

Dual Seal Waterproof S Series Toggle  
Product Training Module

# Introduction

## Purpose:

- To introduce the Dual Seal Waterproof S Series Toggle

## Objective:

- Present features and benefits with an overview of the part number breakdown
- Discuss the physical and electrical options available
- Review applications

## Contents

- 7 pages



## Dual Seal Waterproof S Series Toggle

- All-in-one rugged toggle
- Sleek design incorporates functionality with a polished chrome-plated actuator
- IP68 rated, salt spray tested per Mil-STD-810G
- Totally sealed construction
- Mechanical life: 50,000/30,000 operations minimum
- Electrical life: 25,000 operations minimum



# Features and Benefits

## *Dual seal waterproof construction provides improved waterproofing reliability* (Design registered)

### **Highly Reliable Dual Seal Waterproof Construction**

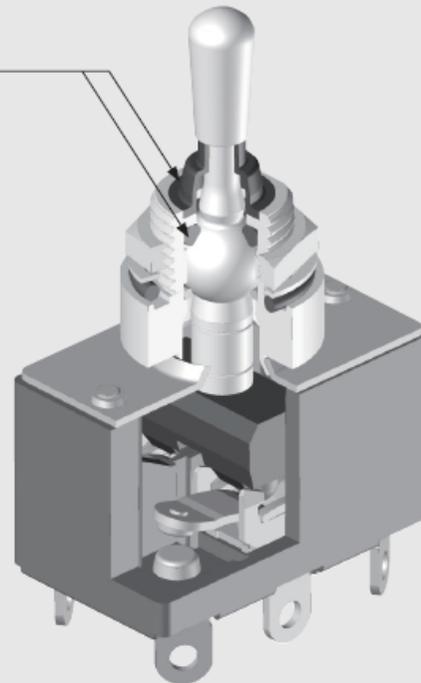
Uses a dual seal waterproof construction consisting of waterproof rubber on the outside of the lever and an O-ring on the inside for increased waterproofing reliability.

### **Stylish Design**

Integrating the waterproof rubber with the bottom part of the metal lever creates a stylish design that also delivers the waterproof function.

### **Sure Operation Feel**

Integrated design eliminates the sensation of the waterproof rubber, achieving the same sure operation feel and operability of a standard metal lever.



### **Panel Seal Mechanism**

This panel seal mechanism complies with IP68 under IEC 60529.

### **Dust-resistant Construction**

Foreign matter does not collect in the moveable parts on the surface of the panel, resulting in unobstructed operation of the levers.

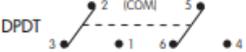
### **Simple Installation**

Integrated waterproof construction with the switch unit enables simple installation to the panel.

# Part Numbers

SINGLE POLE WITH SOLDER LUG											
Model	Pole & Throw	Toggle Position/Connected Terminals ( ) = Momentary					Electrical Capacity			$\alpha$ = Angle of Throw	
		Down 		Center 	Up 		Resistive				
		ON	1-3	NONE	OFF	—	AC 125V	AC 250V	DC 30V		
S1AWB	SPST	ON	1-3	NONE	OFF	—	15A	6A	20A	$24^\circ \pm 4^\circ$	
S2AWB	SPDT	ON	2-3	NONE	ON	2-1	15A	6A	20A	$24^\circ \pm 4^\circ$	
S3AWB	SPDT	ON	2-3	OFF	ON	2-1	15A	6A	20A	$24^\circ \pm 4^\circ$	
S5AWB	SPDT	ON	2-3	NONE	(ON)	2-1	15A	6A	20A	$20^\circ \pm 4^\circ$	
S8AWB	SPDT	(ON)	2-3	OFF	(ON)	2-1	15A	6A	20A	$24^\circ$	
<b>Throw &amp; Schematics:</b> SPST  INTERNAL CONNECTION SPDT  2 (COM)							Note: Terminal numbers are actually on the switch				

DOUBLE POLE WITH SOLDER LUG											
Model	Pole & Throw	Toggle Position/Connected Terminals ( ) = Momentary						Electrical Capacity			$\alpha$ = Angle of Throw
		Down 		Center 	Up 		Resistive				
		ON	1-3 4-6	NONE	OFF	—	—	AC 125V	AC 250V	DC 30V	
S21AWB	DPST	ON	1-3 4-6	NONE	OFF	—	—	15A	15A	15A	$24^\circ \pm 4^\circ$
S6AWB	DPDT	ON	2-3 5-6	NONE	ON	2-1	5-4	15A	10A	20A	$24^\circ \pm 4^\circ$
S7AWB	DPDT	ON	2-3 5-6	OFF	ON	2-1	5-4	15A	10A	20A	$24^\circ \pm 4^\circ$
S25AWB	DPDT	ON	2-3 5-6	NONE	(ON)	2-1	5-4	15A	6A	20A	$20^\circ \pm 4^\circ$
S28AWB	DPDT	(ON)	2-3 5-6	OFF	(ON)	2-1	5-4	15A	6A	20A	$24^\circ \pm 4^\circ$
<b>Throw &amp; Schematics:</b> DPST  INTERNAL CONNECTION DPDT  2 (COM) 5							Note: Terminal numbers are actually on the switch				

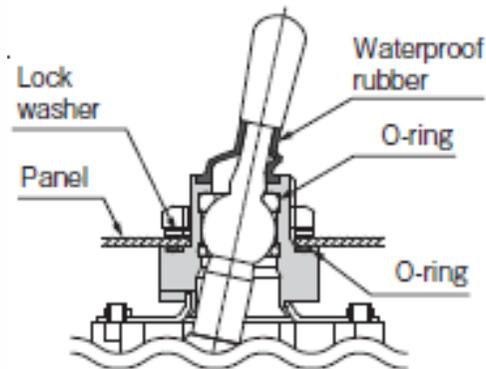
# Application Considerations

**The Dual Seal Waterproof S Series Toggle is designed as a panel seal switch, and not to be used under water.**

## **Material Properties:**

The material for the waterproof boot is silicone rubber. While silicone rubber has excellent heat, cold and weather resistant properties, it has less durability and oil resistance.

The O-ring below the panel is made of nitrile butadiene rubber, which excels in durability and oil and chemical resistance. Its performance is less durable with lower weather and ozone resistance characteristics.



# Applications

## Typical Applications for Dual Seal Waterproof S Series Toggle

Construction machinery, machine tools and automation, marine applications, transportation equipment and medical equipment.



Construction machinery



Transportation equipment



## Summary

- Introduced the Dual Seal Waterproof S Series Toggle Switch
- All-in-one sealed toggle switch with built-in rubber boot
- Sleek design incorporates functionality with a polished chrome-plated actuator
- IP68 rated, salt spray tested per Mil-STD-810G

