

# Telephone-hook Switches

## HSW-1 Series

### Features

- ◇ Miniaturized for space saving design.
- ◇ Superior reliability at micro-current by employing a sliding contact.
- ◇ A wide variety of lever is possible based on application



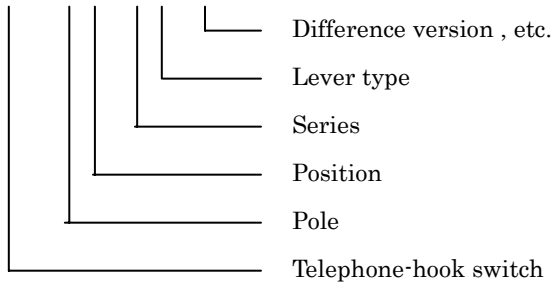
Actual size

### Applications

- ◇ Telephone set, Facsimile

### Products Number System

HSW - [[]] - [[]] - []



### Products Line

No	Products No	Pole	Position	Operating force	Notes
1	HSW-22-1A	2	2	0.8N max.	
2	HSW-22-1E	2	2	0.8N max.	
3	HSW-22-1F	2	2	0.8N max.	
4	HSW-22-1G	2	2	0.8N max.	

### Typical Specifications

Item	Specifications
Ratings (max.)	0.2A 48V DC (Resistive load)
Contact resistance	50 milliohm max.
Insulation resistance	100 megohm min. 500V DC
Withstanding voltage	500V AC for 1min.
Operating life without load	200,000 cycles
Operating life with load	200,000 cycles

Dimensions

Unit : mm

No	Style	P.C.B reference mounting hole Dimensions , Circuit diagram (TOP VIEW)												
1	<p>HSW-22-1A</p>	<p>Timing lag diagram</p> <table border="1"> <tr> <td>①</td> <td>ON</td> <td>OFF</td> </tr> <tr> <td>②</td> <td>OFF</td> <td>ON</td> </tr> <tr> <td>④</td> <td>ON</td> <td>OFF</td> </tr> <tr> <td>⑤</td> <td>OFF</td> <td>ON</td> </tr> </table> <p>7.85 (6.85<sup>mm</sup>)(2.65<sup>mm</sup>) 1.95 Travel position (X)</p>	①	ON	OFF	②	OFF	ON	④	ON	OFF	⑤	OFF	ON
①	ON	OFF												
②	OFF	ON												
④	ON	OFF												
⑤	OFF	ON												
2	<p>HSW-22-1E</p>	<p>Timing lag diagram</p> <table border="1"> <tr> <td>①</td> <td>ON</td> <td>OFF</td> </tr> <tr> <td>②</td> <td>OFF</td> <td>ON</td> </tr> <tr> <td>④</td> <td>ON</td> <td>OFF</td> </tr> <tr> <td>⑤</td> <td>OFF</td> <td>ON</td> </tr> </table> <p>-0.5 (-0.4<sup>mm</sup>)(4.95<sup>mm</sup>) 5.6 Travel position (X)</p>	①	ON	OFF	②	OFF	ON	④	ON	OFF	⑤	OFF	ON
①	ON	OFF												
②	OFF	ON												
④	ON	OFF												
⑤	OFF	ON												

Dimensions

Unit : mm

No	Style	P.C.B reference mounting hole Dimensions , Circuit diagram (TOP VIEW)												
3	<p>HSW-22-1F</p> <p>Travel position</p> <p>Total travel position</p> <p>Terminal No. ⑥</p> <p>P.C. board mounting face</p>	<p>6-φ0.9hole</p> <p>t=1.6mm</p> <p>Timing lag diagram</p> <table border="1"> <tr> <td>①③</td> <td>ON</td> <td>OFF</td> </tr> <tr> <td>②③</td> <td>OFF</td> <td>ON</td> </tr> <tr> <td>④⑥</td> <td>ON</td> <td>OFF</td> </tr> <tr> <td>⑤⑥</td> <td>OFF</td> <td>ON</td> </tr> </table> <p>18.65 (17.65<sup>max</sup>) (11<sup>min</sup>) 10</p> <p>Travel position (X)</p>	①③	ON	OFF	②③	OFF	ON	④⑥	ON	OFF	⑤⑥	OFF	ON
①③	ON	OFF												
②③	OFF	ON												
④⑥	ON	OFF												
⑤⑥	OFF	ON												
4	<p>HSW-22-1G</p> <p>Travel position</p> <p>Total travel position</p> <p>Terminal No. ⑥</p> <p>P.C. board mounting face</p>	<p>6-φ0.9hole</p> <p>t=1.6mm</p> <p>Timing lag diagram</p> <table border="1"> <tr> <td>①③</td> <td>ON</td> <td>OFF</td> </tr> <tr> <td>②③</td> <td>OFF</td> <td>ON</td> </tr> <tr> <td>④⑥</td> <td>ON</td> <td>OFF</td> </tr> <tr> <td>⑤⑥</td> <td>OFF</td> <td>ON</td> </tr> </table> <p>7.85 (6.85<sup>max</sup>) (2.65<sup>min</sup>) 1.95</p> <p>Travel position (X)</p>	①③	ON	OFF	②③	OFF	ON	④⑥	ON	OFF	⑤⑥	OFF	ON
①③	ON	OFF												
②③	OFF	ON												
④⑥	ON	OFF												
⑤⑥	OFF	ON												

## □ Notes

1. The appearance and specifications of the product may be modified to improve its performance without prior notice.
2. This catalog shows only outline specifications. When using the product, please obtain formal specifications.
3. Please see appendix [Cautions in Using Switches ].
4. This switch is not washable.
5. Soldering shall be done with lever at free position and take care not to attach flux on plastic portion.
6. Note that if the stress is applied to the terminals during soldering, they might cause deformation and defects in electrical performance.
7. Please make stopper of the lever on the PC board or other mounting objects. Care shall be taken not to use the switch without stopper, it may cause the deformation of the lever and the deterioration of the performance.
8. Please consider the enough allowance of operating distance of the lever to the specifications.
9. Care shall be taken not to apply stress to the body of switch as it may affect the performance.
10. Please confirm the performance on actual operation by simulation with actual environment environments for high reliability.