HS series

Micro switch 5-way thumb controls • switching technology

DISTINCTIVE FEATURES

- 2, 4 & 5-way (5-way with pushbutton option) operation
- Positive tactile feedback
- MOM-OFF-MOM
- Connectorized housing
- Several handle options available

ENVIRONMENTAL SPECIFICATIONS

- Operating Temperature: -25 °C to +80 °C (-13 °F to +176 °F)
- Storage Temperature: -30 °C to +85 °C (-22 °F to +185 °F)
- Above Panel Sealing: Up to IP67 & IP69K (subject to mounting style and final specifications)

ELECTRICAL SPECIFICATIONS

- Current Rating: Gold - 10 mA @ 30 VDC; Silver – 100 mA @ 30 VDC
- Insulation Resistance: Min 100 MΩ (250 VDC by insulation resistance meter)
- Voltage Withstand: 500 VAC for 1 minute
- Contact Resistance: Max 200 mΩ
- Electrical Function: Mom-off-mom

MECHANICAL SPECIFICATIONS

- Operating Force: 5.0 N ± 1.0 N (1.12 lbf ± 0.22 lbf)
- Maximum Vertical Load: 200 N (45 lbf)
- Maximum Horizontal Load: 150 N (33.7 lbf)
- Mechanical Angle of Movement: 30°
- Expected Life: 300,000 lifecycles
- Mass/Weight: 17g (0.60 oz) (Option HS1DXXA)
- Lever Action (centering): Spring

The company reserves the right to change specifications without notice.
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**MATERIALS**

- **Body:** Glass filled nylon
- **Handles:**
  - 1, 2, 3 - Glass filled nylon
  - 4, 5, 6, 7, 8 - Silicone
  - B, C, D - Thermoplastic elastomer

**PUSHBUTTON SWITCH**

(OPTION 6 HANDLE)

- **Electrical Life:** 100,000 cycles
- **Rating:** 50 mA, 12 VDC
- **Terminal:** Brass with silver plating
- **Contact Resistance:** 100 milliohms max.
- **Insulation Resistance:** 100 megalohms min. 500 VDC
- **Dielectric Strength:** 250 VAC /1 minute
- **Contact Arrangement:** 1 pole 1 throw
- **Operation Force:** 1.5 lbf
- **Stop Strength:** Max 3 kgf vertical static load for 15 seconds
- **Operating temperature:** -25 °C to +70 °C (-13 °F to +158 °F)
- **Storage Temperature:** -30 °C to +85 °C (-22 °F to +185 °F)

**CONNECTIONS**

<table>
<thead>
<tr>
<th>CONNECTOR POSITION</th>
<th>FUNCTION</th>
<th>WIRE HARNESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Top Switch*</td>
<td>Orange</td>
</tr>
<tr>
<td>2</td>
<td>X+Switch</td>
<td>Blue</td>
</tr>
<tr>
<td>3</td>
<td>Y+Switch</td>
<td>Yellow</td>
</tr>
<tr>
<td>4</td>
<td>X-Switch</td>
<td>Blue/White</td>
</tr>
<tr>
<td>5</td>
<td>Y-Switch</td>
<td>Yellow/Black</td>
</tr>
<tr>
<td>6</td>
<td>Common</td>
<td>White</td>
</tr>
</tbody>
</table>

*Optional

**TERMINATION**

- **Manufacturer:** Molex
- **Manufacturer part number:** 501331-0607
- **Product range:** Pico-Clasp™
- **Circuits:** Six
- **Pitch:** 1.00 mm
- **Mating connector:** Molex 501330-0600

**MOUNTING**

**PLASTIC HOUSING - DROP-IN CUTOUT**

- **The under panel depth for the Drop-in configuration is 16.02 mm (0.631 in).**

**PLASTIC HOUSING - REAR MOUNT OPTION CUTOUT**

- **The maximum panel thickness for the Rear Mount configuration is 2.032 mm (0.08 in).**

**METAL THREADED HOUSING - DROP-IN CUTOUT**

- **The under panel depth for the Metal Threaded Housing configuration is 14.55 mm (0.573 in).**
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**BUILD YOUR PART NUMBER**

<table>
<thead>
<tr>
<th>SERIES</th>
<th>HANDLE</th>
<th>MOUNTING STYLE</th>
<th>LIMITER</th>
<th>TERMINATION</th>
<th>CONTACT</th>
</tr>
</thead>
<tbody>
<tr>
<td>HS</td>
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</tr>
<tr>
<td>0</td>
<td>None</td>
<td>N</td>
<td>2</td>
<td>1.00 mm (0.039 in) Pitch Molex Connector</td>
<td>S Silver Plated</td>
</tr>
<tr>
<td>1</td>
<td>Castle</td>
<td>D</td>
<td>2</td>
<td>1.00 mm (0.039 in) Pitch Molex Connector with 10&quot; Mating Harness</td>
<td>S Silver Plated</td>
</tr>
<tr>
<td>2</td>
<td>Winged Hat</td>
<td>R</td>
<td>4</td>
<td></td>
<td>G Gold Plated</td>
</tr>
<tr>
<td>3</td>
<td>Conical</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Finger Tip</td>
<td>T</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Round Jog</td>
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<tr>
<td>6</td>
<td>Pushbutton</td>
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<tr>
<td>7</td>
<td>Mushroom</td>
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<tr>
<td>8</td>
<td>Low Profile</td>
<td></td>
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</tr>
</tbody>
</table>

1: Not available with Metal Threaded Housing (T)
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DIMENSIONS

HANDLE OPTIONS

1 Castle
2 Winged hat
3 Conical
4 Fingertip
5 Round jog
6 Pushbutton
7 Mushroom
6 Low profile

OPTIONAL MATING HARNESS

• Wire type: 28 AWG 25 cm PTFE
• Connector: Molex 501330-0600
• The HS Series tactile toggle switch is fitted with a six terminal Molex (501331-0607) connector.
• A mating harness is not included, but may be specified at the time of order for an additional charge.
• The 4-function harness is part number 505-508.
• The 5-function harness, necessary for the Option 6 Handle is part number 505-509.