

## - 规格书 -

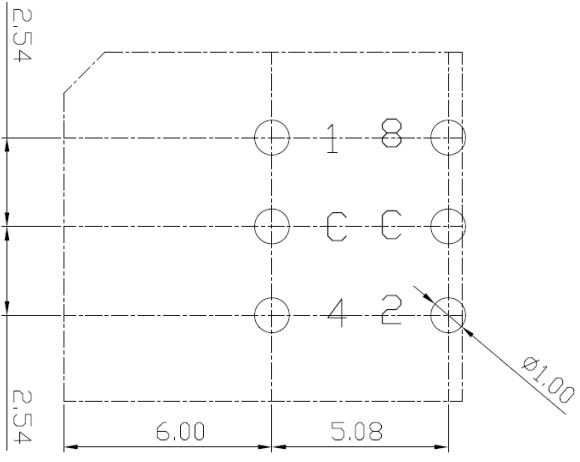
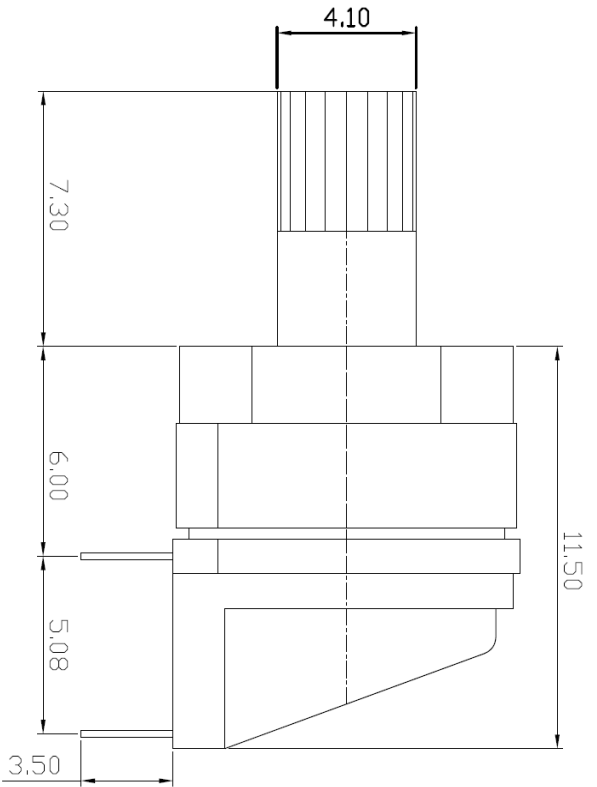
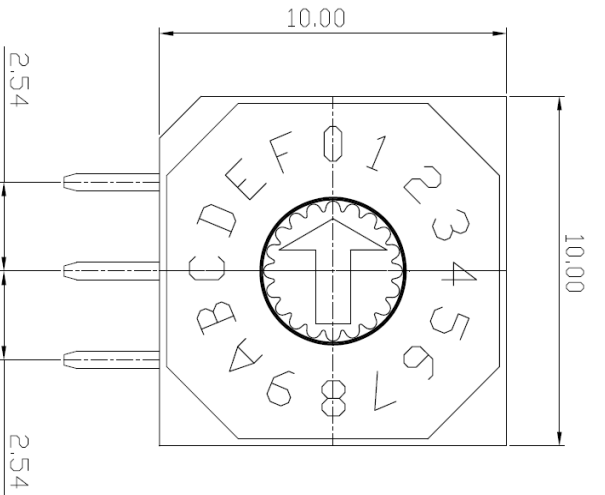
产品型号: PHR-16H

产品名称: 旋转编码开关

# SM SWITCH CO.,LTD

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| MARK | DATE | REMARKS |
|------|------|---------|
| △    |      |         |
| △    |      |         |



|   |  | Real Code |   |   |   |   |
|---|--|-----------|---|---|---|---|
|   |  | C         | 1 | 2 | 4 | 8 |
| 0 |  | ●         |   |   |   |   |
| 1 |  | ●         | ● |   |   |   |
| 2 |  | ●         |   | ● |   |   |
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| 5 |  | ●         | ● |   |   |   |
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| 9 |  | ●         | ● |   |   |   |
| A |  | ●         |   | ● |   |   |
| B |  | ●         | ● |   |   |   |
| C |  | ●         |   |   | ● |   |
| D |  | ●         | ● |   |   |   |
| E |  | ●         |   |   | ● |   |
| F |  | ●         |   |   |   | ● |

P.C.B. DIMENSION

|                     |          |          |                   |
|---------------------|----------|----------|-------------------|
| APPD                | CHKD     | D'SGD    | TITLE             |
| YD WANG             | J.S. KIM | H.S. LEE | ROTARY DIP SWITCH |
|                     |          |          | MODEL NO.         |
|                     |          |          | PHR-16H           |
|                     |          |          | REV. A            |
| SM SWITCH CO., LTD. |          |          |                   |



# ROTARY DIP SWITCH SPECIFICATION

Rev. A  
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**1. Style:**

This specification describes "Rotary Switch" mainly used as signal switch of electric devices with the general requirements of mechanical and electrical characteristics.

1.1 Operating / Storage Temperature Range : -40℃ ~ +85℃

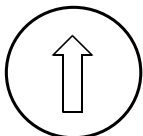
**2. Current Range:**

2.1 None-Switching : 200mA, 42V

2.2 Switching : 150mA, 42V

**3. Type of Actuation : Rotating**

**4. Test Sequence :**

| ELECTRIC PERFORMANCE | ITEM            | DESCRIPTION  | TEST CONDITIONS  | REQUIREMENTS  |
|----------------------|-----------------|--|--|---|
|                      | 1               | Visual Examination   | By visual examination check without any out pressure & testing.  | There shall be no defects that affect the serviceability of the product |
|                      | 2               | Contact Resistance   | ① To be measured between the two terminals associated with each switch pole<br>② Measurements shall be made with a 1kHz shall current contact resistance meter | 80mΩ max  |
|                      | 3               | Insulation Resistance  | 250V DC, 1minute ±5seconds   | 100MΩ min   |
|                      | 4               | Dielectric withstanding Voltage  | 250V AC(50Hz or 60Hz)shall be applied between all the adjacent terminal and between the terminal and the frame For 1 minute                                    | There shall be no breakdown or flash over                               |
| 5                    | Operation Force | Applied in the direction of operation<br> | 700gf/cm. max  |   |

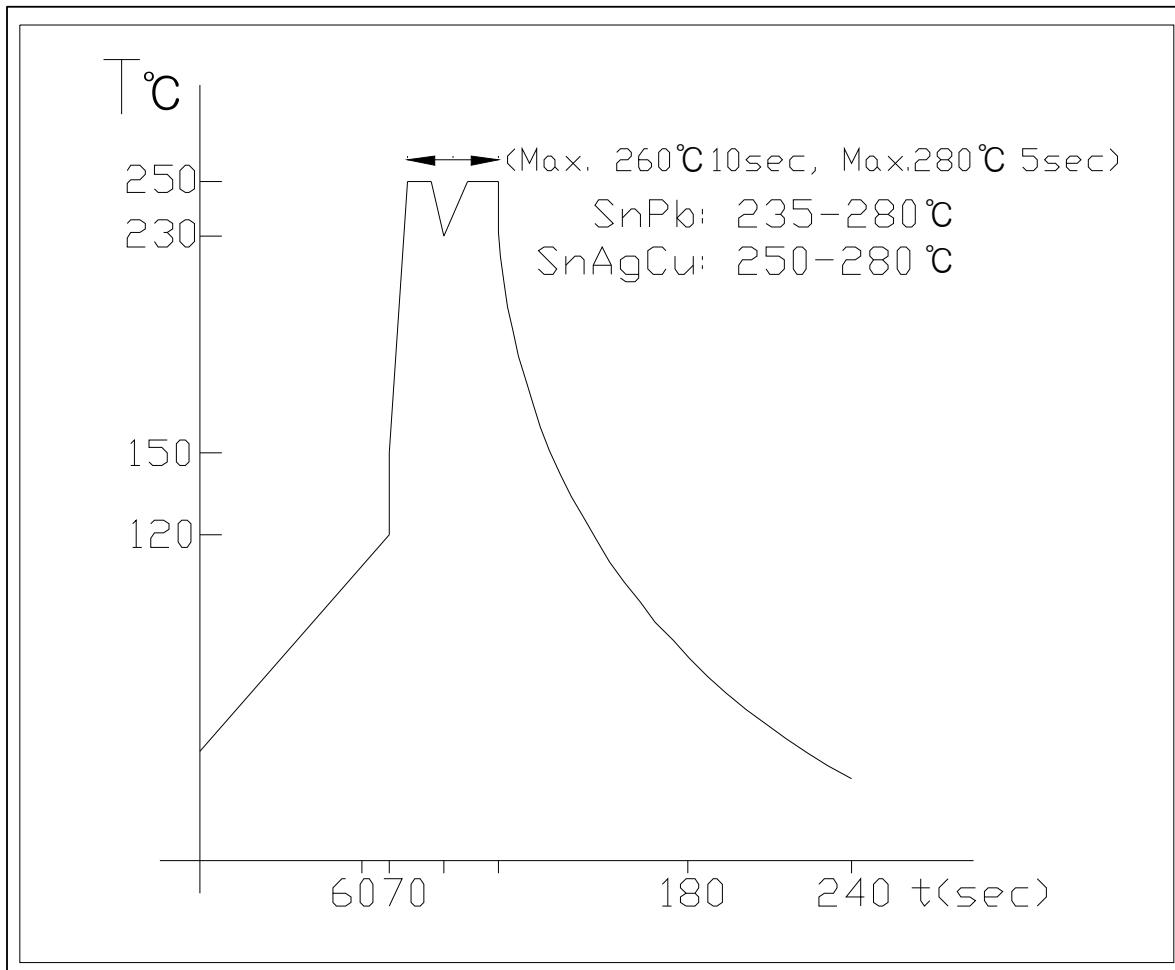


# ROTARY DIP SWITCH SPECIFICATION

Rev. A  
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|   |          |  |   |   |
|---|----------|--|---|---|
| <b>M<br/>A<br/>C<br/>H<br/>I<br/>N<br/><br/>P<br/>E<br/>R<br/>F<br/>O<br/>R<br/>M<br/>A<br/>N<br/>C<br/>E</b> | <b>6</b> | <b>Operation<br/>Life</b>                  | <p>Measurements shall be made following the test set forth below:</p> <p>1)150mA, 42V DC resistive load<br/>2)Rate of operation: 15~20 cycles/ minute<br/>3)Step of operation: 10,000 steps</p>   | <p>1)As shown in item 3,4<br/>2)Contact Resistance:<br/>200mΩ max<br/>3)Final-after test</p>                  |
|   | <b>7</b> | <b>Resistance<br/>Low<br/>Temperature</b>  | <p>Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before measurements are made:</p> <p>1)Temperature: -40℃ ±3℃<br/>2)Time: 96 hours</p>                                | <p>As shown in item 2~5</p>   |
|   | <b>8</b> | <b>Resistance<br/>High<br/>Temperature</b> | <p>Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before measurements are made:</p> <p>1)Temperature: 85℃ ±2℃<br/>2)Time: 96 hours</p>                                 | <p>1)As shown in item 3~5<br/>2)Contact Resistance:<br/>200mΩ max</p>   |
|   | <b>9</b> | <b>Resistance<br/>Humidity</b>             | <p>Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before measurements are made:</p> <p>1)Temperature: 40℃ ±2℃<br/>2)Relative humidity: 90~95%<br/>3)Time: 96 hours</p> | <p>1)As shown in item 4<br/>2)Contact Resistance:<br/>200mΩ max<br/>3)Insulation Resistance:<br/>10MΩ min</p> |

## 5. Wave Soldering Conditions:



## 6. manual Soldering

: Max. 350°C Max. 3sec

## 7. This item is "ROHS" Compliant



# ROTARY DIP SWITCH SPECIFICATION

Rev. A  
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## 8. Part List

| NO | PART NAME          | Q'TY | MATERIALS       | TREATMENT  | REMARK                                  |
|----|--------------------|------|-----------------|--|---|
| 1  | COVER              | 1    | PA66            |  | Print:Black                             |
| 2  | BASE               | 1    |                 |  |   |
| 3  | ACTUATOR           | 1    | POM             |  |   |
| 4  | CONTACT & TERMINAL | 1    | PHOSPHOR BRONZE | CONTACT AND TERMINAL PLATING: GOLD PLATING OVER NICKEL | Au0.03 $\mu$ m Min<br>Ni0.1 $\mu$ m Min |
| 5  | PCB                | 1    | EPOXY           | PLATING: GOLD PLATING                                  | Au0.05 $\mu$ m Min                      |
| 6  | O-Ring             | 1    | SILICONE        |  |   |