

# ROTARY SWITCHES

## Series 23

### DESCRIPTION

**Integral Series 23 Professional Grade Rotary Switches** are ideally suited for use in Industrial and Laboratory equipments, as they provide a dust-free splash-proof enclosure of the contacts.

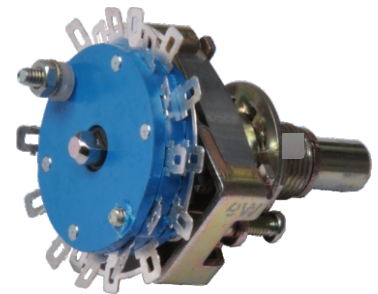
Wiping self cleaning contacts with a smooth gold plated ball-contact result in long term reliability and consistent quality.

Variety of switching configuration meet most of the design requirements of the user.

Assembly options are possible with the use of spacers, shields etc. and permit custom built switches. 'O' ring sealing is available for both spindle and panel mounting bush. The balanced pressure indexing mechanism provided by 2 balls housed in a Sheet metal or Engineering Plastic housing provides smooth positive action with consistent and repeatable torque.

### FEATURES

- Wiping Self Cleaning Contacts
- Sealed Contacts
- Long life and consistent electrical performance
- Make before Break, Break before Make or special rotor segments
- Choice of 30°, 60° and 90° indexing angles
- Hollow shafts for operating a pot meter mounted at the rear of the switches (on request)
- Spaces between wafers will facilitate component mounting on the switch itself
- Shields between wafers as per customers requirements
- Gold plating on contacts available as per requirement
- 'O' Ring Sealing available for panel and spindle seal on request
- In case of space constraints Engineer Plastic Housing is an option available.

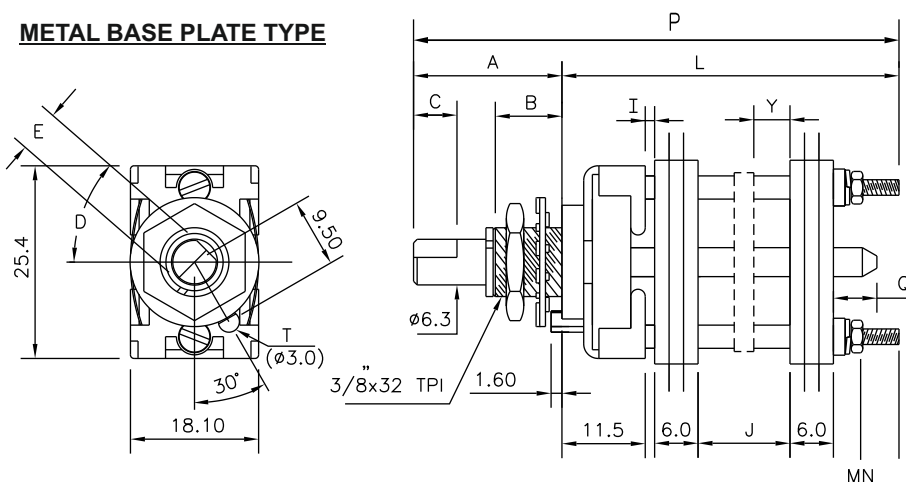


Standard circuit possible at 30° throw - indexing angle.

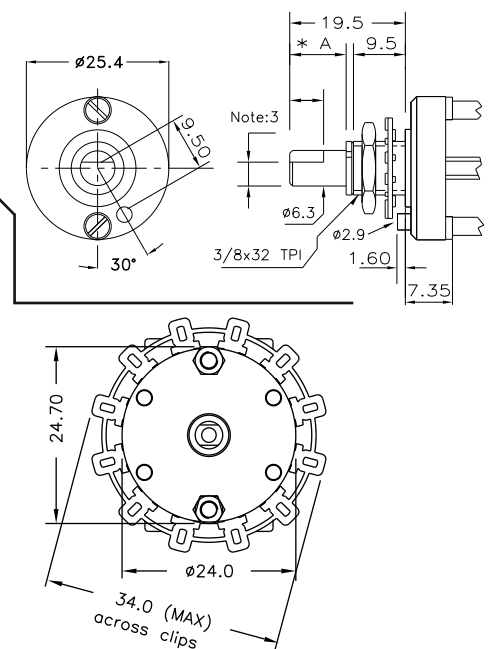
- |                          |                         |
|--------------------------|-------------------------|
| 1 pole - 2 way to 12 way | 3 pole - 2 way to 4 way |
| 2 pole - 2 way to 6 way  | 4 pole - 2 way to 3 way |

### DIMENSIONAL DETAILS :

#### METAL BASE PLATE TYPE



#### PLASTIC HOUSING TYPE



All Dimensions in mm.

## SPECIFICATIONS

<b>CONTACT RATING</b>	
CURRENT CARRYING	: 2 amps (non-switching)
CURRENT BREAKING	: 0.1 amps @ 28 V DC 0.25 amps @ 100 V AC
<b>WORKING VOLTAGE</b>	: 230 V AC (max)
<b>INSULATION RESISTANCE</b>	: 1000 Megohms (between any two insulated parts)
<b>VOLTAGE PROOF</b>	: min 1000 V AC
<b>CONTACT RESISTANCE</b>	: <40 milliohms (Initial - adjacent contacts) @ 2-4V DC
<b>TEMPERATURE RANGE</b>	: -65°C to 70°C
<b>LIFE</b>	: 25,000 operations
<b>INDEX ANGLE</b>	: 30°, 60° & 90°
<b>SEALING</b>	: Panel & Shaft seal on request

## MATERIALS & FINISHES

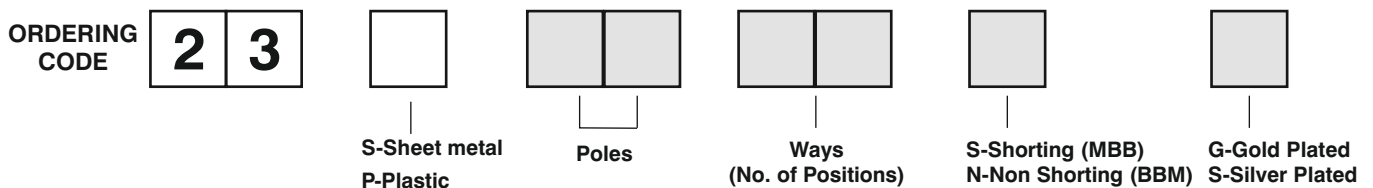
<b>CONTACT CLIPS</b>	: Spring hard Copper heavily silver plated
<b>ROTOR</b>	: Brass ball hard gold plated
<b>STATOR &amp; ROTOR</b>	: Moulded glass fibre loaded Diallyl Phthalate / Nylon / Polycarbonate
<b>BASE</b>	: Sheet Metal housing Zn plated and passivated. In some cases high temperature engineering plastics are also used.
<b>INDEX MECHANISM</b>	: Index springs stainless steel & other parts Zn blue plated and passivated.

**CHECK LIST FOR ORDERING** : Given below are the variations possible in the Switch. Please take care to see that all these points are taken note of if you are ordering a custom-built special switch. For contact configuration, other than standard, use the layout sheet available on request.

A - Shaft length - 10 mm (dia 6.35 mm)	N - 1.5mm to 5.0mm to suit standard screw available
B - Bushing thread length - 9.5 mm / Threads 3/8"x32 TPI (Length 6.35 mm available on request)	L/P - Specify maximum overall length, if important
C - Flat length - Standard 6mm (in no case closer than 3 mm from end of bushing - Optional)	Q - Shaft extension at rear nominal 2.0mm to 6.0mm (to suit standard shaft available)
D - Angle of flat - Multiples of 15° ± 3° (specify position of flat with switch shaft in fully counter-clockwise position when viewed from front or knob end)	R - Index angle 30°, 60° & 90°
E - Flat Dimension - 5.5 ± 0.1 mm	S - Stopper - Yes / No
I - First spacer - 0.8 mm with standard clips (No spacer needed if no clip present)	T - Locating Lug - Yes / No
J - Spacer - 0.8 mm	U - Hollow shaft (on request)
M - Standard 1.6 mm min (Any length spacer may be inserted at this point)	V - No. of Poles/Ways
	W - Contact Terminals - Solder type
	X - Contact - Silver/Gold plating/Silver alloy
	Y - Shields (dimension/position)
	Z - Contact Type - Shorting MBB-S/Non - shorting BBM-N

## HOW TO ORDER

1. For standard switch by describing as given below.
2. For special assembly use layout or send drawings.



**integral**

**INTEGRAL SYSTEMS AND COMPONENTS PRIVATE LIMITED**

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# KNOB FOR ROTARY SWITCHES



## Series 90

### DESCRIPTION

Integral Collet Knobs can be used for all types of Rotary Switches. They are sturdily built and are able to withstand repeated use. They are designed to meet the requirement of different shaft Dia.



Operation of knob, it is effective to rotate the pointer to give an indication of switch position.

### KEY FEATURES OF KNOB :-

- \* Simple construction with reliable operation.
- \* Simplicity of use.
- \* Styling

Knob is designed to have easy fit of accessories giving more versatility.

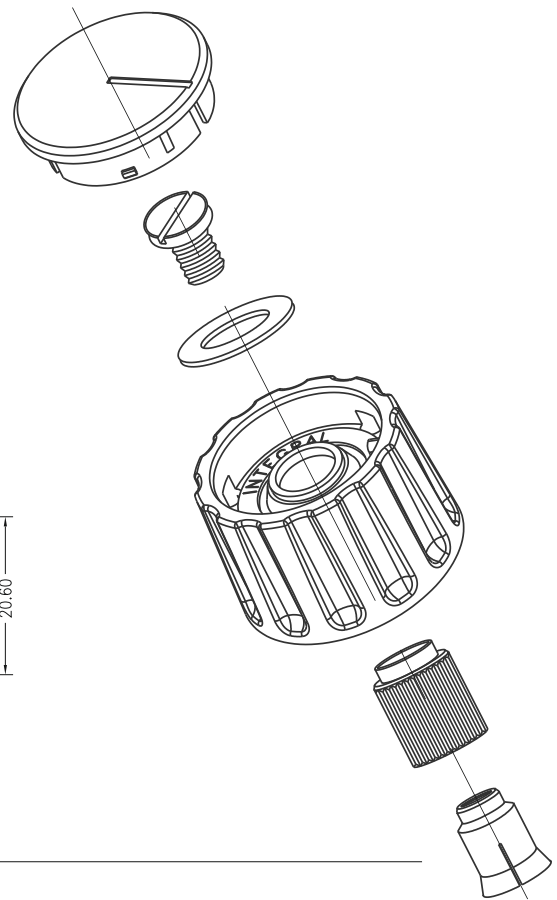
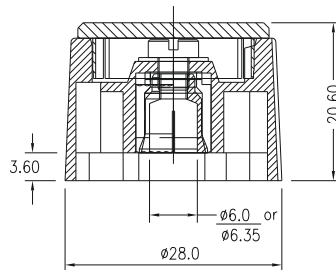
### KNOB STYLE :- Standard

#### MATERIALS & FINISHES

MOULDINGS : Engineering Plastic (matt finish)

METAL : Brass, Nickel Plated.

#### DIMENSIONS OF KNOB



#### ORDERING CODE:-

#### COLOUR

- 0 - Light Grey
- 1 - Dark Grey
- 2 - Black

#### COLLET DIA

- 0 - 6.35 mm dia.
- 1 - 6.0 mm dia.



All Dimensions in mm.



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