarrow 5\) \& 1 or 2 \& 5 \& 2 \\
\hline \(45^{\circ}\) \& 3650 \& 3650 \& \(1 \longrightarrow 2\) \& 1 or 2 \& 2 \& 2 \\
\hline \(45^{\circ}\) \& 3651 \& 3651 \& \(1 \longleftarrow 2\) \& 1 or 2 \& 2 \& 1 \\
\hline \(45^{\circ}\) \& 3652 \& \begin{tabular}{l}
3652 \\
(1) \\
(3) \\
(2)

\end{tabular} \& $1 \longrightarrow 2 \mathrm{D} 3$ \& 1 or 2 \& 3 \& 2 <br>

\hline $45^{\circ}$ \& 3653 \& | 3653 |
| :--- |
| (1) |
| (3) (2) 0 | \& $1 \mathrm{D} 2 \longleftarrow 3$ \& 1 or 2 \& 3 \& 1 <br>

\hline
\end{tabular}

CONFIGURATIONS AND RESTRICTIONS TABLE


## 3600 Concentric Shafts



NOTES:

1. Dimensions are in inches.
2. Unless otherwise specified, tolerances are $\pm .005$ and $\pm 3^{\circ}$ on angles.
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 switches with more than 5 decks, the stud projection is $.312 \pm .060$.
7. Switches are provided with full circle of terminals, regardless of the number of active positions.

| INDEXING <br> ANGLE | POSITION <br> NUMBER | ANGLE <br> A $^{\circ}$ |
| :---: | :---: | :---: |
| $30^{\circ}$ | 12 | $15^{\circ}$ |
| $36^{\circ}$ | 10 | $36^{\circ}$ |
| $45^{\circ}$ | 8 | $22^{\circ} 30^{\prime}$ |
| $60^{\circ}$ | 6 | $15^{\circ}$ |
| $90^{\circ}$ | 4 | $22^{\circ} 30^{\prime}$ |

ORDERING INFORMATION
Sample Code


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 $30^{\circ}$ Indexing, 2 Poles, 6 Positions/Pole, 6 decks, Non-Shorting Contacts.
Section "B" has $45^{\circ}$ 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.

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

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 . 432 hole spacing
$S=$ Shorting contacts

## 3600 Add A Pot Switch



NOTES:

1. Dimensions are in inches.
2. Unless otherwise specified, tolerances are $\pm .005$ and $\pm 3^{\circ}$ on angles.
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 switches with more 5 than decks, the stud projection is $.312 \pm .060$.
7. Switches are provided with full circle of terminals, regardless of the

| INDEXING <br> ANGLE | POSITIINN <br> NUMBER | ANGLE <br> $A^{\circ}$ |
| :---: | :---: | :---: |
| $30^{\circ}$ | 12 | $15^{\circ}$ |
| $36^{\circ}$ | 10 | $36^{\circ}$ |
| $45^{\circ}$ | 8 | $22^{\circ} 30^{\prime}$ |
| $60^{\circ}$ | 6 | $15^{\circ}$ |
| $90^{\circ}$ | 4 | $22^{\circ} 30^{\prime}$ | number of active positions.

3600 Standard Series - Add A Snap Action Switch


NOTES:

1. Dimensions are in inches.
2. Unless otherwise specified, tolerances are $\pm .005$ and $\pm 3^{\circ}$ on angles.
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 switches with more than 5 decks, the stud projection is $.312 \pm .060$.

| INDEXING <br> ANGLE | POSITIIN <br> NUMBER | ANGLE <br> $A^{\circ}$ |
| :---: | :---: | :---: |
| $30^{\circ}$ | 12 | $15^{\circ}$ |
| $36^{\circ}$ | 10 | $36^{\circ}$ |
| $45^{\circ}$ | 8 | $22^{\circ} 30^{\prime}$ |
| $60^{\circ}$ | 6 | $15^{\circ}$ |
| $90^{\circ}$ | 4 | $22^{\circ} 30^{\prime}$ |

## 3600 Standard Series - Screw Terminals



3600 SERIES FEATURES

- Flux contamination free.
- MIL-DTL-3786 tested.
- 6 Amp. power switch.
- 100,000 mechanical and 25,000 switching life
- 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 $\pm .005$ and $\pm 3^{\circ}$ on angles.
3. Shaft flat opposite position being made.
4. Add .435 to the length for each additional deck.
5. Non-turn washer for .432 hole spacing, also available.
6. For switches with more than 5 decks, the stud projection is $.312 \pm .060$.
7. Switches are provided with full circle of screw terminals, regardless of the

| INDEXING <br> ANGLE | POSITION <br> NUMBER | ANGLE <br> $\mathrm{A}^{\circ}$ |
| :---: | :---: | :---: |
| $36^{\circ}$ | 10 | $36^{\circ}$ |
| $45^{\circ}$ | 8 | $22^{\circ} 30^{\prime}$ |
| $60^{\circ}$ | 6 | $15^{\circ}$ |
| $90^{\circ}$ | 4 | $22^{\circ} 30^{\prime}$ | number of active positions.

8. Upon receipt of your order, After 3600 series a special numbers will be issued unique to this switch. These numbers will not relate to the coding system and will be logged as "special".

## 3600 TYPICAL FEATURES

| SCHEMATIC DIAGRAMS <br> (VIEWED FROM SHAFT END AND SHOWN IN POSITION \#1) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| 1 POLE/DECK | 2 POLE/DECK | 3 POLE/DECK | 4 POLEIDECK | 6 POLEIDECK |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| NOTES: |  |  |  |  |
| 1. Dimension are in inches. 6. For standard, shaft flat is 375 |  |  |  |  |
| 2. Unless otherwise specified, tolerances are $\pm .005$ and $\pm 3^{\circ}$ on angles (Non-accumulative). <br> 3. Shaft flat opposite position being made. <br> 4. Add .312 to the length for each additional deck. <br> 5. Non-turn washer for .432 hole spacing, also available. <br> 7. For standard, shaft length <br> 8. For switches with more is $.312 \pm .060$ <br> 9. Switches are provided w regardless of the numbe |  |  |  |  |

Series 3600 Technical Data

| Specification | Unit | Value | Note: |
| :---: | :---: | :---: | :---: |
| Military Specifications |  | $\begin{array}{\|l\|} \hline \text { MIL-DTL-3786 } \\ \text { Style SR04 } \end{array}$ |  |
| Continuous (Non-Switching) Current Carrying Capacity | Amps | 10 | at 28 VDC , with max. contact temperature rise of $20^{\circ} \mathrm{C}$ |
| Switching Current Capacity at 28 VDC resistive | Amps | 6 |  |
| Switching Current Capacity at 115 VAC resistive | Amps | 6 | at Atmospheric pressure with $85^{\circ} \mathrm{C}$ and at reduced Barometric |
| Switching Current Capacity at 28 VDC inductive ( 2.8 H .) | Amps | 3 | pressure with $25^{\circ} \mathrm{C}$ |
| 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 (m) | 5 |  |
| Contact resistance, max. (after life) | milliohms (m) | 20 |  |
| Insulation resistance, min. (initial) | megaohms (M) | 100,000 | at 100 VDC |
| Insulation resistance, min. (after life) | megaohms (M) | 60,000 | at 100 VDC |
| Switching Life | cycles | 25,000 | at rated loads, sea-level, $25^{\circ} \mathrm{C}, 68 \%$ relative humidity |
| 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-DTL-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-DTL-3786, 2 ohms Shaft to ground max |
| Maximum total contacts on all decks |  | 48 |  |

