



## O/E/N J/JC ROTARY WAFER SWITCH

- Flexible Switch package
- Ceramic or phenolic wafer
- Optional water sealing
- Variety of Switching configurations
- Resistor & Capacitor decade switch
- BCD output option
- Dropping Circuits
- Military and commercial versions

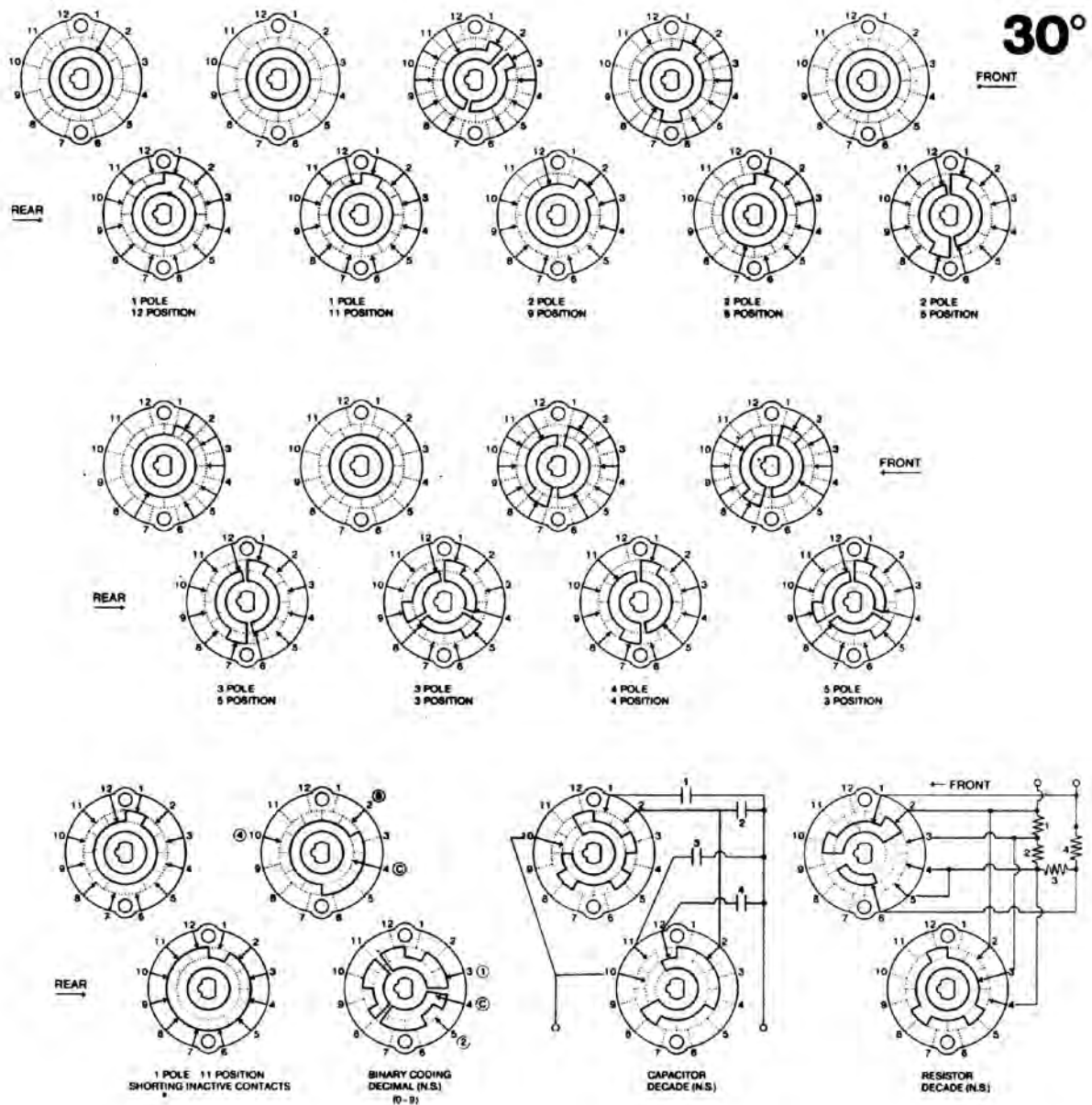
SPECIFICATIONS		OPTIONS AVAILABLE
Angle of throws available	: 30°, 45°, 60°, & 90°	<p><b>Sections</b></p> <p>Sections of phenolic and ceramic can be combined in a switch to keep cost down, when insulation is critica for only certain circuits.</p> <p><b>Stops</b></p> <p>Fixed stops at total number of positions specified are standard. If OFF position is required please indicate whether it is to be at the first or last switch position.</p> <p><b>Water Seal</b></p> <p>'O' ring sealing is available for both shaft and index housing. Water sealing meets JSS requirements.</p> <p><b>Clip Terminals</b></p> <p>Standard terminals have 75 bend. Clips with flat or reverse terminals are also available on request.</p> <p><b>Printed Circuit Terminals</b></p> <p>Silver plated Brass PC. terminals are available assembled with the switch clips (See figure for terminal details and drilling pattern).</p> <p>Electrostatic shields, Moulding brackets, etc. are available as standard, and can be supplied when specified.</p> <p><b>Gold Flashing/Plating</b></p> <p>Gold flashing or gold plating can be provided over silver alloy when specified to improve storage characteristics, dry circuit switching, increase reliability when used infrequently or in corrosive atmospheres limit contact resistance variation: (See under Military specifications</p>
Contact rating	: Silver plated brass contacts can switch 1 Amp (resistive load at 28 VDC and 0.5 Amp (resistive) at 110 VAC	
	: Silver alloy contacts can switch 2 Amps (resistive) al 28 VDC and 1 Amp (resistive) at 110 VAC.	
	: Contact rating requirement on resistive loads as per SRW 06 of JSS 51207	
	: 500 mA at 28 VDC 125mA at 230 VAC	
Contact resistance	: 3 to 15 milliohms between adjacent contacts.	
Inulation resistance	: 1000 megohms min. for J switch 10,000 megohms Min. for JC switch	
Dielectric strength	: 1000 VAC at sea level	
Temperature Range	: Standard commercial -25°C to +85°C Military (Phenolic) -65°C to +125°C	
Finishes	: All component parts requiring plating are cadmium, nickel or zinc plated and passivated as per our standards.	

Ceramic insulation is recommended for applications requiring high insulation resistance and high dielectric withstanding voltage and are suited for use in critical high frequency circuits.



## TYPICAL SWITCHING CONFIGURATIONS

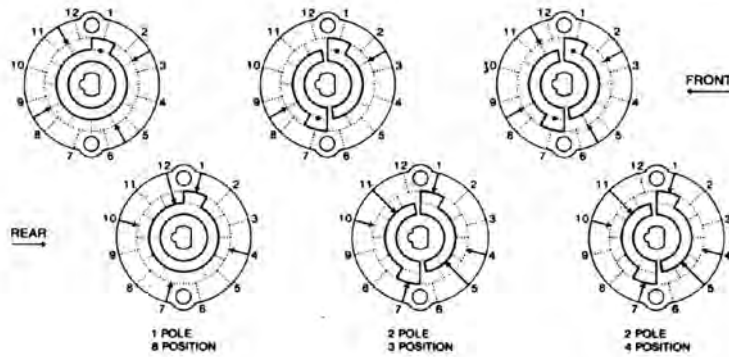
Whilst an almost infinite variety of switching configurations are possible to meet every design requirement, layouts of certain typical configurations are provided below. It is to be noted that most switching requirements can be provided in a number of alternative layouts and the final choice is to be determined by design and manufacturing convenience for the particular case.



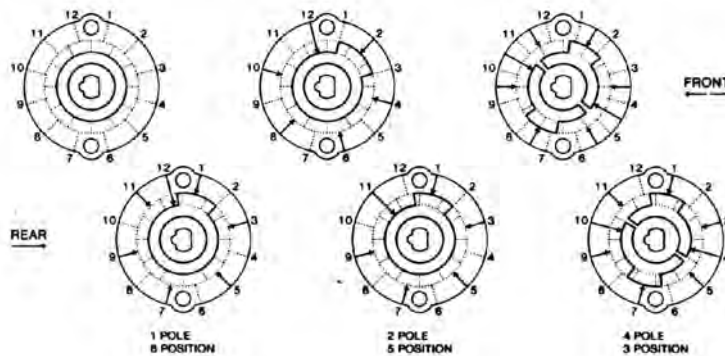
**NOTES:**

- 1) Clip positions shown are only typical. For internal design and manufacturing convenience, clip positions may be Shifted, without affecting circuitry.
- 2) On circuits with fewer positions, short clips will be omitted from clockwise end of rotation. Example: 1 pole 10 way would have clip at position 11 omitted.
- 3) If Make before break contacts are required specify “Shorting” and if Break before make contacts are required “Non-Shorting”.
- 4) To adequately support the rotor in the stator, the rotor blades must cover at least 180 of rotor space on each side of stator. Where, possible, use 360 rotor rings. If shorter blades are required, extra retaining segments may be added without affecting the electrical functioning. In any case a blade segment must necessarily have 2 mounting legs atleast for sufficient support.

**45°**



**60°**



**STANDARD CONSTRUCTION**

Switches are assembled with metallic spacers between index assembly and sections and between sections with bolts & nuts to hold the whole assembly together.

Optional assembly variations to include shields, brackets, etc. can be provided on request. For switches with more than 5 sections or extending more than 90 mm behind the front mounting surface we recommend use of a bracket.

**MILITARY SPECIFICATIONS**

Both the J and JC switches are Type approved to JSS51207.

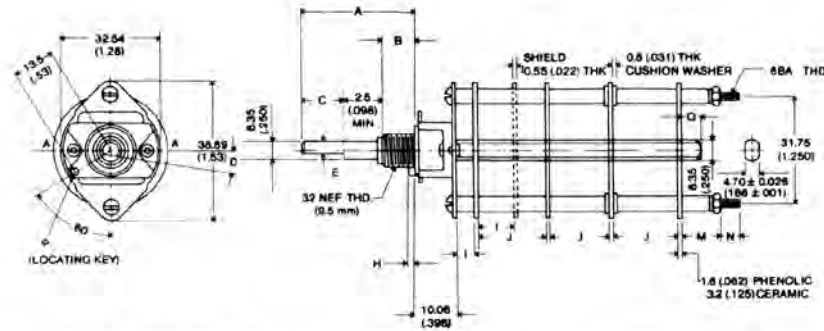
To meet JSS 51207 requirements, switches should incorporate silver alloy (plain, gold flashed or gold plated) contacts, water sealing (both shaft and index 'O' ring seals) and stainless steel shafts.

Contact rating requirements on resistive loads as per SRW06 of JSS51207:

- 500 mA at 28 VDC
- 125mA at 230 VAC.



## GENERAL DIMENSIONAL DETAILS

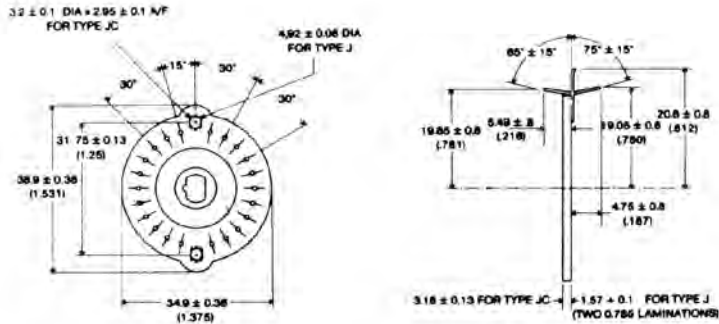


STANDARD DIMENSIONS IN MM BRACKETED DIMENSIONS IN INCHES TOLERANCE $\pm 0.25$ (0.010)									
A	B	C	D	E	H	$\varnothing$	M	N	Q
34.5 (1.359)	9.53 (1.375)	12.0 (4.72)	MULTIPLES OF 15° ± 30°	5.50 (2.17)	1.573 (0.62)	3.05 (1.20)	3.3 FOR J 4.0 FOR JC	1.6 TO 5 mm TO SUIT STD SCREW AVAILABLE	1.5 TO 5 mm TO SUIT STD SHAFT AVAILABLE

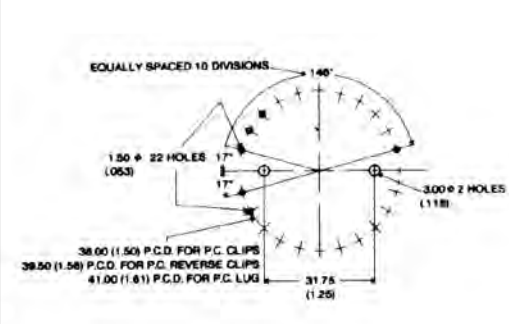
SPACING	WITHOUT CLIP OR WITH FLAT CLIP	WITH STANDARD CLIPS	WHEN STD CLIP FACE NO CLIP/FLAT CLIP
I	3.0 mm (1.18) FOR J WITHOUT CLIP 3.3 mm (1.28) FOR JC CLIP 4.0 mm (1.56) FOR BOTH WITH FLAT CLIP	5.5 mm (2.17)	
J	5.5 mm (2.17)	12 mm (4.72)	5.5 mm (2.17)

\* 6.35 (1/8) AVAILABLE ON REQUEST  
\*\* D TO BE SPECIFIED IF FLAT REQUIRED

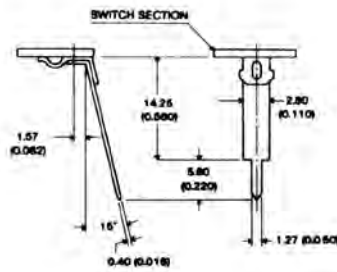
## WAFER DETAILS



## PC. LAYOUT



## PC. LUG DETAIL



**REFER ROTARY SWITCH DESIGN INFORMATION BULLETIN FOR FINALISING SWITCH DESIGN**

