S-Series rocker switches are designed for use in the enclosed cabs of today’s trucks, with special focus afforded to the vehicle operator. With features including abbreviated travel ½ throw actuation, ergonomic rockers, illumination in up to three detent switch positions, and a non-teasable snap action circuit, these switches provide the driver with easily recognizable and simple to operate controls. Designers will appreciate the 10A, 24VDC rating, space saving compact envelope, clean bezel-less design, integrated low insertion force connector and polarized switch base for quick installation. Most any illumination and switch circuitry is easily accommodated with the S-Series 10 terminal base.

Product Highlights:
- Abbreviated travel ½ throw actuation
- Ergonomic rockers
- Recognizable and simple to operate controls
- Compact Design

Typical Applications:
- On-Highway Transportation Equipment
- Agricultural Equipment
- Construction Equipment
### Electrical
- **Contact Rating**: 10A@ 24VDC
- **Dielectric Strength**: 1500 Volts RMS between pole to pole
- **Insulation Resistance**: 50 Megaohms
- **Contact Resistance**: 10 milliohms max. @ 4VDC
- **Contact Bounce**: <20 milliseconds
- **Life**: 100,000 cycles maintained circuit, 50,000 cycles momentary circuit at rated voltage and current gold plated
- **Circuitry**: SP, DP 2 & 3 position, 1/2 or full throw
- **Terminals**: .110 Tabs, Silver Plated Brass

### Mechanical
- **Endurance**: 250,000 cycles minimum

### Physical
- **Lighted LED**: rated 100,000 hours 1/2 life (LED is internally ballasted for voltages to 24VDC.)
- **Bracket**: Acetal
- **Base**: Nylon 66 GF
- **Rocker**: Polycarbonate
- **Weight**: 25 gms max.

### Connector
- **Lighted LED**: rated 100,000 hours 1/2 life (LED is internally ballasted for voltages to 24VDC.)
- **Bracket**: Acetal
- **Base**: Nylon 66 GF
- **Rocker**: Polycarbonate
- **Weight**: 25 gms max.

**Connector**
Amp/Tyco MCP 2.8 receptacle housing P/N 1418994-1 mates with Amp/Tyco MCP 2.8 flat type receptacle. Based on wire size, choose P/N below:

<table>
<thead>
<tr>
<th>P/N</th>
<th>Wire Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-968880-1</td>
<td>20-24 awg wire</td>
</tr>
<tr>
<td>1-968849-1</td>
<td>17-20 awg wire</td>
</tr>
<tr>
<td>1-968851-1</td>
<td>13.5-17 awg wire</td>
</tr>
</tbody>
</table>

### Mounting Specifications
- **Snap in Mount**: 40mm x 20mm keyed hole (see dimensional specifications for details.)

### Environmental
- **Operating Temperature**: -40°C to +85°C
- **Vibration**: Per IEC 68-2.6 test Fc and 68-2.47 Test Criteria - no noise or contact chatter below 10ms.
- **Cold Test**: Per IEC 68-2-1 -40°C for 72 hours Test Criteria - pre & post test contact resistance.
- **Dry Heat Test Criteria**: Per IEC 68-2-2 + 85°C for 72 hours Test Criteria - no loss of circuit during test, pre & post test contact resistance.
- **Handling Shock**: Drop from height of 1 meter, 3 times, 4 sides. Test criteria - No loss of circuit during test, pre & post test contact resistance.
- **Thermal Shock**: Per IEC 68-2-14, -40°C to +85°C. Test criteria - pre & post test contact resistance.

### Actuator Travel (Angular Displacement)
- 2 position (1/2 throw): 12°
- 3 position (full throw): 12° from center

*Manufacturer reserves the right to change product specification without prior notice.*
### S-Series Rocker Switches - Ordering Scheme

#### 1 SERIES

<table>
<thead>
<tr>
<th>1 SERIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
</tr>
</tbody>
</table>

#### 2 CIRCUIT

Terminal Connections as viewed from bottom of switch:

- **SP** - single pole uses terminals 1, 3, 5 & 7.
- **DP** - double pole uses terminals 3, 5, 7 & 4, 6, 8.

#### 3 RATING

| 1 | 0.4VA 28VDC, Resistive |
| 2 | 10.5mA 1.5A 28VDC |
| 3 | 20mA 10A 14VDC |

#### 4 ILLUMINATION

<table>
<thead>
<tr>
<th>Lamps</th>
<th>Illumination Type</th>
<th>Lamp wired to Terminals</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>NONE</td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>INDEPENDENT</td>
<td>(+) 2 (-)</td>
</tr>
<tr>
<td>C</td>
<td>INDEPENDENT</td>
<td>(+) 2 (-)</td>
</tr>
<tr>
<td>2</td>
<td>INDEPENDENT</td>
<td>(+) 2 (-)</td>
</tr>
<tr>
<td>D</td>
<td>INDEPENDENT</td>
<td>(+) 2 (-)</td>
</tr>
<tr>
<td>E</td>
<td>INDEPENDENT</td>
<td>(+) 2 (-)</td>
</tr>
<tr>
<td>F</td>
<td>INDEPENDENT</td>
<td>(+) 2 (-)</td>
</tr>
<tr>
<td>G</td>
<td>DEPENDENT</td>
<td>(+) 10 (-)</td>
</tr>
<tr>
<td>H</td>
<td>DEPENDENT</td>
<td>(+) 2 (-)</td>
</tr>
<tr>
<td>J</td>
<td>DEPENDENT</td>
<td>(+) 2 (-)</td>
</tr>
<tr>
<td>K</td>
<td>DEPENDENT</td>
<td>(+) 2 (-)</td>
</tr>
</tbody>
</table>

#### 5, 7 LAMP (SAME CODING FOR ALL 3 SELECTIONS)

Selection 5: specifies lamp 1 located above terminals 1 (+) & 2 (-).
Selection 6: specifies lamp 2 located in center of rocker.
Selection 7: specifies lamp 3 located above terminals 9 (+) & 10 (-).

#### 8 BRACKET COLOR

<table>
<thead>
<tr>
<th>8 BRACKET COLOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Black</td>
</tr>
<tr>
<td>4 Dark Carbon</td>
</tr>
</tbody>
</table>

#### 9 ACTUATOR

<table>
<thead>
<tr>
<th>9 ACTUATOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
</tr>
<tr>
<td>Titan Gray</td>
</tr>
<tr>
<td>Dark Carbon</td>
</tr>
</tbody>
</table>

#### 10, 11, 12 LEGEND COLOR

<table>
<thead>
<tr>
<th>10, 11, 12 LEGEND COLOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z No Legend</td>
</tr>
<tr>
<td>1 Clear</td>
</tr>
</tbody>
</table>

#### 13 LEGEND 1

<table>
<thead>
<tr>
<th>13 LEGEND 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>00 No Legend</td>
</tr>
</tbody>
</table>

#### 14 LEGEND ORIENTATION

<table>
<thead>
<tr>
<th>14 LEGEND ORIENTATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 No legend</td>
</tr>
<tr>
<td>1 Orientation 1</td>
</tr>
<tr>
<td>2 Orientation 2</td>
</tr>
<tr>
<td>3 Orientation 3</td>
</tr>
<tr>
<td>4 Orientation 4</td>
</tr>
</tbody>
</table>

#### 15, 16 LEGEND 2, 3

<table>
<thead>
<tr>
<th>15, 16 LEGEND 2, 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>00 No legend</td>
</tr>
</tbody>
</table>

**Notes:**

1. Indicates 1/2 travel for actuator.
2. Snap-Action Contact Mechanism
3. Not available with circuit 98.
4. Available with circuit 98 only.
5. Located over T1-2.
6. Legend 2 located in center of rocker, Legend 3 located over T9-10. Legend 2 options are limited due to a very small marking area. Consult factory for specifics.
Dimensional Specifications: in. [mm]

- **MATES WITH TYCO/AMP MCP CONNECTOR 1418994-1**
- **SWING RADIUS**: 0.82 [20.8]
- **PANEL KEY**: 0.051 [1.30]
- **SWING RADIUS**: 0.787 [19.99]
- **SCALE**: 2.000
- **PANEL THICKNESS**: 2.5±0.1mm
- **PANEL OPENING CLEARANCE**: ±5°
About Carling

Founded in 1920, Carling Technologies is a leading manufacturer of electrical and electronic switches and assemblies, circuit breakers, electronic controls, power distribution units, and multiplexed power distribution systems. With four ISO registered manufacturing facilities and technical sales offices worldwide, Carling Technologies Sales, Service and Engineering teams do much more than manufacture electrical components, they engineer powerful solutions! To learn more about Carling please visit www.carlingtech.com/company-profile.

To view all of Carling’s environmental, quality, health & safety certifications please visit www.carlingtech.com/environmental-certifications
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