

# ROTARY SWITCHES

## TYPE DF

### Binary Rotary Switch

#### FEATURES

- Spindle and panel sealed
- Gold contacts
- Enclosed contact chamber
- Balanced positive indexing
- Terminals for pcb mounting
- Robust construction
- High grade insulation materials
- 100% electrically tested
- Wide operating temperature range



#### TECHNICAL SPECIFICATION

##### Electrical Specifications

<b>Contact Rating:- Switching</b>	5VA dc. 10VA ac. (1A max) resistive
<b>Continuous</b>	2A
<b>Proof Voltage (for 1 min.)</b>	1000 d.c. volts peak, adjacent terminals 2000 volts peak all terminals to frame
<b>Insulation Resistance</b>	500M $\Omega$ minimum at 500 volts dc.
<b>Contact resistance</b>	60m $\Omega$ maximum initial at the terminations measured at 100mV, 100mA. 20m $\Omega$ maximum increase after 20,000 cycles of operation at 85°
<b>Capacitance</b>	3pf adjacent terminals
<b>Switching per Wafer</b>	See available switching table

##### Mechanical Specifications

<b>Endurance (Electrical)</b>	20,000 cycles (1 cycle is full rotation in both directions) minimum, at upper temperature category and electrical load.
<b>Endurance (Mechanical)</b>	50,000 cycles
<b>No. of Positions (With or Without End Stops).</b>	12 maximum at 30° 10 maximum at 36°
<b>Operating Torque</b>	Light - .028/.112Nm Medium - .084/.168Nm Heavy - .14/.336Nm
<b>End Stop Strength</b>	1.13Nm
<b>Temperature Range</b>	-40°C/+85°C
<b>Terminations</b>	Pins for P.C. mounting
<b>Terminal Strength</b>	Tensile test load 10N
<b>Sealing</b>	Spindle & panel seal option max. leakage 1ml/hour.
<b>Switch Mounting</b>	Panel mounting via M10 threaded bush.
<b>Operating Spindle</b>	6.0DIA. plain

#### MATERIALS AND FINISHES

<b>Switch Wafer</b>	Copper clad epoxy glass laminate etched & finish electroplated nickel 5 $\mu$ m & hard (150 VPN) gold 2.5 $\mu$ m min in contact area remainder in gold flash
<b>Terminals</b>	Hard brass silver plated
<b>Wiping Contact</b>	Brass electroplated nickel 5 $\mu$ m & finished in hard gold 1.5 $\mu$ m.
<b>Contact Pressure Spring</b>	Stainless steel coil spring
<b>Contact Rotor Moulding</b>	Glass filled nylon 66
<b>Terminal Housing</b>	Acetal

<b>Mechanism Mouldings</b>	Glass filled nylon 66
<b>Mechanism Rollers</b>	} Stainless steel
<b>Mechanism Thrust Plates</b>	
<b>Mechanism Springs</b>	
<b>Spindle</b>	
<b>Sealing Rings</b>	Panel seal in nitrile spindle seals (2) in silicone
<b>Mounting Bush</b>	Brass electroplated

Wessex Advanced Switching Products Ltd  
 Alexandria Park, Penner Road Havant,  
 Hants PO9 1QY, UK  
 Tel: +44 (0)239 245 7000  
 Fax: +44 (0) 239 247 3918  
 email: sales@wasp-ltd.co.uk  
 www.waspswitches.co.uk

