

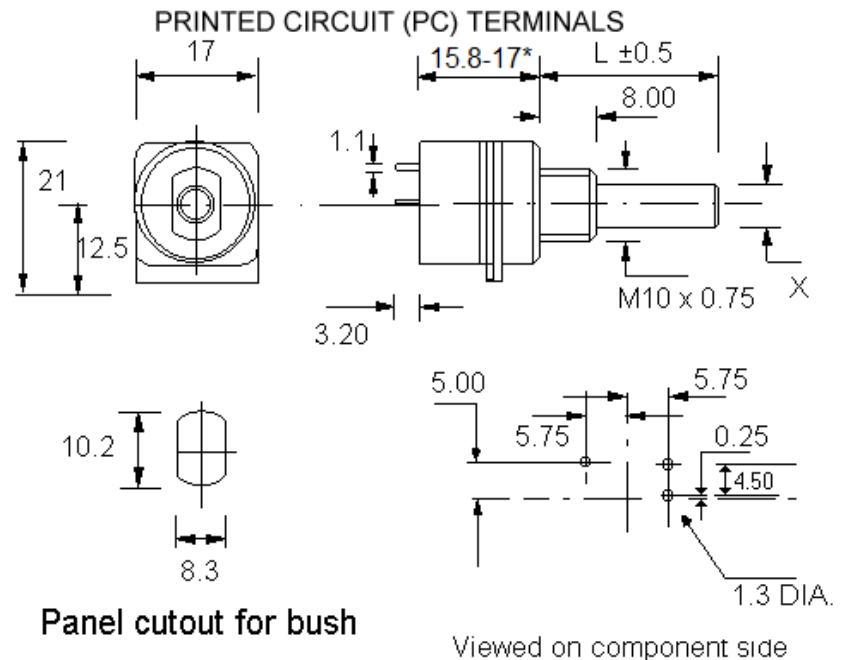
## N4/PC1S-CH ROTARY SWITCH

4 Amp Single Pole (Double Throw) Switch (SPDT)

PC - Printed Circuit Terminals

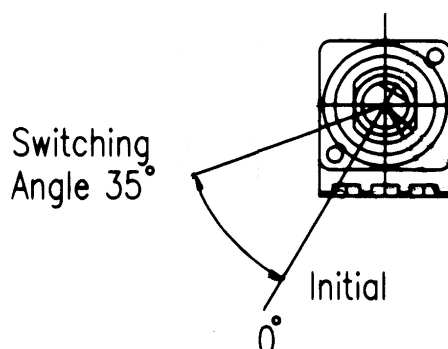
CH - Change Over (Double Throw)

Change over Switch Function with Limited Rotation



SPINDLE END VIEW

Mechanical Angle  
of Rotation 45°



- X Spindle Diameter
- L Spindle Length

\* Dependant on quantity and  
Spindle Selection

**The Double Throw Change Over  
Switch has never been Certified**

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## Rotary Switch Specification

The rotary switch modules are manufactured to EN61058-1 standard using high quality materials with a flame retardant housing. Although no longer certified due to the excessive cost of maintaining approvals, the 1 Amp and 4 Amp switch series have both been previously certified by UL International Demko (copies of previous certificates are available on our website or on request). The same materials, components and production techniques are used as in the certified versions and Omeg Ltd continues to test to the EN61058-1 standard

The 1 Amp contact rating is only available when mounted on the ECO potentiometer

### 1 A Contact Rating:

Note: The 1A contact rating is NOT available for mounting on the P16 or P20 potentiometer.

1A/250Vac 2.5A/12Vdc

Surge rating (0.01 seconds): 20A

Contact gap: 3mm (Full mains separation of contacts)

Manufactured to EN61058-1 standard

### 4 A Contact Rating:

4A/250Vac 10A/12Vdc

Surge rating (0.01 seconds): 80A

Switch contacts: Silver tin oxide

Contact gap: 2mm (Micro disconnection of switch - micro separation of contacts)

Manufactured to EN61058-1 standard

### Common features

Housing material: Flame Retardant Glass filled polyester (UL 94 VO)

Initial contact resistance: 20 milliohms

Insulation resistance: 50,000 Megohms

Life (operations at full load): 10,000 minimum

Operating temperature: -25°C to +70°C

Operating torque for SPST/SPDT: 1.5 - 3 cNm

Operating torque for DPST/DPDT: 3.0 - 6 cNm

Mechanical rotation: 300°

Proof voltage: 3kV minimum

## Rotary Switch Terminals

### Layout

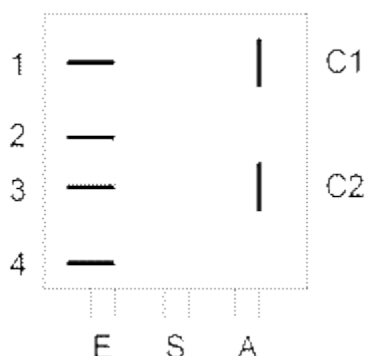


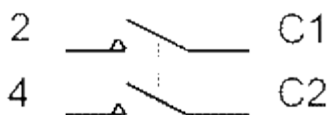
Diagram as viewed on the rear of the switch module:

(Potentiometer terminals at the bottom)

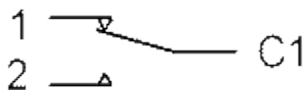
### Configuration



SPST - Single pole (1S), Single throw (On-Off)

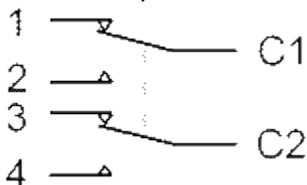


DPST - Double pole (2S), Single throw (On-Off)



SPDT - Single pole (1S), Double throw (CH)

(**NOT** certified)



DPDT - Double pole (2S), Double throw (CH)

(**NOT** certified)

### Notes

1. Moving contact(s) shown when the potentiometer shaft is in a counterclockwise (CCW) position.
2. 'Ordinary Wiring'(OW) or 'Printed Circuit'(PC) terminals can be requested on the switch.
3. Terminals 1 and 3 are only fitted for the Double Throw ('CH' or Changeover) versions which are **NOT** approved nor certified.

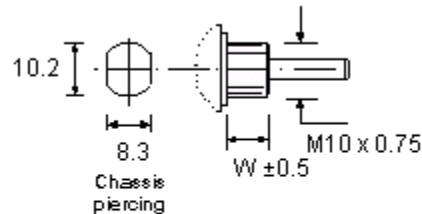
## Components

### ECO Bush Housing (Mounting)

The ECO bush housing is made of glass filled nylon, the thread is M10 x0.75mm pitch and 8mm long, alternatively **a 12mm long thread is also available** from October 2008.

Do not attempt to prevent any unwanted body rotation by overtightening the retaining nut, since this can cause thread damage, distortion, change of electrical resistance and restrict shaft rotation. BS9130:1972 provides further details on this topic. The **recommended torque** for tightening the retaining nut is 45cN.m and this can be achieved cost effectively by using a Torque Limiting device as shown on our **Accessories** page.

GLASS FILLED NYLON



TYPE PLASTIC BODY	
W(mm)	8 (optional 12)

### ECO Spindles

The ECO plastic spindles are fixed and not removable.  
They are available in the following three diameters:

- 6.0mm Diameter - Length (L) available from 14mm to 65mm
  - Cylindrical (Type F1)
  - 4.0 x 12mm Flat (Type F2)
  - 5.0 x 15mm Flat (Type F3)
  - 5.0 x 10mm Flat (Type F4)
  - 4.6mm x 15mm Flat (Type F11)
  - 4.0 x 8mm Flat (Type F13)
  - 5.0 x 8mm Flat (Type F14)
- 4.0mm Diameter - Length (L) available from 14mm to 35mm
  - Cylindrical (Type F21)
  - 3.0 x 8.5mm Flat (Type F22)
- 6.35mm Diameter - Length (L) available from 14mm to 65mm
  - Cylindrical (Type F41)
  - 5.5 x 10mm Flat (Type F42)

## Cylindrical and Flatted Spindles



TYPE	DESC. (Ø)	L (mm)
F21	4 mm Dia Plastic	14 - 35
F1	6 mm Dia Plastic	14 - 65
F41	6.35mm Dia Plastic	14 - 65

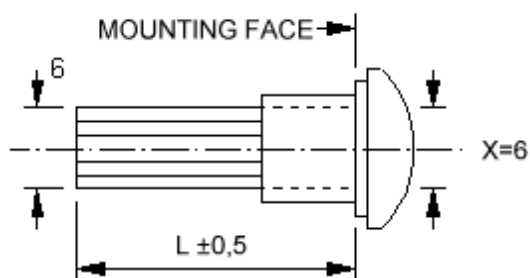
All spindles fixed.

TYPE	DESC. (Ø)	L (mm)	Flat (ZxA)
F22	4 mm Dia Plastic	14 - 35	3 x 8.5
F13	6 mm Dia Plastic	14 - 65	4 x 8
F2	6 mm Dia Plastic	14 - 65	4 x 12
F14	6 mm Dia Plastic	14 - 65	5 x 8
F4	6 mm Dia Plastic	14 - 65	5 x 10
F3	6 mm Dia Plastic	14 - 65	5 x 15
F11	6 mm Dia Plastic	14 - 65	4.6 x 15
F42	6.35mm Dia Plastic	14 - 65	5.5 x 10

Standard flat angle  
R = 210°

Splined Spindle (6.0mm diameter)

A splined form is also available on the 6.0mm diameter ECO plastic spindle.



TYPE	DESC.	L (mm)
F5	Plastic Fixed	14 - 30

