

General Information This switch is a further development from the model A, which is now fitted with a printed circuit stator carrying the standard clips. Two types of stator are available - 12 or 14 contacts.

The NSF technical Service developed the model PCA to be high in engineering quality standards and electrical efficiency but compact enough to fit into areas where space consideration is paramount.

Technical sales will also give advice on non-standard stators which can be designed, tooled and produced to customer specifications, in viable quantities, at extra cost.

Characteristics. Electrical, Maximum working voltage, 12 contact stator 240Vac/dc max.
14 contact stator 50Vac/dc max.

Note: The latter figure applies only to the additional 2 clips inserted on the 14 contact stator. It may be possible to include higher voltage circuits on this stator but the NSF technical service must be consulted at the initial design stage.

Contact rating, Current carrying 2amp continuous.
Current breaking with a resistive/non-reactive load. 50mA at 300Vdc/ac (rms).
500mA at 30Vdc/ac (rms).

Proof Voltage. (for one minute, live terminals to frame or between circuits)
12 contact stator 1,000Vrms.
14 contact stator 300Vrms.

Insulation resistance. (live terminals to frame or between circuits)

Maximum Switching Per Wafer

No. of Poles.	30° MU-PCA
1 Pole.	2 to 12 ways
2 Pole.	2 to 6 ways
3 Pole.	2 to 3 ways
4 Pole.	2 ways

Index Mechanism.

The Type MU mechanism with low friction cam followers and plungers is available with 30° indexing. This mechanism ensures a smooth and positive action with consistent and reproducible torque values ranging from 56 to 324 mNm (8 to 46oz.ins.) Two stops can be supplied with each switch to order. One fixed to act in the 12th position and an adjustable stop which can be applied to any position from 2 to 11.

Balance pressure springs provide consistent and readily reproducible total switch torque values within the following ranges.

Light 7 to 18 x 10⁻² Nm (10 to 26 oz, ins.)
Medium 14 to 32 x 10⁻² Nm (20 to 46 oz, ins.)
High 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 space saving mechanism is required. This switch is identified as model A-PCA and is available in 30° indexing only.

Contacts & Termination's.

Clips. - Silver plated spring brass.
Rotor blades. - Hard brass silver plated.
Spring silver alloy clips and blades, also other special finishes are available to order.

Insulation.

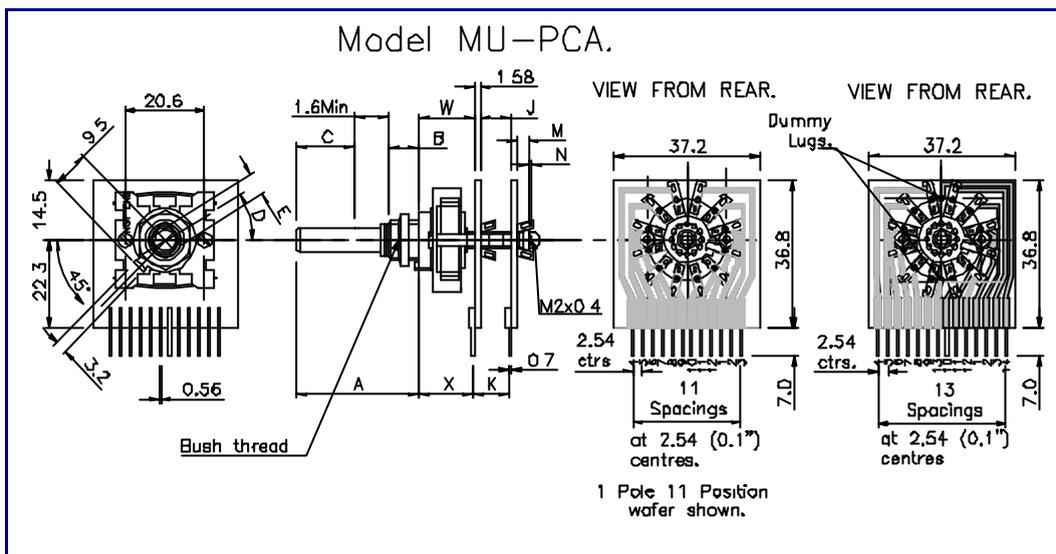
Stator. - High grade epoxy resin bonded fibre glass.
Rotor. - Polycarbonate.

Finish.

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

Mounting Details.

Imperial (standard)	Metric (alternative)
Bush 3/8" x 32TPI (Whit.)	M10 x 0.75.
Shaft 0.25" dia.	6mm, dia.
Nut 0.525" A/F.	14mm A/F.



Dimensions Are In Millimetres

Key To Details

- | | | | | | | | | | | | | | |
|--|---------|---------|---------|-----------------------------------|-----|-----|--|-----|-----|-------------------------------|-----|-----|---|
| <p>A. Shaft length: optional ± 0.40</p> <p>B. Bushing thread length: preferred standard 9.5; 6.35 available as an alternative. Special lengths available to order</p> <p>C. Flat length: length to specification. Tolerance ± 0.40. Special shaft terminations 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>J. Spacers - minimum dimensions.</p> <table border="0"> <tr> <td></td> <td>12 pos.</td> <td>14 pos.</td> </tr> <tr> <td>With clips facing same direction.</td> <td>5.0</td> <td>6.0</td> </tr> <tr> <td>With clips facing away, or flat clips.</td> <td>5.0</td> <td>5.0</td> </tr> <tr> <td>With clips facing each other.</td> <td>8.0</td> <td>8.0</td> </tr> </table> <p>Preferred spacer 8.0
A sintox insulated spacer 3.0 is fitted adjacent to each side of a p.c. stator.</p> <p>K. Dimension a J plus p.c. stator thickness of 1.5. Preferred dimension 9.5.</p> | | 12 pos. | 14 pos. | With clips facing same direction. | 5.0 | 6.0 | With clips facing away, or flat clips. | 5.0 | 5.0 | With clips facing each other. | 8.0 | 8.0 | <p>M. 4.0 min. with clips facing front.
6.0 min. with clips facing rear.
Any length spacer desired may be inserted at this point.</p> <p>N. Thread extension: 3.0(min) x M2 x 0,4 any length desired.</p> <p>W. Minimum 15 with clips on rear, 17 with clips on rear.</p> <p>X. Dimension as W minus 0.7.</p> |
| | 12 pos. | 14 pos. | | | | | | | | | | | |
| With clips facing same direction. | 5.0 | 6.0 | | | | | | | | | | | |
| With clips facing away, or flat clips. | 5.0 | 5.0 | | | | | | | | | | | |
| With clips facing each other. | 8.0 | 8.0 | | | | | | | | | | | |