

#### STANDARD SPECIFICATIONS

| Closed Contact Resistance: | < 5Ω          |  |
|----------------------------|---------------|--|
| Open Contact Resistance:   | > 10MΩ        |  |
| Contact Current:           | 10µA – 100m   |  |
| Operating Voltage:         | 16 VDC (6 p   |  |
|                            | 13.5±0.2 VD   |  |
| Number of Positions        | 2, 6, 10      |  |
| Temperature Range:         | -40°C to +85  |  |
| Rotational Torque:         | <2Ncm         |  |
| Mechanical Rotation Angle: | 360° (endles  |  |
| Mechanical Life:           | 35K cycles (6 |  |
|                            |               |  |

>  $10M\Omega$   $10\mu A - 100mA$  16 VDC (6 positions)  $13.5\pm0.2 VDC (2 positions)$  2, 6, 10  $-40^{\circ}C$  to  $+85^{\circ}C$  <2Ncm  $360^{\circ}$  (endless) 35K cycles (6 positions) 15K cycles (2 positions)

# **S-15**

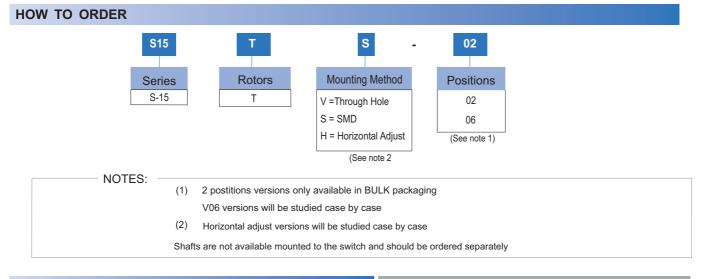


#### FEATURES

2 and 6 positions versions (standard) SMD or Through-hole Mount Low Profile (4.4 mm) Embossed Tape (SMD) or Bulk packaging (Through hole) Reflow Soldering capability Shaft insertable from both sides Polarised "T" rotor (European Home Appliance standard) All PT/ PTC 15 shafts compatible IP54 protection according to IEC 60529

#### **TYPICAL APPLICATIONS**

The N-15 potentiometer/sensor series has been expanded to incorporate both encoders and rotary switches in the same package configuration allowing the user to design in any one of the three options whilst keeping the same board layout and user interface. The S-15 switch series has been specifically designed to offer a flexible and customiseable rotary switch solution for the Automotive industry typically employed as multi-position interior/exterior lighting, Traction or Airbag enable/disable controls. The technology developed for the aforementioned S-15 solutions is also available for all types of custom switches however demanding your application may be.



#### HOW TO ORDER CUSTOM DRAWING

STANDARD WIPER POSITION

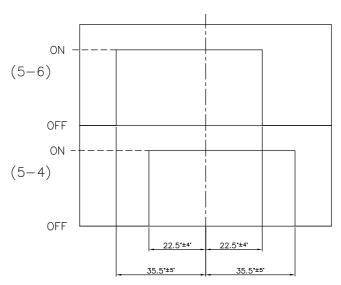
S-15 T S + DRAWING NUMBER (Max. 16 digits)

This way of ordering should be used for options which are not included in the "How to order" standard and optional extras.

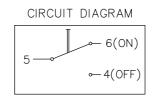


**NHFR** 

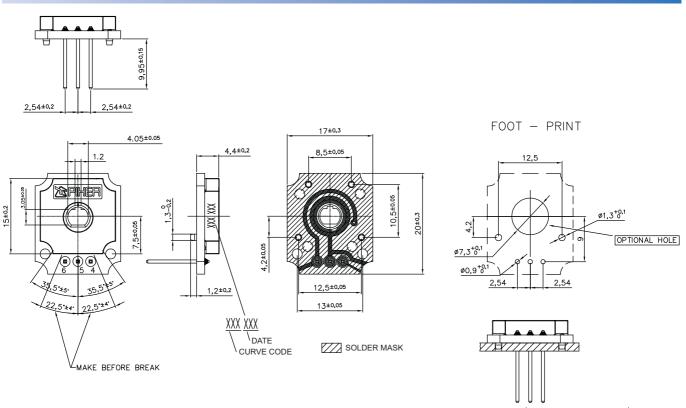
Please note that the features and specifications of custom products are to be used as general guidelines only



SWITCH SEQUENCE

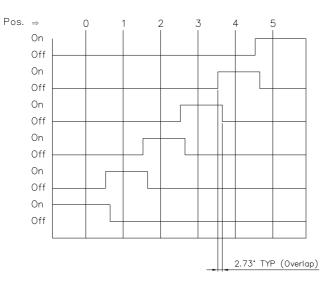


### **2 POSITIONS SWITCH DRAWINGS**



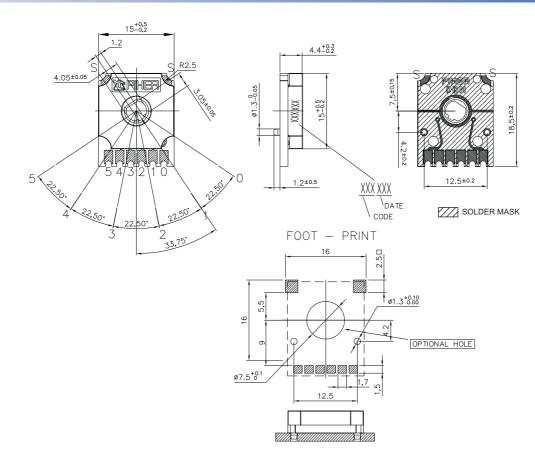
(MAX. ROTATION LEGS ±3')

#### **6 POSITIONS SWITCH SEQUENCE**

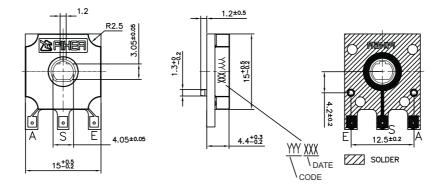


| -  |               |           |           |
|--|---------------|-----------|-----------|
| ALL ANGLES REFERRED TO SHIPPING POSITION |               |           |           |
| POSITIVE ANGLE INDICATES CW              |               |           |           |
| POS.                                     | INITIAL ANGLE | END ANGLE | TOLERANCE |
| 0  | -42.5         | -12       | ±5°       |
| 1  | -14.72        | 10.5      | ±5°       |
| 2  | 7.78          | 33        | ±5°       |
| 3  | 30.28         | 55.5      | ±5°       |
| 4  | 52.78         | 78        | ±5°       |
| 5  | 75.28         | 110       | ±5°       |

## **6 POSITIONS SWITCH DRAWINGS**



#### HORIZONTAL ADJUST - VERTICAL MOUNT\*

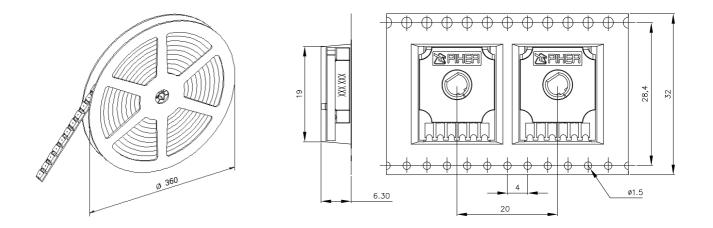


\* This drawing is just an example, horizontal adjust versions will be studied case by case

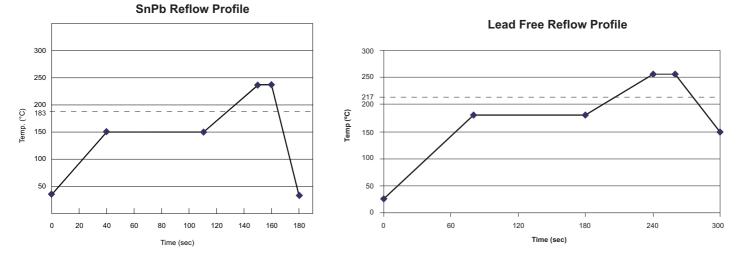
#### PACKAGING

#### Bulk (2 positions version).

Tape on reel (6 positions version, 500pcs per reel).



#### **RECOMMENDED REFLOW PROFILE (SMD types)**



The recommended reflow profile is provided as a guideline. Optimal profile may differ due to oven type, assembly layout or other design or process variables. Customers should verify actual device performance in their specific application and reflow process. Please contact Piher if you require additional support.

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