

# Blore Edwards Rotary Wafer Switches – PYR

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## General characteristics of TYPE PYR

The Type PYR Rotary Wafer Switch has 31.8mm diameter moulded wafers and is available in five versions; 15°, 30°, 36°, 45° and 60° indexing. The pressed steel front plates are available with imperial and metric threads and with 0° set and 45° locating lugs if required. The PYR is fitted with leaf springs and ball bearings allowing this switch a greater degree of torque settings than the PY. The PYR has two types of leaf spring a steel (standard) and bronze (light) and can be used in multiples to give the 'feel' that is required.

## Electrical Specification

Maximum working voltage 300V ac (rms) or dc

Contact rating

Current Carrying	5 Amp
Current Breaking with resistive load	25 Watt ac or 15 Watt dc Recommended max voltage 300V ac and max current 500mA ac, dc
Proof voltage	1000V ac (rms) minimum
Insulation resistance (all paths)	Greater than 10 <sup>6</sup> Megohms
Contact resistance (initial)	2 – 10 Milliohms
(After 20,000 cycles)	Not greater than 5 milliohms above initial

## Mechanical Specification

End Stop Strength 1.7Nm (15lb ins)

Maximum switching per wafer

Poles	1	2	3	4	5	6	7	
Ways	12	9	5	4	3	2	2	30° Indexing
Ways	10	6	4	3				36° Indexing
Ways	8	7	3	3				45° Indexing
Ways	6	6	3	3				60° Indexing

## Contacts

Standard – Brass silver plated, silver alloy or brass gold plated contacts are available  
PC Terminations – available in above finishes  
PC Pin and standard terminations

## Rotor Blades

Make before break or break before make, all available in above finishes

## Insulation

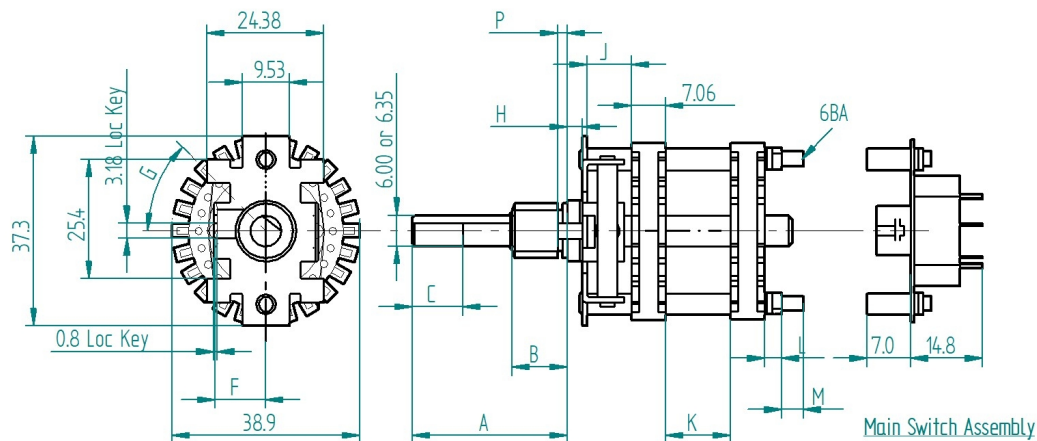
Stator – Moulded diallylphthalate (DAP)  
Rotor – Acetal resin

## Finish

Standard – Zinc plated and passivated. Other finishes available on request

## TYPE PYR

Dimensions in millimetres



## Key to Details

- A. Shaft length to specification
- B. Bushing thread length. Imp. 9.5 or 6.35 and Metric 8.0, 10.0 or 12.0mm
- C. Flat length to specification. Special flat trims may be provided to special requirement
- D. Angle of flat to specification  $\pm 2^\circ$ . Specify position of flat with switch in fully anti-clockwise position when viewed from knob end.
- E. Flat thickness to spec. standard 5.54  $\pm 0.05$
- F. Distance of locating key centre line to centre line of shaft.
- G. Angle of locating key: Type PYR  $0^\circ$  and  $45^\circ$
- H. Bushing shoulder: Type PYR 3.16 (0.125")
- J. Type PYR 12.16 (0.479") standard
- K. Wafers are self-stacking. Spacing between wafers can be provided in 1mm increments.
- L. If no spacer 4.0 spacers may be inserted at this point in 1mm increments.
- M. As required.
- P. Locating lug lengths  
Unsealed Type PYR 2.0mm above mounting face.  
Sealed Type PYR 0.05/0.15 below mounting face.

## Optional features

Concentric shafts – dual concentric mechanisms, panel and spindle seals, printed circuit terminations, adjustable stop, electrostatic screens and facilities for fitting mains switches, potentiometers and potentiometers with mains switches.

## Typical Applications

The PYR is a good fit for where space is not crucial. It is used in **Test Equipment**, in the **Nuclear Industry** and **Calibration** equipment. It is also used in the pro audio industry in vintage consoles. With double-sided contacts the PYR is a good way of lowering contact resistance and makes it a good choice for test equipment such as **Decade Resistance Boxes** and instrumentation for a wide variety of industries from Nuclear to Rail.