Introduction

Klixon® 3SB series simulator circuit breaker was developed by Sensata Technologies to meet the growing needs of the commercial and military simulator industry. Due to the high operational cost of live training, more and more training is being conducted on simulators. The realism and complexity of tomorrow’s simulators will require a circuit breaker that can provide the same “look and feel” of industry accepted circuit breakers in order to create a superior training environment.

Features

- Low amperage
- Fast trip response
- High performance (shock and vibration)
- Lower total system cost
- Tactile feel equivalent to industry accepted aircraft circuit breakers
- Packaged in military standard configuration
- Optional panel mount configuration, replaceable amp rating inserts (reference part #27515 when ordering), auxiliary switch

The 3SB electro mechanical devices provide fast trip response with low current draw at 28 VDC. For adaptability to aircraft cockpit panel mounting, they are packaged in a standard MS 26574 style thermal circuit breaker configuration. This fast trip/low current performance provides the opportunity for system level savings. It enables the designer to potentially downsize the system power source and eliminate expensive I/O boards or other electronics while also reducing the amount of cabling required.

Changes in training schemes normally entail system rewiring to reconfigure the simulator, which becomes labor intensive and costly. With the incorporation of a 3SB device the training changes can easily be achieved through system software — without the time and cost associated with rewiring.

Klixon® simulator circuit breakers also provide the same tactile feel as standard Mil qualified breakers for superior training realism.

Klixon® circuit breakers offer flexibility by offering replaceable ampere rating inserts. (To order different amp rating insert tabs, reference part number 27515.) Attached to the top of the pushbutton actuator, they match the current rating used in the actual aircraft. These inserts can be rotated within the pushbutton to meet your cockpit configuration needs.

An optional auxiliary switch for remote indications and a variety of connection alternatives are also available.
PERFORMANCE CHARACTERISTICS

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vibrations</td>
<td>5 G maximum, 50–500 Hz</td>
</tr>
<tr>
<td>Mechanical Shock</td>
<td>5G</td>
</tr>
<tr>
<td>Acceleration</td>
<td>5G</td>
</tr>
<tr>
<td>Weight</td>
<td>30 grams maximum</td>
</tr>
<tr>
<td>Endurance</td>
<td>25000 mechanical cycles, no load</td>
</tr>
<tr>
<td></td>
<td>1000 Electrical trip cycles minimum at 28 VDC</td>
</tr>
<tr>
<td>Open and Reset Force</td>
<td>5 lb. maximum</td>
</tr>
<tr>
<td>Calibration at 25°C</td>
<td>200mA maximum</td>
</tr>
<tr>
<td></td>
<td>Current draw at 28 VDC</td>
</tr>
<tr>
<td></td>
<td>3 seconds maximum trip time</td>
</tr>
</tbody>
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DIMENSIONS

Dimensions in mm (Inch)

3SB2

Side View

Top View

3SB4

Side View

Top View

Circuitry
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