The SW85 has been designed for direct current loads, particularly motors as used on electric vehicles such as industrial trucks. Developed for both interrupted and uninterrupted loads, the SW85 is suitable for switching Resistive, Capacitive and Inductive loads.

- **Interrupted current** - opening and closing on load with frequent switching (results in increased contact resistance).
- **Uninterrupted current** - no or infrequent load switching requirements (maintains a lower contact resistance).

The SW85 features single pole double breaking main contacts with silver alloy tips, which are weld resistant, hard wearing and have excellent conductivity. The SW85 has M8 stud main terminals and 6.3mm spade coil connections. Mounting is via M4 tapped holes or mounting brackets, either supplied fitted, or as separate items. Mounting can be horizontal or vertical, when vertical the M8 contact studs should point downwards. If the requirement is for upwards orientation we can adjust the contactor to compensate for this. Please note Normally Closed contacts are not suited to make and break load.

### SW85 Single Pole Single Throw Normally Closed

**Thermal Current Rating (10%):**

<table>
<thead>
<tr>
<th>Application</th>
<th>Interrupted</th>
<th>Uninterrupted</th>
</tr>
</thead>
<tbody>
<tr>
<td>30% Duty</td>
<td>185A</td>
<td>130A</td>
</tr>
<tr>
<td>40% Duty</td>
<td>160A</td>
<td>120A</td>
</tr>
<tr>
<td>50% Duty</td>
<td>140A</td>
<td>100A</td>
</tr>
<tr>
<td>60% Duty</td>
<td>130A</td>
<td>90A</td>
</tr>
<tr>
<td>75% Duty</td>
<td>120A</td>
<td>80A</td>
</tr>
</tbody>
</table>

**Rated Fault Current Breaking Capacity (t(On) 5ms Time Constant:**

<table>
<thead>
<tr>
<th>SW85</th>
<th>800A at 48V</th>
</tr>
</thead>
<tbody>
<tr>
<td>SW85B</td>
<td>800A at 80V</td>
</tr>
</tbody>
</table>

**Rated Intermittent Current Load (Resistive Load):**

<table>
<thead>
<tr>
<th>SW85</th>
<th>150A at 48V D.C.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SW85B</td>
<td>150A at 96V D.C.</td>
</tr>
</tbody>
</table>

**Maximum Recommended Contact Voltages (Uc):**

- **SW85:** 48V D.C.
- **SW85B:** 96V D.C.

**Typical Voltage Drop per pole across New Contacts at 100A:** 50mV

**Mechanical Durability:** >5 x 10⁶ Cycles

**Coil Voltage Available (Uc):**

- **典型**: From 6 to 240V D.C.

**Coil Power Dissipation:**

- **Highly Intermittent Rated Types:** 20 - 30 Watts
- **Intermittently Rated types:** 15 - 20 Watts
- **Prolonged Rated Types:** 13 - 15 Watts
- **Continuously Rated Types:** 7 - 13 Watts

**Maximum Pull-In Voltage (Coil at 20°C):**

- **Highly Intermittent Rated Types:** 60% Uc
- **Intermittently Rated types:** 60% Uc
- **Prolonged Operation:** 60% Uc
- **Continuously Rated Types:** 66% Uc
- **Drop-Out Voltage Range:** 10 - 25% Uc

**Typical Pull-In Time:**

- **20ms**

**Typical Drop-Out Time (N/O Contacts to Open):**

- **Without Suppression:** 5ms
- **With Diode Suppression:** 50ms
- **With Diode and Resistor:** 8 - 20ms

**Typical Contacting Bounce Period:** 3ms

**Operating Ambient Temperature:** -40°C to +60°C

**Guideline Contactor Weight:**

- **SW85:** 360 gms
- **With Auxiliary:** +20 gms
- **With Blowouts:** +50 gms

### Auxiliary Details

**Auxiliary Thermal Current Rating:** 5A

**Auxiliary Contact Switching Capabilities (Resistive Load):**

- **SW85A:** 5A at 24V D.C.
- **2A at 48V D.C.**
- **0.5A at 240V D.C.**

**Advised Connection Sizes for Maximum Continuous Current**

- **Copper busbar:** 65mm²[0.1inch²]
- **Cable:** Rated suitable for Application

**Key:** 

- Interrupted  
- Uninterrupted

**Note:** Where applicable values shown are at 20°C

* Please check our website for product UL status. Please note Normally Closed contacts are not suited to make and break load.

**Performance data provided should be used as a guide only. Some de-rating or variation from figures may be necessary according to application.**

- **Thermal current ratings stated are dependant upon the size of conductor being used.**
- **For further technical advice email: technical@albrightinternational.com.**
- **Albright reserve the right to change data without prior notice.**

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**Dimensions in mm [inches]**

**Dimensions in mm [inches]:**

- **M4 MAIN TERMINALS TO BE TIGHTENED WITHIN RANGE 6 - 9N.m**
- **8.3mm [0.325] SPADE TERMINALS CAN BE FITTED HERE**

---

**SW85 Contact Performance**

**Contact Performance Key:**

- **Interrupted and Uninterrupted Current**

**Connection Diagram**

- **SW85A**
- **SW85C**

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**General**

<table>
<thead>
<tr>
<th>SW85 Available Options</th>
<th>General</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Auxiliary Contacts</strong></td>
<td>○ A</td>
</tr>
<tr>
<td><strong>Auxiliary Contacts - V3</strong></td>
<td>○ C</td>
</tr>
<tr>
<td><strong>Magnetic Blowouts</strong></td>
<td>○ B</td>
</tr>
<tr>
<td><strong>Magnetic Blowouts - High Powered</strong></td>
<td>○ B</td>
</tr>
<tr>
<td><strong>Armature Cap</strong></td>
<td>X</td>
</tr>
<tr>
<td><strong>Mounting Brackets</strong></td>
<td>○</td>
</tr>
<tr>
<td><strong>Mounting Brackets (See Stud Series Catalogue)</strong></td>
<td>○</td>
</tr>
<tr>
<td><strong>Magnetic Latching</strong></td>
<td>○ M</td>
</tr>
<tr>
<td><strong>Closed Contact Housing</strong></td>
<td>○</td>
</tr>
<tr>
<td><strong>Environmentally Protected IP66 (see SW85P Catalogue sheet)</strong></td>
<td>○ P</td>
</tr>
<tr>
<td><strong>EE Type (Steel Shroud)</strong></td>
<td>○ EE</td>
</tr>
</tbody>
</table>

**Contacts**

- **Large Tips:** ○ L
- **Textured Tips:** ○ T
- **Silver Plating:** X

**Coil**

- **AC Rectifier Board (Fitted):** ○
- **Coil Suppression:** ○
- **Flying Leads:** ○ F
- **Manual Override Operation:** X
- **M4 Stud Terminals:** X
- **M5 Terminal Board:** ○
- **Vacuum Impregnation:** ○

**Key:** ○ Optional  ● Standard  X Not Available

* Connections become polarity sensitive

† Open Housing Available