



General Information:

These versatile miniature switches have 25.4 mm diameter moulded wafers and are available in 2 versions, 36° indexing- having 18 clip positions and 30° indexing- having 22 such positions. 15°, 45° and 60° indexing are variations of the latter. Optional features include concentric shafts, panel and spindle seals, printed circuit termination's and momentary contact models.

Characteristics:

Electrical, Maximum working voltage,	300Vdc/ac (rms).
Contact rating, Current carrying	2amp continuous.
Current breaking with a resistive/non-reactive load.	150mA at 250Vac (rms)..
Proof Voltage.	1000Vrms at sea level.
Insulation resistance.	Not less than 500 megohms at 500Vdc. (between any 2 parts requiring electrical insulation)
Contact resistance (initial).	10 milliohms maximum at 100mV (rms). 100mA.max.
Mechanical.	
End stop strength.	0,8 ± 0,1 Nm (114oz.in.)

Maximum Switching Per Wafer:

No. of Poles.	36° MU-MA	30° MU-MA	45° MU-MA	60° MU-MA	15° MU-MG
1 Pole.	2 to 10 ways	2 to 12 ways	2 to 8 ways	2 to 6 ways	2 wafers
2 Pole.	2 to 5 ways	2 to 7 ways	(fixed stop at	2 to 6 ways	providing 1 pole
3 Pole.	2 to 4 ways	2 to 5 ways	positions 3, 5,	2 or 3 ways	24 way
4 Pole.	2 or 3 ways	2 to 4 ways	and 7 ways)	2 or 3 ways	switching.
5 Pole.	-	2 to 3 ways		2 ways only	
6 Pole.	-	2 ways only		on-off	
7 Pole.	-	2 ways only		-	

Index Mechanism:

The Type MU mechanism provides indexing angles of 30°, 36°, 45° and 60°. The low friction moulded cam followers in the assembly ensures a smooth indexing action. Balance pressure springs provide consistent and readily reproducible total switch torque values within the following ranges.

<u>Light</u>	7 to 18 x 10 ⁻² Nm (10 to 26 oz, ins.)
<u>Medium</u>	14 to 32 x 10 ⁻² Nm (20 to 46 oz, ins.)
<u>High</u>	28 to 56 x 10 ⁻² Nm (40 to 80 oz, ins.)

Type A indexing mechanism may also be used as an alternative where a simpler, space saving mechanism is required. The switch then becomes model A-MA. 30° indexing only.

Contacts & Termination's:

Standard.	-	Silver plated brass.
Alternatives.	-	Hard gold plated or silver contacts are available at extra cost as are contacts with gold flash.
Termination's.	-	Forward, standard: Straight, alternative.

Rotor Blades:

Standard.	-	Shorting. (make before break. MBB.)
Alternative.	-	Non-shorting. (break before make. BBM.)

Insulation:

Stator.	-	Moulded glass fibre loaded diallylphthalate (DAP)
Rotor.	-	Polycarbonate.

Finish:

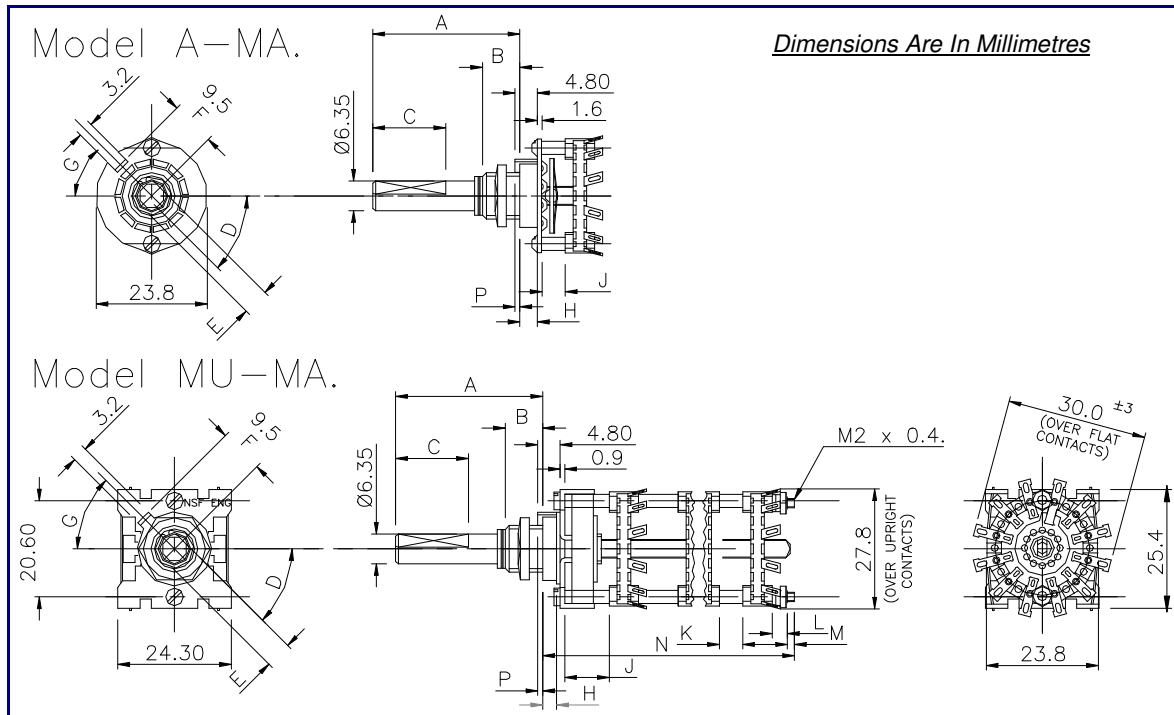
Index Springs, Stainless steel: other metal parts, passivated zinc plated. Finishes to order.

Mounting Details:

<u>Imperial (standard).</u>	<u>Metric (alternative)</u>
Bush 3/8" x 32TPI (Whit.)	M10 x 0.75.
Shaft 0.25" dia.	6mm, dia.
Nut 0.525" A/F.	14mm A/F.
The alternative is optional in each case.	
Unless otherwise specified, each switch is supplied with a lock washer.	

Variations.

1. Biased indexing is available giving momentary contact on positions 8 to 7, 5 to 4, 4 to 3, 3 to 2 and 2 to 1 as well as 3 position biased to centre.
2. Concentric shafts - dual concentric shafts and mechanisms for dual switching applications. (Not available for 36° indexing).
3. Insulated shafts.
4. Electrostatic shields.
5. Printed circuit termination's - 2 types are available giving a variation in mounting height of the wafer above the P.C.board.
6. Adjustable stops - 2 types are available.
Front - can be set without dismantling the switch and are available on models MU-MA (a),(d) and A-MA with imperial bush.
Rear - for use with all other indexing variations both Imperial and Metric versions.
7. Panel and spindle seals can be fitted 1cm³/hr. The latter are not available on concentric shaft models.



Key To Details

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| <p>A. Shaft length: optional ± 0.40 (0.016") (25mm if not specified).</p> <p>B. Bushing thread length: preferred standard 9.5 (0.375"); 6.35 (0.250") available as an alternative. Special lengths if necessary</p> <p>C. Flat length: length to specification. Tolerance ± 0.40 (0.016"). Special shaft termination's may be provided to special requirements.</p> <p>D. Angle of flat: to specification $\pm 2^\circ$; specify position of flat, with switch shaft in fully anti-clockwise position when viewed from front or knob end.</p> <p>E. Flat thickness: standard 5.55 ± 0.15 for grub screws; 4.95 ± 0.05 for push-on knobs.</p> <p>F. Distance of locating lug from shaft, centre line to centre line.</p> <p>G. Angle of locating lug: type MU mechanism; $45^\circ, 135^\circ, 225^\circ$ and 315° from horizontal centre line; the alternative "A" type mechanism also includes 0° and 180° as viewed.</p> | <p>H. Bushing shoulder; standard 3,2 (0.125")</p> <p>J. Front spacer, minimum dimension: MU-MA 9,5 (0.375"), A-MA 5</p> <p>K. Other spacers: minimum dimensions.
Clips facing same direction NIL.
Clips facing away or flat clips NIL.
Clips facing each other 3</p> <p>L. If no spacer 2,4 . Any length spacer desired may be inserted at this point.</p> <p>M. Thread extension: typically 3 x M2 x 0,4 any length desired.</p> <p>P. Standard locating lug lengths:
unsealed, projects 1.6 beyond mounting face;
sealed, 0,05 / 0,15 below mounting face;</p> |
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