S-Series Switches

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 1/2 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. These great features, combined with over 1,000 available laser etched or pad-printed legends, allow the S-Series to be seamlessly incorporated into just about any cab interior environment.

Applications:

- On-Highway Transportation Equipment
- Agricultural Equipment
- Construction Equipment
- Marine





Features:

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



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Carling Technologies, Inc. 60 Johnson Avenue • Plainville, CT 06062-1177 Phone: (860) 793-9281 • Fax: (860) 793-9231 Email: sales@carlingtech.com • www.carlingtech.com 10A@ 24VDC

50 Megaohms

<20 milliseconds

1/2 or full throw

pole

1500 Volts RMS between pole to

10 milliohms max. @ 4VDC

100,000 cycles maintained circuit,50,000 cycles momentary circuit at rated voltage and current gold plated SP, DP 2 & 3 position,

Electrical

Contact Rating Dielectric Strength

Insulation Resistance Contact Resistance Contact Bounce Life

Circuitry

Terminals

Mechanical

Endurance

250,000 cycles minimum

.110 Tabs, Silver Plated Brass

Physical

Lighted

Bracket Base Rocker

Weight

LED - rated 100,000 hours 1/2 life (LED is internally ballasted for voltages to 24VDC.) Acetal Nylon 66 GF Polycarbonate 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:

1-968880-1	20-24 awg wire
1-968849-1	17-20 awg wire
1-968851-1	13.5-17 awg wire

Actuator Travel (Angular Displacement)

2 position (1/2 throw) 3 position (full throw)

) 12°) 12° from center

Environmental

Operating Temperature Vibration	-40°C to +85°C 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.

Mounting Specifications

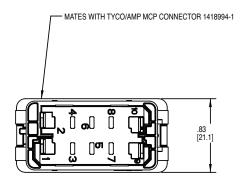
Snap in Mount

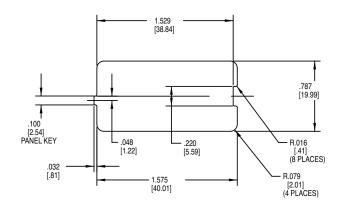
40mm x 20mm keyed hole (see dimensional specifications for details.)

*Manufacturer reserves the right to change product specification without prior notice.

S 18 ries ² Circuit	A A R F O 4 ³ _{Rating} ⁴ _{Illumination} ⁵ _{Lamp} ¹ ⁶ _{Lamp} ² ⁷ _{Lamp} ³ ⁸ _{Bracket} Color	$- \underbrace{M}_{\substack{9\\ \text{Actuator}\\ \text{Color}}} \underbrace{Z}_{\substack{10\\ \text{Legend}\\ \text{Color}}} \underbrace{Z}_{\substack{12\\ \text{Legend}\\ \text{Color}}} \underbrace{Z}_{\substack{12\\ \text{Legend}\\ \text{Color}}} \underbrace{OOO}_{\substack{13\\ \text{Legend}}} - \underbrace{1}_{\substack{14\\ \text{Legend}\\ \text{Orientation}}} \underbrace{OOO}_{\substack{15\\ \text{Legend}}} \underbrace{I}_{\substack{16\\ \text{Legend}} \underbrace{I}_{\substack{16\\ \text{Legend}}} \underbrace{I}_{\substack{16\\ \text{Legend}}} \underbrace{I}_{\substack{16\\ \text{Legend}} \underbrace{Legend} \underbrace{I}_{\substack{16\\ \text{Legend}} \underbrace{I}_{\substack{16\\ \text{Legend}} \underbrace{I}_{\substack{16\\ \text{Legend}} \underbrace{I}_{\substack{16\\ \text{Legend}} \underbrace{I}_{\substack{16\\ \text{Legend}} \underbrace{Legend} \underbrace{I}_{\substack{16\\ \text{Legend}} \underbrace{I}_{\substack{16\\ \text{Legend}} \underbrace{I}_{\substack{16\\ \text{Legend}} \underbrace{I}_{\substack{16\\ \text{Legend}} \underbrace{I}_{\substack{16\\ \text{Legend}} \mathsf{Legend$
1 SERIES S 2 CIRCUIT Terminal Connection from bottom of switcl 1 2 3 4 5 6 7 8 9 10 Position: SP DP 16 26 18 28 SPECIAL CIRCUITS 31 41 51 42 52 43 53 44 54 45 55 46 56 47 57 75 98 ²	h: SP - single pole uses terminals 3, 5 & 7. DP - double pole uses terminals 3, 5, 7 & 4, 6, 8. 1 2 3 5 & 7, 6 & 8 Connected Terminals 3 & 5, 4 & 6 ON OFF ON (ON) OFF (ON)	5,6,7 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 (-). No lamp 0 LED Red Orange Yellow Green 12VDC 24VDC B D F 3 BRACKET COLOR 1 Black 4 Dark Carbon Black Titan Gray Dark Carbon Standard Rocker, Laser Etched M N 10, 11, 12 LEGEND COLOR Z No Legend 1 Clear
3 RATING 1 0.4VA 28VDC A ³ 10.5mA 1.5A: 5A 28V 50A Ir B ⁴ 3.5A 28VDC, C ³ 10mA 10A 28 D ³ 20mA 10A 14	28VDC, rrush Lamp Load 18A Inrush VDC	00 No Legend 14 LEGEND ORIENTATION 0 No legend 1 Orientation 1 2 Orientation 2 3 Orientation 3 4 Orientation 4
Lamps Illumination Type Lamp wired to Terminals S NONE INDEPENDENT - A 1 INDEPENDENT 1 (+) 2 (-) C 1 INDEPENDENT 1 (+) 2 (-) 2 INDEPENDENT 9 (+) 2 (-) D 1 INDEPENDENT 1 (+) 2 (-)		
2 E 1&3	INDEPENDENT 9 (+) 10 (-) INDEPENDENT 1 (+) 2 (-) PARALLEL	15,16 LEGEND 2,3° 00 No legend
F 1	INDEPENDENT 1 (+) 10 (–) SNAP	
G 1&2	INDEPENDENT 1 (+) 10 (-) DEPENDENT 9 (+) 2 (-) INDEPENDENT 1 (+) 2 (-)	Notes: 1 Indicates 1/2 travel for actuator. 2 Snap-Action Contact Mechanism
H 1&2	INDEPENDENT 1 (+) 2 (-) DEPENDENT 9 (+) 10 (-) NDEPENDENT 9 (+) 10 (-)	3 Not available with circuit 98. 4 Available with circuit 98 only.
J 1, 2 & 3	INDEPENDENT 1 (+) 2 (-) DEPENDENT 5 (+) 10 (-) INDEPENDENT 1 (+) 2 (-)	 Located over T1-2. Legend 2 located in center of rocker, Legend 3 located over T9-10.
K 1&2	INDEPENDENT 1 (+) 2 (-) INDEPENDENT 1 (+) 2 (-) INDEPENDENT 9 (+) 10 (-) 3.3K RESISTOR IN PARALLEL	Legend 2 options are limited due to a very small marking area. Consult factory for specifics.

Dimensional Specifications: in. [mm]





PANEL THICKNESS: 2.5±0.1mm PANEL OPENING CLEARANCE: ±5° SCALE 2.000

