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54-418	51	Snap Action, SPDT, 10.1A, 125/250VAC, Pin Plunger	54-471	71	Pushbutton, Security, 19mm, SPDT-NO/NC, 6A, 125VAC, Curved	54-531	34	Rocker, Round Hole, Lighted, SPST, 16A, 125VAC, Red Lens
54-419	62	Snap Action, SPDT, 15A, 250VAC, Pin Plunger	54-472	71	Pushbutton, Snap Action, Security, 19mm, SPDT-NO, 50mA, 24VDC, Curved	⇒ 54-531W	26	Rocker, Round Hole, Illuminated Waterproof, SPST, 16A, 125VAC
54-420	62	Snap Action, SPDT, 10A, 250VAC, Pin Plunger	54-473	71	Pushbutton, Snap Action, Security, 19mm, SPDT-NO, 50mA, 24VDC, Flat	54-532	34	Rocker, Round Hole, Lighted, SPST, 16A, 125VAC, Amber Lens
54-421	63	Snap Action, SPDT, 10A, 250VAC, Short Hinge Lever	54-474	68	Pushbutton, Security, 16mm, SPST-NO, 100-400mA, 48VDC, Flat	54-533	34	Rocker, Round Hole, Lighted, SPST, 16A, 125VAC, Green Lens
54-422	61	Snap Action, SPDT, 15A, 250VAC, Simulated Roller Lever	⇒ 54-480WT	63	Snap Action, Sealed, Miniature, SPDT, 5A, 125/250VAC, Long Hinge Lever	54-534	34	Rocker, Round Hole, Lighted, SPST, 16A, 125VAC, Red LED
54-423	54	Snap Action, SPDT, 15A, 125/250/480VAC, Pin Plunger	⇒ 54-481WT	63	Snap Action, Sealed, Miniature, SPDT, 100mA, 125VAC, Long Hinge Lever	54-535	34	Rocker, Round Hole, Lighted, SPST, 16A, 125VAC, Yellow LED
54-424	55	Snap Action, SPDT, 15A, 125/250/480VAC, Short Spring Plunger	⇒ 54-482WT	64	Snap Action, Sealed, Miniature, SPDT, 5A, 125/250VAC, Pin Plunger	54-536	34	Rocker, Round Hole, Lighted, SPST, 16A, 125VAC, Green LED
54-425	55	Snap Action, SPDT, 15A, 125/250/480VAC, Panel Mount Plunger	⇒ 54-483WT	64	Snap Action, Sealed, Miniature, SPDT, 100mA, 125VAC, Pin Plunger	54-537	34	Rocker, Round Hole, Lighted, SPST, 16A, 125VAC, Blue LED
54-426	56	Snap Action, SPDT, 15A, 125/250/480VAC, Slim Spring Plunger	⇒ 54-484WT	64	Snap Action, Sealed, Miniature, SPDT, 5A, 125/250VAC, Hinge Lever	54-538	77	Pull Chain, SPST, 6A, 125VAC
54-427	56	Snap Action, SPDT, 15A, 125/250/480VAC, Long Hinge Lever	⇒ 54-485WT	64	Snap Action, Sealed, Miniature, SPDT, 100mA, 125VAC, Hinge Lever	54-539	77	Pull Chain, SPST, 6A, 125VAC
54-428	57	Snap Action, SPDT, 15A, 125/250/480VAC, Hinge Lever	⇒ 54-486WT	65	Snap Action, Sealed, Miniature, SPDT, 5A, 125/250VAC, Short Hinge Roller Lever	54-540	77	Pull Chain, SP4T, 6A, 125VAC
54-429	57	Snap Action, SPDT, 15A, 125/250/480VAC, Short Hinge Roller Lever	⇒ 54-487WT	65	Snap Action, Sealed, Miniature, SPDT, 100mA, 125VAC, Short Hinge Roller Lever	54-541	78	Rotary, Two Position, SPST, 6A, 125VAC
54-430	58	Snap Action, SPDT, 15A, 125/250/480VAC, Uni directional Short Hinge Roller Lever	⇒ 54-488WT	65	Snap Action, Sealed, Miniature, SPDT, 5A, 125/250VAC, Hinge Roller Lever	54-542	78	Rotary, Two Position, SPST, 6A, 125VAC
54-432	56	Snap Action, SPDT, 15A, 125/250/480VAC, Long Hinge Lever	⇒ 54-489WT	65	Snap Action, Sealed, Miniature, SPDT, 100mA, 125VAC, Hinge Roller Lever	54-543	24	Rocker, Round Hole, SPST, 16A, 125VAC
54-433	55	Snap Action, SPDT, 15A, 125/250/480VAC, Panel Mount Plunger	54-500	23	Rocker, Round Hole, SPST, 10A, 125VAC	54-544	24	Rocker, Round Hole, SPST, 16A, 125VAC
54-435	54	Snap Action, SPDT, 15A, 125/250/480VAC, Pin Plunger	54-501	23	Rocker, Round Hole, SPDT, 10A, 125VAC	54-545	24	Rocker, Round Hole, SPDT, 16A, 125VAC
54-437	55	Snap Action, SPDT, 15A, 125/250/480VAC, Short Spring Plunger	54-502	23	Rocker, Round Hole, DPDT, 10A, 125VAC	54-546	24	Rocker, Round Hole, SPDT, 16A, 125VAC
54-438	58	Snap Action, SPDT, 15A, 125/250/480VAC, Panel Mount Roller Plunger	54-503	23	Rocker, Round Hole, SPST, 16A, 125VAC	54-547	35	Rocker, Round Hole, Lighted, SPST, 16A, 125VAC, Amber Lens
54-440	57	Snap Action, SPDT, 15A, 125/250/480VAC, Hinge Lever	⇒ 54-503W	26	Rocker, Round Hole, Waterproof, SPST, 16A, 125VAC	54-548	24	Rocker, Round Hole, SPDT, 16A, 125VAC
54-441	59	Snap Action, SPDT, 15A, 125/250/480VAC, Hinge Roller Lever	54-504	23	Rocker, Round Hole, SPDT, 16A, 125VAC	54-549	35	Rocker, Round Hole, Lighted, SPST, 16A, 125VAC, Amber Lens
54-442	59	Snap Action, SPDT, 15A, 125/250/480VAC, Panel Mount Cross Roller Plunger	54-505	23	Rocker, Round Hole, SPDT, 16A, 125VAC	54-550	35	Rocker, Round Hole, Lighted, SPST, 16A, 125VAC, Green Lens
54-450	51	Snap Action, SPDT, 20A, 125/250/480VAC, Panel Mount Plunger	54-506	34	Rocker, Round Hole, Lighted, SPST, 16A, 125VAC, Red Lens	54-551	35	Rocker, Round Hole, Lighted, SPST, 16A, 125VAC, Red LED
54-451	52	Snap Action, SPDT, 20A, 125/250/480VAC, Long Hinge Lever	54-507	24	Rocker, Round Hole, SPST, 10A, 125VAC	54-552	35	Rocker, Round Hole, Lighted, SPST, 16A, 125VAC, Yellow LED
54-452	52	Snap Action, SPDT, 20A, 125/250/480VAC, Short Hinge Roller Lever	54-508	24	Rocker, Round Hole, SPDT, 10A, 125VAC	54-553	35	Rocker, Round Hole, Lighted, SPST, 16A, 125VAC, Green LED
54-453	53	Snap Action, SPDT, 20A, 125/250/480VAC, Pin Plunger	54-509	24	Rocker, Round Hole, DPDT, 10A, 125VAC	54-554	35	Rocker, Round Hole, Lighted, SPST, 16A, 125VAC, Blue LED
54-454	53	Snap Action, SPDT, 20A, 125/250/480VAC, Short Spring Plunger	54-510	24	Rocker, Round Hole, SPST, 16A, 125VAC	54-556	47	Pushbutton, SPST, 3A, 125VAC
54-455	54	Snap Action, SPDT, 20A, 125/250/480VAC, Hinge Roller Lever	54-511	24	Rocker, Round Hole, SPDT, 16A, 125VAC	54-557	47	Pushbutton, SPST, 3A, 125VAC
54-456	1	Toggle, SPST, 15A, 125VAC	54-512	24	Rocker, Round Hole, Lighted, SPST, 16A, 125VAC, Red Lens	54-558	47	Pushbutton, SPST, 3A, 125VAC
54-457	1	Toggle, SPST, 15A, 125VAC	54-513	35	Rocker, Round Hole, Lighted, SPST, 16A, 125VAC, Red Lens	54-560	13	Toggle, SPST, 50A, 12VDC, Black
⇒ 54-458	1	Toggle, SPST, 15A, 125VAC	54-514	25	Rocker, Round Hole, SPST, 6A, 125VAC	54-561	13	Toggle, SPST, 50A, 12VDC, Red
⇒ 54-459	1	Toggle, SPDT, 15A, 125VAC	54-515	25	Rocker, Round Hole, SPDT, 6A, 125VAC	54-562	13	Toggle, SPST, 50A, 12VDC, Chrome
54-460	68	Pushbutton, Security, 16mm, SPST-NO, 100-400mA, 48VDC, Curved	54-516	25	Rocker, Round Hole, DPDT, 6A, 125VAC	54-563	14	Toggle, SPST, 50A, 12VDC, Chrome
54-461	69	Pushbutton, Security, 22mm, SPST-NO, 2A, 48VDC, Curved	54-517	30	Rocker, Lighted, SPST, 16A, 125VAC	54-564	14	Toggle, SPST, 50A, 12VDC, Chrome
54-462	69	Pushbutton, Security, 22mm, SPST-NO, 2A, 48VDC, Curved	54-518	30	Rocker, Lighted, SPST, 16A, 125VAC	54-565	15	Toggle, SPDT, 50A, 12VDC, Chrome
54-463	69	Pushbutton, Security, 22mm, SPST-NO, 2A, 48VDC, Flat	54-519	30	Rocker, Lighted, SPST, 16A, 125VAC	54-566	15	Toggle, SPST, 20A, 12VDC, Black
			54-520	23	Rocker, Round Hole, SPST, 16A, 125VAC	54-567	18	Toggle, Lighted, SPST, 20A, 12VDC, Red Handle
			54-521	23	Rocker, Round Hole, SPST, 16A, 125VAC	54-568	18	Toggle, Lighted, SPST, 20A, 12VDC, Green Handle
			54-522	23	Rocker, Round Hole, SPDT, 16A, 125VAC	54-569	18	Toggle, Lighted, SPST, 20A, 12VDC, Amber Handle
			54-525	34	Rocker, Round Hole, Lighted, SPST, 16A, 125VAC, Yellow Lens	54-570	18	Toggle, Lighted, SPST, 20A, 12VDC, Blue Handle
			54-526	34	Rocker, Round Hole, Lighted, SPST, 16A, 125VAC, Green Lens	54-571	15	Toggle, SPST, 20A, 12VDC, Black
			⇒ 54-526W	26	Rocker, Round Hole, Illuminated Waterproof, SPST, 16A, 125VAC	54-572	18	Toggle, Lighted, SPST, 20A, 12VDC, Red Duckbill Handle
			54-527	34	Rocker, Round Hole, Lighted, SPST, 16A, 125VAC, Red Lens	54-573	18	Toggle, Lighted, SPST, 20A, 12VDC, Amber Duckbill Handle
						⇒ 54-579	3	Toggle, SPST, 20A, 125VAC
						⇒ 54-580	3	Toggle, SPST, 20A, 125VAC
						⇒ 54-581	3	Toggle, SPST, 20A, 125VAC
						⇒ 54-582	3	Toggle, SPDT, 20A, 125VAC
						⇒ 54-583	3	Toggle, SPDT, 20A, 125VAC

⇒ DENOTES NEW DEVICE

# Product Numerical Index

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⇒ 54-585	3	Toggle, SPDT, 20A, 125VAC	⇒ 54-616	4	Toggle, SPDT, 20A, 125VAC	54-900	79	Hardware, Indicator Plate
⇒ 54-586	3	Toggle, SPDT, 20A, 125VAC	⇒ 54-617	4	Toggle, SPDT, 20A, 125VAC	54-901	79	Hardware, Indicator Plate
⇒ 54-590	3	Toggle, DPST, 20A, 125VAC	⇒ 54-619	4	Toggle, SPST, 20A, 125VAC	54-902	79	Hardware, Indicator Plate
⇒ 54-591	3	Toggle, DPDT, 20A, 125VAC	⇒ 54-620	4	Toggle, SPST, 20A, 125VAC	54-904	79	Hardware, Brass Facenut
⇒ 54-592	3	Toggle, DPDT, 20A, 125VAC	⇒ 54-621	4	Toggle, SPST, 20A, 125VAC	54-905	80	Hardware, Rubber Boot for Bat Toggle
⇒ 54-593	3	Toggle, SPST, 20A, 125VAC	⇒ 54-622	4	Toggle, SPDT, 20A, 125VAC	54-906	80	Hardware, Rubber Boot/Knob for Mini Toggles
⇒ 54-594	3	Toggle, SPST, 20A, 125VAC	⇒ 54-623	4	Toggle, SPDT, 20A, 125VAC	⇒ 54-910	80	Hardware, Mounting Panel, End, for Automotive/Marine Types
⇒ 54-595	3	Toggle, SPST, 20A, 125VAC	⇒ 54-624	4	Toggle, SPDT, 20A, 125VAC	⇒ 54-911	80	Hardware, Mounting Panel, Middle, for Automotive/Marine Types
⇒ 54-596	3	Toggle, SPDT, 20A, 125VAC	⇒ 54-625	4	Toggle, SPDT, 20A, 125VAC	⇒ 54-912	81	Hardware, Connector Housing for Automotive/Marine Types
⇒ 54-597	3	Toggle, SPDT, 20A, 125VAC	⇒ 54-626	4	Toggle, SPDT, 20A, 125VAC	⇒ 54-913	81	Hardware, Actuator Removal Tool for Automotive/Marine Types
⇒ 54-598	3	Toggle, SPDT, 20A, 125VAC	⇒ 54-627	72	Magnetic Alarm Reed Switch	⇒ 54-914	81	Hardware, Connector, Black, .250" Tab
⇒ 54-599	3	Toggle, SPDT, 20A, 125VAC	⇒ 54-628	72	Magnetic Alarm Reed Switch	⇒ 54-915	81	Hardware, Hole Plug, Removable, w/Non-Serrated Wings
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⇒ 54-602	4	Toggle, DPST, 20A, 125VAC	⇒ 54-630	76	Magnetic Alarm Reed Switch	⇒ 54-921	82	Toggle Safety Cover for 15/32 Switches, Metallic Red
⇒ 54-603	4	Toggle, DPDT, 20A, 125VAC	⇒ 54-631	73	Magnetic Alarm Reed Switch	⇒ 54-922	82	Toggle Safety Cover for 15/32 Switches, Metallic Blue
⇒ 54-604	4	Toggle, DPDT, 20A, 125VAC	⇒ 54-632	74	Magnetic Alarm Reed Switch	⇒ 54-923	82	Toggle Safety Cover for 15/32 Switches, Metallic Silver
⇒ 54-606	4	Toggle, DPST, 20A, 125VAC	⇒ 54-633	74	Magnetic Alarm Roller Ball Switch			
⇒ 54-607	4	Toggle, DPDT, 20A, 125VAC	⇒ 54-634	75	Magnetic Alarm Panic Switch			
⇒ 54-608	4	Toggle, DPDT, 20A, 125VAC	⇒ 54-635	75	Magnetic Alarm Plunger Switch			
⇒ 54-610	4	Toggle, SPST, 20A, 125VAC	⇒ 54-636	76	Magnetic Alarm Reed Switch			
⇒ 54-611	4	Toggle, SPST, 20A, 125VAC	⇒ 54-639	22	Rocker, DPDT, 20A, 12VDC			
⇒ 54-612	4	Toggle, SPST, 20A, 125VAC	⇒ 54-659	1	Toggle, SPST, 15A, 125VAC			
⇒ 54-613	4	Toggle, SPDT, 20A, 125VAC	⇒ 54-870	19	Rocker, Mico, SPST, 6A, 125VAC			
⇒ 54-614	4	Toggle, SPDT, 20A, 125VAC	⇒ 54-872	19	Rocker, Mico, SPST, 6A, 125VAC			

# Bat Handle Toggle



## Features

- Neoprene Seal Toggle (54-456 thru 54-459, 54-659 ONLY)
- Slow Make, Slow Break Contacts
- AC Rated, Suitable for Low Voltage DC Also
- Standard .500" Dia Mounting Hole
- Various Terminal Selections



NTE Type No.	Circuitry	Action			Actuator	Diag No.
54-001	SPST	ON	NONE	(OFF)	Brass/Nickel Plate	S1c
54-002	SPDT	(ON)	OFF	(ON)	Brass/Nickel Plate	S1c
54-006	SPST	ON	NONE	OFF	Brass/Nickel Plate	S1a
54-007	SPST	ON	NONE	OFF	Brass/Nickel Plate	S1b
54-008	SPST	ON	NONE	OFF	Brass/Nickel Plate	S1c
54-009	SPDT	ON	OFF	ON	Brass/Nickel Plate	S1b
54-010	SPDT	ON	OFF	ON	Brass/Nickel Plate	S1c
54-023	SPST	ON	NONE	OFF	Brass/Nickel Plate	S1d
54-024	SPDT	ON	NONE	ON	Brass/Nickel Plate	S1d
54-025	SPDT	ON	OFF	ON	Brass/Nickel Plate	S1d
54-456*	SPST	ON	NONE	OFF	Brass/Nickel Plate	S1c
54-457*	SPST	(ON)	NONE	OFF	Brass/Nickel Plate	S1c
54-458*	SPST	ON	NONE	OFF	Brass/Nickel Plate	S1b
54-459*	SPDT	ON	OFF	ON	Brass/Nickel Plate	S1b
54-659*	SPDT	(ON)	OFF	(ON)	Brass/Nickel Plate	S1b

SPECIAL NOTE: ( ) = Momentary Function  
 \* Neoprene Seal Toggle

NEW  
NEW  
NEW

# Bat Handle Toggle



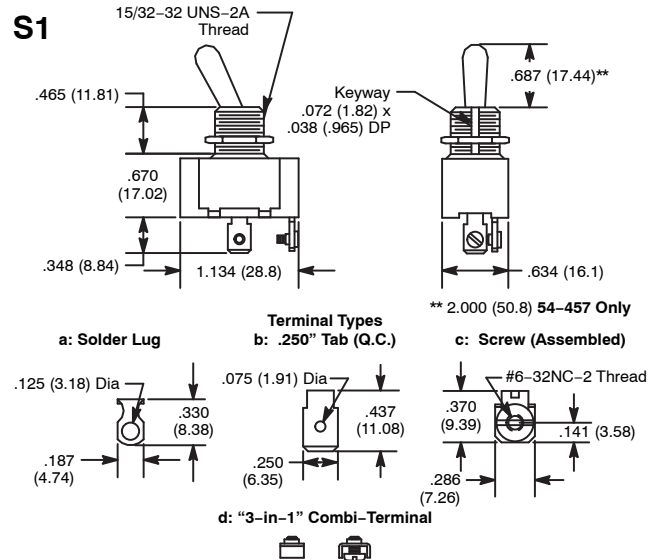
## Features

- Quick Make, Quick Break Wiping Action
- 6" Wire Leads
- Brass or Plastic Actuator



NTE Type No.	Circuitry	Action			Actuator	Diag No.
54-130	SPST	OFF	NONE	ON	Brass/Nickel Plate	S36
54-131	SPST	OFF	NONE	ON	Plastic	S36

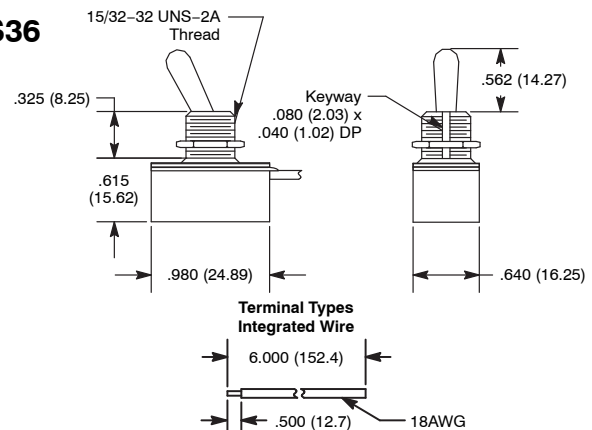
S1



## Specifications

**Current Rating:** 15A 125VAC, 10A 250VAC, 3/4 HP 125-250VAC  
**Insulation Resistance:** 100 Megohms (min.)  
**Dielectric Strength:** 1000V RMS (min.)  
**Temperature Rating:** 0° to +150°F (-17.8° to +65.6°C)  
**Electrical Life:** 50,000 cycles maintained, 25,000 cycles momentary  
**Mechanical Life:** 100,000 cycles  
**Terminal Type:** Refer to Diag No. in Table  
**Mounting Hole:** .500 (12.7)

S36



## Specifications

**Current Rating:** 10A 250VAC, 8A 125VDC, 4A 250VDC, 1/3 HP 125VAC  
**Dielectric Strength:** 1000V RMS (min.)  
**Temperature Rating:** +149°F (+65°C) Max  
**Electrical Life:** 25,000 cycles Min  
**Mechanical Life:** 100,000 cycles  
**Terminal Type:** Integrated Wire  
**Mounting Hole:** .500 (12.7)

# Bat Handle Toggle

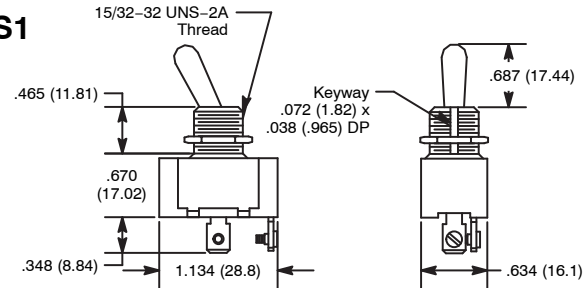


## Features

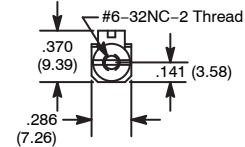
- Slow Make, Slow Break Contacts
- AC Rated, Suitable for Low Voltage DC Also
- Standard .500" Dia Mounting Hole
- Screw Mount Terminals



S1



Terminal Types  
c: Screw (Assembled)



NTE Type No.	Circuitry	Action			Actuator	Diag No.
54-094	SPST	(ON)	NONE	OFF	Brass/Nickel Plate	S1c
54-096	SPDT	ON	NONE	ON	Brass/Nickel Plate	S1c
54-097	SPDT	ON	NONE	(ON)	Brass/Nickel Plate	S1c
54-143	SPST	ON	NONE	OFF	Brass/Nickel Plate	S1c

SPECIAL NOTE: ( ) = Momentary Function

## Specifications

**Current Rating:** 6A 125VAC, 3A 250VAC, 1/4 HP 120-240VAC  
**Insulation Resistance:** 100 Megohms (min.)  
**Dielectric Strength:** 1000V RMS (min.)  
**Temperature Rating:** 0° to +150°F (-17.8° to +65.6°C)  
**Electrical Life:** 50,000 cycles  
**Mechanical Life:** 100,000 cycles  
**Terminal Type:** Screw Type  
**Mounting Hole:** .500 (12.7)

# Bat Handle Toggle

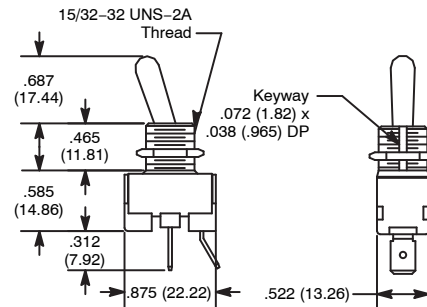


## Features

- AC Rated, General Purpose
- Industry Standard .500" Dia Mounting Hole
- .250" Quick Connect Terminals



S3



Terminal Types

b: .250" Tab (Q.C.)  
.075 (1.9) Dia



NTE Type No.	Circuitry	Action			Actuator	Diag No.
54-005	SPST	ON	NONE	OFF	Brass/Nickel Plate	S3b
54-098	SPDT	ON	NONE	ON	Brass/Nickel Plate	S3b

## Specifications

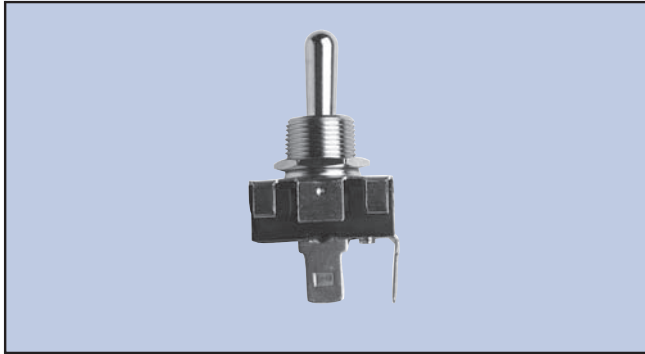
**Current Rating:**  
**54-005:** 20A 125VAC, 10A 250VAC, 1 1/2 HP 125-250VAC  
**54-098:** 10A 125VAC, 5A 250VAC, 1/2 HP 125-250VAC  
**Insulation Resistance:** 100 Megohms (min.)  
**Dielectric Strength:** 1000V RMS (min.)  
**Temperature Rating:** +32° to +185°F (0° to +85°C)  
**Electrical Life:** 25,000 cycles  
**Mechanical Life:** 100,000 cycles  
**Terminal Type:** .250" Tab Q.C.  
**Mounting Hole:** .500 (12.7)

# Bat Handle Toggle

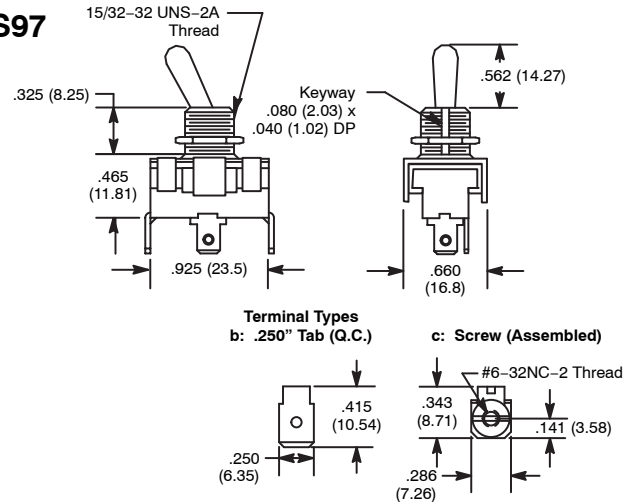


## Features

- Slow-Make/Slow-Break Butt Contact
- 1 HP, 125-250VAC



S97



## Specifications

**Current Rating:** 20A 125VAC, 10A 250VAC, 1 HP 125-250VAC  
**Insulation Resistance:** 10<sup>9</sup> ohms (min.)  
**Dielectric Strength:** 1500V RMS (min.)  
**Temperature Rating:** +14° to +149°F (-10° to +65°C)  
**Electrical Life:** 10,000 cycles (min.) at full load  
**Mechanical Life:** 30,000 cycles (min.)  
**Terminal Type:** Refer to Diag. No. in Table  
**Mounting Hole:** .500 (12.7)

NTE Type No.	Circuitry	Action			Actuator	Diag No.
NEW 54-579	SPST	ON	NONE	OFF	Nickel Plated Brass	S97b
NEW 54-580	SPST	(ON)	NONE	OFF	Nickel Plated Brass	S97b
NEW 54-581	SPST	ON	NONE	(OFF)	Nickel Plated Brass	S97b
NEW 54-582	SPDT	ON	NONE	ON	Nickel Plated Brass	S97b
NEW 54-583	SPDT	ON	OFF	ON	Nickel Plated Brass	S97b
NEW 54-584	SPDT	(ON)	NONE	ON	Nickel Plated Brass	S97b
NEW 54-585	SPDT	(ON)	OFF	ON	Nickel Plated Brass	S97b
NEW 54-586	SPDT	(ON)	OFF	(ON)	Nickel Plated Brass	S97b
NEW 54-593	SPST	ON	NONE	OFF	Nickel Plated Brass	S97c
NEW 54-594	SPST	(ON)	NONE	OFF	Nickel Plated Brass	S97c
NEW 54-595	SPST	ON	NONE	(OFF)	Nickel Plated Brass	S97c
NEW 54-596	SPDT	ON	NONE	ON	Nickel Plated Brass	S97c
NEW 54-597	SPDT	ON	OFF	ON	Nickel Plated Brass	S97c
NEW 54-598	SPDT	(ON)	NONE	ON	Nickel Plated Brass	S97c
NEW 54-599	SPDT	(ON)	OFF	ON	Nickel Plated Brass	S97c
NEW 54-600	SPDT	(ON)	OFF	(ON)	Nickel Plated Brass	S97c

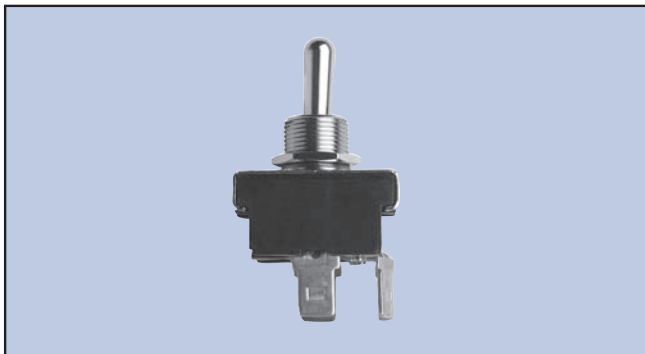
SPECIAL NOTE: ( ) = Momentary Function

# Bat Handle Toggle

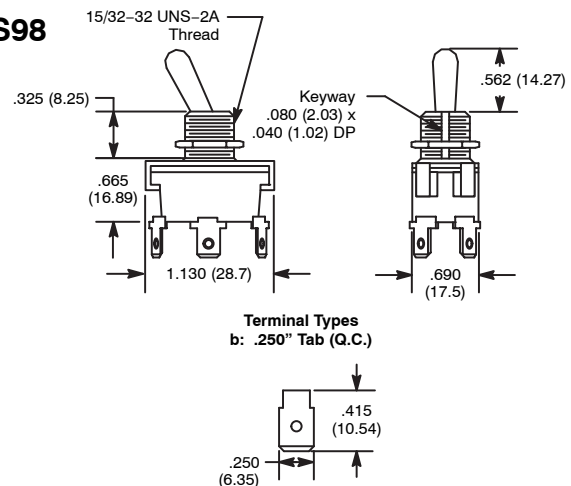


## Features

- Slow-Make/Slow-Break Butt Contact
- 1 HP, 125-250VAC



S98



## Specifications

**Current Rating:** 20A 125VAC, 10A 250VAC, 1 HP 125-250VAC  
**Insulation Resistance:** 10<sup>9</sup> ohms (min.)  
**Dielectric Strength:** 1500V RMS (min.)  
**Temperature Rating:** +14° to +149°F (-10° to +65°C)  
**Electrical Life:** 10,000 cycles (min.) at full load  
**Mechanical Life:** 30,000 cycles (min.)  
**Terminal Type:** .250" Tab Q.C.  
**Mounting Hole:** .500 (12.7)

NTE Type No.	Circuitry	Action			Actuator	Diag No.
NEW 54-590	DPST	ON	NONE	OFF	Nickel Plated Brass	S98b
NEW 54-591	DPDT	ON	NONE	ON	Nickel Plated Brass	S98b
NEW 54-592	DPDT	ON	OFF	ON	Nickel Plated Brass	S98b

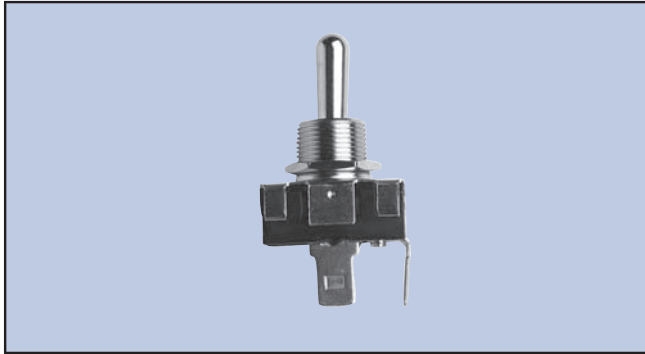


# Bat Handle Toggle

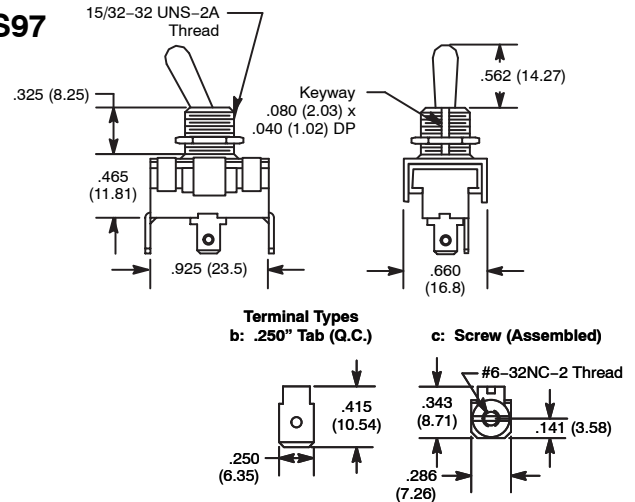


## Features

- Slow-Make/Slow-Break Butt Contact
- 3/4 HP, 125-250VAC



S97



## Specifications

**Current Rating:** 20A 125VAC, 10A 250VAC, 3/4 HP 125-250VAC  
**Insulation Resistance:** 10<sup>9</sup> ohms (min.)  
**Dielectric Strength:** 1000V RMS (min.)  
**Temperature Rating:** +14° to +149°F (-10° to +65°C)  
**Electrical Life:** 10,000 cycles (min.) at full load  
**Mechanical Life:** 30,000 cycles (min.)  
**Terminal Type:** Refer to Diag. No. in Table  
**Mounting Hole:** .500 (12.7)

NTE Type No.	Circuitry	Action			Actuator	Diag No.
NEW 54-610	SPST	ON	NONE	OFF	Nickel Plated Brass	S97c
NEW 54-611	SPST	(ON)	NONE	OFF	Nickel Plated Brass	S97c
NEW 54-612	SPST	ON	NONE	(OFF)	Nickel Plated Brass	S97c
NEW 54-613	SPDT	ON	NONE	ON	Nickel Plated Brass	S97c
NEW 54-614	SPDT	ON	OFF	ON	Nickel Plated Brass	S97c
NEW 54-615	SPDT	(ON)	NONE	ON	Nickel Plated Brass	S97c
NEW 54-616	SPDT	(ON)	OFF	ON	Nickel Plated Brass	S97c
NEW 54-617	SPDT	(ON)	OFF	(ON)	Nickel Plated Brass	S97c
NEW 54-619	SPST	ON	NONE	OFF	Nickel Plated Brass	S97b
NEW 54-620	SPST	(ON)	NONE	OFF	Nickel Plated Brass	S97b
NEW 54-621	SPST	ON	NONE	(OFF)	Nickel Plated Brass	S97b
NEW 54-622	SPDT	ON	NONE	ON	Nickel Plated Brass	S97b
NEW 54-623	SPDT	ON	OFF	ON	Nickel Plated Brass	S97b
NEW 54-624	SPDT	(ON)	NONE	ON	Nickel Plated Brass	S97b
NEW 54-625	SPDT	(ON)	OFF	ON	Nickel Plated Brass	S97b
NEW 54-626	SPDT	(ON)	OFF	(ON)	Nickel Plated Brass	S97b

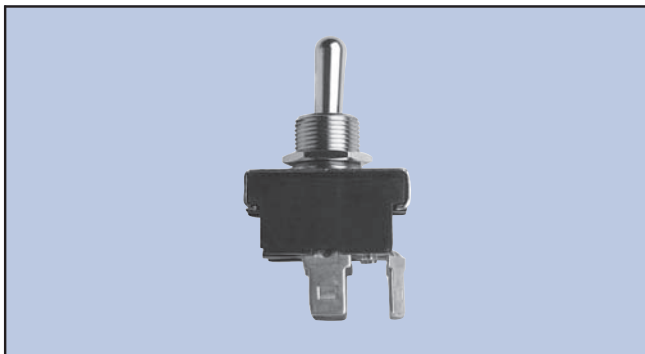
SPECIAL NOTE: ( ) = Momentary Function

# Bat Handle Toggle

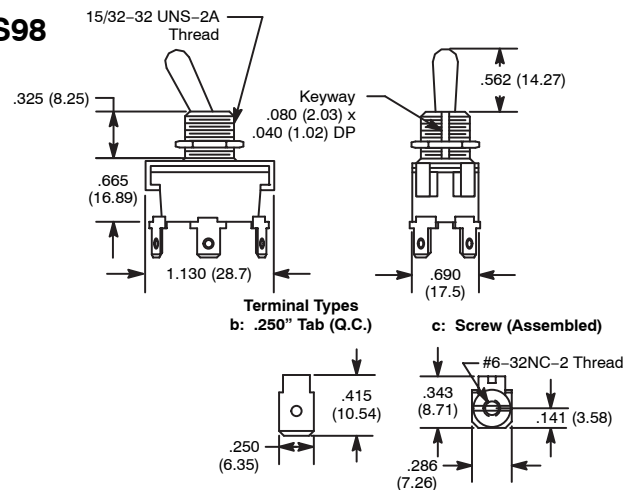


## Features

- Slow-Make/Slow-Break Butt Contact
- 3/4 HP, 125-250VAC



S98



## Specifications

**Current Rating:** 20A 125VAC, 10A 250VAC, 3/4 HP 125-250VAC  
**Insulation Resistance:** 10<sup>9</sup> ohms (min.)  
**Dielectric Strength:** 1000V RMS (min.)  
**Temperature Rating:** +14° to +149°F (-10° to +65°C)  
**Electrical Life:** 10,000 cycles (min.) at full load  
**Mechanical Life:** 30,000 cycles (min.)  
**Terminal Type:** Refer to Diag. No. in Table  
**Mounting Hole:** .500 (12.7)

NTE Type No.	Circuitry	Action			Actuator	Diag No.
NEW 54-602	DPST	ON	NONE	OFF	Nickel Plated Brass	S98c
NEW 54-603	DPDT	ON	NONE	ON	Nickel Plated Brass	S98c
NEW 54-604	DPDT	ON	OFF	ON	Nickel Plated Brass	S98c
NEW 54-606	DPST	ON	NONE	OFF	Nickel Plated Brass	S98b
NEW 54-607	DPDT	ON	NONE	ON	Nickel Plated Brass	S98b
NEW 54-608	DPDT	ON	OFF	ON	Nickel Plated Brass	S98b

# Bat Handle Toggle

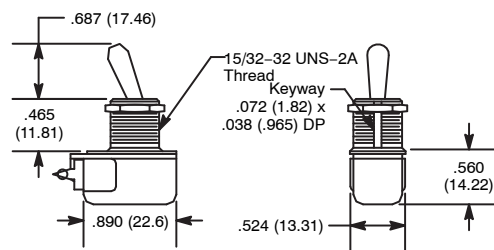


## Features

- Quick Make, Quick Break Contacts
- AC/DC Shallow Back Panel Applications
- Standard .500" Dia Mounting Hole

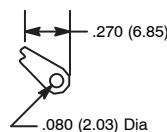


## S14

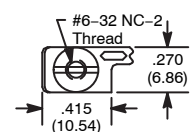


### Terminal Types

#### a: Solder Lug (End)



#### c: Screw (Assembled)



NTE Type No.	Circuitry	Action			Actuator	Diag No.
54-070	SPST	ON	NONE	OFF	Brass/Nickel Plate	S14a
54-071	SPST	ON	NONE	OFF	Brass/Nickel Plate	S14c

## Specifications

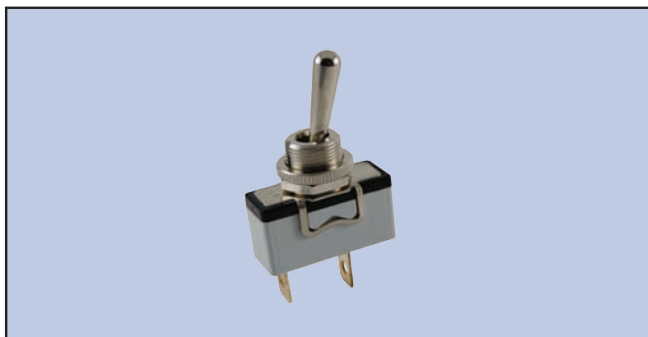
**Current Rating:** 6A 125VAC, 3A 250VAC, AC/DC  
**Insulation Resistance:** 100 Megohms (min.)  
**Dielectric Strength:** 1000V RMS (min.)  
**Temperature Rating:** 0° to +150°F (-17.8° to +65.6°C)  
**Electrical Life:** 25,000 cycles  
**Mechanical Life:** 15,000 cycles  
**Terminal Type:** Refer to Diag No. in Table  
**Mounting Hole:** .500 (12.7)

# Bat Handle Toggle

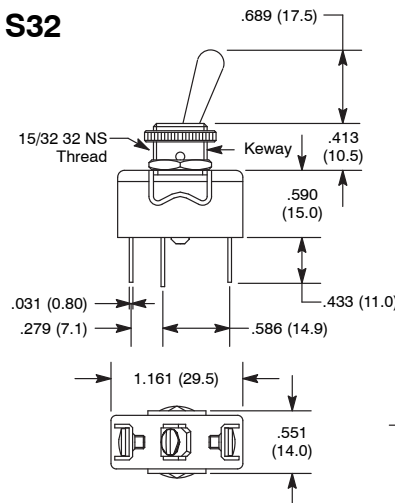


## Features

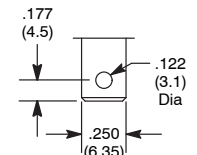
- Waterproof Types Available on Page 17



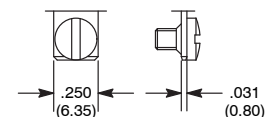
## S32



### a: Solder Lug/Quick Connect



### c: Screw (Assembled)



NTE Type No.	Circuitry	Action			Actuator	Diag No.
54-348	SPST	ON	NONE	OFF	Nickel Plated Brass	S32a
54-349	SPDT	ON	NONE	ON	Nickel Plated Brass	S32a
54-350	SPDT	ON	OFF	ON	Nickel Plated Brass	S32a
54-351	SPDT	(ON)	NONE	ON	Nickel Plated Brass	S32a
54-352	SPDT	(ON)	OFF	(ON)	Nickel Plated Brass	S32a
54-353	SPDT	ON	OFF	(ON)	Nickel Plated Brass	S32a
54-354	SPST	ON	NONE	OFF	Nickel Plated Brass	S32c
54-355	SPDT	ON	NONE	ON	Nickel Plated Brass	S32c
54-356	SPDT	ON	OFF	ON	Nickel Plated Brass	S32c
54-357	SPDT	(ON)	NONE	ON	Nickel Plated Brass	S32c
54-358	SPDT	(ON)	OFF	(ON)	Nickel Plated Brass	S32c
54-359	SPDT	ON	OFF	(ON)	Nickel Plated Brass	S32c

SPECIAL NOTE: ( ) = Momentary Function

## Specifications

**Current Rating:**  
**Functions ON-OFF and ON-ON:** 15A 250VAC or 10A 24VDC  
**Functions ON OFF ON:** 15A 250VAC  
**Other Functions:** 15A 125VAC, 12A 250VAC or 5A 25VDC  
**Insulation Resistance:** 1000 Megohms (min.) at 500VDC  
**Dielectric Strength:** 2000V RMS (min.) between terminals  
**Temperature Rating:** -4° to +131°F (-20° to +55°C)  
**Electrical Life:** 10,000 cycles (min.) at full load  
**Terminal Type:** Refer to Diag No. in Table  
**Mounting Hole:** .480 (12.2)

# Bat Handle Toggle



## Features

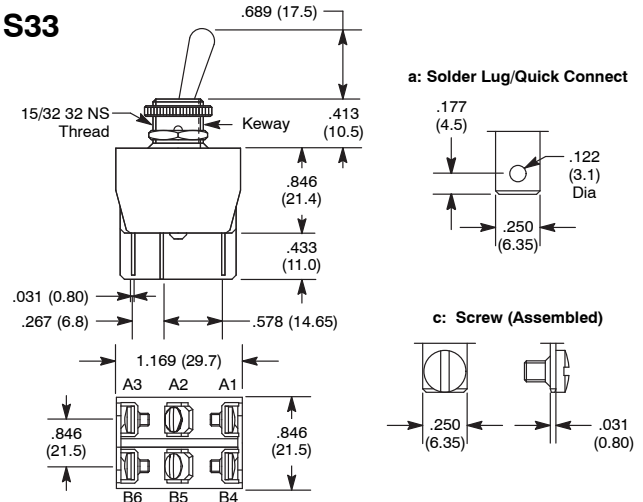
- Waterproof Types Available on Page 17



NTE Type No.	Circuitry	Action			Actuator	Diag No.
54-360	DPDT	ON	NONE	ON	Nickel Plated Brass	S33a
54-361	DPDT	ON	OFF	ON	Nickel Plated Brass	S33a
54-362*	SP3T	ON	ON	ON	Nickel Plated Brass	S33a
54-363	DPDT	(ON)	NONE	ON	Nickel Plated Brass	S33a
54-364	DPDT	(ON)	OFF	(ON)	Nickel Plated Brass	S33a
54-365	DPDT	ON	OFF	(ON)	Nickel Plated Brass	S33a
54-366	DPST	ON	NONE	OFF	Nickel Plated Brass	S33a
54-367	DPST	ON	NONE	OFF	Nickel Plated Brass	S33c
54-369	DPDT	ON	NONE	ON	Nickel Plated Brass	S33c
54-370	DPDT	ON	OFF	ON	Nickel Plated Brass	S33c
54-371*	SP3T	ON	ON	ON	Nickel Plated Brass	S33c
54-372	DPDT	(ON)	NONE	ON	Nickel Plated Brass	S33c
54-373	DPDT	(ON)	OFF	(ON)	Nickel Plated Brass	S33c
54-374	DPDT	ON	OFF	(ON)	Nickel Plated Brass	S33c

SPECIAL NOTE: ( ) = Momentary Function  
 \* SP in DP case.

## S33



## Specifications

### Current Rating:

Functions ON-OFF and ON-ON: 15A 250VAC or 10A 24VDC

Functions ON OFF ON: 10A 125-250VAC, 1/2 HP

Other Functions: 15A 125VAC, 12A 250VAC or 5A 25VDC

Insulation Resistance: 1000 Megohms (min.) at 500VDC

Dielectric Strength: 2000V RMS (min.) between terminals

Temperature Rating: -4° to +131°F (-20° to +55°C)

Electrical Life: 10,000 cycles (min.) at full load

Terminal Type: Refer to Diag No. in Table

Mounting Hole: .480 (12.2)

# Bat Handle Toggle



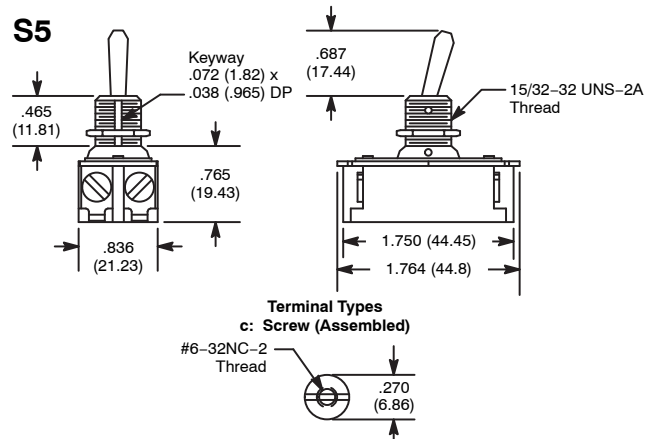
## Features

- Quick Make, Quick Break Contacts
- Suitable for High Amperage AC/DC Motor Control
- Screw Terminals



NTE Type No.	Circuitry	Action			Actuator	Diag No.
54-055	DPST	ON	NONE	OFF	Brass/Nickel Plate	S5c
54-056	SPST	ON	NONE	OFF	Brass/Nickel Plate	S5c

## S5



## Specifications

Current Rating: 16A 125VAC, 8A 250VAC, 1 HP 125-250VAC

Insulation Resistance: 100 Megohms (min.)

Dielectric Strength: 1000V RMS (min.)

Temperature Rating: 0° to +150°F (-17.8° to +65.6°C)

Electrical Life: 25,000 cycles

Mechanical Life: 100,000 cycles

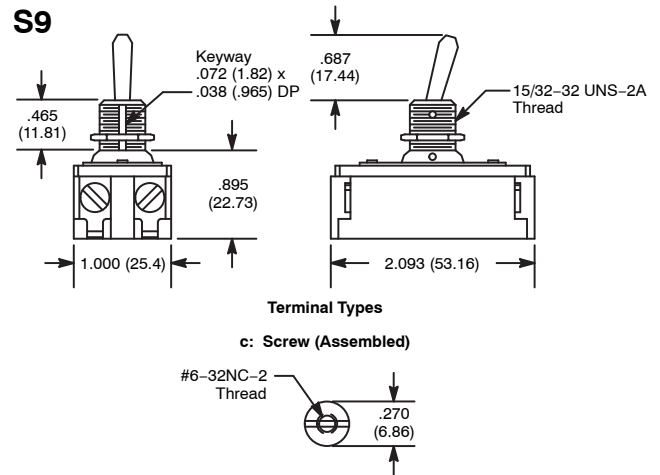
Terminal Type: Screw Type

Mounting Hole: .500 (12.7)

# Bat Handle Toggle



NTE Type No.	Circuitry	Action			Actuator	Diag No.
54-057	DPST	ON	NONE	OFF	Brass/Nickel Plate	S9



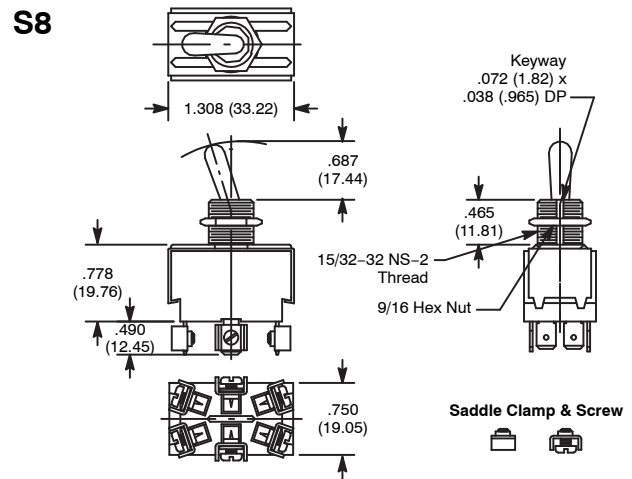
## Specifications

**Current Rating:** 20A 125VAC, 10A 250VAC, 1 1/2 HP 125-250VAC  
**Insulation Resistance:** 100 Megohms (min.)  
**Dielectric Strength:** 1000V RMS (min.)  
**Temperature Rating:** 0°F to +150°F (-17.8°C to +65.6°C)  
**Electrical Life:** 25,000 cycles  
**Mechanical Life:** 100,000 cycles  
**Terminal Type:** Screw Type  
**Mounting Hole:** .500 (12.7)

# Bat Handle Toggle



NTE Type No.	Circuitry	Action			Actuator	Diag No.
54-026	DPST	ON	NONE	OFF	Brass/Nickel Plate	S8
54-027	DPDT	ON	NONE	ON	Brass/Nickel Plate	S8
54-028	DPDT	ON	OFF	ON	Brass/Nickel Plate	S8



## Specifications

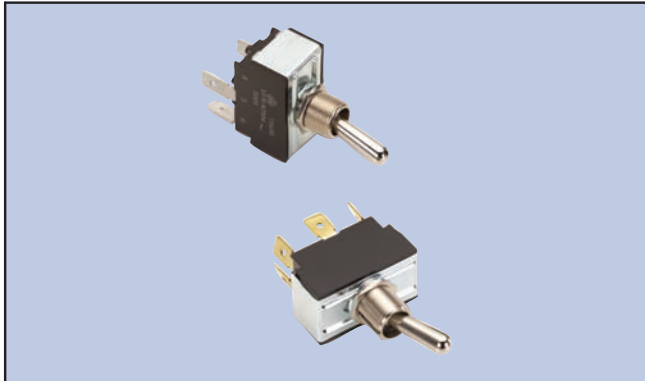
**Current Rating:** 15A 125VAC, 10A 250VAC, 3/4 HP 125-250VAC  
**Insulation Resistance:** 100 Megohms (min.)  
**Dielectric Strength:** 1000V RMS (min.)  
**Temperature Rating:** +32°F to +185°F (0°C to +85°C)  
**Electrical Life:** 50,000 cycles  
**Mechanical Life:** 100,000 cycles  
**Terminal Type:** "3-in-1" Combi-Terminal  
**Mounting Hole:** .500 (12.7)

# Bat Handle Toggle



## Features

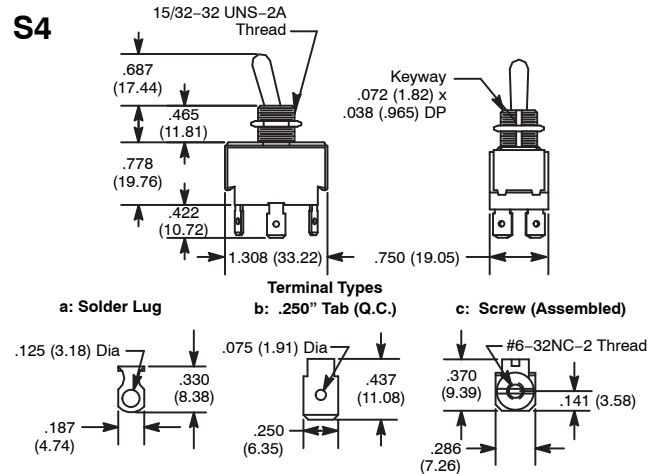
- Slow Make, Slow Break Contacts
- Heavy Duty AC Rated Also Suitable for Low Voltage DC Applications
- Industry Standard .500" Dia Mounting Hole
- Various Terminal Selections



NTE Type No.	Circuitry	Current Rating	Action			Actuator	Diag No.
54-003	DPDT	A	ON	NONE	ON	Brass/Nickel Plate	S4b
54-004	DPST	A	ON	NONE	OFF	Brass/Nickel Plate	S4b
54-011	DPST	A	ON	NONE	OFF	Brass/Nickel Plate	S4c
54-012	DPDT	A	ON	OFF	ON	Brass/Nickel Plate	S4b
54-013	DPDT	A	ON	OFF	ON	Brass/Nickel Plate	S4c
54-093	SPST	B	ON	NONE	OFF	Brass/Nickel Plate	S4c
54-095	SPDT	B	ON	OFF	ON	Brass/Nickel Plate	S4c
54-099	DPDT	B	ON	NONE	ON	Brass/Nickel Plate	S4c
54-100	DPDT	B	ON	OFF	ON	Brass/Nickel Plate	S4c
54-101	DPDT	C	ON	NONE	(ON)	Brass/Nickel Plate	S4a
54-103	SPST	A	(ON)	NONE	OFF	Brass/Nickel Plate	S4c
54-104	SPST	A	ON	NONE	(OFF)	Brass/Nickel Plate	S4c
54-137*	SPST	D	ON	NONE	OFF	Brass/Nickel Plate	S4a

SPECIAL NOTE: ( ) = Momentary Function  
\* SP in DP case.

S4



## Specifications

### Current Rating:

- A:** 15A 125VAC, 10A 250VAC, 3/4 HP 125-250VAC
- B:** 20A 125-277VAC, 1 1/2 HP 125VAC, 2 HP 250VAC
- C:** 6A 125VAC, 3A 250VAC, 1/4HP 125-250VAC
- D:** 20A 250VAC

**Insulation Resistance:** 100 Megohms (min.)

**Dielectric Strength:** 1000V RMS (min.)

**Temperature Rating:** +32° to +185°F (0° to +85°C)

**Electrical Life:** 25,000 cycles

**Mechanical Life:** 100,000 cycles

**Terminal Type:** Refer to Diag No. in Table

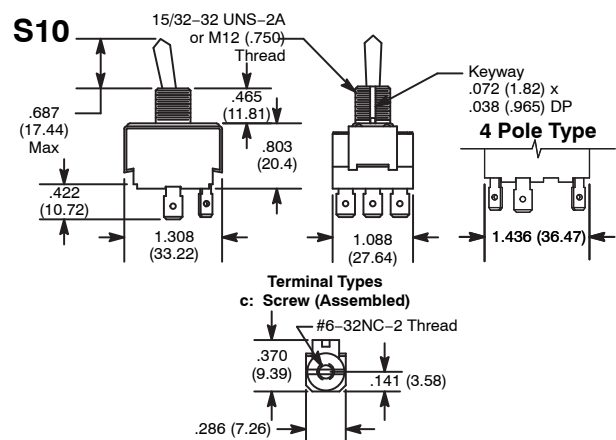
**Mounting Hole:** .500 (12.7)

# Bat Handle Toggle



NTE Type No.	Circuitry	Action			Actuator	Diag No.
54-014	3PST	OFF	NONE	ON	Brass/Nickel Plate	S10c
54-015	3PDT	ON	OFF	ON	Brass/Nickel Plate	S10c
54-016	3PDT	ON	NONE	ON	Brass/Nickel Plate	S10c
54-017	4PDT	ON	OFF	ON	Brass/Nickel Plate	S10c
54-018	4PST	OFF	NONE	ON	Brass/Nickel Plate	S10c
54-019	4PDT	ON	NONE	ON	Brass/Nickel Plate	S10c

S10



## Specifications

**Current Rating:** 15A 125VAC, 10A 250VAC, 3/4 HP 125-250VAC, 1, 2 or 3 Phase

**Insulation Resistance:** 100 Megohms (min.)

**Dielectric Strength:** 1000V RMS (min.)

**Temperature Rating:** 0° to +150°F (-17.8° to +65.6°C)

**Electrical Life:** 50,000 cycles

**Mechanical Life:** 100,000 cycles

**Terminal Type:** Screw Type

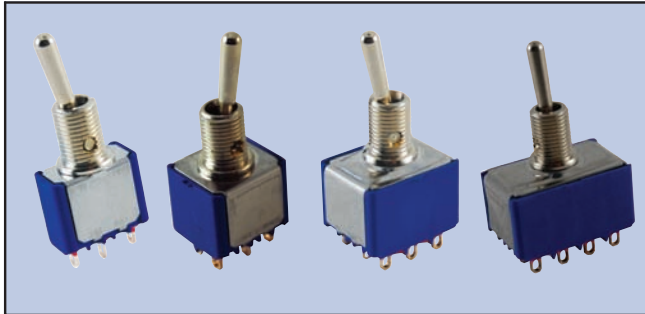
**Mounting Hole:** .500 (12.7) Max.

# Bat Handle Mini Toggle

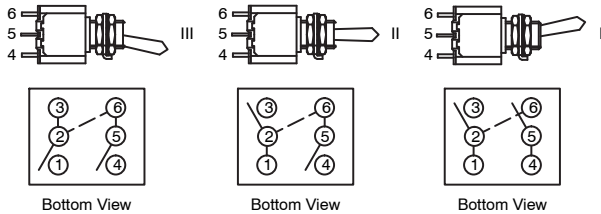


## Features

- SP, DP, 3P & 4P Types
- PC Terminal Types Available (PC suffix)
- Epoxy Sealed Terminals
- Typical Applications Include: Switching Power Supplies, DC-DC Converters, Motors, etc.

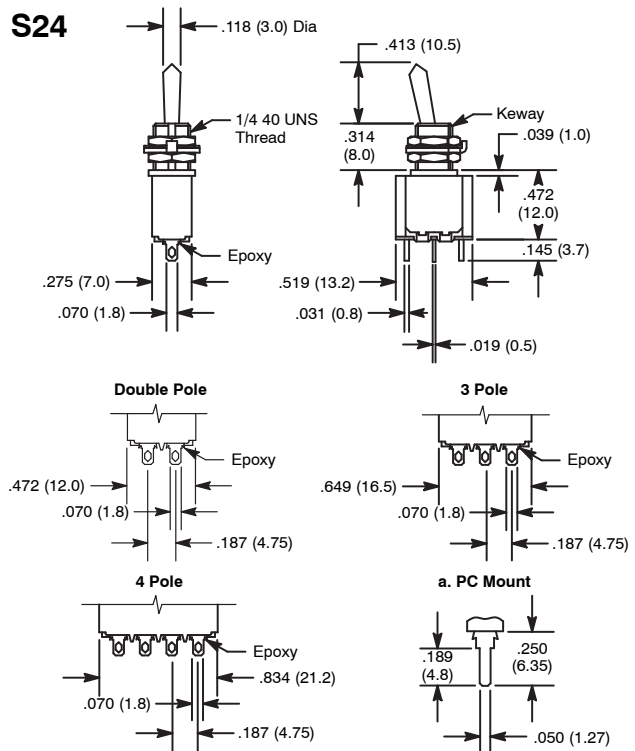


## Wiring Diagram (54-306 Only)



Equivalent to single pole 3 throw switch. Dotted line between terminals 2 & 6 indicate external jumpers to be added by customer.

## S24



## Specifications

- Current Rating:** 6A 125VAC, 3A 250VAC or 4A 30VDC  
5A 120VAC or 28VDC, 2A 250VAC **PC Mount Only**
- Insulation Resistance:** 1000 Megohms (min.) at 500VDC
- Dielectric Strength:** 1000V RMS (min.) between terminals
- Temperature Rating:** -40° to +185°F (-40° to +85°C)
- Electrical Life:** 50,000 cycles (min.)  
40,000 cycles (min.) **3 Pole Only**  
30,000 cycles (min.) **4 Pole Only**
- Terminal Type:** Refer to Diag No. in Table
- Mounting Hole:** .255 (6.5)

	NTE Type No.	Circuitry	Action			Actuator	Diag No.
	54-301	SPDT	ON	NONE	(ON)	Chrome Plated Brass	S24
<b>NEW</b>	54-301PC	SPDT	ON	NONE	(ON)	Chrome Plated Brass	S24a
	54-302	SPDT	ON	NONE	ON	Chrome Plated Brass	S24
<b>NEW</b>	54-302PC	SPDT	ON	NONE	ON	Chrome Plated Brass	S24a
	54-303	SPDT	ON	OFF	ON	Chrome Plated Brass	S24
<b>NEW</b>	54-303PC	SPDT	ON	OFF	ON	Chrome Plated Brass	S24a
	54-304	SPDT	ON	OFF	(ON)	Chrome Plated Brass	S24
<b>NEW</b>	54-304PC	SPDT	ON	OFF	(ON)	Chrome Plated Brass	S24a
	54-305	SPDT	(ON)	OFF	(ON)	Chrome Plated Brass	S24
<b>NEW</b>	54-305PC	SPDT	(ON)	OFF	(ON)	Chrome Plated Brass	S24a
	54-306*	SP3T	ON	ON	ON	Chrome Plated Brass	S24
	54-307	DPDT	ON	NONE	ON	Chrome Plated Brass	S24
<b>NEW</b>	54-307PC	DPDT	ON	NONE	ON	Chrome Plated Brass	S24a
	54-308	DPDT	ON	OFF	ON	Chrome Plated Brass	S24
<b>NEW</b>	54-308PC	DPDT	ON	OFF	ON	Chrome Plated Brass	S24a
	54-309	DPDT	ON	NONE	(ON)	Chrome Plated Brass	S24
<b>NEW</b>	54-309PC	DPDT	ON	NONE	(ON)	Chrome Plated Brass	S24a
	54-310	DPDT	ON	OFF	(ON)	Chrome Plated Brass	S24
<b>NEW</b>	54-310PC	DPDT	ON	OFF	(ON)	Chrome Plated Brass	S24a
	54-311	DPDT	(ON)	OFF	(ON)	Chrome Plated Brass	S24
<b>NEW</b>	54-311PC	DPDT	(ON)	OFF	(ON)	Chrome Plated Brass	S24a
	54-312	4PDT	ON	NONE	ON	Chrome Plated Brass	S24
<b>NEW</b>	54-312PC	4PDT	ON	NONE	ON	Chrome Plated Brass	S24a
	54-313	4PDT	ON	OFF	ON	Chrome Plated Brass	S24
<b>NEW</b>	54-313PC	4PDT	ON	OFF	ON	Chrome Plated Brass	S24a
	54-314	4PDT	(ON)	OFF	(ON)	Chrome Plated Brass	S24
	54-315	4PDT	ON	OFF	(ON)	Chrome Plated Brass	S24
	54-316	4PDT	ON	NONE	(ON)	Chrome Plated Brass	S24
<b>NEW</b>	54-316PC	4PDT	ON	NONE	(ON)	Chrome Plated Brass	S24a
	54-323	3PDT	ON	NONE	ON	Chrome Plated Brass	S24
<b>NEW</b>	54-323PC	3PDT	ON	NONE	ON	Chrome Plated Brass	S24a
	54-324	3PDT	ON	OFF	ON	Chrome Plated Brass	S24
<b>NEW</b>	54-324PC	3PDT	ON	OFF	ON	Chrome Plated Brass	S24a
	54-325	3PDT	(ON)	OFF	(ON)	Chrome Plated Brass	S24
	54-326	3PDT	ON	OFF	(ON)	Chrome Plated Brass	S24
	54-327	3PDT	ON	NONE	(ON)	Chrome Plated Brass	S24
<b>NEW</b>	54-327PC	3PDT	ON	NONE	(ON)	Chrome Plated Brass	S24a

SPECIAL NOTE: ( ) = Momentary Function  
\* SP in DP case.

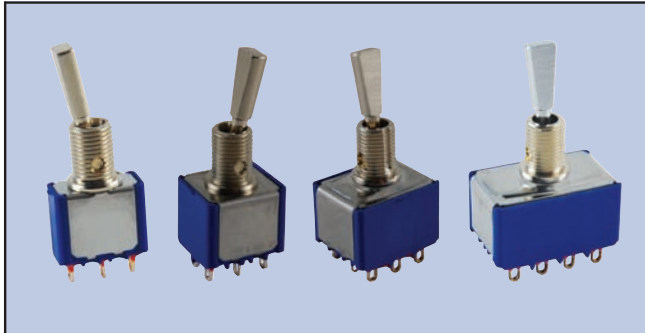


# Flatted Handle Mini Toggle



## Features

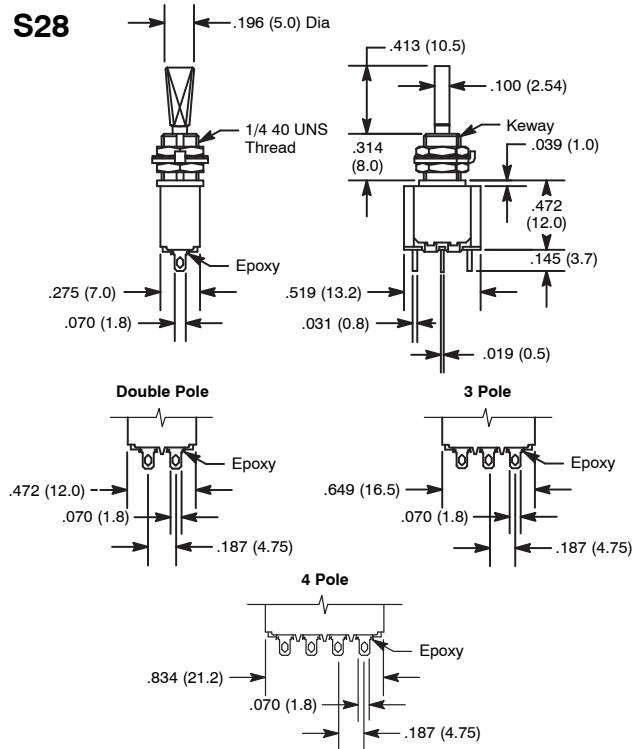
- SP, DP, 3P & 4P Types
- Epoxy Sealed Terminals
- Typical Applications Include: Switching Power Supplies, DC-DC Converters, Motors, etc.



NTE Type No.	Circuitry	Action			Actuator	Diag No.
54-328	SPDT	ON	NONE	ON	Chrome Plated Brass	S28
54-329	SPDT	ON	OFF	ON	Chrome Plated Brass	S28
54-330	SPDT	(ON)	OFF	(ON)	Chrome Plated Brass	S28
54-331	SPDT	ON	OFF	(ON)	Chrome Plated Brass	S28
54-332	SPDT	ON	NONE	(ON)	Chrome Plated Brass	S28
54-333	DPDT	ON	NONE	ON	Chrome Plated Brass	S28
54-334	DPDT	ON	OFF	ON	Chrome Plated Brass	S28
54-335	DPDT	(ON)	OFF	(ON)	Chrome Plated Brass	S28
54-336	DPDT	ON	OFF	(ON)	Chrome Plated Brass	S28
54-337	DPDT	ON	NONE	(ON)	Chrome Plated Brass	S28
54-338	3PDT	ON	NONE	ON	Chrome Plated Brass	S28
54-339	3PDT	ON	OFF	ON	Chrome Plated Brass	S28
54-340	3PDT	(ON)	OFF	(ON)	Chrome Plated Brass	S28
54-341	3PDT	ON	OFF	(ON)	Chrome Plated Brass	S28
54-342	3PDT	ON	NONE	(ON)	Chrome Plated Brass	S28
54-343	4PDT	ON	NONE	ON	Chrome Plated Brass	S28
54-344	4PDT	ON	OFF	ON	Chrome Plated Brass	S28
54-345	4PDT	(ON)	OFF	(ON)	Chrome Plated Brass	S28
54-346	4PDT	ON	OFF	(ON)	Chrome Plated Brass	S28
54-347	4PDT	ON	NONE	(ON)	Chrome Plated Brass	S28

SPECIAL NOTE: ( ) = Momentary Function

S28



## Specifications

- Current Rating:** 6A 125VAC, 3A 250VAC or 4A 30VDC  
**Insulation Resistance:** 1000 Megohms (min.) at 500VDC  
**Dielectric Strength:** 1000V RMS (min.) between terminals  
**Temperature Rating:** -40° to +185°F (-40° to +85°C)  
**Electrical Life:** 50,000 cycles (min.)  
 40,000 cycles (min.) **3 Pole Only**  
 30,000 cycles (min.) **4 Pole Only**  
**Terminal Type:** Solder Lug  
**Mounting Hole:** .255 (6.5)

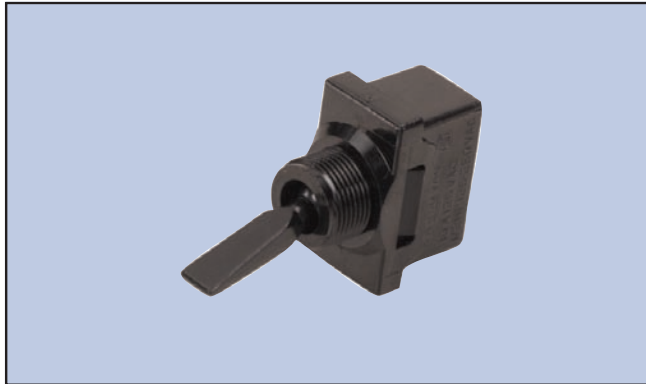


# Nylon Paddle Toggle



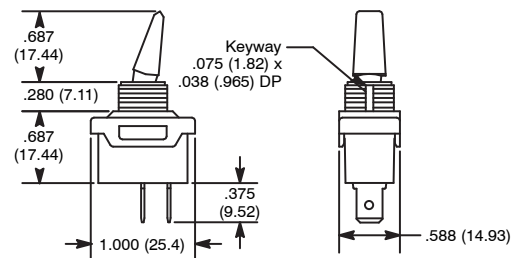
## Features

- Nylon Insulated Toggle
- Self-Cleaning Wiping Contacts
- Industry Standard .500" Dia Mounting Hole
- Support Double Insulated Requirements



NTE Type No.	Circuitry	Action			Actuator	Diag No.
54-020	SPST	OFF	NONE	ON	Black Nylon	S6b
54-021	SPDT	ON	NONE	ON	Black Nylon	S6b
54-022	SPDT	ON	OFF	ON	Black Nylon	S6b

S6



### Terminal Types

b: .250" Tab (Q.C.)



## Specifications

**Current Rating:** 20A 125VAC, 10A 250VAC, 1 1/2 HP 125-250VAC  
**Insulation Resistance:** 100 Megohms (min.)  
**Dielectric Strength:** 1000V RMS (min.)  
**Temperature Rating:** +32° to +185°F (0° to +85°C)  
**Electrical Life:** 25,000 cycles  
**Mechanical Life:** 100,000 cycles  
**Terminal Type:** .250" Tab Q.C.  
**Mounting Hole:** .500 (12.7)

# Nylon Paddle Toggle



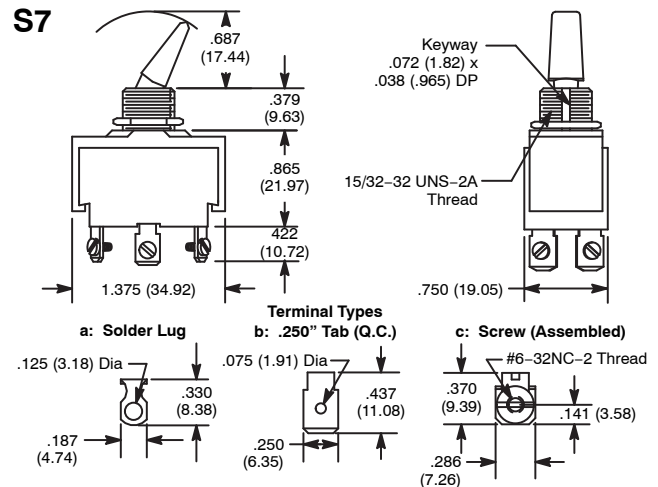
## Features

- Slow Make, Slow Break Contacts
- Heavy Duty AC Rated Also Suitable for Low Voltage DC Applications
- Industry Standard .500" Dia Mounting Hole



NTE Type No.	Circuitry	Action			Actuator	Diag No.
54-084	DPDT	ON	NONE	ON	Black Polycarbonate	S7a
54-085	DPDT	ON	OFF	ON	Black Polycarbonate	S7a
54-107	DPST	ON	NONE	OFF	Black Polycarbonate	S7b
54-108	DPDT	ON	NONE	ON	Black Polycarbonate	S7b
54-109	DPDT	ON	OFF	ON	Black Polycarbonate	S7b
54-110	SPST	ON	NONE	OFF	Black Polycarbonate	S7c
54-111	SPDT	ON	NONE	ON	Black Polycarbonate	S7c
54-112	DPST	ON	NONE	OFF	Black Polycarbonate	S7c
54-113	DPDT	ON	NONE	ON	Black Polycarbonate	S7c
54-119	SPDT	ON	OFF	ON	Black Polycarbonate	S7b
54-120	DPDT	ON	OFF	ON	Black Polycarbonate	S7c

S7



## Specifications

**Current Rating:**  
**54-084 & 54-085:** 6A 125VAC, 3A 250VAC, 1/4 HP 125-250VAC  
**All Other Devices:** 20A 125-277VAC, 1 1/2 HP 125VAC, 2 HP 250VAC  
**Insulation Resistance:** 100 Megohms (min.)  
**Dielectric Strength:** 1000V RMS (min.)  
**Temperature Rating:** +32° to +185°F (0° to +85°C)  
**Electrical Life:** 50,000 cycles  
**Mechanical Life:** 100,000 cycles  
**Terminal Type:** Refer to Diag No. in Table  
**Mounting Hole:** .500 (12.7)

# Nylon Paddle Toggle

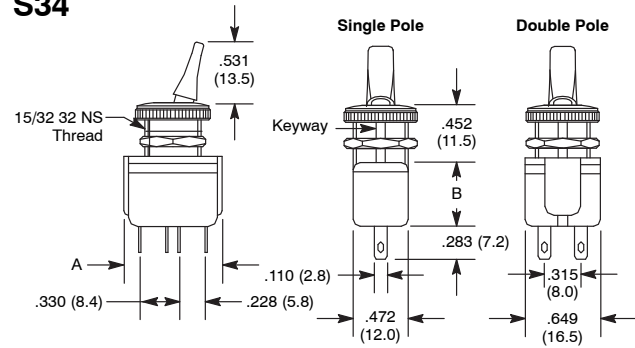


## Features

- Quick Connect Terminals
- Insulated Actuator



## S34



Device Type	A	B
Single Pole	.748 (19.0)	.551 (14.0)
Double Pole	.826 (21.0)	.590 (15.0)

NTE Type No.	Circuitry	Action			Actuator	Diag No.
54-317	SPDT	ON	NONE	ON	Black Polyamide 6-6	S34
54-318	SPDT	ON	OFF	ON	Black Polyamide 6-6	S34
54-319	SPST	ON	NONE	OFF	Black Polyamide 6-6	S34
54-320	DPST	ON	NONE	OFF	Black Polyamide 6-6	S34
54-321	DPDT	ON	NONE	ON	Black Polyamide 6-6	S34
54-322	DPDT	ON	OFF	ON	Black Polyamide 6-6	S34

## Specifications

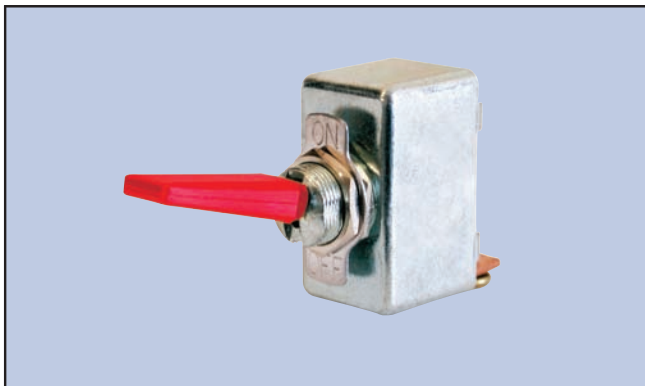
**Current Rating:** 6A 125VAC, 4A 250VAC  
**Insulation Resistance:** 1000 Megohms (min.) at 500VDC  
**Dielectric Strength:** 2000V RMS (min.) between terminals  
**Temperature Rating:** -4° to +131°F (-20° to +55°C)  
**Electrical Life:** 10,000 cycles (min.)  
**Terminal Type:** Solder Lug/Quick Connect  
**Mounting Hole:** .492 (12.5)

# Paddle Handle Toggle

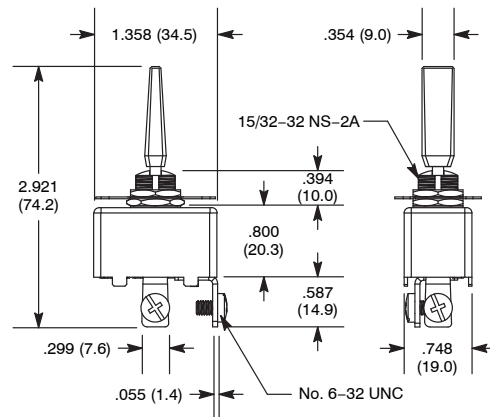


## Features

- 50 Amps at 12VDC
- Suitable for Low Voltage, High Amperage Applications
- Screw Terminals



## S26



## Specifications

**Current Rating:** 50A 12VDC  
**Insulation Resistance:** 100 Megohms (min.) at 500VDC  
**Dielectric Strength:** 1500V RMS (min.)  
**Temperature Rating:** -4° to +180°F (-20° to +85°C)  
**Electrical Life:** 25,000 cycles  
**Mechanical Life:** 100,000 cycles  
**Terminal Type:** Screw Type  
**Mounting Hole:** .500 (12.7)

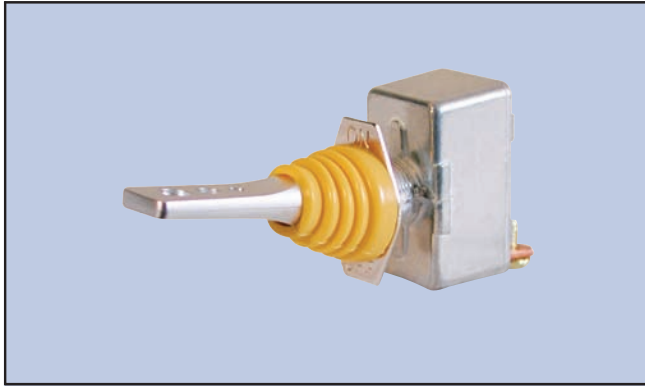
NTE Type No.	Circuitry	Action			Actuator		Diag No.
					Material	Color	
54-560	SPST	ON	NONE	OFF	ABS	Black	S26
54-561	SPST	ON	NONE	OFF		Red	S26
54-562	SPST	ON	NONE	OFF	ABS w/Chrome Plating	Chrome	S26

# Paddle Handle Toggle

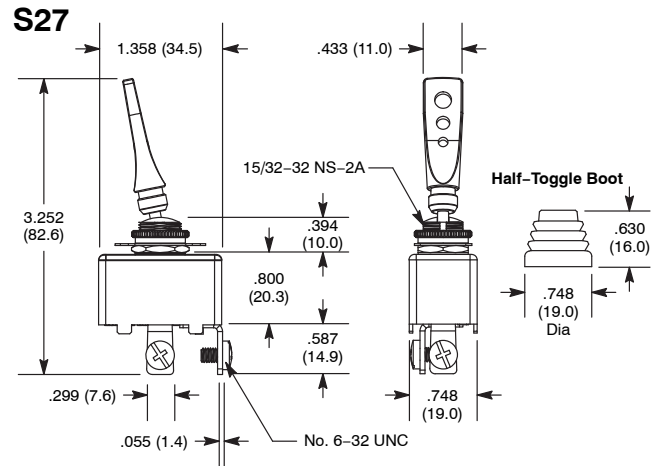


## Features

- 50 Amps at 12VDC
- Interchangeable Boots (Red, Black, Yellow and Blue) Included
- Screw Terminals



NTE Type No.	Circuitry	Action			Actuator	Diag No.
54-563	SPST	ON	NONE	OFF	Chrome Plated	S27



## Specifications

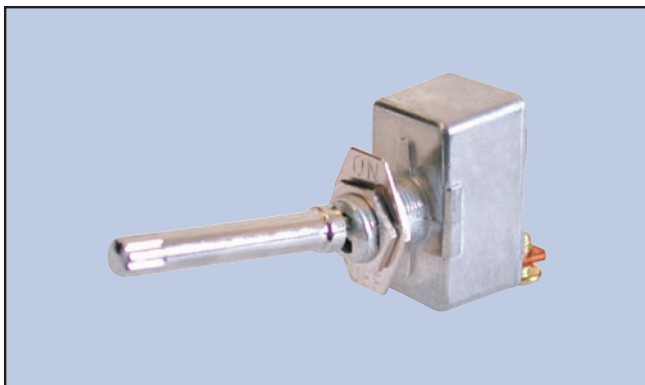
**Current Rating:** 50A 12VDC  
**Insulation Resistance:** 100 Megohms (min.) at 500VDC  
**Dielectric Strength:** 1500V RMS (min.)  
**Temperature Rating:** -4° to +180°F (-20° to +85°C)  
**Electrical Life:** 25,000 cycles  
**Mechanical Life:** 100,000 cycles  
**Terminal Type:** Screw Type  
**Mounting Hole:** .500 (12.7)

# Long Bat Handle Toggle

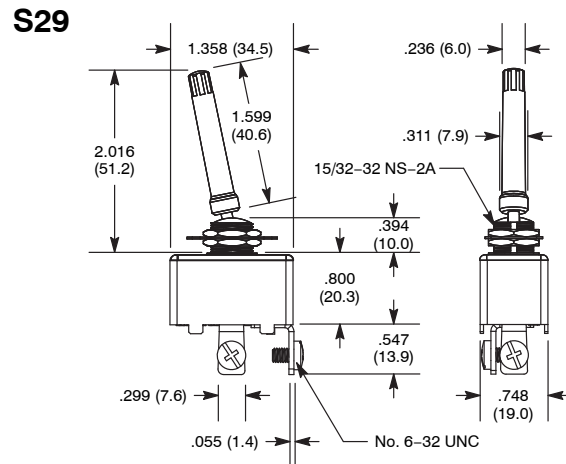


## Features

- 50 Amps at 12VDC
- 1 5/8" Long Bat Handle
- Screw Terminals



NTE Type No.	Circuitry	Action			Actuator	Diag No.
54-564	SPST	ON	NONE	OFF	Chrome Plated	S29



## Specifications

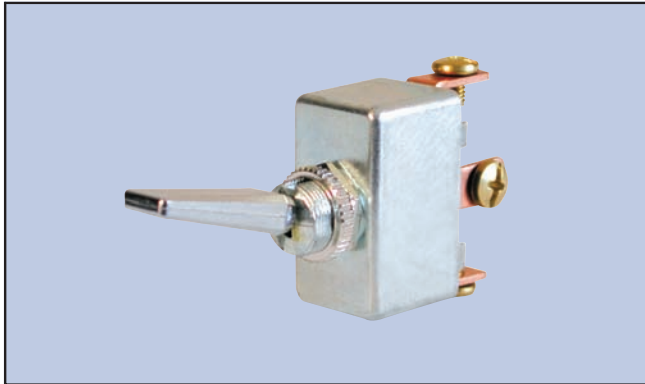
**Current Rating:** 50A 12VDC  
**Insulation Resistance:** 100 Megohms (min.) at 500VDC  
**Dielectric Strength:** 1500V RMS (min.)  
**Temperature Rating:** -4° to +180°F (-20° to +85°C)  
**Electrical Life:** 25,000 cycles  
**Mechanical Life:** 100,000 cycles  
**Terminal Type:** Screw Type  
**Mounting Hole:** .500 (12.7)

# Paddle Toggle



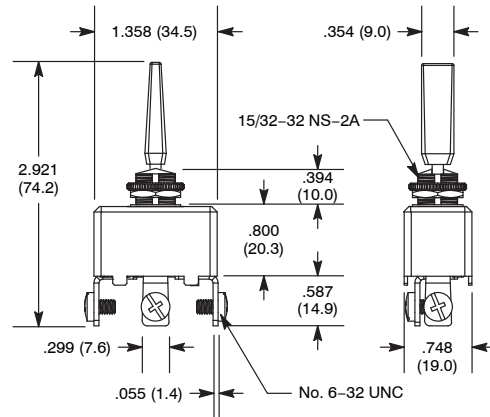
## Features

- 50 Amps at 12VDC
- Screw Terminals



NTE Type No.	Circuitry	Action			Actuator	Diag No.
54-565	SPDT	ON	OFF	ON	Chrome Plated	S29

## S30



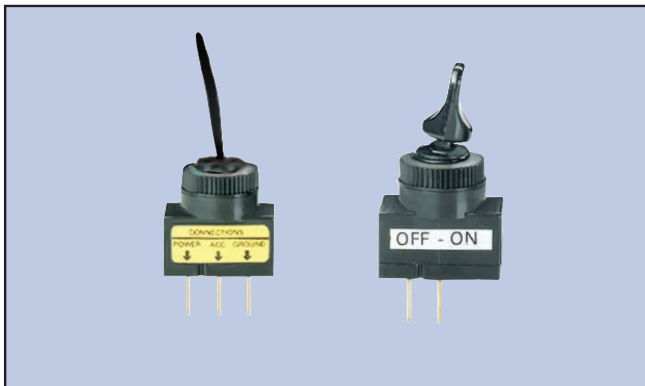
## Specifications

**Current Rating:** 50A 12VDC  
**Insulation Resistance:** 100 Megohms (min.) at 500VDC  
**Dielectric Strength:** 1500V RMS (min.)  
**Temperature Rating:** -4° to +180°F (-20° to +85°C)  
**Electrical Life:** 25,000 cycles  
**Mechanical Life:** 100,000 cycles  
**Terminal Type:** Screw Type  
**Mounting Hole:** .500 (12.7)

# On/Off Bat Handle and Duckbill Toggle

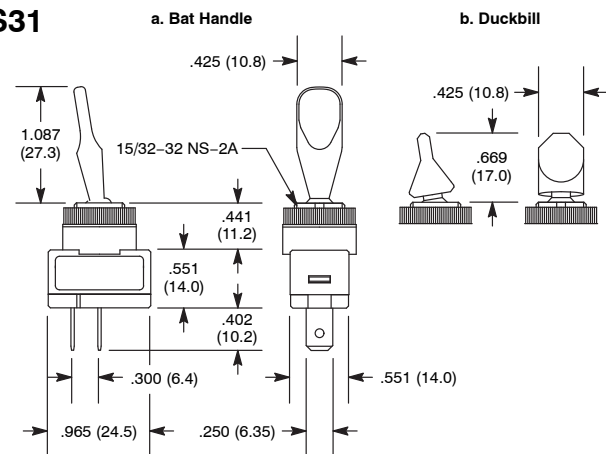
## Features

- Illuminated Types Available on Page 18
- Bat Handle (54-566) and Duckbill (54-571) Types
- .250" Quick-Connect Terminals



NTE Type No.	Circuitry	Action			Actuator	Diag No.
54-566	SPST	ON	NONE	OFF	Black Brushed Aluminum	S31a
54-571	SPST	ON	NONE	OFF		S31b

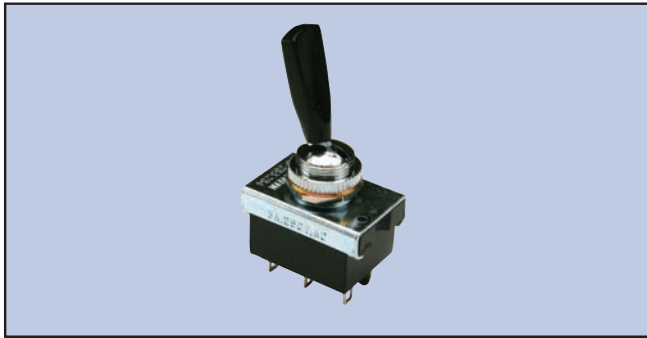
## S31



## Specifications

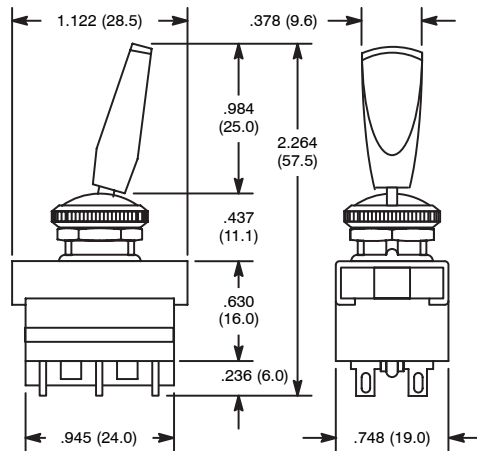
**Current Rating:** 20A 12VDC  
**Insulation Resistance:** 100 Megohms (min.) at 500VDC  
**Dielectric Strength:** 1000V RMS (min.)  
**Temperature Rating:** -4° to +180°F (-20° to +85°C)  
**Electrical Life:** 25,000 cycles  
**Mechanical Life:** 100,000 cycles  
**Terminal Type:** .250" Tab Q.C.  
**Mounting Hole:** .500 (12.7)

# Paddle Toggle



NTE Type No.	Circuitry	Action			Actuator	Diag No.
54-381	DPDT	ON	OFF	ON	Black ABS Resin	S69

S69



## Specifications

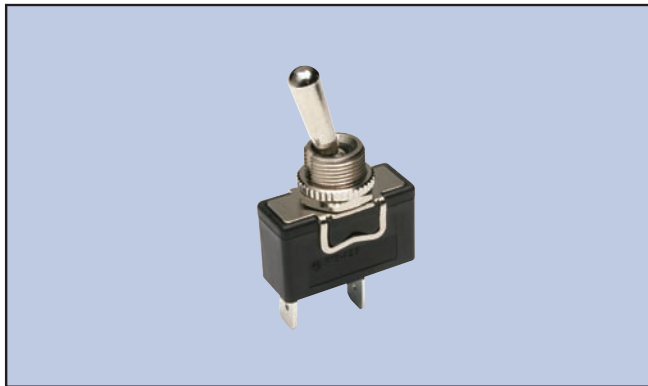
- Current Rating:** 6A 250VAC
- Insulation Resistance:** 100 Megohms (min.) at 500VDC
- Dielectric Strength:** 1500V RMS (min.)
- Temperature Rating:** +14° to +131°F (-10° to +55°C)
- Electrical Life:** 6,000 cycles
- Mechanical Life:** 30,000 cycles
- Terminal Type:** Solder Lug
- Mounting Hole:** .472 (12.0)

# Waterproof Bat Handle Toggle

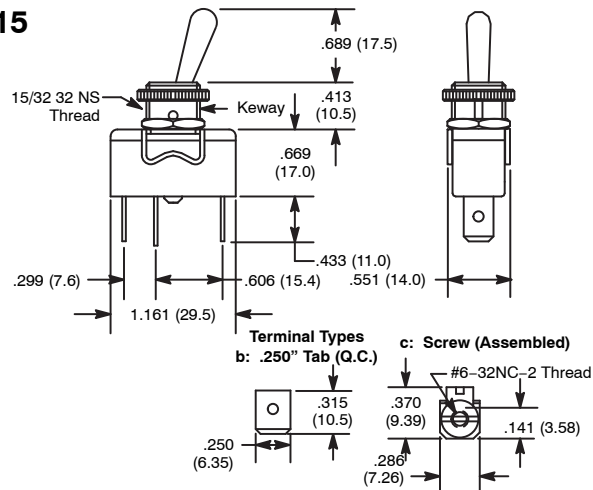


## Features

- Waterproof: IP56
- Single Pole Types
- Internal "O" Ring for Moisture and Dust Resistance
- .187" Quick Connect Terminals



## S115



## Specifications

**Current Rating:**  
**54-348W & 54-354W:** 20A 277VAC, 1 HP  
**All Other Devices:** 16A 277VAC, 1 HP

**Insulation Resistance:** 100 Megohms (min.) at 500VDC

**Dielectric Strength:** 1500V RMS (min.)

**Temperature Rating:** +32°F to +149°F (0°C to +65°C)

**Electrical Life:** 6,000 cycles

**Mechanical Life:** 10,000 cycles at full load

**Terminal Type:** Refer to Diag No. in Table

**Mounting Hole:** .472 (12.0)

NTE Type No.	Circuitry	Action			Actuator	Diag No.
NEW 54-348W	SPST	ON	NONE	OFF	Brass/Nickel Plate	S115b
NEW 54-349W	SPDT	ON	NONE	ON	Brass/Nickel Plate	S115b
NEW 54-350W	SPDT	ON	OFF	ON	Brass/Nickel Plate	S115b
NEW 54-352W	SPDT	(ON)	OFF	(ON)	Brass/Nickel Plate	S115b
NEW 54-354W	SPST	ON	NONE	OFF	Brass/Nickel Plate	S115c
NEW 54-355W	SPDT	ON	NONE	ON	Brass/Nickel Plate	S115c
NEW 54-356W	SPDT	ON	OFF	ON	Brass/Nickel Plate	S115c
NEW 54-358W	SPDT	(ON)	OFF	(ON)	Brass/Nickel Plate	S115c

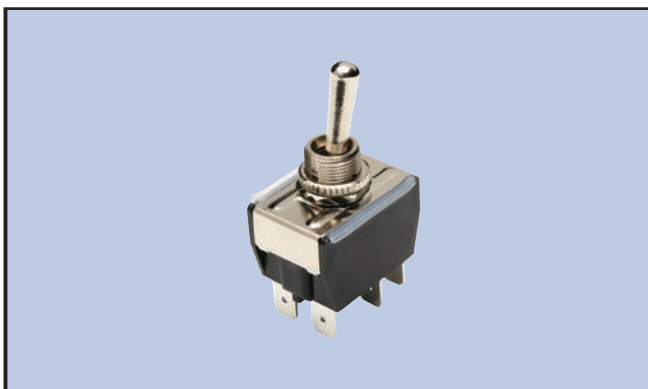
SPECIAL NOTE: ( ) = Momentary Function

# Waterproof Bat Handle Toggle

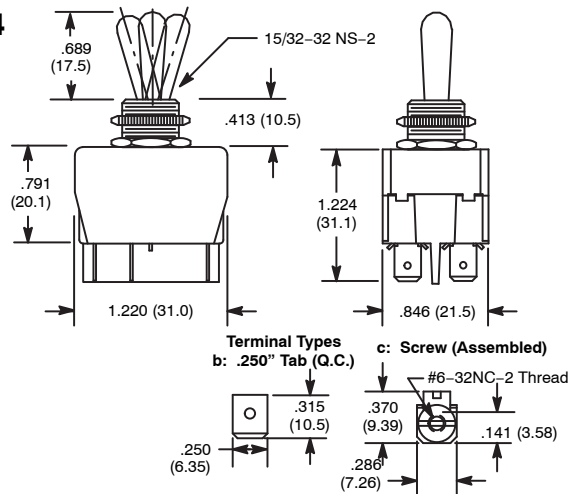


## Features

- Waterproof: IP56
- Double Pole Types
- Internal "O" Ring for Moisture and Dust Resistance
- .187" Quick Connect Terminals



## S114



## Specifications

**Current Rating:**  
**54-366W & 54-367W:** 20A 277VAC, 1 HP  
**All Other Devices:** 16A 277VAC, 1 HP

**Insulation Resistance:** 100 Megohms (min.) at 500VDC

**Dielectric Strength:** 1500V RMS (min.)

**Temperature Rating:** +32°F to +149°F (0°C to +65°C)

**Electrical Life:** 6,000 cycles

**Mechanical Life:** 10,000 cycles at full load

**Terminal Type:** Refer to Diag No. in Table

**Mounting Hole:** .472 (12.0)

NTE Type No.	Circuitry	Action			Actuator	Diag No.
NEW 54-360W	DPDT	ON	NONE	ON	Brass/Nickel Plate	S114b
NEW 54-361W	DPDT	ON	OFF	ON	Brass/Nickel Plate	S114b
NEW 54-364W	DPDT	(ON)	OFF	(ON)	Brass/Nickel Plate	S114b
NEW 54-366W	DPST	ON	NONE	OFF	Brass/Nickel Plate	S114b
NEW 54-367W	DPST	ON	NONE	OFF	Brass/Nickel Plate	S114c
NEW 54-369W	DPDT	ON	NONE	ON	Brass/Nickel Plate	S114c
NEW 54-370W	DPDT	ON	OFF	ON	Brass/Nickel Plate	S114c
NEW 54-373W	DPDT	(ON)	OFF	(ON)	Brass/Nickel Plate	S114c

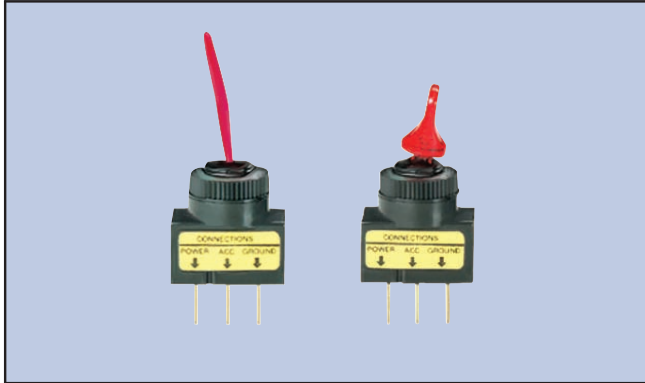
SPECIAL NOTE: ( ) = Momentary Function

# Illuminated On/Off Bat Handle and Duckbill Toggle

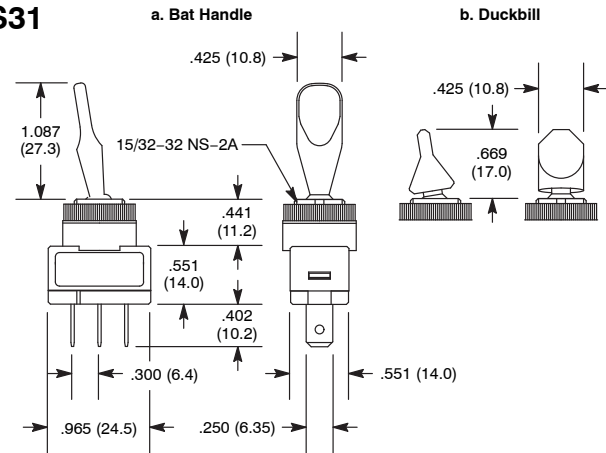


## Features

- Bat Handle and Duckbill Types
- .250" Quick-Connect Terminals



## S31



NTE Type No.	Circuitry	Action			Actuator		Diag No.
					Material	Color	
54-567	SPST	ON	NONE	OFF	PC (S-2000R Mitsubishe)	Red	S31a
54-568	SPST	ON	NONE	OFF		Green	S31a
54-569	SPST	ON	NONE	OFF		Amber	S31a
54-570	SPST	ON	NONE	OFF		Blue	S31a
54-572	SPST	ON	NONE	OFF		Red	S31b
54-573	SPST	ON	NONE	OFF		Amber	S31b
54-574	SPST	ON	NONE	OFF		Blue	S31b
54-575	SPST	ON	NONE	OFF		Green	S31b

## Specifications

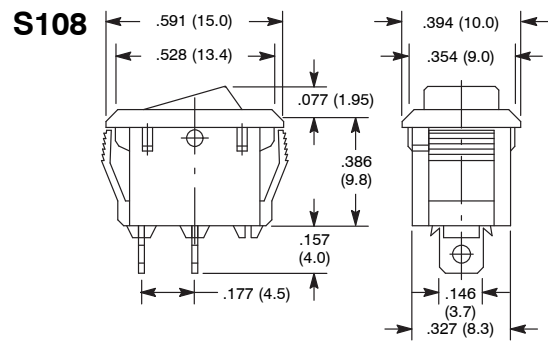
- Current Rating:** 20A 12VDC
- Lens Color:** See Table
- Lamp Voltage:** 12V Neon
- Insulation Resistance:** 100 Megohms (min.) at 500VDC
- Dielectric Strength:** 1000V RMS (min.)
- Temperature Rating:** -4°F to +180°F (-20°C to +85°C)
- Electrical Life:** 25,000 cycles
- Mechanical Life:** 100,000 cycles
- Terminal Type:** .250" Tab Q.C.
- Mounting Hole:** .500 (12.7)

# Micro Snap-In Nylon Rocker



## Features

- Fits Standard Panel Cutout
- RoHS Compliant



**Table 1.**

Panel Thickness	Y
.029 (1.25) - .049 (1.25)	.535 (13.6)
.049 (1.25) - .079 (2.00)	.539 (13.7)
.079 (2.00) - .098 (2.50)	.543 (13.8)

Mounting Hole: .362 (9.2)

## Specifications

**Current Rating:** 6A 125VAC, 3A 250VAC, 3A 250VAC T100/55  
**Insulation Resistance:** 100 Megohms (min.) at 500VDC  
**Dielectric Strength:** 1000V RMS (min.) for 1 minute  
**Temperature Rating:** +32° to +212°F (0° to +100°C)  
**Electrical Life:** 10,000 cycles  
**Mechanical Life:** 50,000 cycles  
**Terminal Type:** Solder Lug  
**Mounting Hole:** See Table 1.

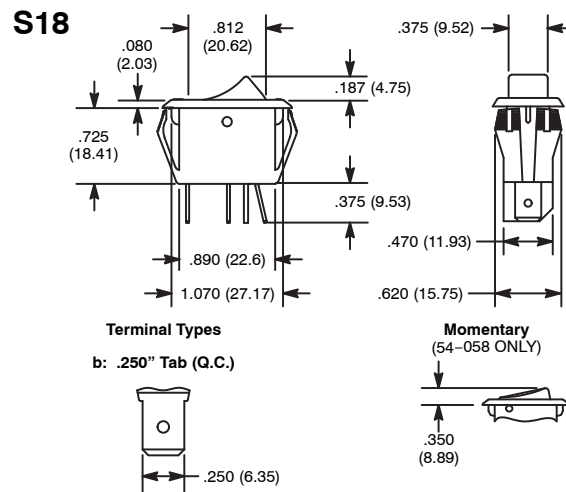
NTE Type No.	Circuitry	Action			Actuator	Legend	Diag No.
NEW 54-870	SPST	ON	NONE	OFF	White Nylon	Yes	S108
NEW 54-872	SPST	ON	NONE	OFF	Black Nylon	Yes	S108
NEW 54-874	SPST	ON	NONE	OFF	Red Nylon	No	S108

# Miniature Snap-In Nylon Rocker



## Features

- Fits Standard Panel Cutout



## Specifications

**Current Rating:** 16A 125VAC, 10A 250VAC, 3/4 HP 125-250VAC 10(4)A 250VAC $\mu$  T85  
**(54-058 Only)** 12A 125VAC, 8A 250VAC, 1/2 HP 125-250VAC  
**Insulation Resistance:** 100 Megohms (min.)  
**Dielectric Strength:** 1000V RMS (min.)  
**Temperature Rating:** +32° to +185°F (0° to +85°C)  
**Electrical Life:** 100,000 cycles  
**Mechanical Life:** 100,000 cycles  
**Terminal Type:** .250" Tab Q.C.  
**Mounting Hole:** 1.125 (28.58) x .550 (13.97)

NTE Type No.	Circuitry	Action			Actuator		Diag No.
					Material	Color	
54-058*	SPST	OFF	NONE	(ON)	Polyester or Nylon	White	S18b
54-059**	SPST	OFF	NONE	ON		Black	S18b
54-060	SPST	OFF	NONE	ON		Black	S18b
54-061	SPDT	ON	NONE	ON		Black	S18b
54-062**	SPST	OFF	NONE	ON		Black	S18b
54-063	SPDT	ON	OFF	ON		Black	S18b

SPECIAL NOTE: ( ) = Momentary Function  
 \* Momentary Rocker Style White Actuator  
 \*\* Two Color Visi-Red Visi-Rocker Style Actuator



# Miniature Snap-In Nylon Rocker



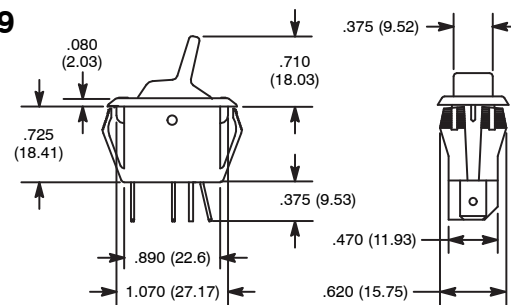
## Features

- Fits Standard Panel Cutout



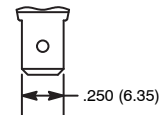
NTE Type No.	Circuitry	Action			Actuator		Diag No.
					Material	Color	
54-102	SPST	OFF	NONE	ON	Polyester or Nylon	Black	S19b

S19



Terminal Types

b: .250" Tab (Q.C.)



## Specifications

**Current Rating:** 16A 125VAC, 10A 250VAC, 10(4)A 250VAC $\mu$  T85  
**Insulation Resistance:** 100 Megohms (min.)  
**Dielectric Strength:** 1000V RMS (min.)  
**Temperature Rating:** +32° to +185°F (0° to +85°C)  
**Electrical Life:** 100,000 cycles  
**Mechanical Life:** 100,000 cycles  
**Terminal Type:** .250" Tab Q.C.  
**Mounting Hole:** 1.125 (28.58) x .550 (13.97)

# Miniature Snap-In Nylon Rocker



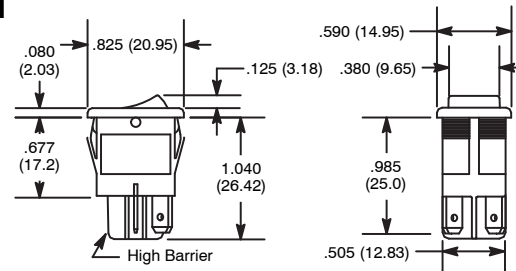
## Features

- Single & Double Pole Types
- Double Insulated
- High Barrier Type



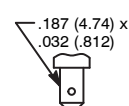
NTE Type No.	Circuitry	Action			Actuator		Diag No.
					Material	Color	
54-074	SPDT	ON	NONE	ON	Nylon	Black	S21b
54-075	SPST	ON	NONE	OFF	Nylon	Black	S21b
54-076	DPST	ON	NONE	OFF	Nylon	Black	S21b
54-077	SPDT	ON	NONE	ON	Nylon	Black	S21b

S21



Terminal Types

b: .187" Tab (Q.C.)



Mounting Hole

Panel Thickness	Y
.030 (.762) - .060 (1.52)	.756 (19.20)
.060 (1.52) - .093 (2.36)	.764 (19.40)
.093 (2.36) - .156 (3.96)	.780 (19.81)

## Specifications

**Current Rating:** 8A 125VAC, 4A 250VAC, Inductive 6(4)A 250VAC T85\*\*  
**Insulation Resistance:** 100 Megohms (min.)  
**Dielectric Strength:** 1000V RMS (min.)  
**Temperature Rating:** +32° to +185° (0°C to +85°C)  
**Electrical Life:** 50,000 cycles  
**Mechanical Life:** 100,000 cycles  
**Terminal Type:** .187" Tab Q.C.  
**Mounting Hole:** See Table 1

\*\* 54-075, 54-076, 54-077 ONLY

# Miniature Snap-In Nylon Rocker

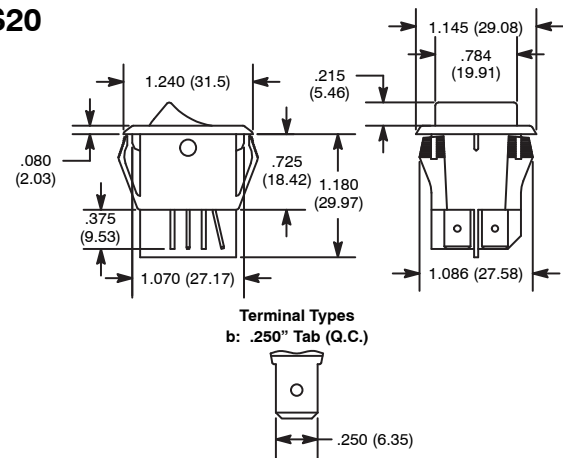


## Features

- .250" Quick Connect Terminals
- Fits Standard Panel Cutout
- Withstand Peak Inrush to 100 Amps



S20



## Specifications

**Current Rating:** 20A 125VAC, 15A 250VAC, 3/4 HP 125–250VAC  
**Insulation Resistance:** 100 Megohms (min.)  
**Dielectric Strength:** 1000V RMS (min.)  
**Temperature Rating:** -40° to +185°F (-40° to +85°C)  
**Electrical Life:** 50,000 cycles  
**Mechanical Life:** 100,000 cycles  
**Terminal Type:** .250" Tab Q.C.  
**Mounting Hole:** 1.125 (28.58) x 1.000 (25.4)

NTE Type No.	Circuitry	Action			Actuator		Diag No.
					Material	Color	
54-081	DPST	OFF	NONE	ON	Nylon	Black	S20b

# Snap-In Nylon Rocker

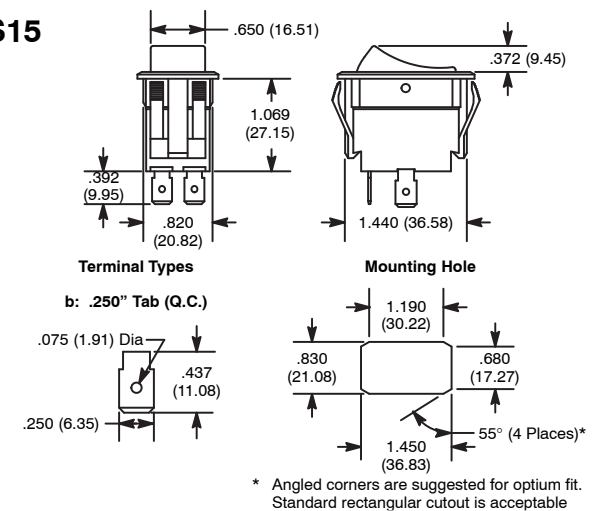


## Features

- AC Rated, Also Suitable for Low Voltage DC Applications



S15



## Specifications

**Current Rating:** 15A 125VAC, 10A 250VAC, 3/4 HP 125–250VAC  
**Insulation Resistance:** 100 Megohms (min.)  
**Dielectric Strength:** 1000V RMS (min.)  
**Temperature Rating:** +32° to +185°F (0° to +85°C)  
**Electrical Life:** 50,000 cycles  
**Mechanical Life:** 100,000 cycles (min.)  
**Terminal Type:** .250" Tab Q.C.  
**Mounting Hole:** 1.450 (36.83) x .830 (21.08)

NTE Type No.	Circuitry	Action			Actuator		Diag No.
					Material	Color	
54-047	SPST	ON	NONE	OFF	Nylon	Black	S15b
54-048	SPDT	ON	NONE	ON	Nylon	Black	S15b
54-049	SPDT	ON	OFF	ON	Nylon	Black	S15b
54-050	DPST	ON	NONE	OFF	Nylon	Black	S15b
54-051	DPDT	ON	NONE	ON	Nylon	Black	S15b
54-052	DPDT	ON	OFF	ON	Nylon	Black	S15b
54-114	DPST	(ON)	NONE	OFF	Nylon	Black	S15b
54-115	DPST	ON	NONE	(OFF)	Nylon	Black	S15b
54-116	DPDT	ON	NONE	(ON)	Nylon	Black	S15b
54-117	DPDT	ON	OFF	(ON)	Nylon	Black	S15b
54-118	DPDT	(ON)	OFF	(ON)	Nylon	Black	S15b

SPECIAL NOTE: ( ) = Momentary Function

# Snap-In Nylon Rocker

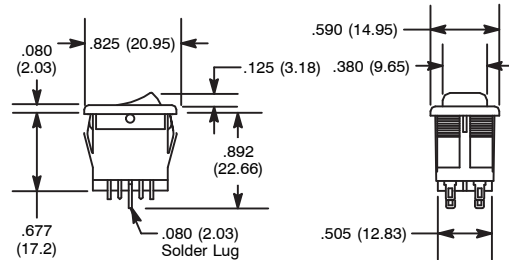


## Features

- Double Pole Types
- Double Insulated

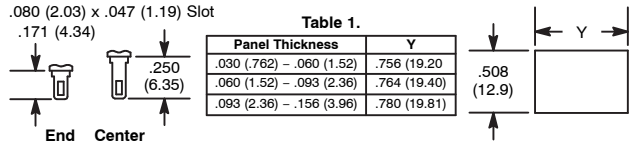


## S22



**Terminal Types**  
a: .080" Solder Lug  
.080 (2.03) x .047 (1.19) Slot  
.171 (4.34)

## Mounting Hole



NTE Type No.	Circuitry	Action			Actuator		Diag No.
					Material	Color	
54-073	DPDT	ON	NONE	ON	Nylon	Black	S22a
54-078	DPDT	ON	NONE	(ON)	Nylon	Black	S22a
54-079	DPDT	ON	OFF	ON	Nylon	Black	S22a

SPECIAL NOTE: ( ) = Momentary Function

## Specifications

- Current Rating:** 8A 125VAC, 4A 250VAC
- Insulation Resistance:** 100 Megohms (min.)
- Dielectric Strength:** 1000V RMS (min.)
- Temperature Rating:** +32° to +185°F (0° to +85°C)
- Electrical Life:** 50,000 cycles
- Mechanical Life:** 100,000 cycles
- Terminal Type:** .080" Solder Lug
- Mounting Hole:** See Table 1

# Sealed Automotive/Marine Nylon Snap-In Rocker

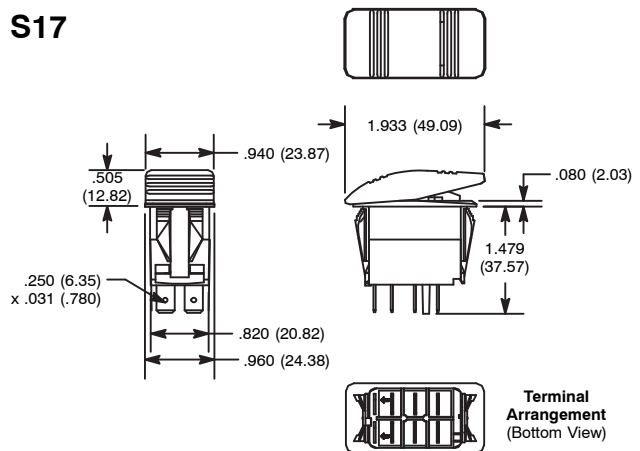


## Features

- Illuminated Types Available on Page 36
- IP66/IP68 Certified
- UL1500 Recognized - Ignition Protection for Marine Use
- Sealed for Auto/Marine applications
- Salt Spray Resistant
- Able to Withstand -40° to +85°C Temperature



## S17



Terminal Arrangement (Bottom View)

NTE Type No.	Circuitry	Action			Actuator	Diag No.
54-044	SPST	ON	NONE	OFF	Thermoplastic polycarbonate with a hard Nylon 66 thermoplastic surface overlay	S17
54-045	DPDT	ON	NONE	ON		S17
54-046	DPDT	ON	OFF	ON		S17
54-639	DPDT	(ON)	OFF	(ON)		S17

## Specifications

- Current Rating:** 20A 12VDC
- Insulation Resistance:** 50 Megohms (min.)
- Dielectric Strength:** 1500V RMS (min.)
- Temperature Rating:** -40° to +185°F (-40° to +85°C)
- Electrical Life:** 50,000 to 100,000 cycles circuit dependent
- Mechanical Life:** 150,000 cycles
- Terminal Type:** .250" Tab Q.C.
- Mounting Hole:** 1.450 (36.83) x .830 (21.08)

SPECIAL NOTE: ( ) = Momentary Function

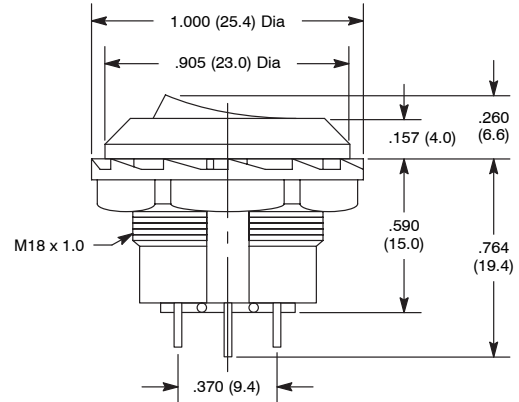
NEW

# Round Hole Rocker



NTE Type No.	Circuitry	Action			Actuator	Legend	Diag No.
54-500	SPST	ON	NONE	OFF	Nylon	Yes	S89
54-501	SPDT	ON	NONE	ON	Nylon	No	S89
54-502	DPDT	ON	NONE	ON	Nylon	No	S89

## S89



## Specifications

**Current Rating:** 10A 125VAC, 6A 250VAC  
**Insulation Resistance:** 100 Megohms (min.) at 500VDC  
**Dielectric Strength:** 1000V RMS (min.)  
**Temperature Rating:** -4° to +149° (-20°C to +65°C)  
**Electrical Life:** 6000 cycles (min.)  
**Mechanical Life:** 100,000 cycles (min.)  
**Terminal Type:** Solder Lug  
**Mounting Hole:** .717 (18.2)

# Snap-In Round Hole Rocker



## Features

- Waterproof Types Available on Page 26



**NOTE:** The 54-503, 54-520, 54-521 and 54-522 contain the ON/OFF legend not represented by the photo.

NTE Type No.	Circuitry	Action			Actuator	Legend	Diag No.
54-503	SPST	ON	NONE	OFF	Nylon	Yes	S90
54-504	SPDT	ON	OFF	ON	Nylon	No	S90
54-505	SPDT	ON	NONE	ON	Nylon	No	S90
54-520	SPST	(ON)	NONE	OFF	Nylon	Yes	S90
54-521	SPST	ON	NONE	(OFF)	Nylon	Yes	S90
54-522	SPDT	ON	NONE	(ON)	Nylon	Yes	S90

SPECIAL NOTE: ( ) = Momentary Function

## S90

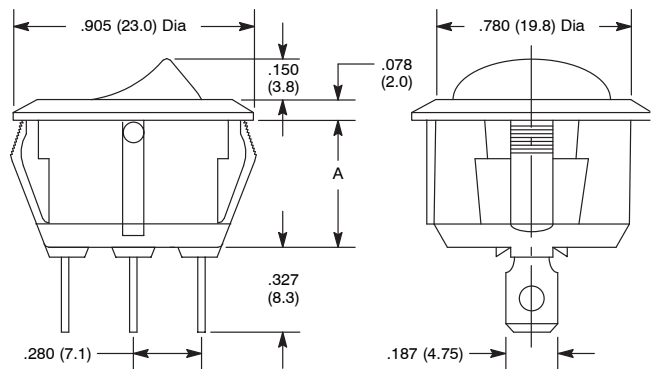


Table 1.

Device Type	A
All Devices	.472 (12.0)
54-504	.570 (14.5)

## Specifications

**Current Rating:** 16A 125VAC, 10A 250VAC  
**Insulation Resistance:** 100 Megohms (min.) at 500VDC  
**Dielectric Strength:** 1500V RMS (min.)  
**Temperature Rating:** -4° to +149°F (-20° to +65°C)  
**Electrical Life:** 6000 cycles (min.)  
**Mechanical Life:** 100,000 cycles (min.)  
**Terminal Type:** .187" Tab Q.C.  
**Mounting Hole:** .795 (20.2)

# Round Hole Rocker, Square Bezel



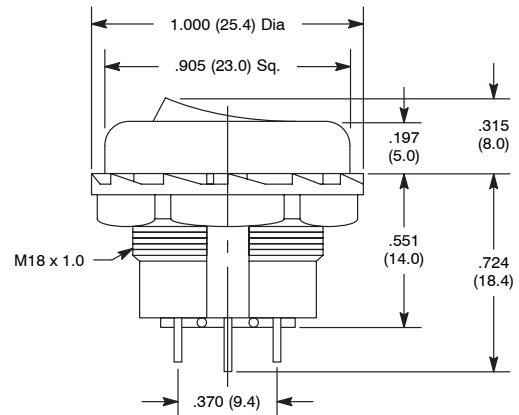
## Features

- Single & Double Pole Types



NTE Type No.	Circuitry	Action			Actuator	Legend	Diag No.
54-507	SPST	ON	NONE	OFF	Red Nylon	Yes	S92
54-508	SPDT	ON	NONE	ON	Red Nylon	No	S92
54-509	DPDT	ON	NONE	ON	Red Nylon	No	S92

## S92



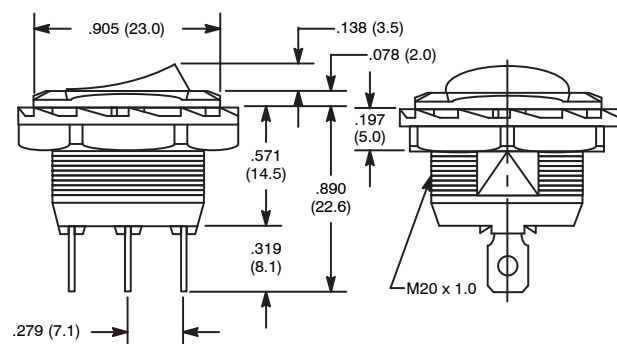
## Specifications

**Current Rating:** 10A 125VAC, 6A 250VAC  
**Insulation Resistance:** 100 Megohms (min.) at 500VDC  
**Dielectric Strength:** 1500V RMS (min.)  
**Temperature Rating:** -4°F to +149°F (-20°C to +65°C)  
**Electrical Life:** 6000 cycles (min.)  
**Mechanical Life:** 100,000 cycles (min.)  
**Terminal Type:** Solder Lug  
**Mounting Hole:** .717 (18.2)

# Round Hole Rocker



## S93

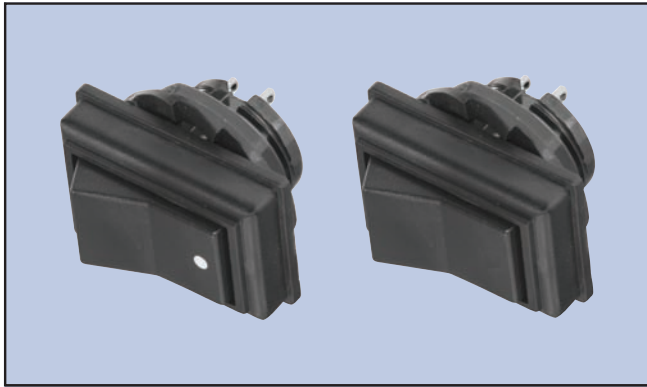


## Specifications

**Current Rating:** 16A 125VAC, 10A 250VAC  
**Insulation Resistance:** 100 Megohms (min.) at 500VDC  
**Dielectric Strength:** 1500V RMS (min.)  
**Temperature Rating:** -4° to +149°F (-20° to +65°C)  
**Electrical Life:** 6000 cycles (min.)  
**Mechanical Life:** 100,000 cycles (min.)  
**Terminal Type:** .185" Tab Q.C.  
**Mounting Hole:** .795 (20.2)

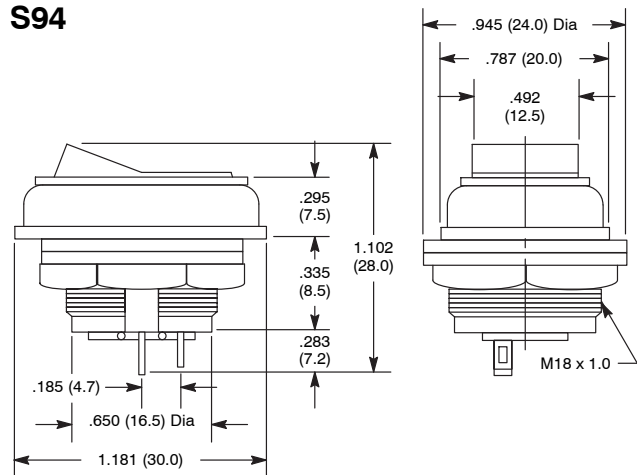
NTE Type No.	Circuitry	Action			Actuator	Legend	Diag No.
54-510	SPST	ON	NONE	OFF	Nylon	Yes	S93
54-511	SPDT	ON	OFF	ON	Nylon	No	S93
54-512	SPDT	ON	NONE	ON	Nylon	No	S93
54-543	SPST	(ON)	NONE	OFF	Nylon	Yes	S93
54-544	SPST	ON	NONE	(OFF)	Nylon	Yes	S93
54-545	SPDT	ON	NONE	(ON)	Nylon	Yes	S93
54-546	SPDT	ON	OFF	(ON)	Nylon	Yes	S93
54-548	SPDT	(ON)	OFF	(ON)	Nylon	No	S93

# Round Hole Rocker



NTE Type No.	Circuitry	Action			Actuator	Legend	Diag No.
54-514	SPST	ON	NONE	OFF	Nylon	Yes	S94
54-515	SPDT	ON	NONE	ON	Nylon	No	S94
54-516	DPDT	ON	NONE	ON	Nylon	No	S94

**S94**



## Specifications

- Current Rating:** 6A 125VAC, 3A 250VAC
- Insulation Resistance:** 100 Megohms (min.) at 500VDC
- Dielectric Strength:** 1500V RMS (min.)
- Temperature Rating:** -4° to +149°F (-20° to +65°C)
- Electrical Life:** 6000 cycles (min.)
- Mechanical Life:** 100,000 cycles (min.)
- Terminal Type:** Solder Lug
- Mounting Hole:** .717 (18.2)

# Waterproof Miniature Illuminated Rocker

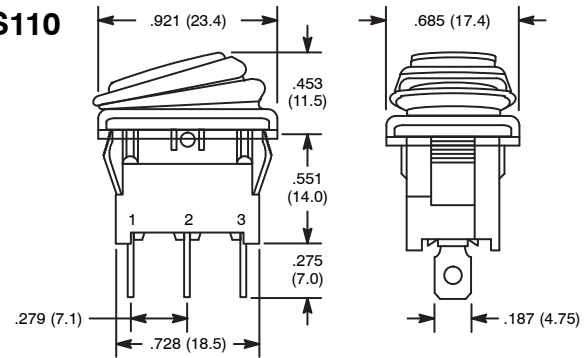


## Features

- Waterproof: IP65
- Single Pole
- .187" Quick Connect Terminals



S110



Wiring Diagram

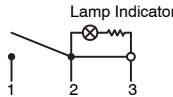
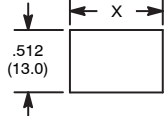


Table 1. Mounting Hole

Panel Thickness	X
.030 (.750) - .059 (1.50)	.764 (19.40)
.059 (1.50) - .098 (2.50)	.780 (19.80)



NTE Type No.	Circuitry	Action			Actuator				Diag No.
					Material	Color		Vltg	
						Neon	LED		
NEW 54-200W	SPST	ON	NONE	OFF	PC	Red	-	AC	S110
NEW 54-201W	SPST	ON	NONE	OFF	PC	-	Red	DC	S110
NEW 54-202W*	SPDT	ON	NONE	ON	PC	Black		N/A	S110
NEW 54-203W	SPST	ON	NONE	OFF	PC	Green	-	AC	S110
NEW 54-204W	SPST	ON	NONE	OFF	PC	-	Green	DC	S110

\* Designates Non-Illuminated Type

## Specifications

**Current Rating:** 16A 125VAC 1/3 HP, 10A 250VAC 1/2 HP  
**Lamp Voltage:** 110V Neon (AC) & 12V LED (DC)  
**Insulation Resistance:** 100 Megohms (min.) at 500VDC  
**Dielectric Strength:** 1000V RMS (min.)  
**Temperature Rating:** +32° to +185°F (0° to +85°C)  
**Electrical Life:** 10,000 cycles  
**Mechanical Life:** 50,000 cycles at full load  
**Terminal Type:** .187" Tab Q.C.  
**Mounting Hole:** See Table 1

# Waterproof Round Illuminated Rocker

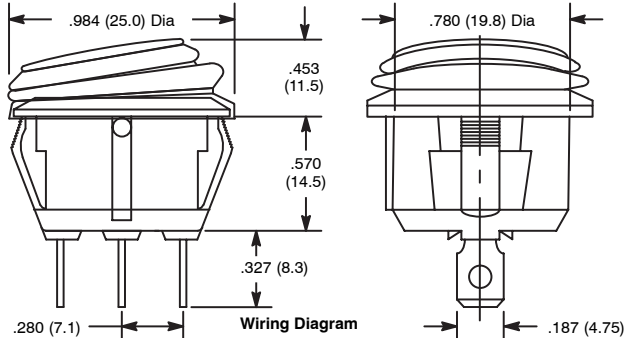


## Features

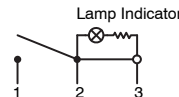
- Waterproof: IP65
- Single Pole
- .187" Quick Connect Terminals



S117



Wiring Diagram



NTE Type No.	Circuitry	Action			Actuator				Diag No.
					Material	Color		Vltg	
						Neon	LED		
NEW 54-503W*	SPST	ON	NONE	OFF	Nylon	Black		N/A	S117
NEW 54-526W	SPST	ON	NONE	OFF	Nylon	Green	-	AC	S117
NEW 54-527W	SPST	ON	NONE	OFF	Nylon	-	Red	DC	S117
NEW 54-529W	SPST	ON	NONE	OFF	Nylon	-	Green	DC	S117
NEW 54-531W	SPST	ON	NONE	OFF	Nylon	Red	-	AC	S117

\* Designates Non-Illuminated Type

## Specifications

**Current Rating:** 16A 125VAC, 10A 250VAC  
**Lamp Voltage:** 110V Neon (AC) & 12V LED (DC)  
**Insulation Resistance:** 100 Megohms (min.) at 500VDC  
**Dielectric Strength:** 1500V RMS (min.)  
**Temperature Rating:** +32° to +185°F (0° to +85°C)  
**Electrical Life:** 10,000 cycles  
**Mechanical Life:** 50,000 cycles at full load  
**Terminal Type:** .187" Tab Q.C.  
**Mounting Hole:** .795 (20.2)

# Waterproof Round Illuminated Rocker

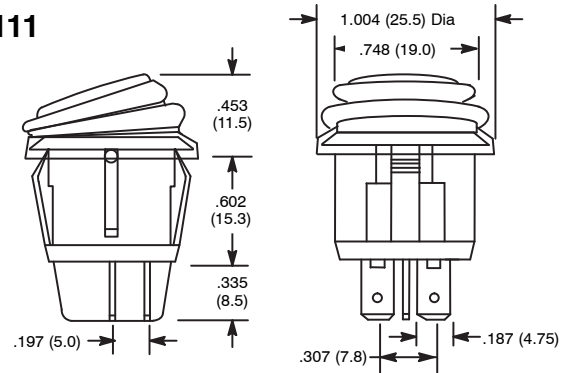


## Features

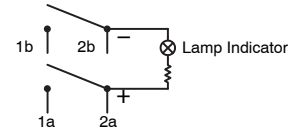
- Waterproof: IP65
- Double Pole
- .187" Quick Connect Terminals



S111



Wiring Diagram



## Specifications

**Current Rating:** 16A 125VAC, 10A 250VAC  
**Lamp Voltage:** 110V Neon (AC) & 12V LED (DC)  
**Insulation Resistance:** 100 Megohms (min.) at 500VDC  
**Dielectric Strength:** 1500V RMS (min.)  
**Temperature Rating:** +32° to +185°F (0° to +85°C)  
**Electrical Life:** 10,000 cycles  
**Mechanical Life:** 50,000 cycles at full load  
**Terminal Type:** .187" Tab Q.C.  
**Mounting Hole:** .795 (20.2)

NTE Type No.	Circuitry	Action			Actuator				Diag No.
					Material	Color		Vltg	
						Neon	LED		
NEW 54-205W	DPST	ON	NONE	OFF	PC	Red	-	AC	S111
NEW 54-206W	DPST	ON	NONE	OFF	PC	-	Red	DC	S111
NEW 54-209W	DPST	ON	NONE	OFF	PC	Green	-	AC	S111
NEW 54-210W	DPST	ON	NONE	OFF	PC	-	Green	DC	S111
NEW 54-211W*	DPST	ON	NONE	OFF	PC	Black	-	N/A	S111

\* Designates Non-Illuminated Type

# Waterproof Miniature Illuminated Rocker

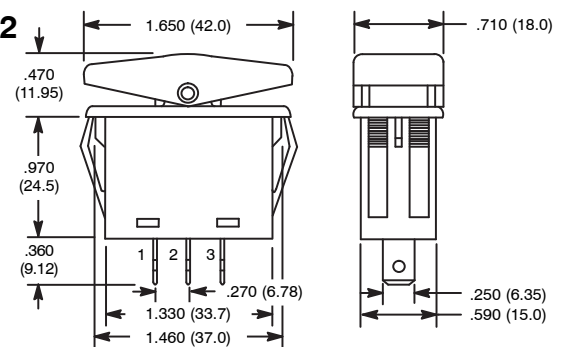


## Features

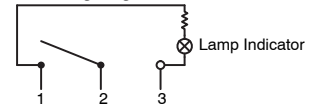
- Waterproof: IP66
- Single Pole
- .250" Quick Connect Terminals



S112



Wiring Diagram



## Specifications

**Current Rating:** 20A 125VAC 1/3 HP, 10A 250VAC 3/4 HP, 20A 14VAC, 10A 24VAC  
**Lamp Voltage:** 110V Neon (AC) & 12V LED (DC)  
**Insulation Resistance:** 100 Megohms (min.) at 500VDC  
**Dielectric Strength:** 1500V RMS (min.)  
**Temperature Rating:** +32° to +185°F (0° to +85°C)  
**Electrical Life:** 10,000 cycles  
**Mechanical Life:** 50,000 cycles at full load  
**Terminal Type:** .250" Tab Q.C.  
**Mounting Hole:** 1.450 (36.8) x .600 (15.2)

NTE Type No.	Circuitry	Action			Actuator				Diag No.
					Material	Color		Vltg	
						Neon	LED		
NEW 54-215W	SPST	ON	NONE	OFF	PC	Red	-	AC	S112
NEW 54-216W	SPST	ON	NONE	OFF	PC	-	Red	DC	S112
NEW 54-219W	SPST	ON	NONE	OFF	PC	Green	-	AC	S112
NEW 54-220W	SPST	ON	NONE	OFF	PC	-	Green	DC	S112
NEW 54-221W*	SPST	ON	NONE	OFF	PC	Black	-	N/A	S112

\* Designates Non-Illuminated Type

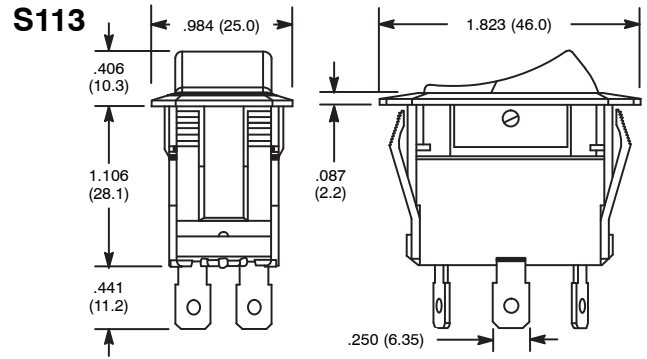


# Waterproof Illuminated Rocker



## Features

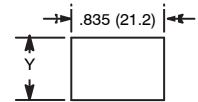
- **Waterproof:** IP66
- **Single and Double Pole**
- **Available in Single and Dual Color Types**
- **.187" Quick Connect Terminals**



Mounting Hole

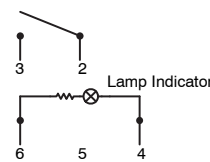
**Table 1.**

Panel Thickness	Y
.030 (.750) - .049 (1.25)	1.441 (36.6)
.049 (1.25) - .079 (2.00)	1.449 (36.8)
.079 (2.00) - .118 (3.00)	1.457 (37.0)

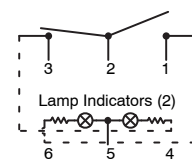


Wiring Diagram

SPST



SPDT



NTE Type No.	Circuitry	Action			Actuator			Diag No.	
					Material	Color			Vltg
						Neon	LED		
<b>NEW</b> 54-225W*	SPST	ON	NONE	OFF	PC	Black	N/A	S113	
<b>NEW</b> 54-226W*	DPDT	ON	NONE	ON	PC	Black	N/A	S113	
<b>NEW</b> 54-227W*	SPDT	ON	NONE	ON	PC	Black	N/A	S113	
<b>NEW</b> 54-228W*	SPDT	ON	OFF	ON	PC	Black	N/A	S113	
<b>NEW</b> 54-229W*	DPDT	ON	OFF	ON	PC	Black	N/A	S113	
<b>NEW</b> 54-230W	SPST	ON	NONE	OFF	PC	Red	-	AC S113	
<b>NEW</b> 54-231W	SPST	ON	NONE	OFF	PC	-	Red	DC S113	
<b>NEW</b> 54-232W	SPST	ON	NONE	OFF	PC	Green	-	AC S113	
<b>NEW</b> 54-233W	SPST	ON	NONE	OFF	PC	-	Green	DC S113	
<b>NEW</b> 54-234W	SPST	ON	NONE	OFF	PC	Blue	-	AC S113	
<b>NEW</b> 54-235W	SPST	ON	NONE	OFF	PC	-	Blue	DC S113	
<b>NEW</b> 54-238W	SPDT	ON	NONE	ON	PC	Rd/Gn	-	AC S113	
<b>NEW</b> 54-239W	SPDT	ON	NONE	ON	PC	-	Rd/Gn	DC S113	
<b>NEW</b> 54-240W	SPDT	ON	OFF	ON	PC	Rd/Gn	-	AC S113	
<b>NEW</b> 54-241W	SPDT	ON	OFF	ON	PC	-	Rd/Gn	DC S113	
<b>NEW</b> 54-246W	SPDT	ON	NONE	ON	PC	Rd/Rd	-	AC S113	
<b>NEW</b> 54-247W	SPDT	ON	NONE	ON	PC	-	Rd/Rd	DC S113	
<b>NEW</b> 54-248W	SPDT	ON	OFF	ON	PC	Rd/Rd	-	AC S113	
<b>NEW</b> 54-249W	SPDT	ON	OFF	ON	PC	-	Rd/Rd	DC S113	
<b>NEW</b> 54-250W*	DPDT	(ON)	OFF	(ON)	PV	Black	N/A	S113	

\* Designates Non-Illuminated Type

## Specifications

- Current Rating:** 20A 125VAC, 10A 250 VAC.  
12A 125 VAC 3/4 HP, 10A 277VAC 3/4 HP
- Lamp Voltage:** 110V Neon (AC) & 12V LED (DC)
- Insulation Resistance:** 100 Megohms (min.) at 500VDC
- Dielectric Strength:** 1500V RMS (min.)
- Temperature Rating:** +32° to +149°F (0° to +65°C)
- Electrical Life:** 10,000 cycles
- Mechanical Life:** 50,000 cycles at full load
- Terminal Type:** .187" Tab Q.C.
- Mounting Hole:** See Table 1

# Waterproof Dual Color Illuminated Rocker

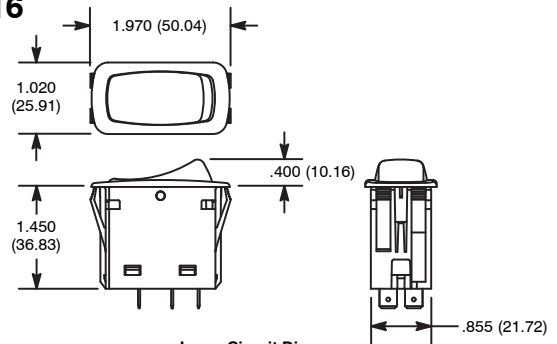


## Features

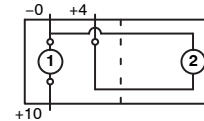
- IP67 Certified
- Single and Double Pole
- Dual Color Types
- .250" Quick Connect Terminals



## S116



Lamp Circuit Diagram



NTE Type No.	Circuitry	Action			Actuator			Diag No.	
					Material	Color			
Neon	LED	Vltg							
<b>NEW</b> 54-150	SPST	ON	NONE	OFF	Nylon	-	Amber/Green	DC	S116
<b>NEW</b> 54-151	SPST	(ON)	NONE	OFF	Nylon	-	Amber/Green	DC	S116
<b>NEW</b> 54-153	SPDT	ON	OFF	ON	Nylon	-	Amber/Green	DC	S116
<b>NEW</b> 54-154	SPDT	ON	OFF	(ON)	Nylon	-	Amber/Green	DC	S116
<b>NEW</b> 54-157	DPDT	ON	NONE	ON	Nylon	-	Amber/Green	DC	S116
<b>NEW</b> 54-158	DPDT	(ON)	OFF	(ON)	Nylon	-	Amber/Green	DC	S116

SPECIAL NOTE: ( ) = Momentary Function

## Specifications

**Current Rating:** 20A 12VDC,

**Lamp Voltage:** 12V LED (DC)

**Insulation Resistance:** 50 Megohms

**Dielectric Strength:**

**Between Pole to Pole:** 1250 VRMS

**Between Live Parts & Accessible Surfaces:** 3750 VRMS

**Temperature Rating:** -40° to +185°F (-40° to +85°C)

**Electrical Life:** 100,000 cycles maintained

50,000 cycles momentary at rated voltage & current

**Mechanical Life:** 250,000 cycles min.

**Terminal Type:** .250" Tab Q.C.

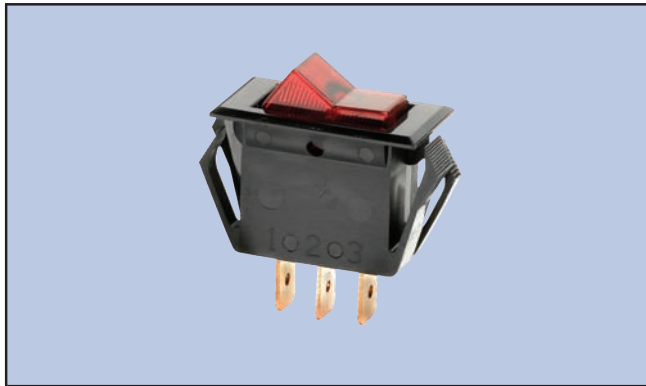
**Mounting Hole:** 1.734 (44.04) x .867 (22.02)

# Miniature Snap-In Nylon Illuminated Rocker



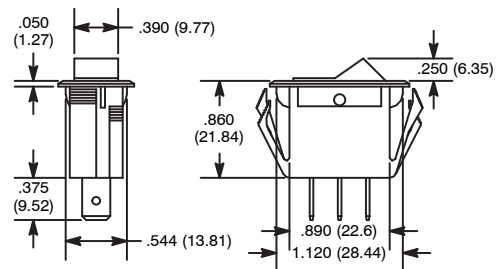
## Features

- Single Pole
- AC Rated, Also Suitable for Low Voltage DC Applications
- Double Insulated



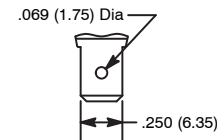
NTE Type No.	Circuitry	Action			Actuator	Lens Color	Diag No.
54-054	SPST	OFF	NONE	ON	Nylon	Red	S16b

S16



### Terminal Types

b: .250" Tab (Q.C.)



## Specifications

**Current Rating:** 15A 125VAC, 10A 250VAC, 3/4 HP 125-250VAC  
**Lamp Voltage:** 125V Neon  
**Insulation Resistance:** 100 Megohms (min.)  
**Dielectric Strength:** 1000V RMS (min.)  
**Temperature Rating:** +32° to +185°F (0° to +85°C)  
**Electrical Life:** 100,000 cycles  
**Mechanical Life:** 100,000 cycles  
**Terminal Type:** .250" Tab Q.C.  
**Mounting Hole:** 1.125 (28.57) x .550 (13.97)

# Miniature Snap-In Nylon Illuminated Rocker



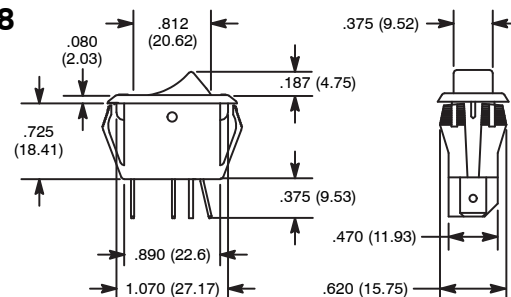
## Features

- Single Pole
- .250" Quick Connect Terminals



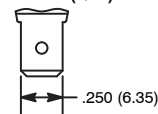
NTE Type No.	Circuitry	Action			Actuator	Lens Color	Diag No.
54-064	SPST	OFF	NONE	ON	Translucent Nylon	Amber	S18b
54-065	SPST	OFF	NONE	ON		Red	S18b
54-517	SPST	OFF	NONE	ON	Clear Nylon	Red	S18b
54-518	SPST	OFF	NONE	ON		Green	S18b
54-519	SPST	OFF	NONE	ON		Amber	S18b

S18



### Terminal Types

b: .250" Tab (Q.C.)



## Specifications

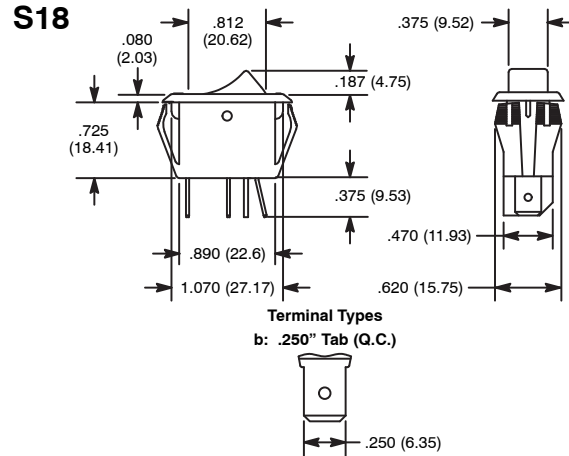
**Current Rating:** 16A 125VAC, 10A 250VAC, 10(4)A 250VAC $\mu$  T85  
**Lamp Voltage:** 125V Neon  
**Insulation Resistance:** 100 Megohms (min.)  
**Dielectric Strength:** 1000V RMS (min.)  
**Temperature Rating:** +32° to +185°F (0° to +85°C)  
**Electrical Life:** 100,000 cycles  
**Mechanical Life:** 100,000 cycles  
**Terminal Type:** .250" Tab Q.C.  
**Mounting Hole:** 1.125 (28.58) x .550 (13.97)

# Miniature Snap-In Illuminated Rocker for Low Voltage Applications



## Features

- For Low Voltage Applications
- .250" Quick Connect Terminals



## Specifications

**Current Rating:** 10A 12VDC  
**Lamp Voltage:** 12V Incandescent  
**Insulation Resistance:** 100 Megohms (min.)  
**Dielectric Strength:** 1000V RMS (min.)  
**Temperature Rating:** +32° to +185°F (0° to +85°C)  
**Electrical Life:** 100,000 cycles  
**Mechanical Life:** 100,000 cycles  
**Terminal Type:** .250" Tab Q.C.  
**Mounting Hole:** 1.125 (28.58) x .550 (13.97)

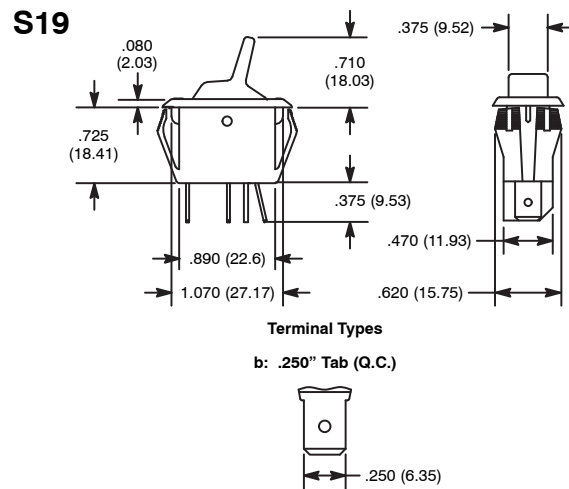
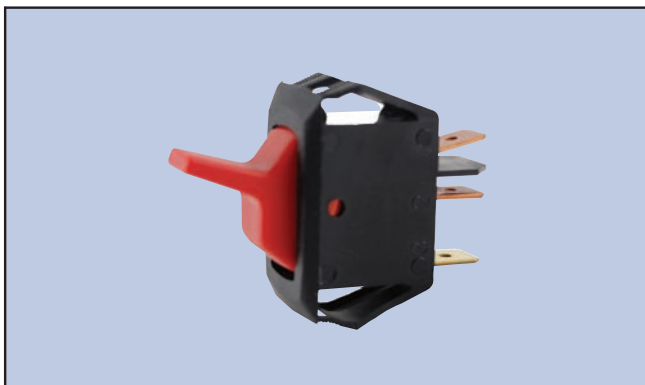
NTE Type No.	Circuitry	Action			Actuator	Lens Color	Diag No.
54-083	SPST	OFF	NONE	ON	Translucent Nylon	Red	S18b
54-086	SPST	OFF	NONE	ON	Clear Nylon	Blue	S18b

# Miniature Snap-In Nylon Illuminated Rocker



## Features

- Single Pole
- .250" Quick Connect Terminals



## Specifications

**Current Rating:** 16A 125VAC, 10A 250VAC, 10(4)A 250VAC $\mu$   
**Lamp Voltage:** 125V Neon  
**Insulation Resistance:** 100 Megohms (min.)  
**Dielectric Strength:** 1000V RMS (min.)  
**Temperature Rating:** +32° to +185°F (0° to +85°C)  
**Electrical Life:** 100,000 cycles  
**Mechanical Life:** 100,000 cycles  
**Terminal Type:** .250" Tab Q.C.  
**Mounting Hole:** 1.125 (28.58) x .550 (13.97)

NTE Type No.	Circuitry	Action			Actuator	Lens Color	Diag No.
54-105	SPST	OFF	NONE	ON	Translucent Nylon	Amber	S19b
54-106	SPST	OFF	NONE	ON		Red	S19b

# Miniature Snap-In Nylon Illuminated Rocker

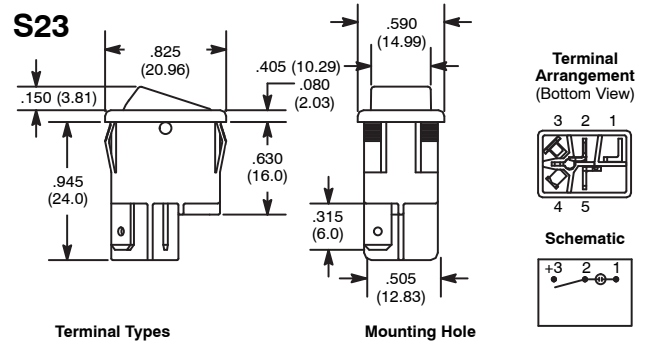


## Features

- Single Pole
- .187" Quick Connect Terminals
- Fits Standard Panel Cutout
- High Inrush Capability
- Shallow base Design



NTE Type No.	Circuitry	Action			Actuator	Lens Color	Diag No.
54-080	SPST	ON	NONE	OFF	Polycarbonate	Red	S23b



**Table 1.**

Panel Thickness	Y
.030 (.762) - .060 (1.52)	.756 (19.20)
.060 (1.52) - .093 (2.36)	.764 (19.40)
.093 (2.36) - .156 (3.96)	.780 (19.81)

Y  
↑ .508 (12.9)

## Specifications

**Current Rating:** 12A 125VAC, 8A 250VAC, 1/2 HP 125-250VAC  
**Lamp Voltage:** 125V Neon  
**Insulation Resistance:** 50 Megohms (min.)  
**Dielectric Strength:** 1500V RMS (min.)  
**Temperature Rating:** +32° to +185°F (0° to +85°C)  
**Electrical Life:** 50,000 cycles  
**Mechanical Life:** 100,000 cycles  
**Terminal Type:** .187" Tab Q.C.  
**Mounting Hole:** See Table 1

# Miniature Snap-In Nylon Illuminated Rocker

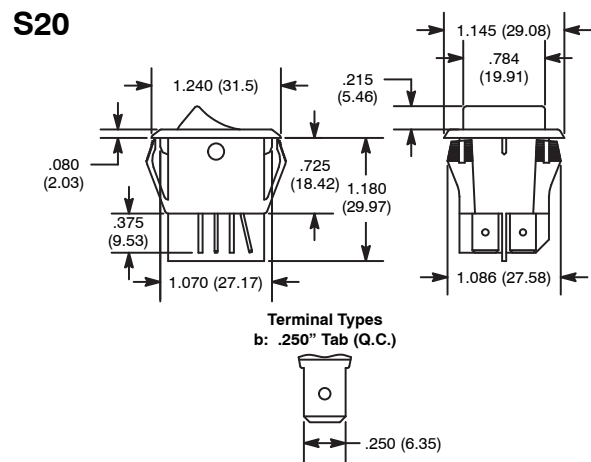


## Features

- Double Pole
- .250" Quick Connect Terminals
- High Inrush Capability



NTE Type No.	Circuitry	Action			Actuator	Lens Color	Diag No.
54-082	DPST	OFF	NONE	ON	Translucent Nylon	Red	S20b



## Specifications

**Current Rating:** 20A 125VAC, 15A 250VAC  
**Lamp Voltage:** 125V Neon  
**Insulation Resistance:** 100 Megohms (min.)  
**Dielectric Strength:** 1000V RMS (min.)  
**Temperature Rating:** +32° to +185°F (0° to +85°C)  
**Electrical Life:** 50,000 cycles  
**Mechanical Life:** 100,000 cycles  
**Terminal Type:** .250" Tab Q.C.  
**Mounting Hole:** 1.125 (28.58) x 1.000 (25.4)

# Snap-In Nylon Illuminated Rocker

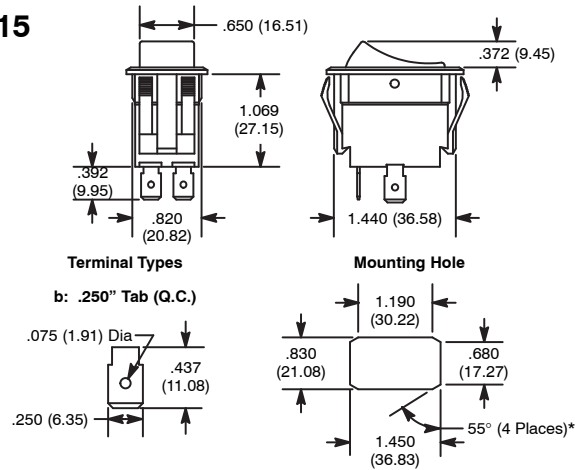


## Features

- AC Rated, Also Suitable for Low Voltage DC Applications



S15



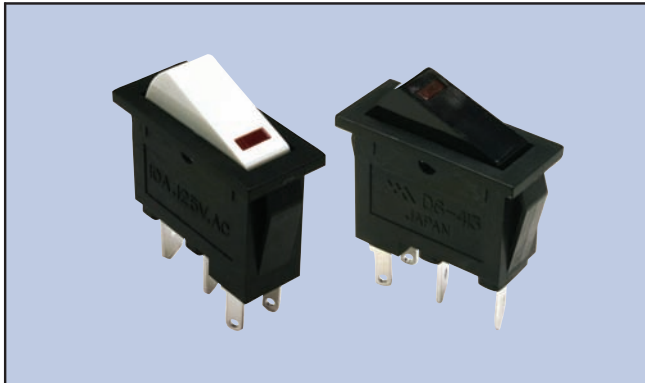
NEW

NTE Type No.	Circuitry	Action			Actuator		Lens Color	Diag No.
					Material	Color		
54-029	SPST	ON	NONE	OFF	Nylon	White	Green	S15b
54-053	SPST	ON	NONE	OFF		Black	Amber	S15b

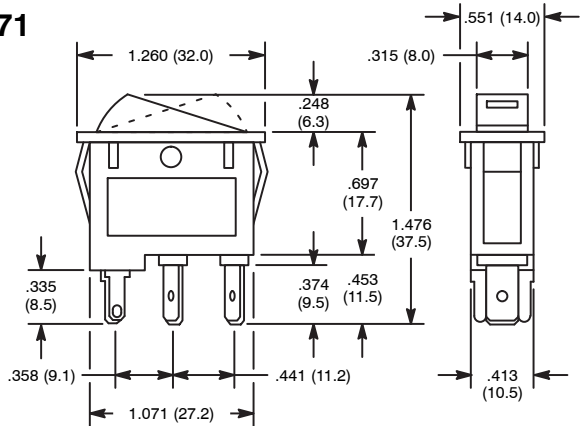
## Specifications

**Current Rating:** 15A 125VAC, 10A 250VAC, 1/2 HP 125-250VAC  
**Lamp Voltage:** 125V Neon (54-053), 18V Incandescent (54-029)  
**Insulation Resistance:** 100 Megohms (min.)  
**Dielectric Strength:** 1000V RMS (min.)  
**Temperature Rating:** +32° to +185°F (0° to +85°C)  
**Electrical Life:** 50,000 cycles  
**Mechanical Life:** 100,000 cycles  
**Terminal Type:** .250" Tab Q.C.  
**Mounting Hole:** 1.450 (36.83) x .830 (21.08)

# Snap-In Illuminated Rocker



S71



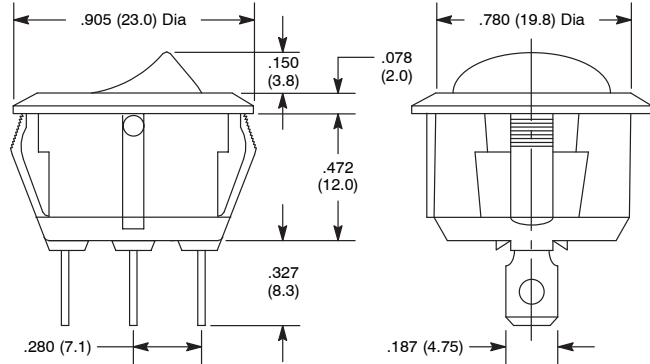
## Specifications

**Current Rating:** 10A 125VAC  
**Lamp Voltage:** 2.1V LED  
**Insulation Resistance:** 100 Megohms (min.) at 500VDC  
**Dielectric Strength:** 1000V RMS (min.)  
**Temperature Rating:** +14° to +131°F (-10° to +55°C)  
**Electrical Life:** 20,000 cycles  
**Mechanical Life:** 30,000 cycles  
**Terminal Type:** .250" Tab Q.C.  
**Mounting Hole:** 1.189 (30.2) x .433 (11.0)

# Snap-In Round Hole Illuminated Rocker



S90



NTE Type No.	Circuitry	Action			Actuator				Diag No.
					Material	Color		Vltg	
						Neon	LED		
54-506	SPST	ON	NONE	OFF	Nylon	Red	-	AC	S90
54-532	SPST	ON	NONE	OFF	Nylon	Amber	-	AC	S90
54-533	SPST	ON	NONE	OFF	Nylon	Green	-	AC	S90
54-534	SPST	ON	NONE	OFF	Nylon	-	Red	DC	S90
54-535	SPST	ON	NONE	OFF	Nylon	-	Amber	DC	S90
54-536	SPST	ON	NONE	OFF	Nylon	-	Green	DC	S90
54-537	SPST	ON	NONE	OFF	Nylon	-	Blue	DC	S90

## Specifications

**Current Rating:** 16A 125VAC, 10A 250VAC  
**Lamp Voltage:** 110V Neon (AC) & 2V @ 20mA\* LED (DC)  
**Insulation Resistance:** 100 Megohms (min.) at 500VDC  
**Dielectric Strength:** 1500V RMS (min.)  
**Temperature Rating:** -4° to +149°F (-20° to +65°C)  
**Electrical Life:** 6000 cycles (min.)  
**Mechanical Life:** 100,000 cycles (min.)  
**Terminal Type:** .187" Tab Q.C.  
**Mounting Hole:** .795 (20.2)  
 \* Resistor needed for other voltages.

# Snap-In Round Hole Illuminated Rocker

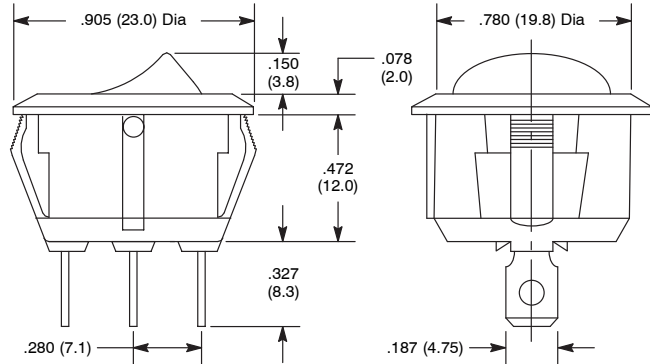


## Features

- Waterproof Types Available on Page 26



S90



## Specifications

**Current Rating:** 16A 125VAC, 10A 250VAC  
**Lamp Voltage:** 110V (AC) Neon, 12V (DC) Neon  
**Insulation Resistance:** 100 Megohms (min.) at 500VDC  
**Dielectric Strength:** 1500V RMS (min.)  
**Temperature Rating:** -4° to +149°F (-20° to +65°C)  
**Electrical Life:** 6000 cycles (min.)  
**Mechanical Life:** 100,000 cycles (min.)  
**Terminal Type:** .187" Tab Q.C.  
**Mounting Hole:** .795 (20.2)

NTE Type No.	Circuitry	Action			Actuator			Diag No.	
					Material	Color			Vltg
						Neon	LED		
54-525	SPST	ON	NONE	OFF	Nylon	Amber	AC	S90	
54-526	SPST	ON	NONE	OFF	Nylon	Green	AC	S90	
54-527	SPST	ON	NONE	OFF	Nylon	Red	DC	S90	
54-528	SPST	ON	NONE	OFF	Nylon	Amber	DC	S90	
54-529	SPST	ON	NONE	OFF	Nylon	Green	DC	S90	
54-530	SPST	ON	NONE	OFF	Nylon	Blue	DC	S90	
54-531	SPST	ON	NONE	OFF	Nylon	Red	AC	S90	

# Round Hole Illuminated Rocker, Square Bezel



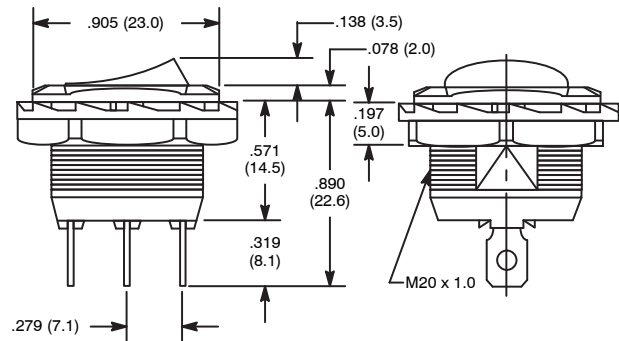
## Features

- Single Pole



NTE Type No.	Circuitry	Action			Actuator		Diag No.
					Material	Color	
54-513	SPST	ON	NONE	OFF	Nylon	Red	S93
54-549	SPST	ON	NONE	OFF	Nylon	Amber	S93
54-550	SPST	ON	NONE	OFF	Nylon	Green	S93

## S93



## Specifications

**Current Rating:** 16A 125VAC, 10A 250VAC  
**Lamp Voltage:** 110V Neon  
**Insulation Resistance:** 100 Megohms (min.) at 500VDC  
**Dielectric Strength:** 1500V RMS (min.)  
**Temperature Rating:** -4° to +149°F (-20° to +65°C)  
**Electrical Life:** 6000 cycles (min.)  
**Mechanical Life:** 100,000 cycles (min.)  
**Terminal Type:** .187" Tab Q.C.  
**Mounting Hole:** .795 (20.2)

# Round Hole Illuminated Rocker, Square Bezel



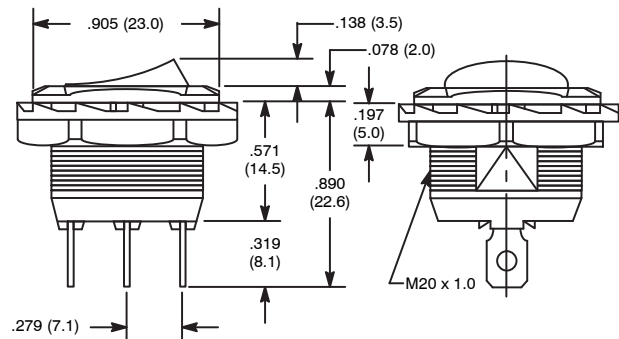
## Features

- Single Pole



NTE Type No.	Circuitry	Action			Actuator		Diag No.
					Material	LED Color	
54-551	SPST	ON	NONE	OFF	Nylon	Red	S93
54-552	SPST	ON	NONE	OFF	Nylon	Amber	S93
54-553	SPST	ON	NONE	OFF	Nylon	Green	S93
54-554	SPST	ON	NONE	OFF	Nylon	Blue	S93

## S93



## Specifications

**Current Rating:** 16A 125VAC, 10A 250VAC  
**Lamp Voltage:** 2V LED  
**Insulation Resistance:** 100 Megohms (min.) at 500VDC  
**Dielectric Strength:** 1500V RMS (min.)  
**Temperature Rating:** -4° to +149°F (-20° to +65°C)  
**Electrical Life:** 6000 cycles (min.)  
**Mechanical Life:** 100,000 cycles (min.)  
**Terminal Type:** .187" Tab Q.C.  
**Mounting Hole:** .795 (20.2)



# Sealed Automotive/Marine Nylon Snap-In Rocker, Illuminated

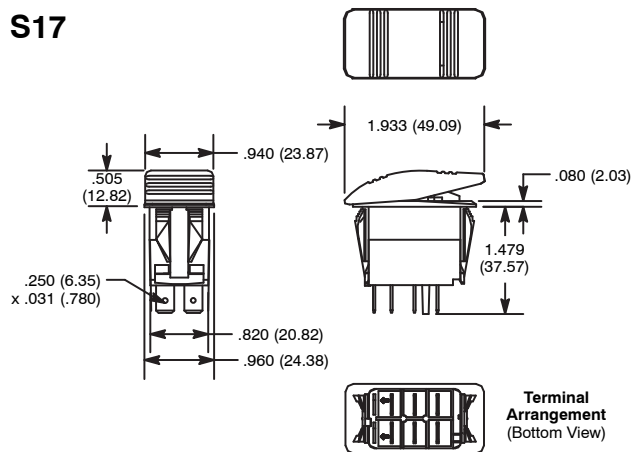


## Features

- IP66/IP68 Certified
- UL1500 Recognized – Ignition Protection for Marine Use
- Sealed for Auto/Marine applications
- Salt Spray Resistant
- Able to Withstand  $-40^{\circ}$  to  $+85^{\circ}\text{C}$  Temperature



S17



NOTE: Lamp wired to Terminals 3 and 7.

## Specifications

- Current Rating:** 20A 12VDC
- Lamp Voltage:** 12V Incandescent
- Insulation Resistance:** 50 Megohms (min.)
- Dielectric Strength:** 1500V RMS (min.)
- Temperature Rating:**  $-40^{\circ}$  to  $+185^{\circ}\text{F}$  ( $-40^{\circ}$  to  $+85^{\circ}\text{C}$ )
- Electrical Life:** 50,000 to 100,000 cycles circuit dependent
- Mechanical Life:** 150,000 cycles
- Terminal Type:** .250" Tab Q.C.
- Mounting Hole:** 1.450 (36.83) x .830 (21.08)

NTE Type No.	Circuitry	Action			Actuator	Lens Color	Diag No.
54-034	SPST	ON	NONE	OFF	Illuminated Thermoplastic polycarbonate with a hard Nylon 66 thermoplastic surface overlay	Amber	S17
54-035	SPST	ON	NONE	OFF		Red	S17
54-036	DPDT	ON	OFF	ON		Green	S17
54-037	DPDT	ON	OFF	ON		Red	S17
54-038	SPST	(ON)	NONE	OFF		Amber	S17
54-039	SPST	(ON)	NONE	OFF		Red	S17
54-040	DPDT	(ON)	OFF	(ON)		Amber	S17
54-041	DPDT	(ON)	OFF	(ON)		Green	S17
54-042	DPDT	(ON)	OFF	(ON)		Red	S17
54-043	DPDT	(ON)	OFF	(ON)		Blue	S17
54-087	SPST	ON	NONE	OFF	Illuminated Thermoplastic polycarbonate with a hard Nylon 66 thermoplastic surface overlay	Green	S17
54-088	SPST	ON	NONE	OFF		Blue	S17
54-089	DPDT	ON	OFF	ON		Amber	S17
54-090	DPDT	ON	OFF	ON		Blue	S17
54-091	SPST	(ON)	NONE	OFF		Green	S17
54-092	SPST	(ON)	NONE	OFF		Blue	S17

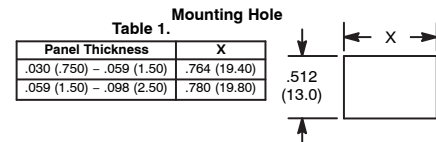
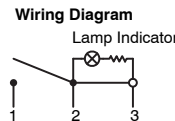
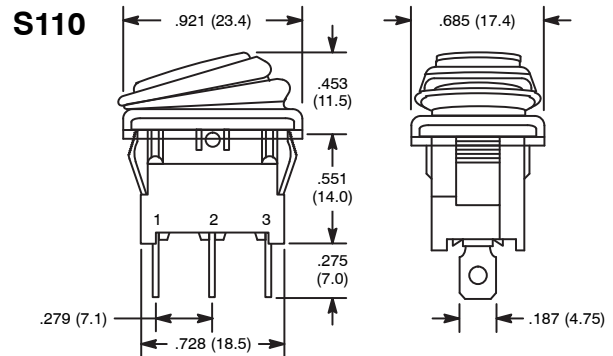
SPECIAL NOTE: ( ) = Momentary Function

# Waterproof Miniature Illuminated Rocker



## Features

- **Waterproof:** IP65
- **Single Pole**
- **.187" Quick Connect Terminals**



NTE Type No.	Circuitry	Action			Actuator			Diag No.	
					Material	Color			Vltg
						Neon	LED		
NEW 54-200W	SPST	ON	NONE	OFF	PC	Red	-	AC	S110
NEW 54-201W	SPST	ON	NONE	OFF	PC	-	Red	DC	S110
NEW 54-202W*	SPDT	ON	NONE	ON	PC	Black		N/A	S110
NEW 54-203W	SPST	ON	NONE	OFF	PC	Green	-	AC	S110
NEW 54-204W	SPST	ON	NONE	OFF	PC	-	Green	DC	S110

\* Designates Non-Illuminated Type

## Specifications

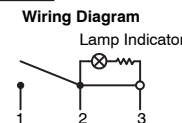
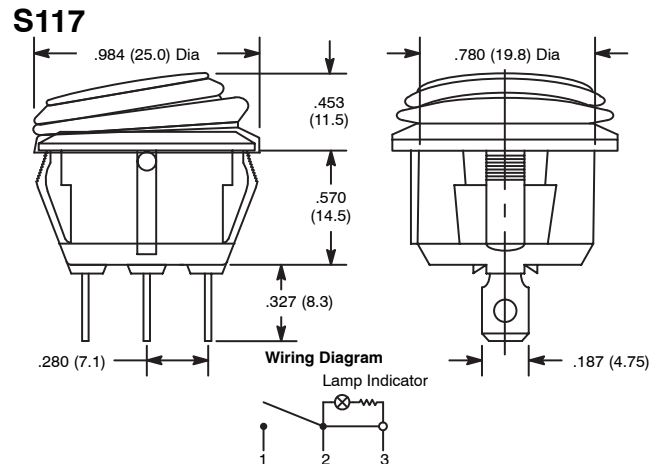
- Current Rating:** 16A 125VAC 1/3 HP, 10A 250VAC 1/2 HP
- Lamp Voltage:** 110V Neon (AC) & 12V LED (DC)
- Insulation Resistance:** 100 Megohms (min.) at 500VDC
- Dielectric Strength:** 1000V RMS (min.)
- Temperature Rating:** +32° to +185°F (0° to +85°C)
- Electrical Life:** 10,000 cycles
- Mechanical Life:** 50,000 cycles at full load
- Terminal Type:** .187" Tab Q.C.
- Mounting Hole:** See Table 1

# Waterproof Round Illuminated Rocker



## Features

- **Waterproof:** IP65
- **Single Pole**
- **.187" Quick Connect Terminals**



NTE Type No.	Circuitry	Action			Actuator			Diag No.	
					Material	Color			Vltg
						Neon	LED		
NEW 54-503W*	SPST	ON	NONE	OFF	Nylon	Black		N/A	S117
NEW 54-526W	SPST	ON	NONE	OFF	Nylon	Green	-	AC	S117
NEW 54-527W	SPST	ON	NONE	OFF	Nylon	-	Red	DC	S117
NEW 54-529W	SPST	ON	NONE	OFF	Nylon	-	Green	DC	S117
NEW 54-531W	SPST	ON	NONE	OFF	Nylon	Red	-	AC	S117

\* Designates Non-Illuminated Type

## Specifications

- Current Rating:** 16A 125VAC, 10A 250VAC
- Lamp Voltage:** 110V Neon (AC) & 12V LED (DC)
- Insulation Resistance:** 100 Megohms (min.) at 500VDC
- Dielectric Strength:** 1500V RMS (min.)
- Temperature Rating:** +32° to +185°F (0° to +85°C)
- Electrical Life:** 10,000 cycles
- Mechanical Life:** 50,000 cycles at full load
- Terminal Type:** .187" Tab Q.C.
- Mounting Hole:** .795 (20.2)

# Waterproof Round Illuminated Rocker

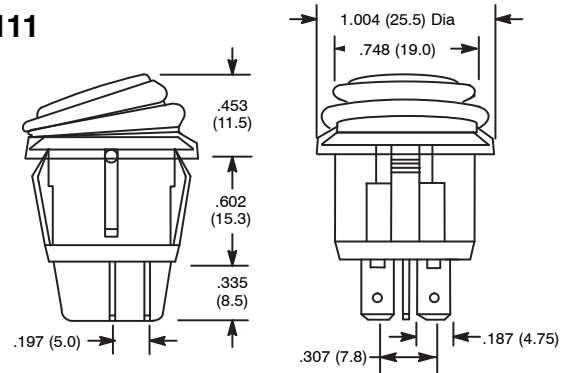


## Features

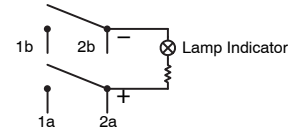
- Waterproof: IP65
- Double Pole
- .187" Quick Connect Terminals



S111



Wiring Diagram



## Specifications

**Current Rating:** 16A 125VAC, 10A 250VAC  
**Lamp Voltage:** 110V Neon (AC) & 12V LED (DC)  
**Insulation Resistance:** 100 Megohms (min.) at 500VDC  
**Dielectric Strength:** 1500V RMS (min.)  
**Temperature Rating:** +32° to +185°F (0° to +85°C)  
**Electrical Life:** 10,000 cycles  
**Mechanical Life:** 50,000 cycles at full load  
**Terminal Type:** .187" Tab Q.C.  
**Mounting Hole:** .795 (20.2)

NTE Type No.	Circuitry	Action			Actuator				Diag No.
					Material	Color		Vltg	
						Neon	LED		
NEW 54-205W	DPST	ON	NONE	OFF	PC	Red	-	AC	S111
NEW 54-206W	DPST	ON	NONE	OFF	PC	-	Red	DC	S111
NEW 54-209W	DPST	ON	NONE	OFF	PC	Green	-	AC	S111
NEW 54-210W	DPST	ON	NONE	OFF	PC	-	Green	DC	S111
NEW 54-211W*	DPST	ON	NONE	OFF	PC	Black	-	N/A	S111

\* Designates Non-Illuminated Type

# Waterproof Miniature Illuminated Rocker

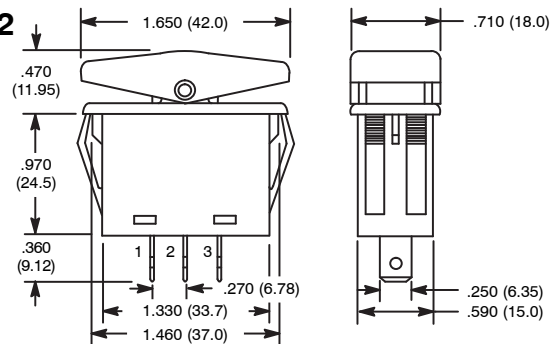


## Features

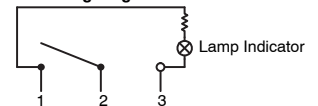
- Waterproof: IP66
- Single Pole
- .250" Quick Connect Terminals



S112



Wiring Diagram



## Specifications

**Current Rating:** 20A 125VAC 1/3 HP, 10A 250VAC 3/4 HP, 20A 14VAC, 10A 24VAC  
**Lamp Voltage:** 110V Neon (AC) & 12V LED (DC)  
**Insulation Resistance:** 100 Megohms (min.) at 500VDC  
**Dielectric Strength:** 1500V RMS (min.)  
**Temperature Rating:** +32° to +185°F (0° to +85°C)  
**Electrical Life:** 10,000 cycles  
**Mechanical Life:** 50,000 cycles at full load  
**Terminal Type:** .250" Tab Q.C.  
**Mounting Hole:** 1.450 (36.8) x .600 (15.2)

NTE Type No.	Circuitry	Action			Actuator				Diag No.
					Material	Color		Vltg	
						Neon	LED		
NEW 54-215W	SPST	ON	NONE	OFF	PC	Red	-	AC	S112
NEW 54-216W	SPST	ON	NONE	OFF	PC	-	Red	DC	S112
NEW 54-219W	SPST	ON	NONE	OFF	PC	Green	-	AC	S112
NEW 54-220W	SPST	ON	NONE	OFF	PC	-	Green	DC	S112
NEW 54-221W*	SPST	ON	NONE	OFF	PC	Black	-	N/A	S112

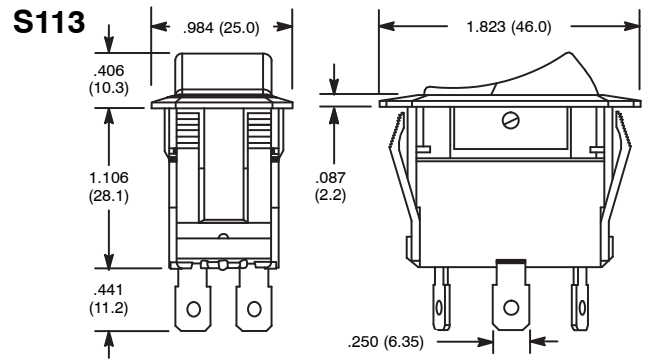
\* Designates Non-Illuminated Type

# Waterproof Illuminated Rocker



## Features

- **Waterproof:** IP66
- **Single and Double Pole**
- **Available in Single and Dual Color Types**
- **.187" Quick Connect Terminals**



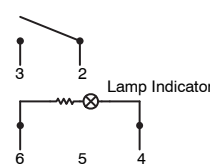
Mounting Hole

**Table 1.**

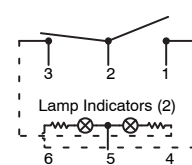
Panel Thickness	Y
.030 (.750) - .049 (1.25)	1.441 (36.6)
.049 (1.25) - .079 (2.00)	1.449 (36.8)
.079 (2.00) - .118 (3.00)	1.457 (37.0)

Wiring Diagram

SPST



SPDT



## Specifications

- Current Rating:** 20A 125VAC, 10A 250 VAC.  
12A 125 VAC 3/4 HP, 10A 277VAC 3/4 HP
- Lamp Voltage:** 110V Neon (AC) & 12V LED (DC)
- Insulation Resistance:** 100 Megohms (min.) at 500VDC
- Dielectric Strength:** 1500V RMS (min.)
- Temperature Rating:** +32° to +149°F (0° to +65°C)
- Electrical Life:** 10,000 cycles
- Mechanical Life:** 50,000 cycles at full load
- Terminal Type:** .187" Tab Q.C.
- Mounting Hole:** See Table 1

NTE Type No.	Circuitry	Action			Actuator			Diag No.	
					Material	Color			Vltg
						Neon	LED		
<b>NEW</b> 54-225W*	SPST	ON	NONE	OFF	PC	Black	-	N/A	S113
<b>NEW</b> 54-226W*	DPDT	ON	NONE	ON	PC	Black	-	N/A	S113
<b>NEW</b> 54-227W*	SPDT	ON	NONE	ON	PC	Black	-	N/A	S113
<b>NEW</b> 54-228W*	SPDT	ON	OFF	ON	PC	Black	-	N/A	S113
<b>NEW</b> 54-229W*	DPDT	ON	OFF	ON	PC	Black	-	N/A	S113
<b>NEW</b> 54-230W	SPST	ON	NONE	OFF	PC	Red	-	AC	S113
<b>NEW</b> 54-231W	SPST	ON	NONE	OFF	PC	-	Red	DC	S113
<b>NEW</b> 54-232W	SPST	ON	NONE	OFF	PC	Green	-	AC	S113
<b>NEW</b> 54-233W	SPST	ON	NONE	OFF	PC	-	Green	DC	S113
<b>NEW</b> 54-234W	SPST	ON	NONE	OFF	PC	Blue	-	AC	S113
<b>NEW</b> 54-235W	SPST	ON	NONE	OFF	PC	-	Blue	DC	S113
<b>NEW</b> 54-238W	SPDT	ON	NONE	ON	PC	Rd/Gn	-	AC	S113
<b>NEW</b> 54-239W	SPDT	ON	NONE	ON	PC	-	Rd/Gn	DC	S113
<b>NEW</b> 54-240W	SPDT	ON	OFF	ON	PC	Rd/Gn	-	AC	S113
<b>NEW</b> 54-241W	SPDT	ON	OFF	ON	PC	-	Rd/Gn	DC	S113
<b>NEW</b> 54-246W	SPDT	ON	NONE	ON	PC	Rd/Rd	-	AC	S113
<b>NEW</b> 54-247W	SPDT	ON	NONE	ON	PC	-	Rd/Rd	DC	S113
<b>NEW</b> 54-248W	SPDT	ON	OFF	ON	PC	Rd/Rd	-	AC	S113
<b>NEW</b> 54-249W	SPDT	ON	OFF	ON	PC	-	Rd/Rd	DC	S113
<b>NEW</b> 54-250W*	DPDT	(ON)	OFF	(ON)	PV	Black	-	N/A	S113

\* Designates Non-Illuminated Type

# Waterproof Dual Color Illuminated Rocker

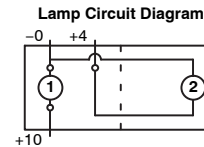
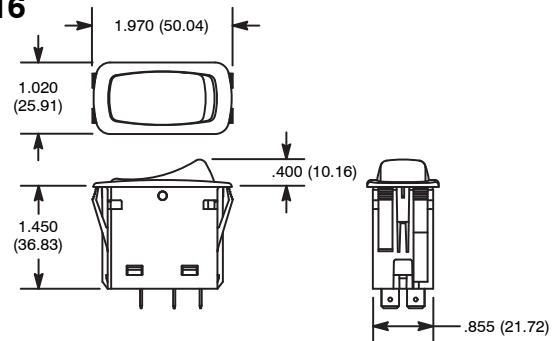


## Features

- IP67 Certified
- Single and Double Pole
- Dual Color Types
- .250" Quick Connect Terminals



## S116



## Specifications

- Current Rating:** 20A 12VDC,
- Lamp Voltage:** 12V LED (DC)
- Insulation Resistance:** 50 Megohms
- Dielectric Strength:**
  - Between Pole to Pole: 1250 VRMS
  - Between Live Parts & Accessible Surfaces: 3750 VRMS
- Temperature Rating:** -40° to +185°F (-40° to +85°C)
- Electrical Life:** 100,000 cycles maintained  
50,000 cycles momentary at rated voltage & current
- Mechanical Life:** 250,000 cycles min.
- Terminal Type:** .250" Tab Q.C.
- Mounting Hole:** 1.734 (44.04) x .867 (22.02)

NTE Type No.	Circuitry	Action			Actuator			Diag No.	
					Material	Color			
					Neon	LED	Vltg		
<b>NEW</b> 54-150	SPST	ON	NONE	OFF	Nylon	-	Amber/Green	DC	S116
<b>NEW</b> 54-151	SPST	(ON)	NONE	OFF	Nylon	-	Amber/Green	DC	S116
<b>NEW</b> 54-153	SPDT	ON	OFF	ON	Nylon	-	Amber/Green	DC	S116
<b>NEW</b> 54-154	SPDT	ON	OFF	(ON)	Nylon	-	Amber/Green	DC	S116
<b>NEW</b> 54-157	DPDT	ON	NONE	ON	Nylon	-	Amber/Green	DC	S116
<b>NEW</b> 54-158	DPDT	(ON)	OFF	(ON)	Nylon	-	Amber/Green	DC	S116

SPECIAL NOTE: ( ) = Momentary Function

# Pushbutton, Single Pole



## Features

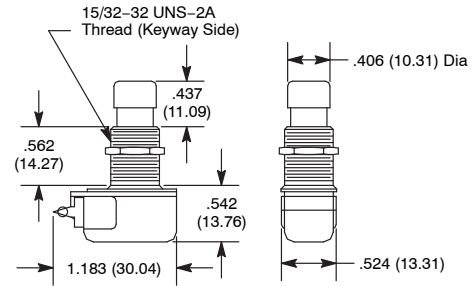
- AC/DC Rated
- Quick Make, Quick Break Contacts
- Self-Cleaning Contacts
- Suitable for Foot Switches
- Typical Actuation Force: 6-8lbs.



NTE Type No.	Circuitry	Action		Actuator	Diag No.
54-066	SPST	OFF	(ON)	Brass/Nickel Plate	S12a
54-067	SPST	ON	(OFF)	Brass/Nickel Plate	S12a
54-068	SPST	ON	OFF	Brass/Nickel Plate	S12b
54-069	SPST	ON	OFF	Brass/Nickel Plate	S12c

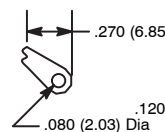
SPECIAL NOTE: ( ) = Momentary Function

## S12

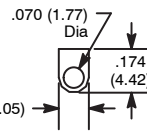


### Terminal Types

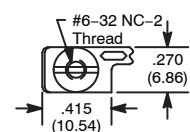
a: Solder Lug (End)



b: Solder Lug (Bottom)



c: Screw (Assembled)



## Specifications

**Current Rating:** 6A 125VAC, 3A 250VAC, AC/DC  
**Insulation Resistance:** 100 Megohms (min.)  
**Dielectric Strength:** 1000V RMS (min.)  
**Temperature Rating:** +32° to +185°F (0° to +85°C)  
**Electrical Life:** 100,000 cycles  
**Mechanical Life:** 25,000 cycles  
**Terminal Type:** Refer to Diag No. in Table  
**Mounting Hole:** .500 (12.7)

# Nylon Pushbutton, Single Pole



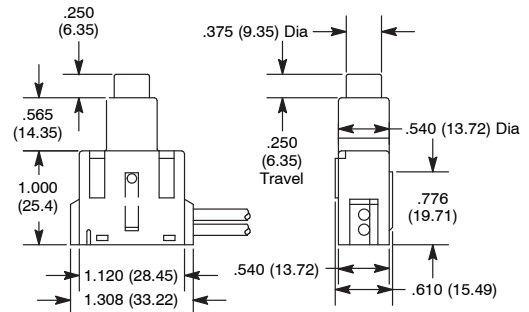
## Features

- Heavy Duty
- 6" Wire Leads
- Both Bushing & Bracket are Made of Nylon



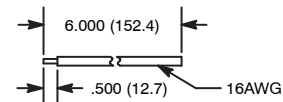
NTE Type No.	Circuitry	Action		Actuator	Diag No.
54-072	SPST	ON	OFF	Nylon	S13

## S13



### Terminal Types

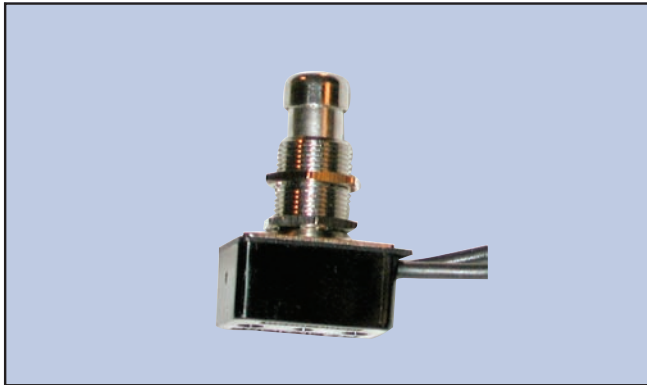
#### Integrated Wire



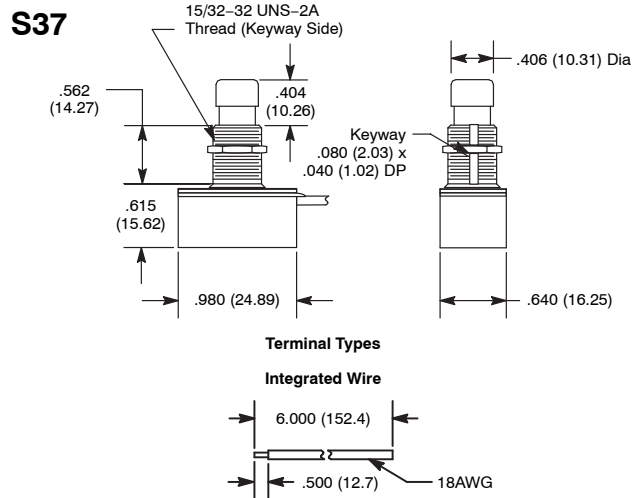
## Specifications

**Current Rating:** 15A 125VAC, 10A 250VAC, 3/4 HP 125-250VAC  
**Insulation Resistance:** 100 Megohms (min.)  
**Dielectric Strength:** 1000V RMS (min.)  
**Temperature Rating:** +32° to +185°F (0° to +85°C)  
**Electrical Life:** 100,000 cycles  
**Mechanical Life:** 25,000 cycles  
**Terminal Type:** Integrated Wire Type  
**Mounting Hole:** .550 (13.97)

# Pushbutton, Single Pole



NTE Type No.	Circuitry	Action		Actuator	Diag No.
54-132	SPST	ON	OFF	Metal	S37



## Specifications

**Current Rating:** 10A 250VAC, 8A 125VDC, 4A 250VDC, 1/3 HP 125VAC

**Dielectric Strength:** 1000V RMS (min.)

**Temperature Rating:** +149°F (+65°C) Max

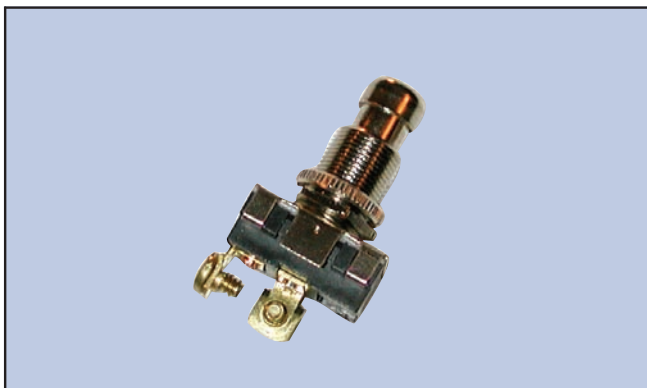
**Electrical Life:** 25,000 cycles Min

**Mechanical Life:** 100,000 cycles

**Terminal Type:** Integrated Wire

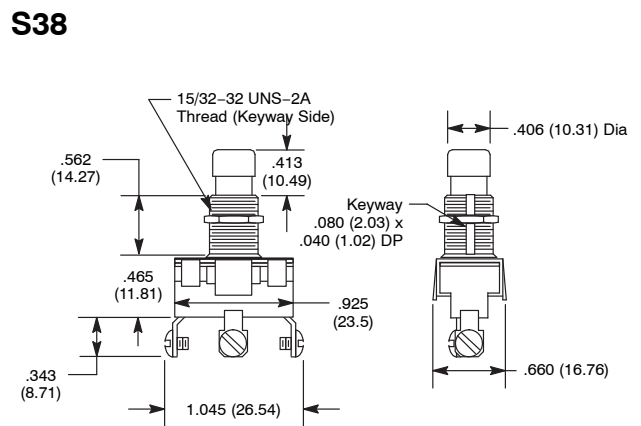
**Mounting Hole:** .500 (12.7)

# Pushbutton, Single Pole



NTE Type No.	Circuitry	Action		Actuator	Diag No.
54-133	SPST	ON	OFF	Metal	S38
54-134	SPST	OFF	(ON)	Metal	S38
54-135	SPST	ON	(OFF)	Metal	S38
54-136	SPDT	ON	ON	Metal	S38

SPECIAL NOTE: ( ) = Momentary Function



## Specifications

**Current Rating:** 10A 250VAC, 15A 125VDC

**Dielectric Strength:** 1000V RMS (min.)

**Temperature Rating:** +149°F (+65°C) Max

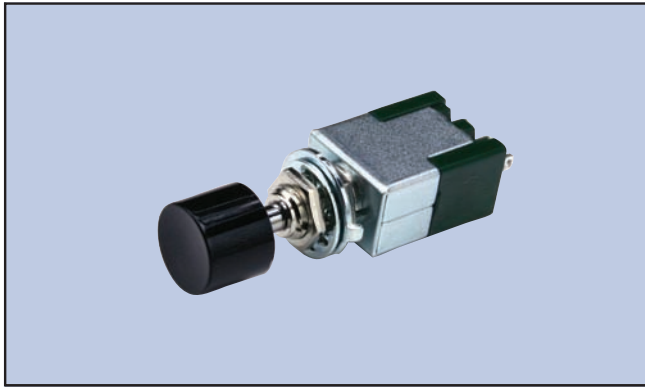
**Electrical Life:** 15,000 cycles Min

**Mechanical Life:** 40,000 cycles

**Terminal Type:** Screw Terminals

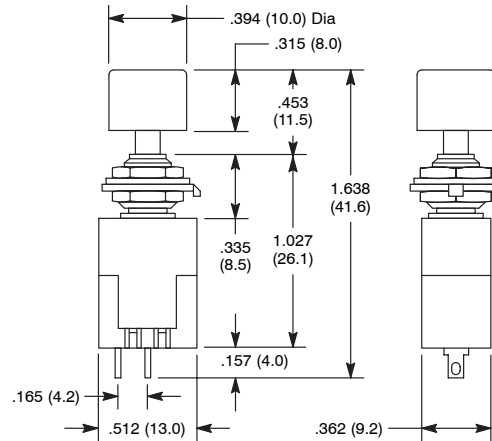
**Mounting Hole:** .500 (12.7)

# Pushbutton, Single Pole



NTE Type No.	Circuitry	Action		Actuator		Diag No.
				Material	Color	
54-380	SPDT	ON	ON	Polyamide	Black	S66

S66



## Specifications

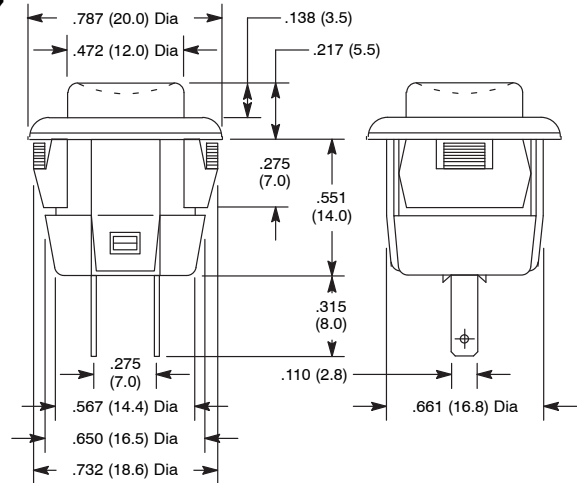
**Current Rating:** 3A 125VAC  
**Insulation Resistance:** 100 Megohms (min.)  
**Dielectric Strength:** 1000V RMS (min.)  
**Temperature Rating:** +14° to +131°F (-10° to +55°C)  
**Electrical Life:** 10,000 cycles  
**Mechanical Life:** 30,000 cycles  
**Terminal Type:** Solder Lug  
**Mounting Hole:** .244 (6.2)

# Pushbutton, Single Pole



NTE Type No.	Circuitry	Action		Actuator		Diag No.
				Material	Color	
54-385	SPST	OFF	(ON)	Molded ABS Resin	Red	S67
54-385A	SPST	OFF	ON	Molded ABS Resin	Red	S67

S67



## Specifications

**Current Rating:** 3A 125VAC  
**Insulation Resistance:** 100 Megohms (min.) at 500VDC  
**Dielectric Strength:** 1000V RMS (min.)  
**Temperature Rating:** +14° to +131°F (-10° to +55°C)  
**Electrical Life:** 5,000 cycles  
**Mechanical Life:** 30,000 cycles  
**Terminal Type:** Solder Lug  
**Mounting Hole:** .700 (17.8)

NEW

SPECIAL NOTE: ( ) = Momentary Function



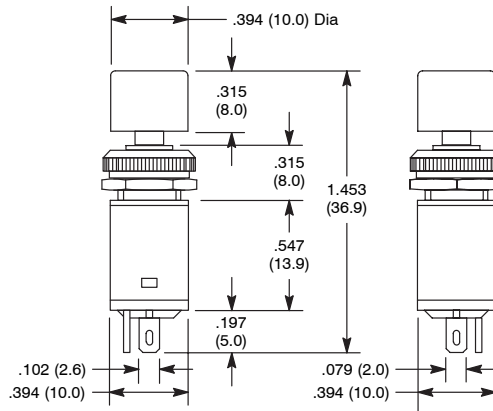
# Pushbutton, Single Pole



NTE Type No.	Circuitry	Action		Actuator		Diag No.
				Material	Color	
54-382	SPST	OFF	ON	Molded Polyacetal Resin	Black	S70
54-383	SPDT	ON	ON	Molded Polyacetal Resin	Black	S70
54-384	SPST	OFF	(ON)	Molded Polyacetal Resin	Black	S70

SPECIAL NOTE: ( ) = Momentary Function

S70



## Specifications

**Current Rating:** 3A 125VAC  
**Insulation Resistance:** 100 Megohms (min.) at 500VDC  
**Dielectric Strength:** 1000V RMS (min.)  
**Temperature Rating:** +14° to +131°F (-10° to +55°C)  
**Electrical Life:** 10,000 cycles; 5,000 cycles (54-384 Only)  
**Mechanical Life:** 30,000 cycles  
**Terminal Type:** Solder Lug  
**Mounting Hole:** .323 (8.2)

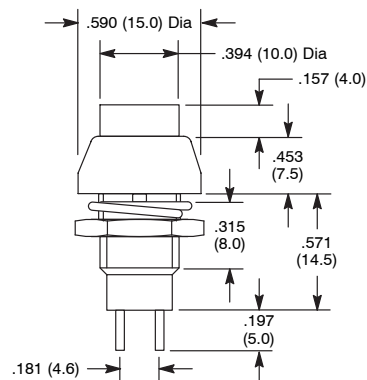
# Pushbutton, Single Pole



NTE Type No.	Circuitry	Action		Actuator		Diag No.
				Material	Color	
54-388	SPST	OFF	(ON)	ABS Resin	Black	S72

SPECIAL NOTE: ( ) = Momentary Function

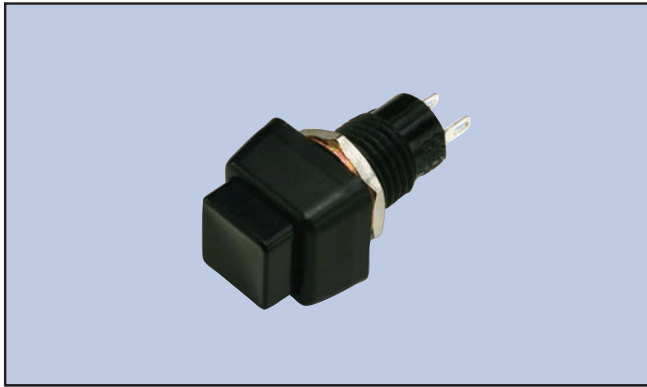
S72



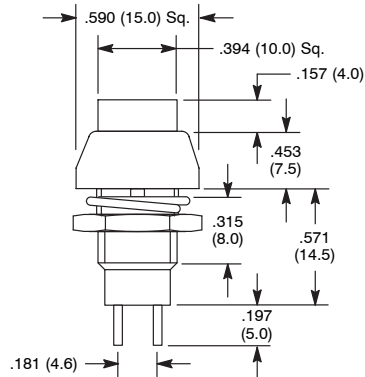
## Specifications

**Current Rating:** 3A 125VAC, 1A 250VAC  
**Insulation Resistance:** 100 Megohms (min.) at 500VDC  
**Dielectric Strength:** 1500V RMS (min.)  
**Temperature Rating:** +14° to +131°F (-10° to +55°C)  
**Electrical Life:** 50,000 cycles  
**Mechanical Life:** 100,000 cycles  
**Terminal Type:** Solder Lug  
**Mounting Hole:** .402 (10.2)

# Pushbutton, Single Pole



S73



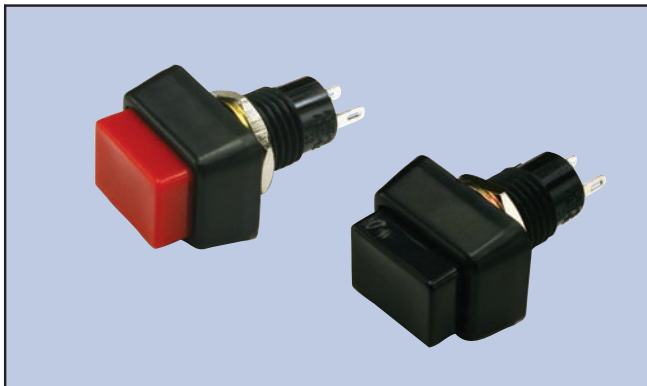
NTE Type No.	Circuitry	Action		Actuator		Diag No.
				Material	Color	
54-389	SPST	OFF	(ON)	ABS Resin	Black	S73

SPECIAL NOTE: ( ) = Momentary Function

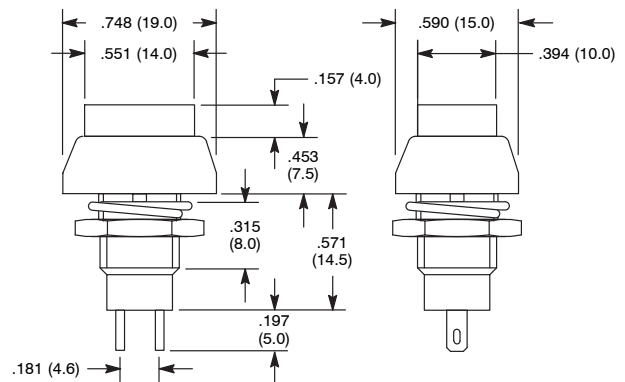
## Specifications

- Current Rating:** 3A 125VAC, 1A 250VAC
- Insulation Resistance:** 100 Megohms (min.) at 500VDC
- Dielectric Strength:** 1500V RMS (min.)
- Temperature Rating:** +14° to +131°F (-10° to +55°C)
- Electrical Life:** 50,000 cycles
- Mechanical Life:** 100,000 cycles
- Terminal Type:** Solder Lug
- Mounting Hole:** .402 (10.2)

# Pushbutton, Single Pole



S74



NTE Type No.	Circuitry	Action		Actuator		Diag No.
				Material	Color	
54-390	SPST	OFF	(ON)	ABS Resin	Black	S74
54-391	SPST	OFF	(ON)	ABS Resin	Red	S74

SPECIAL NOTE: ( ) = Momentary Function

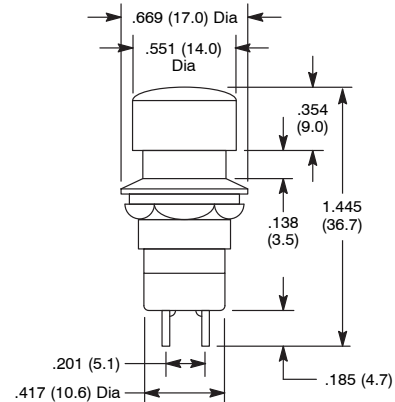
## Specifications

- Current Rating:** 3A 125VAC, 1A 250VAC
- Insulation Resistance:** 100 Megohms (min.) at 500VDC
- Dielectric Strength:** 1500V RMS (min.)
- Temperature Rating:** +14° to +131°F (-10° to +55°C)
- Electrical Life:** 50,000 cycles
- Mechanical Life:** 100,000 cycles
- Terminal Type:** Solder Lug
- Mounting Hole:** .402 (10.2)

# Pushbutton, Single Pole



S75



NTE Type No.	Circuitry	Action		Actuator		Diag No.
				Material	Color	
54-392	SPST	OFF	ON	ABS Resin	White	S75

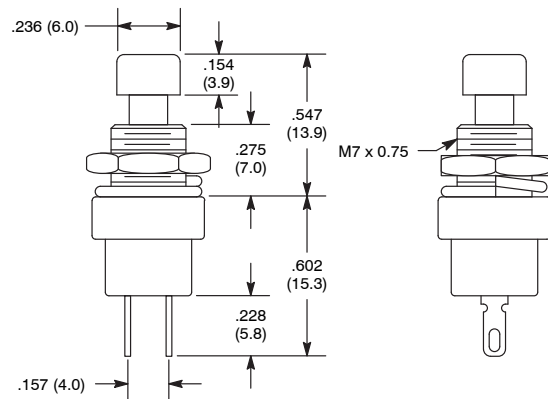
## Specifications

**Current Rating:** 3A 250VAC  
**Insulation Resistance:** 100 Megohms (min.)  
**Dielectric Strength:** 1500V RMS (min.)  
**Temperature Rating:** +14° to +131°F (-10° to +55°C)  
**Electrical Life:** 10,000 cycles  
**Mechanical Life:** 30,000 cycles  
**Terminal Type:** Solder Lug  
**Mounting Hole:** .480 (12.2)

# Pushbutton, Single Pole



S88



NTE Type No.	Circuitry	Action		Actuator		Diag No.
				Material	Color	
54-394	SPST	OFF	(ON)	Nylon	Red	S88

SPECIAL NOTE: ( ) = Momentary Function

## Specifications

**Current Rating:** 3A 250VAC, 1.5A 250VAC  
**Insulation Resistance:** 100 Megohms (min.) at 500VDC  
**Dielectric Strength:** 1000V RMS (min.)  
**Temperature Rating:** -4° to +149°F (-20° to +65°C)  
**Electrical Life:** 6000 cycles (min.)  
**Mechanical Life:** 100,000 cycles (min.)  
**Terminal Type:** Solder Lug  
**Mounting Hole:** .275 (7.0)

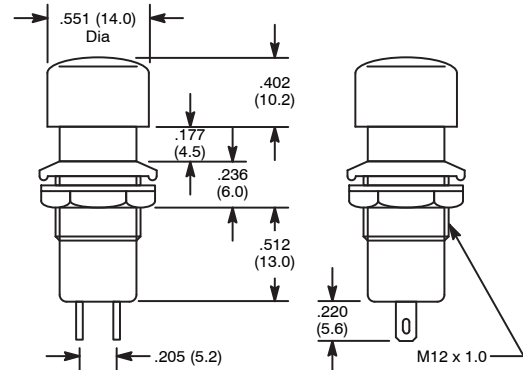
# Pushbutton, Single Pole



NTE Type No.	Circuitry	Action		Actuator		Diag No.
				Material	Color	
54-556	SPST	OFF	(ON)	ABS Resin	Red	S25
54-557	SPST	OFF	(ON)	ABS Resin	Yellow	S25
54-558	SPST	OFF	(ON)	ABS Resin	Black	S25

SPECIAL NOTE: ( ) = Momentary Function

S25



## Specifications

**Current Rating:** 3A 125VAC, 1.5A 250VAC  
**Insulation Resistance:** 100 Megohms (min.) at 500VDC  
**Dielectric Strength:** 1000V RMS (min.)  
**Temperature Rating:** -4° to +149°F (-20° to +65°C)  
**Electrical Life:** 6000 cycles (min.)  
**Mechanical Life:** 100,000 cycles (min.)  
**Terminal Type:** Solder Lug  
**Mounting Hole:** .480 (12.2)

# Pushbutton, Single Pole

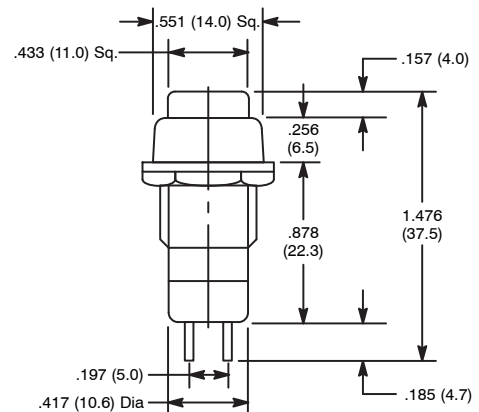


**NEW**

NTE Type No.	Circuitry	Action		Actuator		Diag No.
				Material	Color	
54-125	SPST	OFF	(ON)	Poly Oxy Methylene	Red	S109

SPECIAL NOTE: ( ) = Momentary Function

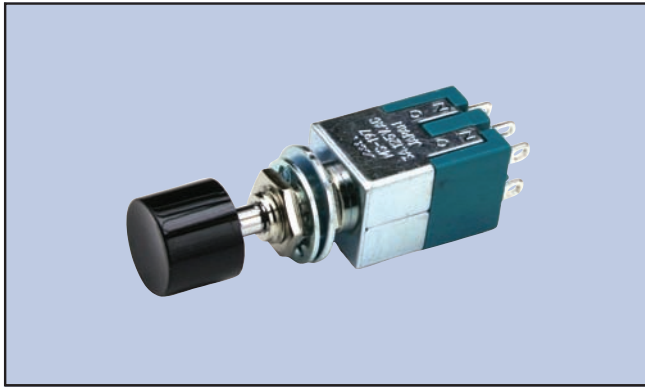
S109



## Specifications

**Current Rating:** 3A 250VAC  
**Insulation Resistance:** 100 Megohms (min.) at 500VDC  
**Dielectric Strength:** 1500V RMS (min.)  
**Temperature Rating:** +14° to +131°F (-10° to +55°C)  
**Electrical Life:** 5,000 cycles  
**Mechanical Life:** 30,000 cycles  
**Terminal Type:** Solder lug  
**Mounting Hole:** .484 (12.3)

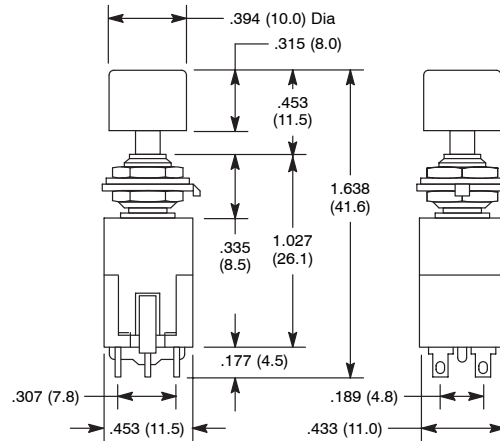
# Pushbutton, Double Pole



NTE Type No.	Circuitry	Action		Actuator		Diag No.
				Material	Color	
54-393	DPDT	ON	ON	Polyamide	Black	S68

SPECIAL NOTE: ( ) = Momentary Function

S68



## Specifications

**Current Rating:** 3A 125VAC  
**Insulation Resistance:** 100 Megohms (min.)  
**Dielectric Strength:** 1000V RMS (min.)  
**Temperature Rating:** +14° to +131°F (-10° to +55°C)  
**Electrical Life:** 10,000 cycles  
**Mechanical Life:** 30,000 cycles  
**Terminal Type:** Solder Lug  
**Mounting Hole:** .244 (6.2)

# Pushbutton, Starter Button, Single Pole



## Features

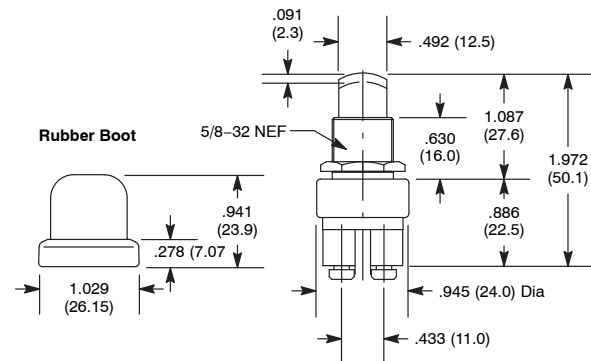
- Heavy Duty Die Cast Construction
- Rubber Dust and Moisture Resistant Boot Nut Included
- Starter Button Applications



NTE Type No.	Circuitry	Action		Actuator		Diag No.
				Material	Color	
54-576	SPST	OFF	(ON)	Nylon 66	Black	S87

SPECIAL NOTE: ( ) = Momentary Function

S87



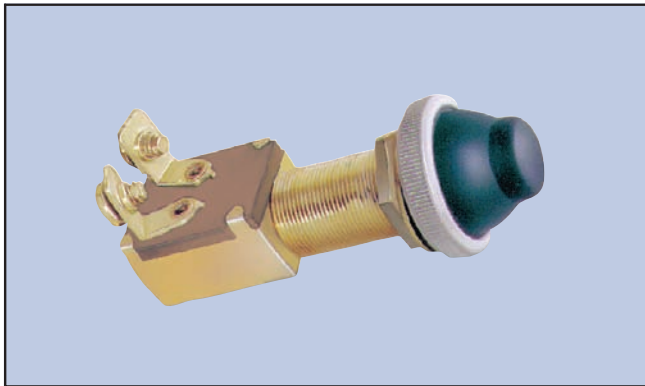
## Specifications

**Current Rating:** 25A 6VDC, 50A 12VDC  
**Insulation Resistance:** 100 Megohms (min.) at 500VDC  
**Dielectric Strength:** 1500V RMS (min.)  
**Temperature Rating:** +0° to +150°F (-18° to +65°C)  
**Electrical Life:** 25,000 cycles  
**Mechanical Life:** 100,000 cycles  
**Terminal Type:** Screw Terminals  
**Mounting Hole:** .630 (16.0)

# Pushbutton, Starter & Horn Button, Single Pole

## Features

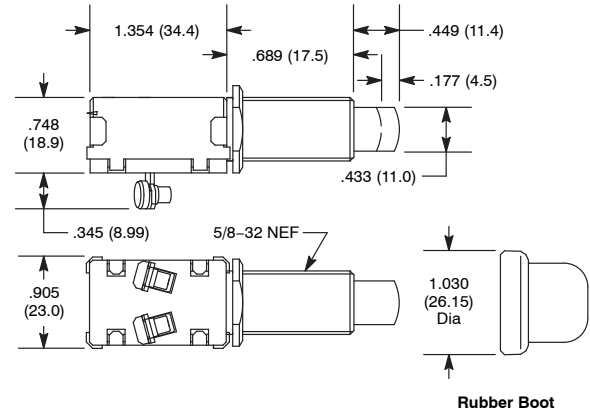
- Moisture Proof and Dust Proof Rubber Cap
- Starter and Horn Switch Applications



NTE Type No.	Circuitry	Action		Actuator		Diag No.
				Material	Color	
54-577	SPST	OFF	(ON)	Nickel Plated Copper	Black	S91

SPECIAL NOTE: ( ) = Momentary Function

## S91



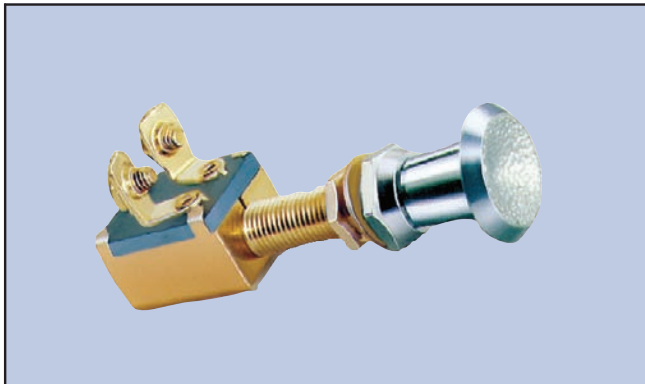
## Specifications

**Current Rating:** 25A 6VDC, 15A 12VDC  
**Insulation Resistance:** 100 Megohms (min.) at 500VDC  
**Dielectric Strength:** 1500V RMS (min.)  
**Temperature Rating:** +0° to +150°F (-18° to +65°C)  
**Electrical Life:** 25,000 cycles  
**Mechanical Life:** 1000,000 cycles  
**Terminal Type:** Screw Terminals  
**Mounting Hole:** .630 (16.0)

# Push-Pull, Single Pole

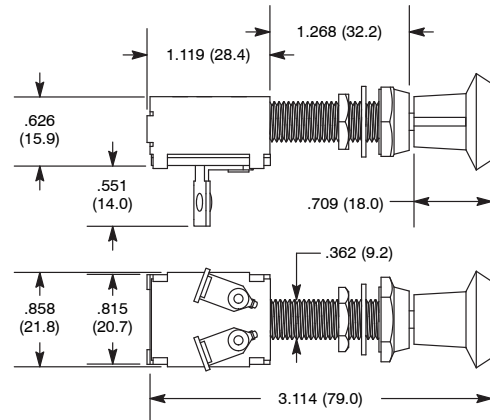
## Features

- Heavy Duty, 2-Position Push-Pull Switch
- Mounting Stem: 1 1/4" Long, 3/8" Diameter



NTE Type No.	Circuitry	Action		Actuator		Diag No.
				Material	Color	
54-578	SPST	OFF	ON	Brass	Chrome	S96

## S96



## Specifications

**Current Rating:** 25A 6VDC, 15A 12VDC  
**Insulation Resistance:** 100 Megohms (min.) at 500VDC  
**Dielectric Strength:** 1500V RMS (min.)  
**Temperature Rating:** +0° to +150°F (-18° to +65°C)  
**Electrical Life:** 30,000 cycles  
**Mechanical Life:** 30,000 cycles  
**Terminal Type:** Screw Terminals  
**Mounting Hole:** .375 (9.52)

# Snap Action, Subminiature



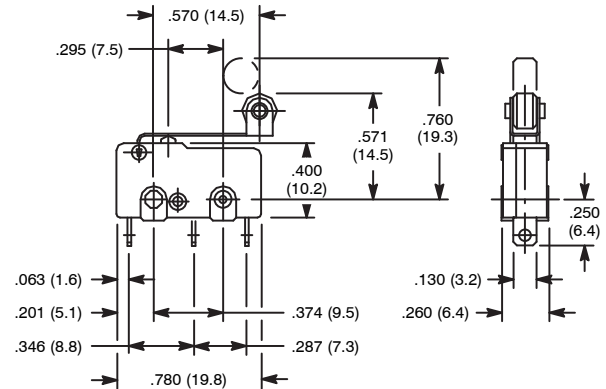
## Features

- Actuator: Hinge Roller Lever



NTE Type No.	Circuitry	Max. Free Position	Min. Over Travel	Max. Operating Force	Max. Differential	Diag No.
54-416	SPDT	0.76"	0.039"	50g	0.039"	S45

## S45



## Specifications

**Current Rating:** 10.1A 125/250VAC, 0.4A 125VDC, 0.2A 250VDC  
**Contact Resistance:** 30 Milliohms (max.) initial  
**Insulation Resistance:** 100 Megohms at 500VDC  
**Dielectric Strength:** 1000VAC (50/60Hz for 1 minute)  
**Temperature Rating:** -13° to +185°F (-25° to +85°C) with no icing  
**Electrical Life:** 50,000 cycles min. (under rated load)  
**Mechanical Life:** 10,000,000 cycles min.  
**Terminal Type:** Solder Terminals

# Snap Action, Subminiature



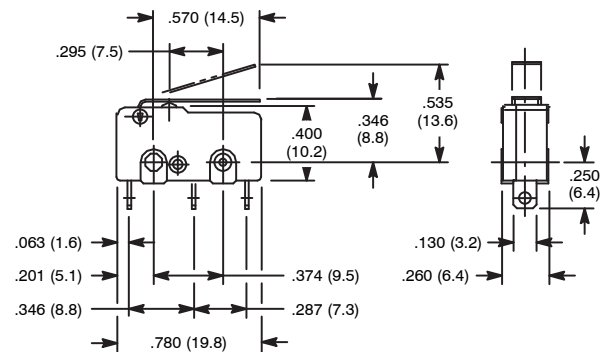
## Features

- Actuator: Hinge Lever



NTE Type No.	Circuitry	Max. Free Position	Min. Over Travel	Max. Operating Force	Max. Differential	Diag No.
54-417	SPDT	0.535"	0.039"	50g	0.039"	S46

## S46



## Specifications

**Current Rating:** 10.1A 125/250VAC, 0.4A 125VDC, 0.2A 250VDC  
**Contact Resistance:** 30 Milliohms (max.) initial  
**Insulation Resistance:** 100 Megohms at 500VDC  
**Dielectric Strength:** 1000VAC (50/60Hz for 1 minute)  
**Temperature Rating:** -13° to +185°F (-25° to +85°C) with no icing  
**Electrical Life:** 50,000 cycles min. (under rated load)  
**Mechanical Life:** 10,000,000 cycles min.  
**Terminal Type:** Solder Terminals

# Snap Action, Subminiature



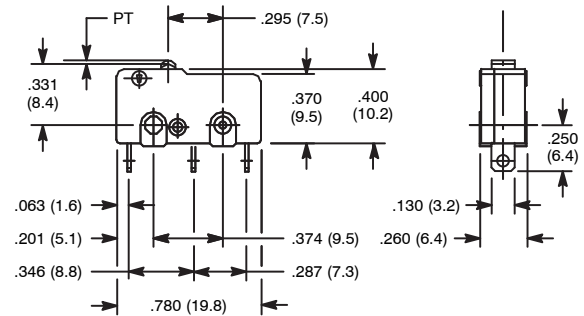
## Features

- Actuator: Pin Plunger



NTE Type No.	Circuitry	Max. Pre-Travel	Min. Over Travel	Max. Operating Force	Max. Differential	Diag No.
54-418	SPDT	0.024"	0.016"	150g	0.005"	S47

## S47



## Specifications

**Current Rating:** 10.1A 125/250VAC, 0.4A 125VDC, 0.2A 250VDC  
**Contact Resistance:** 30 Milliohms (max.) initial  
**Insulation Resistance:** 100 Megohms at 500VDC  
**Dielectric Strength:** 1000VAC (50/60Hz for 1 minute)  
**Temperature Rating:** -13° to +185°F (-25° to +85°C) with no icing  
**Electrical Life:** 50,000 cycles min. (under rated load)  
**Mechanical Life:** 10,000,000 cycles min.  
**Terminal Type:** Solder Terminals

# Snap Action, General Purpose



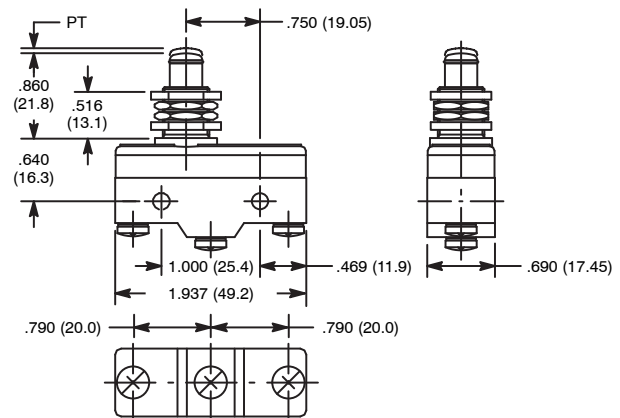
## Features

- Actuator: Panel Mount Plunger



NTE Type No.	Circuitry	Max. Pre-Travel	Min. Over Travel	Max. Operating Force	Max. Differential	Diag No.
54-450	SPDT	0.05"	0.22"	625g	0.01"	S39

## S39



## Specifications

**Current Rating:** 20A 125/250/480VAC, 10A 125VAC "L" (Tungsten)  
 0.5A 125VDC, 0.25A 250VDC, 1 HP 125VAC, 2 HP 250VA  
**Contact Resistance:** 15 Milliohms (max.) initial  
**Insulation Resistance:** 100 Megohms (min.) at 500VDC  
**Dielectric Strength:** 1000VAC (50/60Hz for 1 minute)  
**Temperature Rating:** -13° to +176°F (-25° to +80°C)  
**Electrical Life:** 500,000 cycles min. (under rated load)  
**Mechanical Life:** 1,000,000 cycles min.  
**Terminal Type:** Screw Terminals



# Snap Action, General Purpose



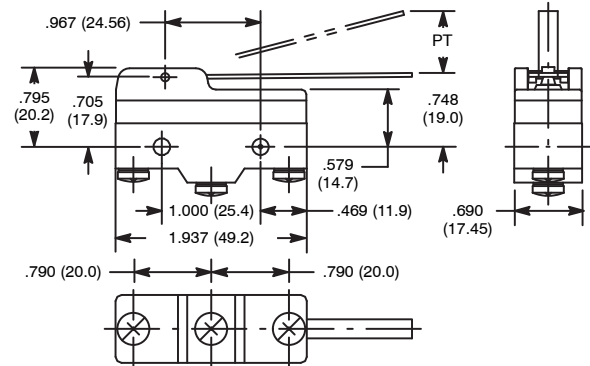
## Features

- Actuator: Long Hinge Lever



NTE Type No.	Circuitry	Max. Pre-Travel	Min. Over Travel	Max. Operating Force	Max. Differential	Diag No.
54-451	SPDT	0.63"	0.16"	70g	0.09"	S40

## S40



## Specifications

**Current Rating:** 20A 125/250/480VAC, 10A 125VAC "L" (Tungsten)  
0.5A 125VDC, 0.25A 250VDC, 1 HP 125VAC, 2 HP 250VA

**Contact Resistance:** 15 Milliohms (max.) initial

**Insulation Resistance:** 100 Megohms (min.) at 500VDC

**Dielectric Strength:** 1000VAC (50/60Hz for 1 minute)

**Temperature Rating:** -13° to +176°F (-25° to +80°C)

**Electrical Life:** 500,000 cycles min. (under rated load)

**Mechanical Life:** 1,000,000 cycles min.

**Terminal Type:** Screw Terminals

# Snap Action, General Purpose



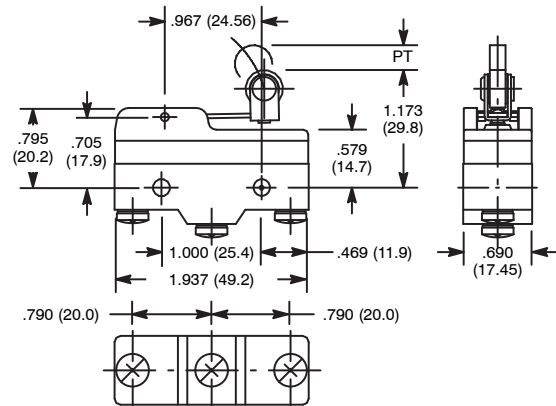
## Features

- Actuator: Short Hinge Roller Lever



NTE Type No.	Circuitry	Max. Pre-Travel	Min. Over Travel	Max. Operating Force	Max. Differential	Diag No.
54-452	SPDT	0.25"	0.05"	160g	0.05"	S41

## S41



## Specifications

**Current Rating:** 20A 125/250/480VAC, 10A 125VAC "L" (Tungsten)  
0.5A 125VDC, 0.25A 250VDC, 1 HP 125VAC, 2 HP 250VA

**Contact Resistance:** 15 Milliohms (max.) initial

**Insulation Resistance:** 100 Megohms (min.) at 500VDC

**Dielectric Strength:** 1000VAC (50/60Hz for 1 minute)

**Temperature Rating:** -13° to +176°F (-25° to +80°C)

**Electrical Life:** 500,000 cycles min. (under rated load)

**Mechanical Life:** 1,000,000 cycles min.

**Terminal Type:** Screw Terminals

# Snap Action, General Purpose



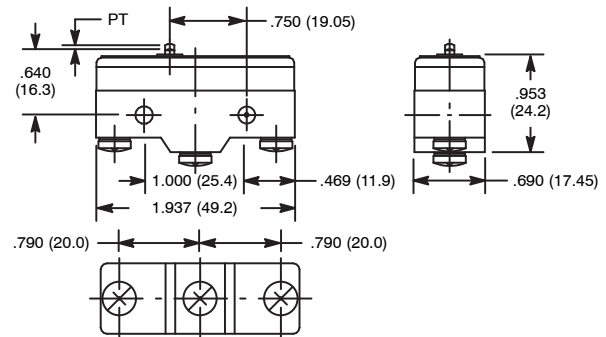
## Features

- Actuator: Pin Plunger



NTE Type No.	Circuitry	Max. Pre-Travel	Min. Over Travel	Max. Operating Force	Max. Differential	Diag No.
54-453	SPDT	0.05"	0.01"	625g	0.01"	S42

## S42



## Specifications

**Current Rating:** 20A 125/250/480VAC, 10A 125VAC "L" (Tungsten)  
0.5A 125VDC, 0.25A 250VDC, 1 HP 125VAC, 2 HP 250VA

**Contact Resistance:** 15 Milliohms (max.) initial

**Insulation Resistance:** 100 Megohms (min.) at 500VDC

**Dielectric Strength:** 1000VAC (50/60Hz for 1 minute)

**Temperature Rating:** -13° to +176°F (-25° to +80°C)

**Electrical Life:** 500,000 cycles min. (under rated load)

**Mechanical Life:** 1,000,000 cycles min.

**Terminal Type:** Screw Terminals

# Snap Action, General Purpose



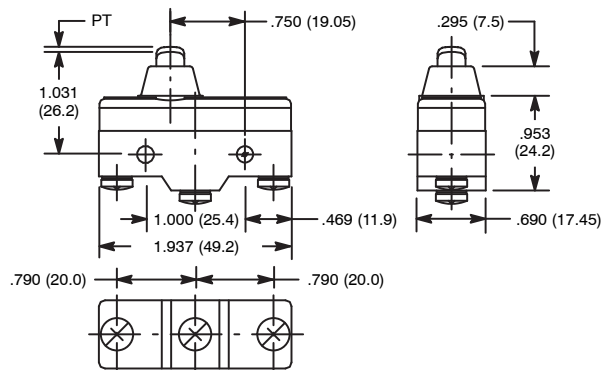
## Features

- Actuator: Short Spring Plunger



NTE Type No.	Circuitry	Max. Pre-Travel	Min. Over Travel	Max. Operating Force	Max. Differential	Diag No.
54-454	SPDT	0.05"	0.12"	625g	0.01"	S43

## S43



## Specifications

**Current Rating:** 20A 125/250/480VAC, 10A 125VAC "L" (Tungsten)  
0.5A 125VDC, 0.25A 250VDC, 1 HP 125VAC, 2 HP 250VA

**Contact Resistance:** 15 Milliohms (max.) initial

**Insulation Resistance:** 100 Megohms (min.) at 500VDC

**Dielectric Strength:** 1000VAC (50/60Hz for 1 minute)

**Temperature Rating:** -13° to +176° (-25°C to +80°C)

**Electrical Life:** 500,000 cycles min. (under rated load)

**Mechanical Life:** 1,000,000 cycles min.

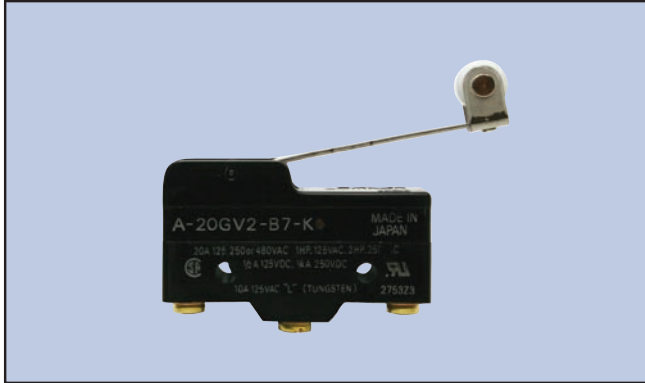
**Terminal Type:** Screw Terminals

# Snap Action, General Purpose



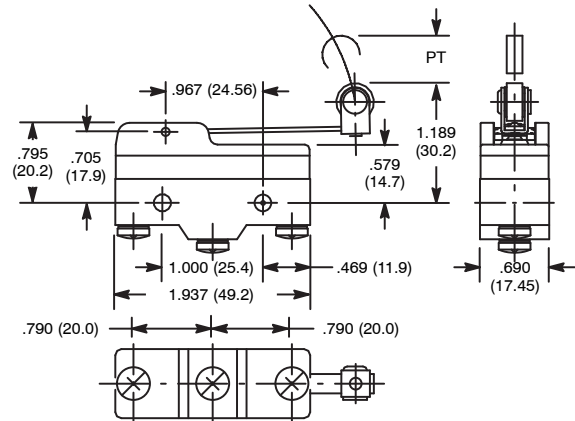
## Features

- Actuator: Hinge Roller Lever



NTE Type No.	Circuitry	Max. Pre-Travel	Min. Over Travel	Max. Operating Force	Max. Differential	Diag No.
54-455	SPDT	0.47"	0.09"	90g	0.09"	S44

## S44



## Specifications

**Current Rating:** 20A 125/250/480VAC, 10A 125VAC "L" (Tungsten)  
0.5A 125VDC, 0.25A 250VDC, 1 HP 125VAC, 2 HP 250VA

**Contact Resistance:** 15 Milliohms (max.) initial

**Insulation Resistance:** 100 Megohms (min.) at 500VDC

**Dielectric Strength:** 1000VAC (50/60Hz for 1 minute)

**Temperature Rating:** -13° to +176°F (-25° to +80°C)

**Electrical Life:** 500,000 cycles min. (under rated load)

**Mechanical Life:** 1,000,000 cycles min.

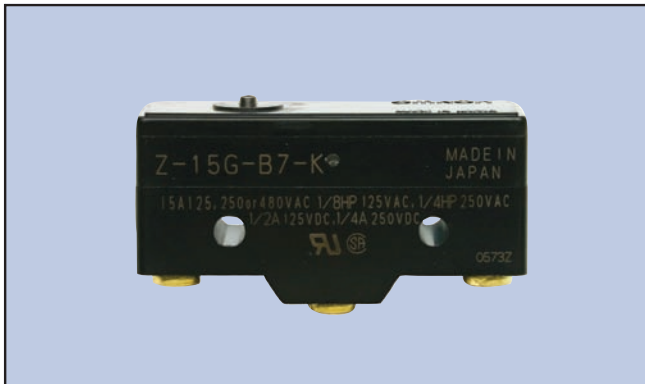
**Terminal Type:** Screw Terminals

# Snap Action, Standard



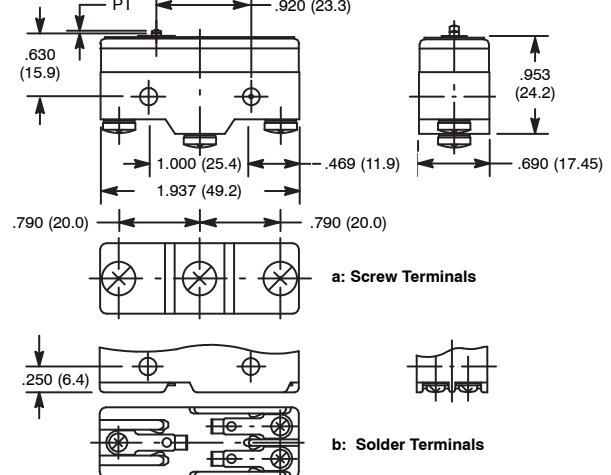
## Features

- Actuator: Pin Plunger



NTE Type No.	Circuitry	Max. Pre-Travel	Min. Over Travel	Max. Operating Force	Max. Differential	Diag No.
54-423	SPDT	0.02"	0.01"	350g	0.002"	S48a
54-435	SPDT	0.02"	0.01"	350g	0.002"	S48b

## S48



## Specifications

**Current Rating:** 15A 125/250/480VAC, 0.5A 125VDC, 0.25A 250VDC  
1/8 HP 125VAC, 1/4 HP 250VA

**Contact Resistance:** 50 Milliohms (max.) initial

**Insulation Resistance:** 100 Megohms at 500VDC

**Dielectric Strength:** 1000VAC (50/60Hz for 1 minute)

**Temperature Rating:** -13° to +176°F (-25° to +80°C) with no icing

**Electrical Life:** 500,000 cycles min. (under rated load)

**Mechanical Life:** 20,000,000 cycles min.

**Terminal Type:** Refer to Diag No. in Table

# Snap Action, Standard

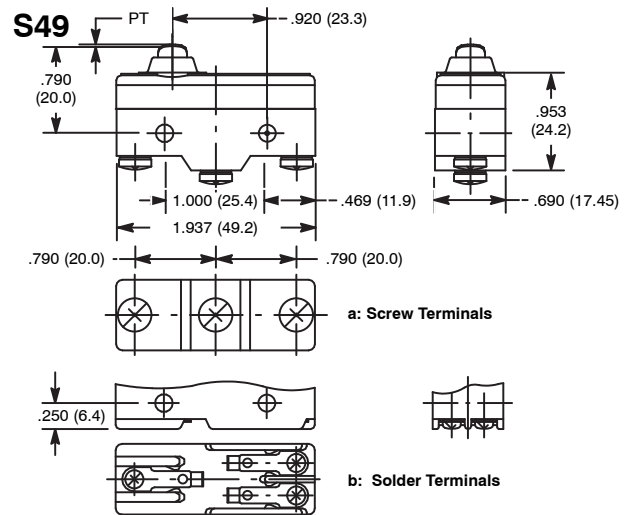


## Features

- Actuator: Short Spring Plunger



NTE Type No.	Circuitry	Max. Pre-Travel	Min. Over Travel	Max. Operating Force	Max. Differential	Diag No.
54-424	SPDT	0.02"	0.06"	350g	0.002"	S49a
54-437	SPDT	0.02"	0.06"	350g	0.002"	S49b



## Specifications

**Current Rating:** 15A 125/250/480VAC, 0.5A 125VDC, 0.25A 250VDC  
1/8 HP 125VAC, 1/4 HP 250VA

**Contact Resistance:** 50 Milliohms (max.) initial

**Insulation Resistance:** 100 Megohms at 500VDC

**Dielectric Strength:** 1000VAC (50/60Hz for 1 minute)

**Temperature Rating:** -13° to +176°F (-25° to +80°C) with no icing

**Electrical Life:** 500,000 cycles min. (under rated load)

**Mechanical Life:** 20,000,000 cycles min.

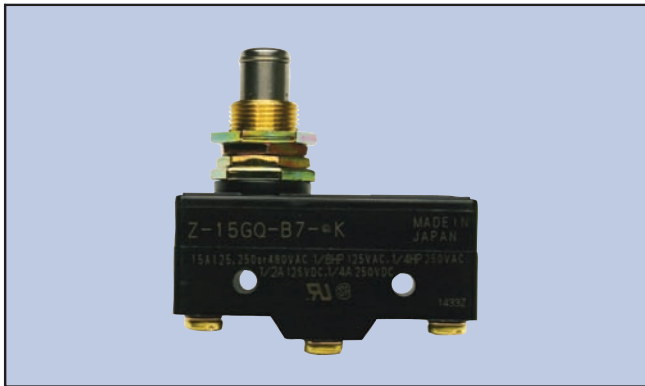
**Terminal Type:** Refer to Diag No. in Table

# Snap Action, Standard

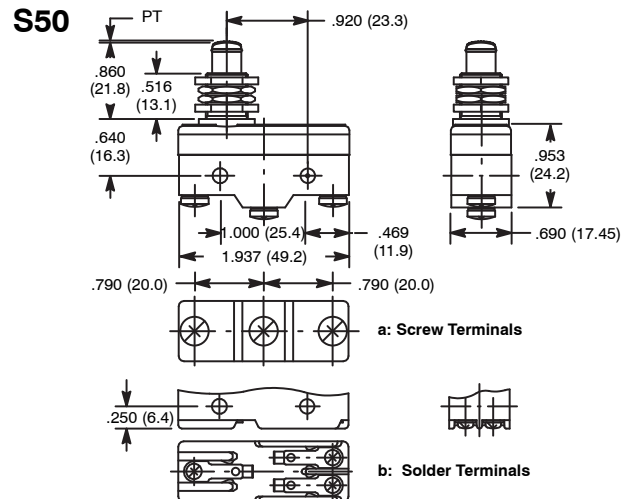


## Features

- Actuator: Panel Mount Plunger



NTE Type No.	Circuitry	Max. Pre-Travel	Min. Over Travel	Max. Operating Force	Max. Differential	Diag No.
54-425	SPDT	0.02"	0.22"	350g	0.002"	S50a
54-433	SPDT	0.02"	0.22"	350g	0.002"	S50b



## Specifications

**Current Rating:** 15A 125/250/480VAC, 0.5A 125VDC, 0.25A 250VDC  
1/8 HP 125VAC, 1/4 HP 250VA

**Contact Resistance:** 50 Milliohms (max.) initial

**Insulation Resistance:** 100 Megohms at 500VDC

**Dielectric Strength:** 1000VAC (50/60Hz for 1 minute)

**Temperature Rating:** -13° to +176°F (-25° to +80°C) with no icing

**Electrical Life:** 500,000 cycles min. (under rated load)

**Mechanical Life:** 20,000,000 cycles min.

**Terminal Type:** Refer to Diag No. in Table

# Snap Action, Standard



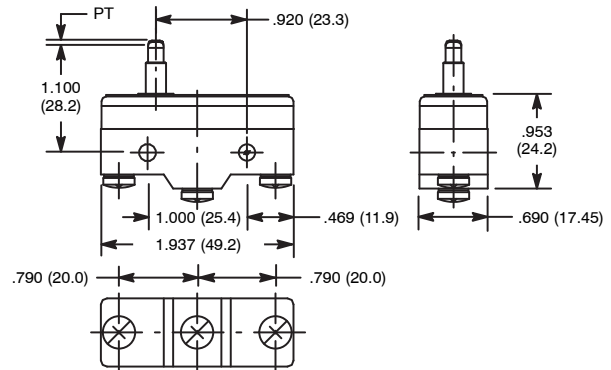
## Features

- Actuator: Slim Spring Plunger



NTE Type No.	Circuitry	Max. Pre-Travel	Min. Over Travel	Max. Operating Force	Max. Differential	Diag No.
54-426	SPDT	0.02"	0.06"	350g	0.002"	S51

## S51



## Specifications

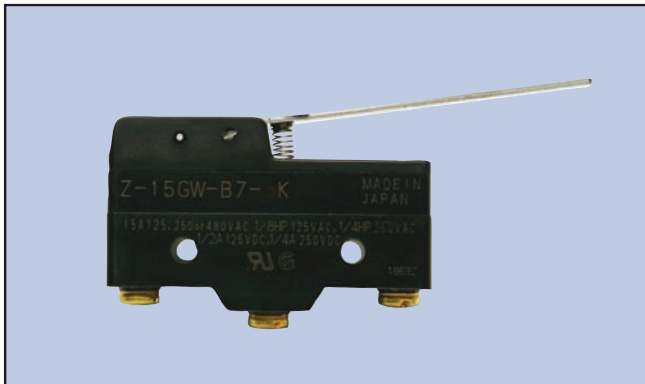
**Current Rating:** 15A 125/250/480VAC, 0.5A 125VDC, 0.25A 250VDC  
 1/8 HP 125VAC, 1/4 HP 250VA  
**Contact Resistance:** 50 Milliohms (max.) initial  
**Insulation Resistance:** 100 Megohms at 500VDC  
**Dielectric Strength:** 1000VAC (50/60Hz for 1 minute)  
**Temperature Rating:** -13° to +176°F (-25° to +80°C) with no icing  
**Electrical Life:** 500,000 cycles min. (under rated load)  
**Mechanical Life:** 20,000,000 cycles min.  
**Terminal Type:** Screw Terminal

# Snap Action, Standard



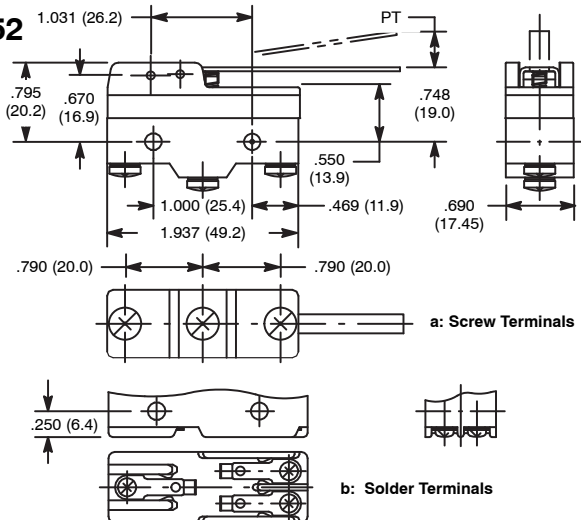
## Features

- Actuator: Long Hinge Lever



NTE Type No.	Circuitry	Max. Pre-Travel	Min. Over Travel	Max. Operating Force	Max. Differential	Diag No.
54-427	SPDT	0.022"	0.05"	70g	0.05"	S52a
54-432	SPDT	0.022"	0.05"	70g	0.05"	S52b

## S52



## Specifications

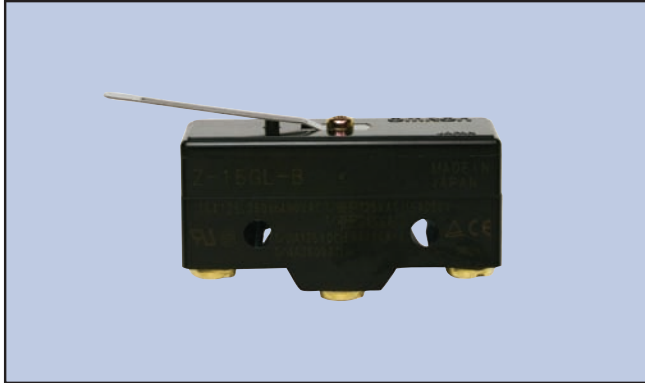
**Current Rating:** 15A 125/250/480VAC, 0.5A 125VDC, 0.25A 250VDC  
 1/8 HP 125VAC, 1/4 HP 250VA  
**Contact Resistance:** 50 Milliohms (max.) initial  
**Insulation Resistance:** 100 Megohms at 500VDC  
**Dielectric Strength:** 1000VAC (50/60Hz for 1 minute)  
**Temperature Rating:** -13° to +176°F (-25° to +80°C) with no icing  
**Electrical Life:** 500,000 cycles min. (under rated load)  
**Mechanical Life:** 20,000,000 cycles min.  
**Terminal Type:** Refer to Diag No. in Table

# Snap Action, Standard



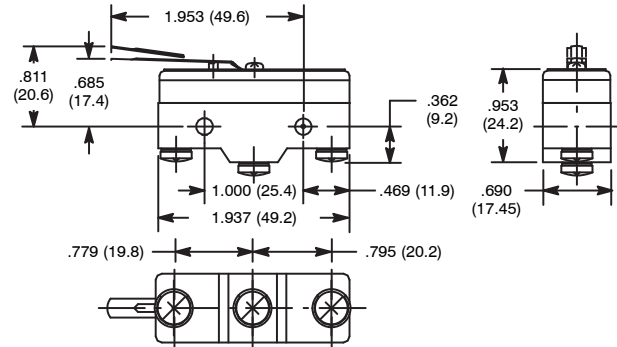
## Features

- Actuator: Hinge Lever



NTE Type No.	Circuitry	Max. Pre-Travel	Min. Over Travel	Max. Operating Force	Max. Differential	Diag No.
54-428	SPDT	0.157"	0.063"	141g	0.051"	S53

## S53



## Specifications

**Current Rating:** 15A 125/250VAC, 0.5A 125VDC, 0.25A 250VDC  
1/8 HP 125VAC, 1/4 HP 250VAC

**Contact Resistance:** 15 Milliohms (max.) initial

**Insulation Resistance:** 100 Megohms at 500VDC

**Dielectric Strength:** 1500VAC (50/60Hz for 1 minute)

**Temperature Rating:** -13° to +176°F (-25° to +80°C)

**Electrical Life:** 100,000 cycles min. (under rated load)

**Mechanical Life:** 1,000,000 cycles min.

**Terminal Type:** Screw Terminal

# Snap Action, Standard



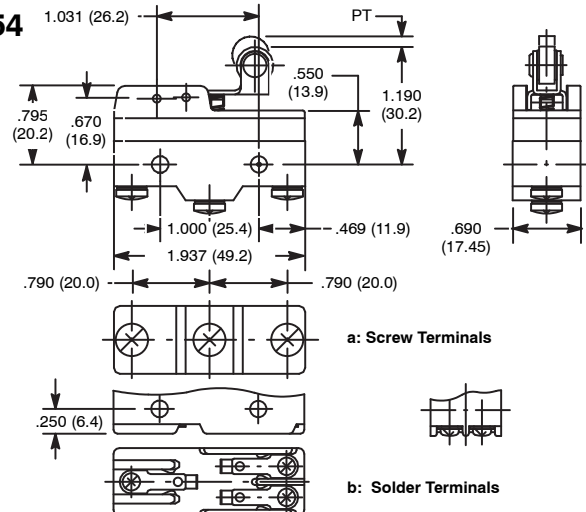
## Features

- Actuator: Short Hinge Roller Lever



NTE Type No.	Circuitry	Max. Pre-Travel	Min. Over Travel	Max. Operating Force	Max. Differential	Diag No.
54-429	SPDT	0.22"	0.05"	70g	0.02"	S54b
54-440	SPDT	0.09"	0.095"	160g	0.02"	S54a

## S54



## Specifications

**Current Rating:** 15A 125/250/480VAC, 0.5A 125VDC, 0.25A 250VDC  
1/8 HP 125VAC, 1/4 HP 250VA

**Contact Resistance:** 50 Milliohms (max.) initial

**Insulation Resistance:** 100 Megohms at 500VDC

**Dielectric Strength:** 1000VAC (50/60Hz for 1 minute)

**Temperature Rating:** -13° to +176°F (-25° to +80°C) with no icing

**Electrical Life:** 500,000 cycles min. (under rated load)

**Mechanical Life:** 20,000,000 cycles min.

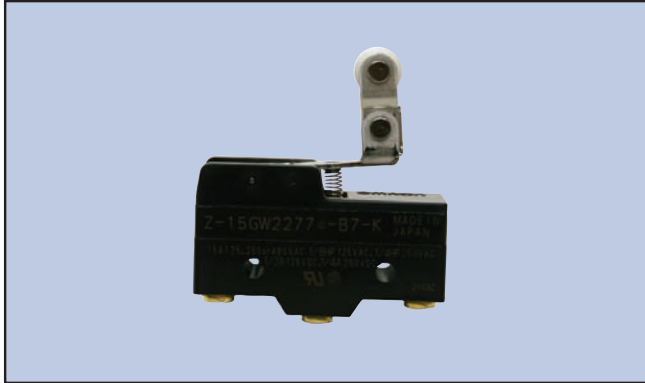
**Terminal Type:** Refer to Diag No. in Table

# Snap Action, Standard



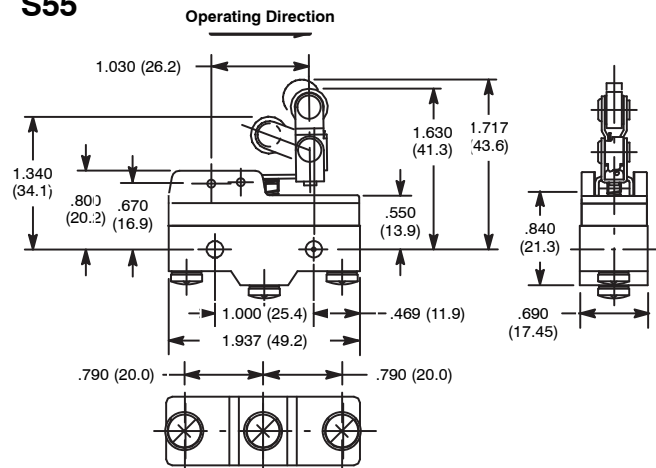
## Features

- Actuator: Unidirectional Short Hinge Roller Lever



NTE Type No.	Circuitry	Max. Pre-Travel	Min. Over Travel	Max. Operating Force	Max. Differential	Diag No.
54-430	SPDT	0.09"	0.02"	170g	0.02"	S55

## S55



## Specifications

**Current Rating:** 15A 125/250/480VAC, 0.5A 125VDC, 0.25A 250VDC  
1/8 HP 125VAC, 1/4 HP 250VA

**Contact Resistance:** 50 Milliohms (max.) initial

**Insulation Resistance:** 100 Megohms at 500VDC

**Dielectric Strength:** 1000VAC (50/60Hz for 1 minute)

**Temperature Rating:** -13° to +176°F (-25° to +80°C) with no icing

**Electrical Life:** 500,000 cycles min. (under rated load)

**Mechanical Life:** 20,000,000 cycles min.

**Terminal Type:** Screw Terminal

# Snap Action, Standard



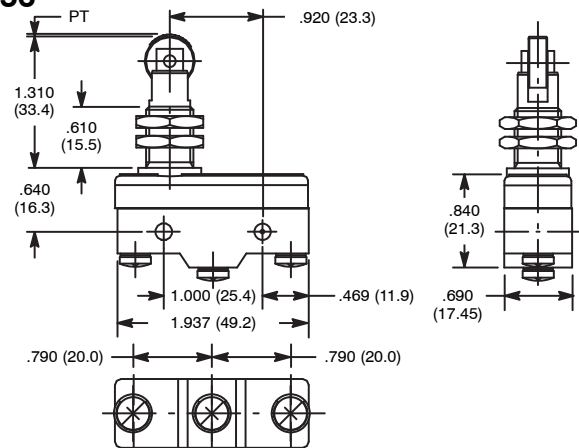
## Features

- Actuator: Panel Mount Roller Plunger



NTE Type No.	Circuitry	Max. Pre-Travel	Min. Over Travel	Max. Operating Force	Max. Differential	Diag No.
54-438	SPDT	0.02"	0.22"	350g	0.002"	S56

## S56



## Specifications

**Current Rating:** 15A 125/250/480VAC, 0.5A 125VDC, 0.25A 250VDC  
1/8 HP 125VAC, 1/4 HP 250VA

**Contact Resistance:** 50 Milliohms (max.) initial

**Insulation Resistance:** 100 Megohms at 500VDC

**Dielectric Strength:** 1000VAC (50/60Hz for 1 minute)

**Temperature Rating:** -13° to +176°F (-25° to +80°C) with no icing

**Electrical Life:** 500,000 cycles min. (under rated load)

**Mechanical Life:** 20,000,000 cycles min.

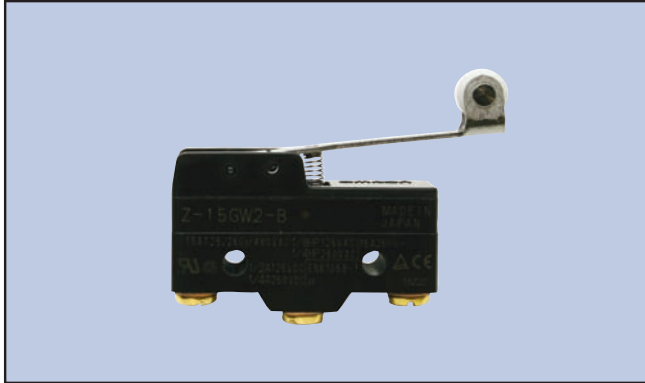
**Terminal Type:** Screw Terminal

# Snap Action, Standard



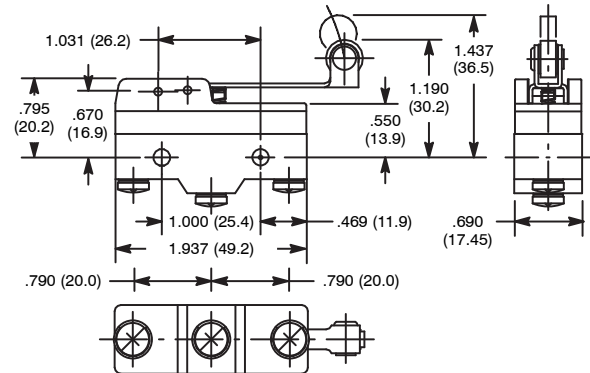
## Features

- Actuator: Hinge Roller Lever



NTE Type No.	Circuitry	Max. Pre-Travel	Min. Over Travel	Max. Operating Force	Max. Differential	Diag No.
54-441	SPDT	0.16"	0.04"	100g	0.04"	S57

## S57



## Specifications

**Current Rating:** 15A 125/250/480VAC, 0.5A 125VDC, 0.25A 250VDC  
 1/8 HP 125VAC, 1/4 HP 250VA  
**Contact Resistance:** 50 Milliohms (max.) initial  
**Insulation Resistance:** 100 Megohms at 500VDC  
**Dielectric Strength:** 1000VAC (50/60Hz for 1 minute)  
**Temperature Rating:** -13° to +176°F (-25° to +80°C) with no icing  
**Electrical Life:** 500,000 cycles min. (under rated load)  
**Mechanical Life:** 20,000,000 cycles min.  
**Terminal Type:** Screw Terminal

# Snap Action, Standard



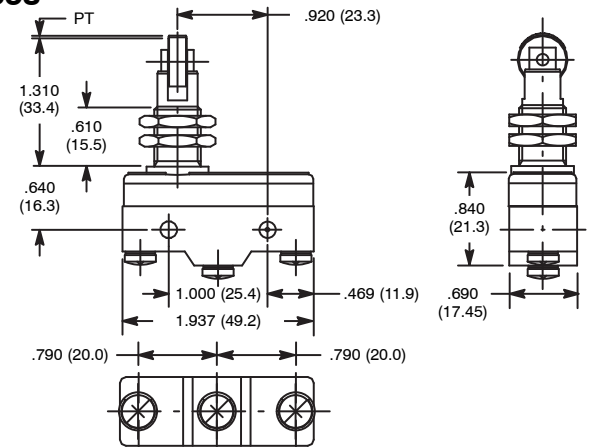
## Features

- Actuator: Panel Mount Cross Roller Plunger



NTE Type No.	Circuitry	Max. Pre-Travel	Min. Over Travel	Max. Operating Force	Max. Differential	Diag No.
54-442	SPDT	0.02"	0.14"	350g	0.002"	S58

## S58



## Specifications

**Current Rating:** 15A 125/250/480VAC, 0.5A 125VDC, 0.25A 250VDC  
 1/8 HP 125VAC, 1/4 HP 250VA  
**Contact Resistance:** 50 Milliohms (max.) initial  
**Insulation Resistance:** 100 Megohms at 500VDC  
**Dielectric Strength:** 1000VAC (50/60Hz for 1 minute)  
**Temperature Rating:** -13° to +176°F (-25° to +80°C) with no icing  
**Electrical Life:** 500,000 cycles min. (under rated load)  
**Mechanical Life:** 20,000,000 cycles min.  
**Terminal Type:** Screw Terminal



# Snap Action, Standard

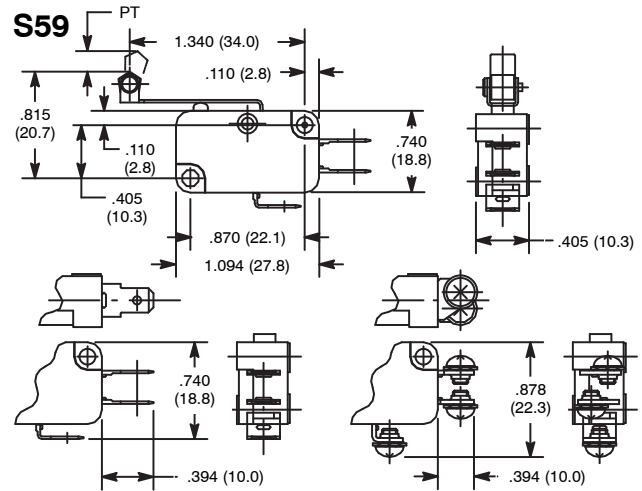


## Features

- Actuator: Hinge Roller Lever



NTE Type No.	Circuitry	Max. Pre-Travel	Min. Over Travel	Max. Operating Force	Max. Differential	Diag No.
54-400	SPDT	0.13"	0.09"	125g	0.03"	S59a
54-405	SPDT	0.13"	0.09"	125g	0.03"	S59b
54-406	SPDT	0.13"	0.09"	60g	0.03"	S59a



a: Quick Connect Terminals

b: Screw Terminals

## Specifications

**Current Rating:** 15A 250VAC, 0.1A 125VDC (54-400, 54-405)  
10A 250VAC, 0.1A 125VDC (54-406)

**Contact Resistance:** 15 Milliohms (15A); 30 Milliohms (10A)(max.) initial

**Insulation Resistance:** 100 Megohms at 500VDC

**Dielectric Strength:** 1000VAC between non-continuous terminals

**Temperature Rating:** -13° to +176°F (-25° to +80°C)

**Electrical Life:** 100,000 (15A); 300,000 (10A) cycles min. (under rated load)

**Mechanical Life:** 50,000,000 cycles min.

**Terminal Type:** Refer to Diag No. in Table

# Snap Action, Standard

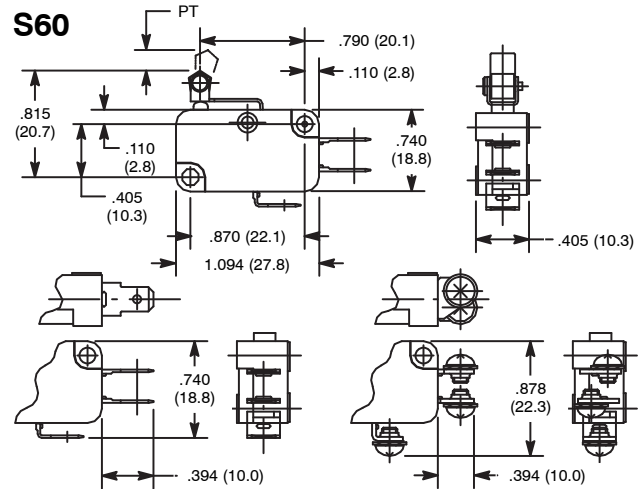


## Features

- Actuator: Short Hinge Roller Lever



NTE Type No.	Circuitry	Max. Pre-Travel	Min. Over Travel	Max. Operating Force	Max. Differential	Diag No.
54-401	SPDT	0.06"	0.04"	240g	0.02"	S60b
54-407	SPDT	0.06"	0.04"	240g	0.02"	S60a
54-408	SPDT	0.06"	0.04"	120b	0.02"	S60a



a: Quick Connect Terminals

b: Screw Terminals

## Specifications

**Current Rating:** 15A 250VAC, 0.1A 125VDC (54-401)  
10A 250VAC, 0.1A 125VDC (54-407, 54-408)

**Contact Resistance:** 15 Milliohms (15A); 30 Milliohms (10A)(max.) initial

**Insulation Resistance:** 100 Megohms at 500VDC

**Dielectric Strength:** 1000VAC between non-continuous terminals

**Temperature Rating:** -13° to +176°F (-25° to +80°C)

**Electrical Life:** 100,000 (15A); 300,000 (10A) cycles min. (under rated load)

**Mechanical Life:** 50,000,000 cycles min.

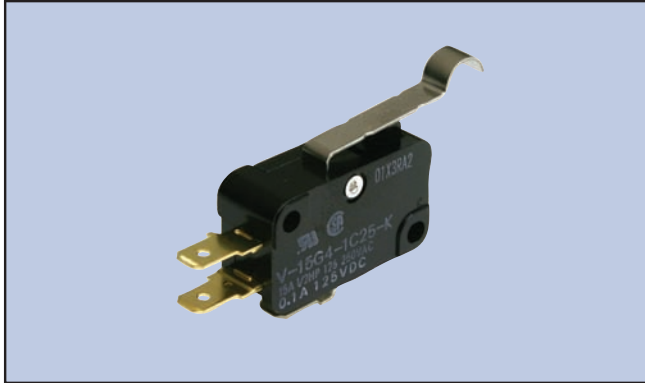
**Terminal Type:** Screw Terminals

# Snap Action, Standard

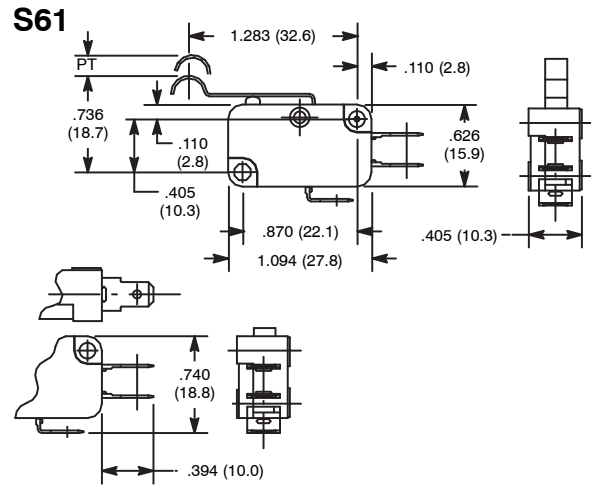


## Features

- Actuator: Simulated Roller Lever



NTE Type No.	Circuitry	Max. Pre-Travel	Min. Over Travel	Max. Operating Force	Max. Differential	Diag No.
54-402	SPDT	0.13"	0.09"	125g	0.03"	S61
54-422	SPDT	0.13"	0.09"	60g	0.03"	S61



Quick Connect Terminals

## Specifications

**Current Rating:** 15A 250VAC, 0.1A 125VDC (54-402)  
10A 250VAC, 0.1A 125VDC (54-422)

**Contact Resistance:** 15 Milliohms (15A); 30 Milliohms (10A)(max.) initial

**Insulation Resistance:** 100 Megohms at 500VDC

**Dielectric Strength:** 1000VAC between non-continuous terminals

**Temperature Rating:** -13° to +176°F (-25° to +80°C)

**Electrical Life:** 100,000 (15A); 300,000 (10A) cycles min. (under rated load)

**Mechanical Life:** 50,000,000 cycles min.

**Terminal Type:** .187" Quick Connect Terminals

# Snap Action, Standard

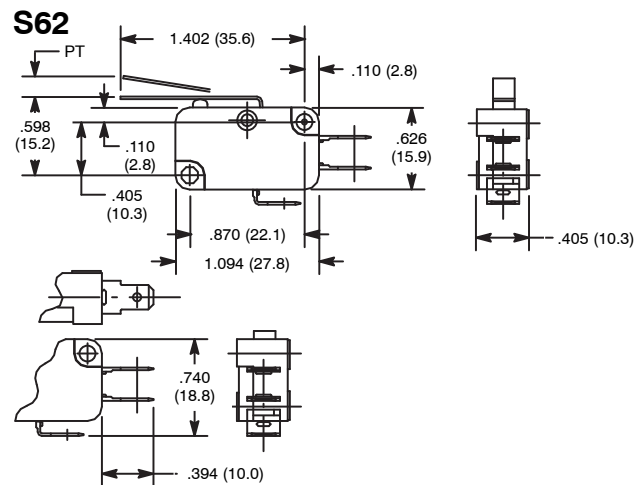


## Features

- Actuator: Hinge Lever



NTE Type No.	Circuitry	Max. Pre-Travel	Min. Over Travel	Max. Operating Force	Max. Differential	Diag No.
54-403	SPDT	0.13"	0.09"	125g	0.03"	S62
54-414	SPDT	0.13"	0.09"	60g	0.03"	S62



Quick Connect Terminals

## Specifications

**Current Rating:** 15A 250VAC, 0.1A 125VDC (54-403)  
10A 250VAC, 0.1A 125VDC (54-414)

**Contact Resistance:** 15 Milliohms (max.) initial

**Insulation Resistance:** 100 Megohms at 500VDC

**Dielectric Strength:** 1000VAC between non-continuous terminals

**Temperature Rating:** -13° to +176°F (-25° to +80°C)

**Electrical Life:** 100,000 cycles min. (under rated load)

**Mechanical Life:** 50,000,000 cycles min.

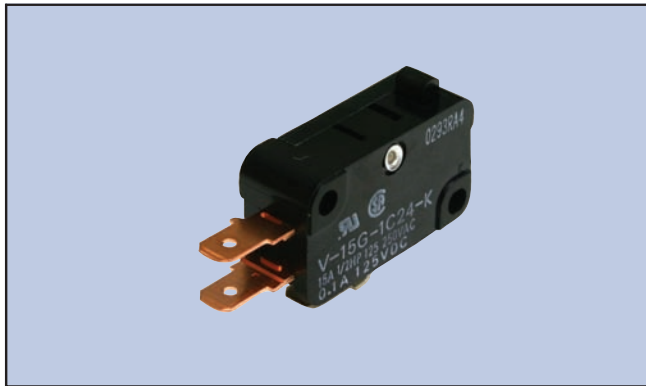
**Terminal Type:** .187" Quick Connect Terminals

# Snap Action, Standard

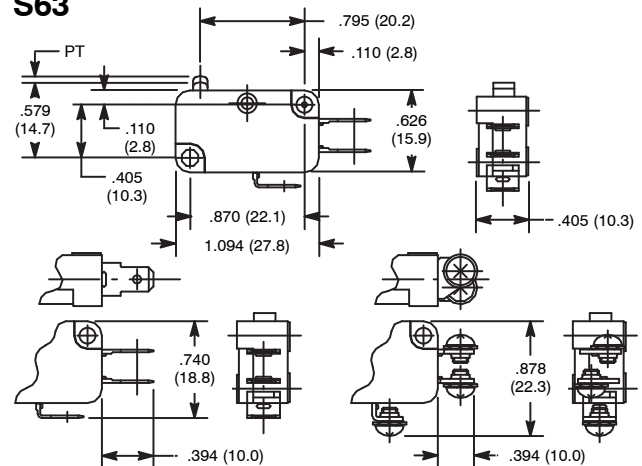


## Features

- Actuator: Pin Plunger



## S63



a: Quick Connect Terminals

b: Screw Terminals

NTE Type No.	Circuitry	Max. Pre-Travel	Min. Over Travel	Max. Operating Force	Max. Differential	Diag No.
54-404	SPDT	0.06"	0.04"	100g	0.02"	S63a
54-411	SPDT	0.05"	0.05"	100g	0.01"	S63a
54-412	SPST-NC	0.05"	0.05"	100g	0.01"	S63a
54-413	SPST-NO	0.05"	0.05"	100g	0.01"	S63a
54-415	SPDT	0.05"	0.05"	200g	0.01"	S63b
54-419	SPDT	0.05"	0.05"	200g	0.01"	S63a
54-420	SPDT	0.05"	0.05"	200g	0.01"	S63a

## Specifications

**Current Rating:** 15A 250VAC, 0.1A 125VDC (54-404, 54-419 ONLY)  
10A 250VAC, 0.1A 125VDC

**Contact Resistance:** 15 Milliohms (15A); 30 Milliohms (10A)(max.) initial

**Insulation Resistance:** 100 Megohms at 500VDC

**Dielectric Strength:** 1000VAC between non-continuous terminals

**Temperature Rating:** -13° to +176°F (-25° to +80°C)

**Electrical Life:** 100,000 (15A); 300,000 (10A) cycles min. (under rated load)

**Mechanical Life:** 50,000,000 cycles min.

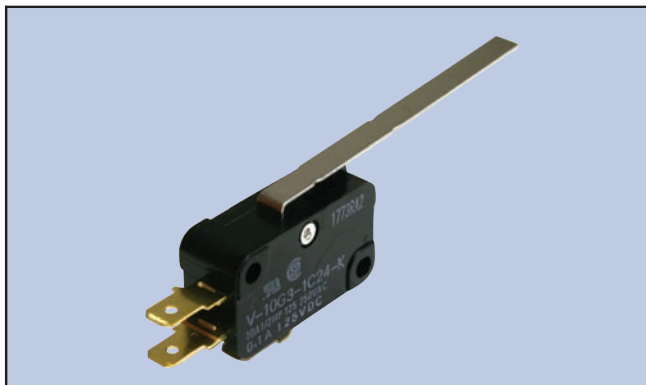
**Terminal Type:** Refer to Diag No. in Table

# Snap Action, Standard

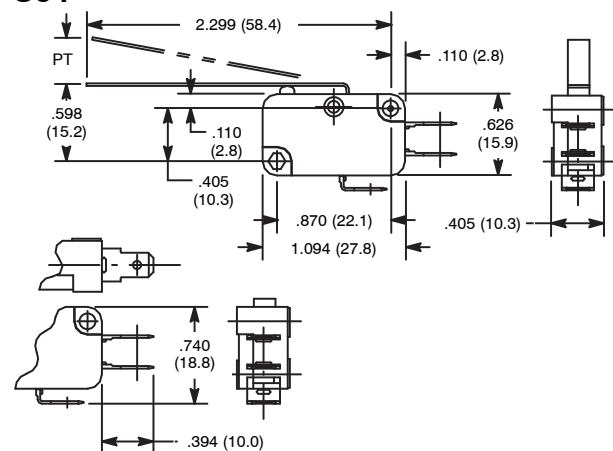


## Features

- Actuator: Long Hinge Lever



## S64



Quick Connect Terminals

NTE Type No.	Circuitry	Max. Pre-Travel	Min. Over Travel	Max. Operating Force	Max. Differential	Diag No.
54-409	SPDT	0.30"	0.13"	35g	0.08"	S64
54-410	SPDT	0.35"	0.12"	70g	0.08"	S64

## Specifications

**Current Rating:** 10A 250VAC, 0.1A 125VDC

**Contact Resistance:** 30 Milliohms (max.) initial

**Insulation Resistance:** 100 Megohms at 500VDC

**Dielectric Strength:** 1000VAC between non-continuous terminals

**Temperature Rating:** -13° to +176°F (-25° to +80°C)

**Electrical Life:** 300,000 cycles min. (under rated load)

**Mechanical Life:** 50,000,000 cycles min.

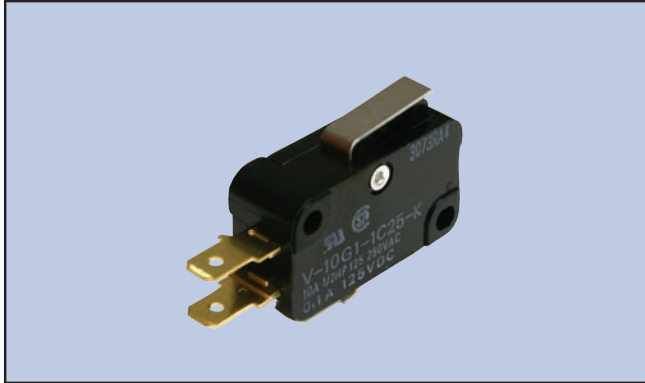
**Terminal Type:** .187" Quick Connect Terminals

# Snap Action, Standard



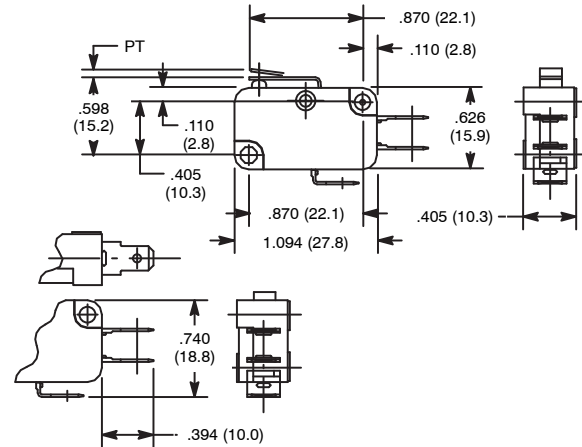
## Features

- Actuator: Short Hinge Lever



NTE Type No.	Circuitry	Max. Pre-Travel	Min. Over Travel	Max. Operating Force	Max. Differential	Diag No.
54-421	SPDT	0.05"	0.05"	200g	0.01"	S65

## S65



Quick Connect Terminals

## Specifications

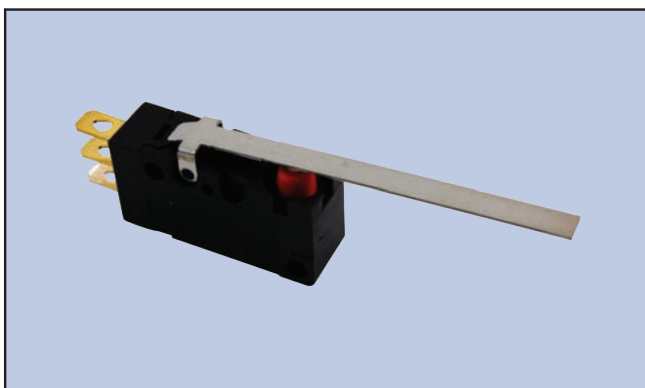
**Current Rating:** 10A 250VAC, 0.1A 125VDC  
**Contact Resistance:** 30 Milliohms (max.) initial  
**Insulation Resistance:** 100 Megohms at 500VDC  
**Dielectric Strength:** 1000VAC between non-continuous terminals  
**Temperature Rating:** -13° to +176°F (-25° to +80°C)  
**Electrical Life:** 300,000 cycles min. (under rated load)  
**Mechanical Life:** 50,000,000 cycles min.  
**Terminal Type:** .187" Quick Connect Terminals

# Snap Action, Sealed, Miniature



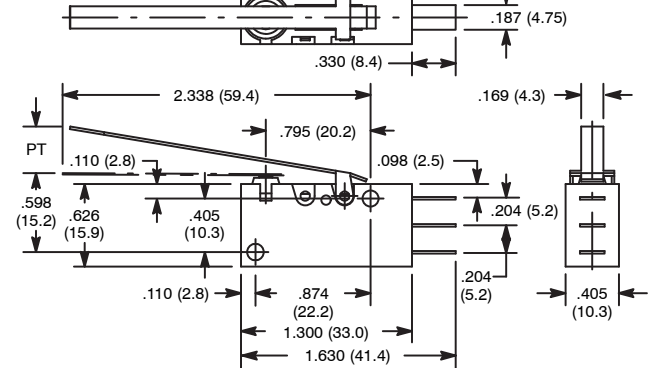
## Features

- Actuator: Long Hinge Lever
- Sealed Construction (Meets IP50 Requirements)
- RoHS Compliant



NTE Type No.	Circuitry	Max. Pre-Travel	Min. Over Travel	Max. Operating Force	Max. Differential	Diag No.
54-480WT	SPDT	0.35"	0.13"	60g	0.03"	S110
54-481WT	SPDT	0.35"	0.13"	60g	0.03"	S110

## S110



## Specifications

**Current Rating:**  
**54-480WT:** 5A 125/250VAC (Note: UL/CSA for 3 Amp Only), 5A 30VDC, 0.4A 125VDC, 0.2A 250VDC  
**54-481WT:** 0.1A 125VAC, 0.1A 30VDC  
**Contact Resistance:** 100 Milliohms (max.) initial  
**Insulation Resistance:** 100 Megohms (min.) at 500VDC  
**Dielectric Strength (50/60Hz for 1 min.):**  
**Between Contacts of Same Polarity:** 1000VAC  
**Between Each Terminal & GND:** 1500VAC  
**Temperature Rating:** -40° to +194°F (-40° to +90°C)  
**Electrical Life:** 100,000 (5A Type); 1,000,000 (0.1A Type) cycles min.  
**Mechanical Life:** 10,000,000 cycles min.  
**Terminal Type:** Solder Lug and #187 Tab Terminals

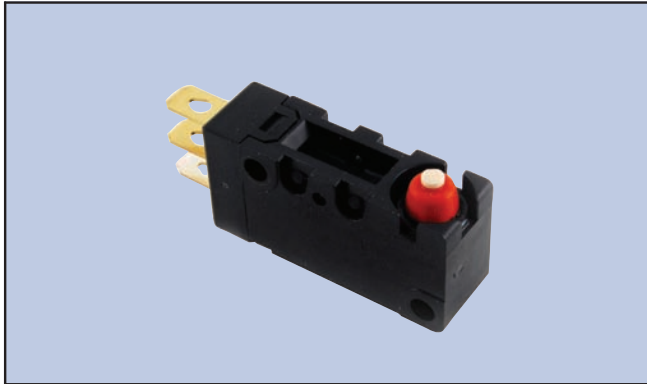
NEW  
NEW

# Snap Action, Sealed, Miniature

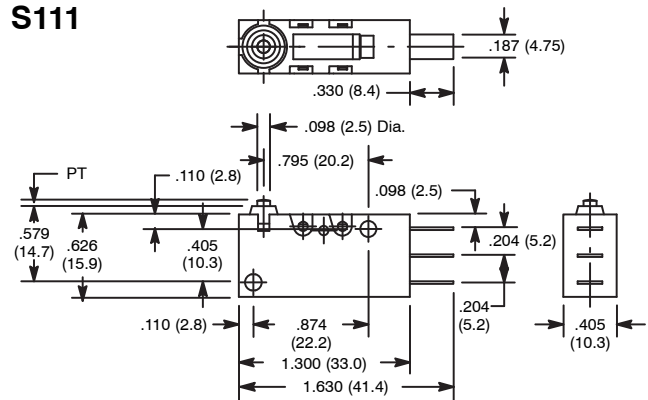


## Features

- Actuator: Pin Plunger
- Sealed Construction (Meets IP50 Requirements)
- RoHS Compliant



S111



## Specifications

### Current Rating:

**54-482WT:** 5A 125/250VAC (Note: UL/CSA for 3 Amp Only), 5A 30VDC, 0.4A 125VDC, 0.2A 250VDC

**54-483WT:** 0.1A 125VAC, 0.1A 30VDC

**Contact Resistance:** 100 Milliohms (max.) initial

**Insulation Resistance:** 100 Megohms (min.) at 500VDC

**Dielectric Strength (50/60Hz for 1 min.):**

**Between Contacts of Same Polarity:** 1000VAC

**Between Each Terminal & GND:** 1500VAC

**Temperature Rating:** -40° to +194°F (-40° to +90°C)

**Electrical Life:** 100,000 (5A Type); 1,000,000 (0.1A Type) cycles min.

**Mechanical Life:** 10,000,000 cycles min.

**Terminal Type:** Solder Lug and #187 Tab Terminals

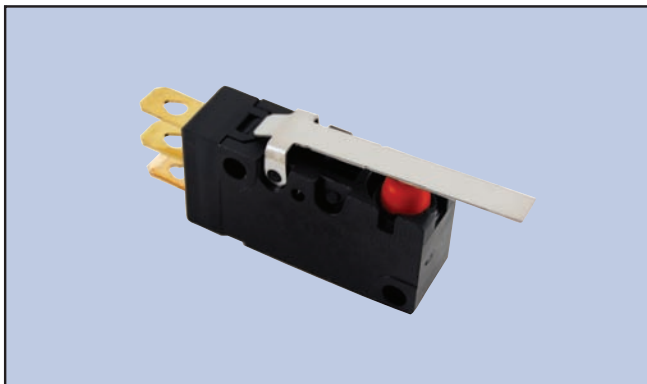
NTE Type No.	Circuitry	Max. Pre-Travel	Min. Over Travel	Max. Operating Force	Max. Differential	Diag No.
NEW 54-482WT	SPDT	0.05"	0.04"	200g	0.016"	S111
NEW 54-483WT	SPDT	0.05"	0.04"	200g	0.016"	S111

# Snap Action, Sealed, Miniature

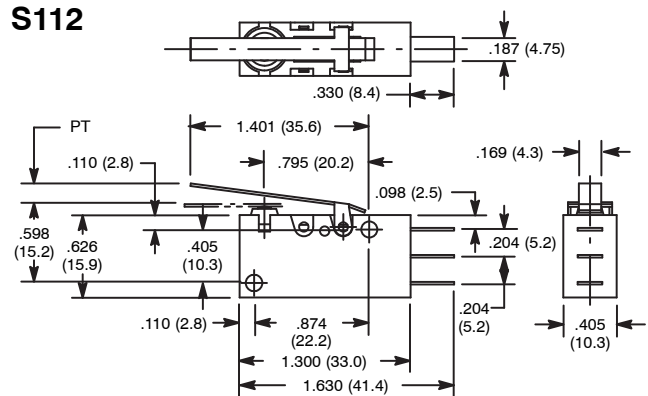


## Features

- Actuator: Hinge Lever
- Sealed Construction (Meets IP50 Requirements)
- RoHS Compliant



S112



## Specifications

### Current Rating:

**54-484WT:** 5A 125/250VAC (Note: UL/CSA for 3 Amp Only), 5A 30VDC, 0.4A 125VDC, 0.2A 250VDC

**54-485WT:** 0.1A 125VAC, 0.1A 30VDC

**Contact Resistance:** 100 Milliohms (max.) initial

**Insulation Resistance:** 100 Megohms (min.) at 500VDC

**Dielectric Strength (50/60Hz for 1 min.):**

**Between Contacts of Same Polarity:** 1000VAC

**Between Each Terminal & GND:** 1500VAC

**Temperature Rating:** -40° to +194°F (-40° to +90°C)

**Electrical Life:** 100,000 (5A Type); 1,000,000 (0.1A Type) cycles min.

**Mechanical Life:** 10,000,000 cycles min.

**Terminal Type:** Solder Lug and #187 Tab Terminals

NTE Type No.	Circuitry	Max. Pre-Travel	Min. Over Travel	Max. Operating Force	Max. Differential	Diag No.
NEW 54-484WT	SPDT	0.16"	0.06"	120g	0.03"	S112
NEW 54-485WT	SPDT	0.16"	0.06"	120g	0.03"	S112

# Snap Action, Sealed, Miniature

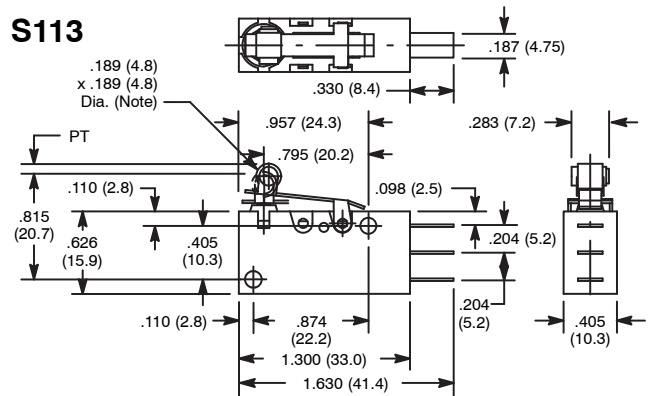


## Features

- Actuator: Short Hinge Roller Lever
- Sealed Construction (Meets IP50 Requirements)
- RoHS Compliant



S113



Note: Oilless polyacetal resin roller

## Specifications

### Current Rating:

54-486WT: 5A 125/250VAC (Note: UL/CSA for 3 Amp Only), 5A 30VDC, 0.4A 125VDC, 0.2A 250VDC

54-487WT: 0.1A 125VAC, 0.1A 30VDC

**Contact Resistance:** 100 Milliohms (max.) initial

**Insulation Resistance:** 100 Megohms (min.) at 500VDC

**Dielectric Strength (50/60Hz for 1 min.):**

Between Contacts of Same Polarity: 1000VAC

Between Each Terminal & GND: 1500VAC

**Temperature Rating:** -40° to +194°F (-40° to +90°C)

**Electrical Life:** 100,000 (5A Type); 1,000,000 (0.1A Type) cycles min.

**Mechanical Life:** 10,000,000 cycles min.

**Terminal Type:** Solder Lug and #187 Tab Terminals

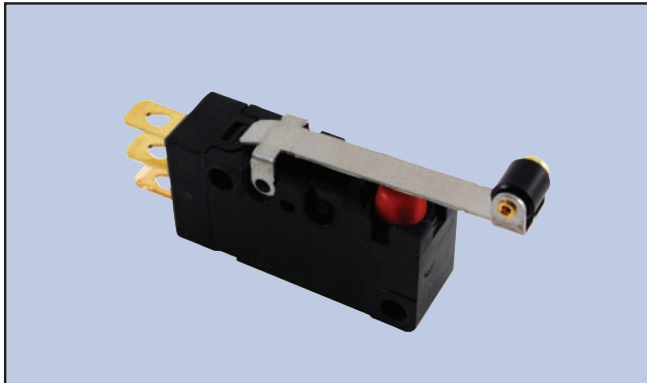
NTE Type No.	Circuitry	Max. Pre-Travel	Min. Over Travel	Max. Operating Force	Max. Differential	Diag No.
NEW 54-486WT	SPDT	0.06"	0.03"	230g	0.02"	S113
NEW 54-487WT	SPDT	0.06"	0.03"	230g	0.02"	S113

# Snap Action, Sealed, Miniature

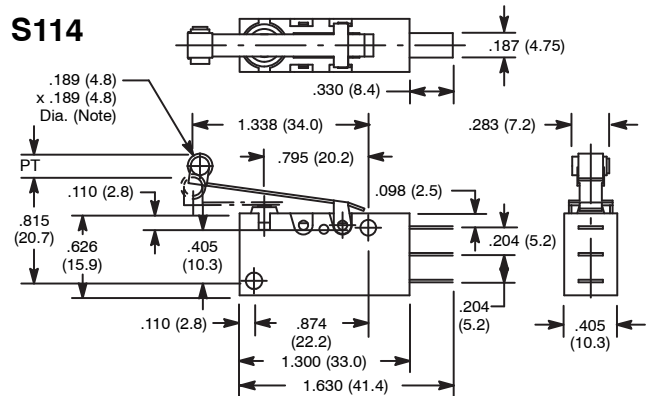


## Features

- Actuator: Hinge Roller Lever
- Sealed Construction (Meets IP50 Requirements)
- RoHS Compliant



S114



Note: Oilless polyacetal resin roller

## Specifications

### Current Rating:

54-488WT: 5A 125/250VAC (Note: UL/CSA for 3 Amp Only), 5A 30VDC, 0.4A 125VDC, 0.2A 250VDC

54-489WT: 0.1A 125VAC, 0.1A 30VDC

**Contact Resistance:** 100 Milliohms (max.) initial

**Insulation Resistance:** 100 Megohms (min.) at 500VDC

**Dielectric Strength (50/60Hz for 1 min.):**

Between Contacts of Same Polarity: 1000VAC

Between Each Terminal & GND: 1500VAC

**Temperature Rating:** -40° to +194°F (-40° to +90°C)

**Electrical Life:** 100,000 (5A Type); 1,000,000 (0.1A Type) cycles min.

**Mechanical Life:** 10,000,000 cycles min.

**Terminal Type:** Solder Lug and #187 Tab Terminals

NTE Type No.	Circuitry	Max. Pre-Travel	Min. Over Travel	Max. Operating Force	Max. Differential	Diag No.
NEW 54-488WT	SPDT	0.16"	0.06"	120g	0.03"	S114
NEW 54-489WT	SPDT	0.16"	0.06"	120g	0.03"	S114

# Introduction to Anti-Vandal Pushbutton Switches

## General Information

All NTE Anti-Vandal Series models are rugged, durable, cosmetically attractive and feature:

- Minimum clearance between actuator and bushing, to prevent willful damage by means of insertion of foreign parts or matter.
- Protection against crushing of contacts and switch mechanism.
- Front panel sealing to IEC specification IP54.

Typical applications include, but are not limited to:

- Schools
- Correctional Facilities
- Elevators
- Entrance Security

The NTE Anti-Vandal Series consists of 3 categories of pushbutton switches designated **Anti-Vandal**, **Security** and **Snap-Action Security**. The distinctive features are:

**Anti-Vandal** – Highest impact resistance provided by a knurled back nut or mechanical stop and added ruggedness provided by a stainless steel actuator and bushing. The 19mm models meet IK08 which specifies the switch must withstand a hammer blow to the actuator with a striking energy of 6 joules, while the 22mm models meet IK10 which specifies the switch must similarly withstand 20 joules of energy. In both of these cases, no resulting damage is permissible.

**Security** – High impact resistance and ruggedness with a large variety of options, including actuator shapes, electrical functions, connections, finish and marking options.

**Snap-Action Security** – High impact resistance and ruggedness. All of these models feature tactile response.

# Anti-Vandal Pushbutton, Single Pole



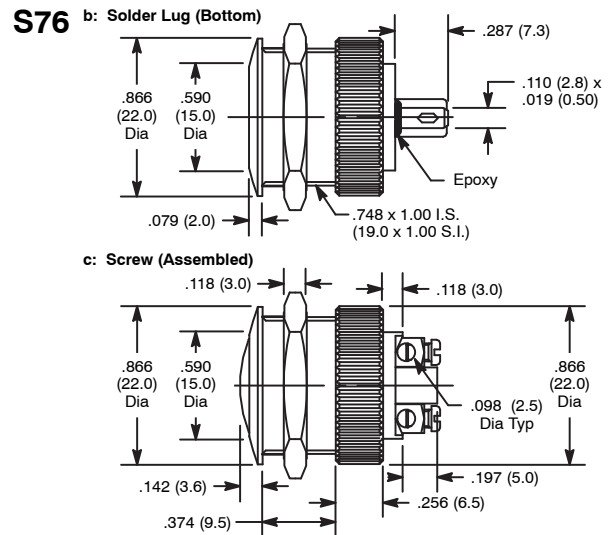
## Features

- .748" (19mm) bushing diameter



NTE Type No.	Circuitry	Action		Actuator	Diag No.
54-377	SPST-NO	OFF	(ON)	Stainless Steel, Flat	S76b
54-378	SPST-NO	OFF	(ON)	Stainless Steel, Curved	S76c

SPECIAL NOTE: ( ) = Momentary Function



## Specifications

**Contact Rating:** 2A 48VDC max. (resistive load)  
**Initial Contact Resistance:** 10 Milliohms (max.) at 1A, 2V  
**Insulation Resistance:** 100 Megohms (min.) at 500VDC  
**Dielectric Strength:** 2000V RMS (min.)  
**Temperature Rating:** -4° to +131°F (-20° to +55°C)  
**Electrical Life:** 10,000 cycles min. at full load  
**Mechanical Life:** 1,000,000 cycles min.  
**Terminal Type:** Refer to Diag No. in Table  
**Mounting Hole:** .756 (19.2)

# Anti-Vandal Pushbutton, Single Pole



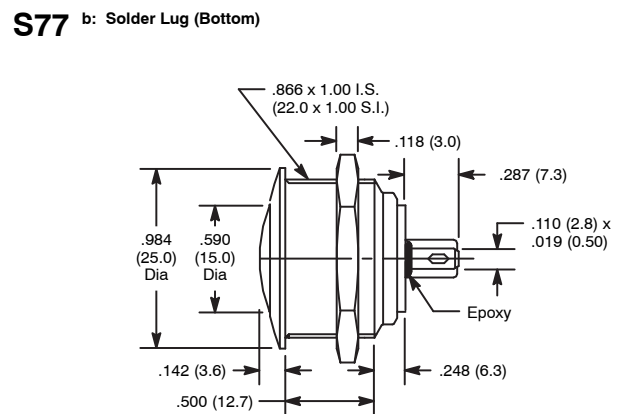
## Features

- .866" (22mm) bushing diameter



NTE Type No.	Circuitry	Action		Actuator	Diag No.
54-379	SPST-NO	OFF	(ON)	Stainless Steel, Curved	S77b

SPECIAL NOTE: ( ) = Momentary Function



## Specifications

**Contact Rating:** 2A 48VDC max. (resistive load)  
**Initial Contact Resistance:** 10 Milliohms (max.) at 1A, 2V  
**Insulation Resistance:** 100 Megohms (min.) at 500VDC  
**Dielectric Strength:** 2000V RMS (min.)  
**Temperature Rating:** -4° to +131°F (-20° to +55°C)  
**Electrical Life:** 10,000 cycles min. at full load  
**Mechanical Life:** 1,000,000 cycles min.  
**Terminal Type:** Solder Lug/Quick-Connect  
**Mounting Hole:** .756 (19.2)

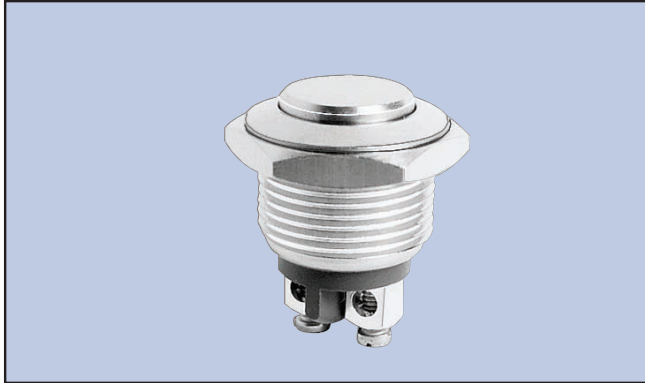


# Security Pushbutton, Single Pole



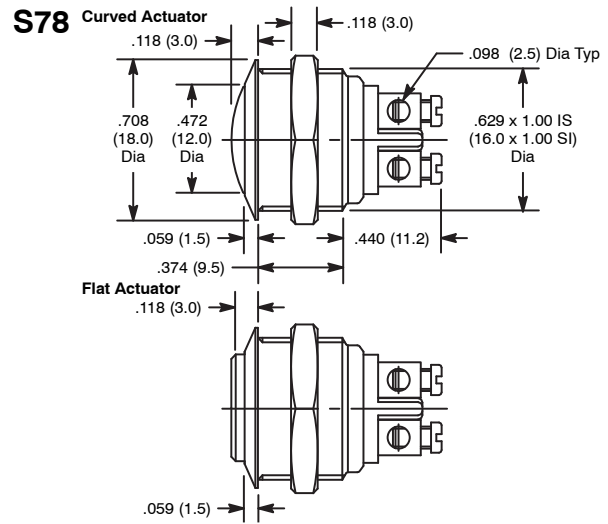
## Features

- .629" (16mm) bushing diameter



NTE Type No.	Circuitry	Action		Actuator	Diag No.
54-460	SPST-NO	OFF	(ON)	Stainless Steel, Curved	S78
54-474	SPST-NO	OFF	(ON)	Nickel Plated Brass, Flat	S78

SPECIAL NOTE: ( ) = Momentary Function



## Specifications

**Contact Rating:** 100-400mA 48VDC max. (resistive load)  
**Initial Contact Resistance:** 50 Milliohms (max.)  
**Insulation Resistance:** 1000 Megohms (min.) at 500VDC  
**Dielectric Strength:** 2000V RMS (min.)  
**Temperature Rating:** -4° to +131°F (-20° to +55°C)  
**Electrical Life:** 50,000 cycles min. at 200mA 48VDC  
**Mechanical Life:** 1,000,000 cycles min.  
**Terminal Type:** Screw Type  
**Mounting Hole:** .638 (16.2)

# Security Pushbutton, Single Pole



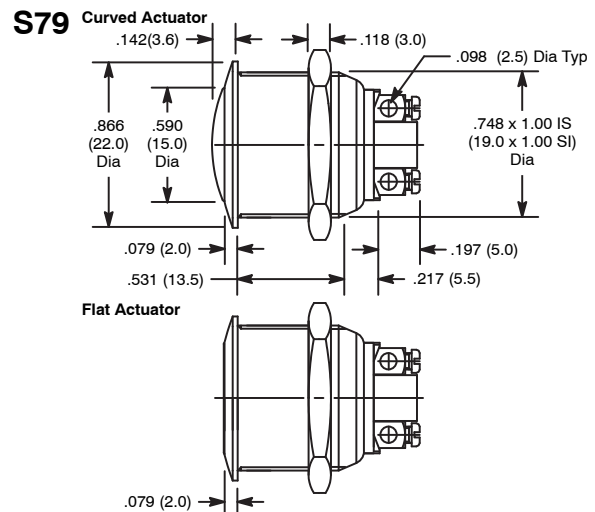
## Features

- .748" (19mm) bushing diameter



NTE Type No.	Circuitry	Action		Actuator	Diag No.
54-375	SPST-NO	OFF	(ON)	Nickel Plated Brass, Flat	S79
54-376	SPST-NO	OFF	(ON)	Nickel Plated Brass, Curved	S79

SPECIAL NOTE: ( ) = Momentary Function



## Specifications

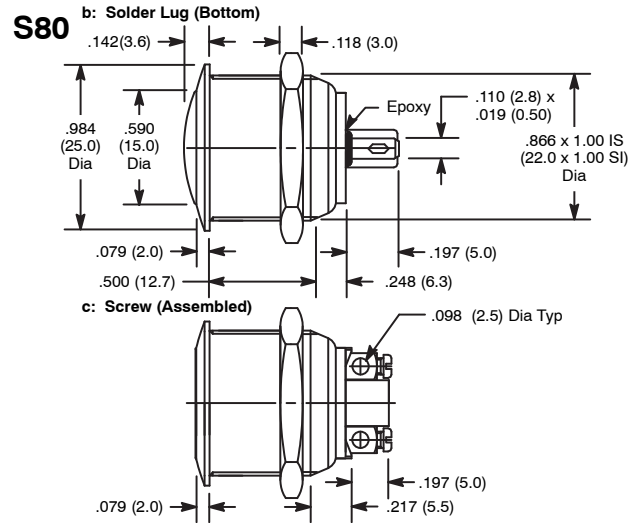
**Contact Rating:** 2A 48VDC max. (resistive load)  
**Initial Contact Resistance:** 10 Milliohms (max.) at 1A, 2V  
**Insulation Resistance:** 1000 Megohms (min.) at 500VDC  
**Dielectric Strength:** 2000V RMS (min.)  
**Temperature Rating:** -4° to +131°F (-20° to +55°C)  
**Electrical Life:** 10,000 cycles min. full load  
**Mechanical Life:** 1,000,000 cycles min.  
**Terminal Type:** Screw Type  
**Mounting Hole:** .756 (19.2)

# Security Pushbutton, Single Pole



## Features

- .866" (22mm) bushing diameter



## Specifications

**Contact Rating:** 2A 48VDC max. (resistive load)  
**Initial Contact Resistance:** 10 Milliohms (max.) at 1A, 2V  
**Insulation Resistance:** 1000 Megohms (min.) at 500VDC  
**Dielectric Strength:** 2000V RMS (min.)  
**Temperature Rating:** -4° to +131°F (-20° to +55°C)  
**Electrical Life:** 10,000 cycles min. full load  
**Mechanical Life:** 1,000,000 cycles min.  
**Terminal Type:** Refer to Diag No. in Table  
**Mounting Hole:** .874 (22.2)

NTE Type No.	Circuitry	Action		Actuator	Diag No.
54-461	SPST-NO	OFF	(ON)	Nickel Plated Brass, Curved	S80c
54-462	SPST-NO	OFF	(ON)	Nickel Plated Brass, Curved	S80b
54-463	SPST-NO	OFF	(ON)	Nickel Plated Brass, Flat	S80c

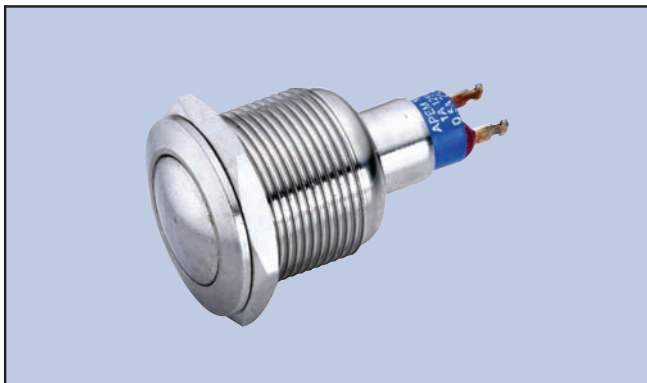
SPECIAL NOTE: ( ) = Momentary Function

# Security Pushbutton, Single Pole

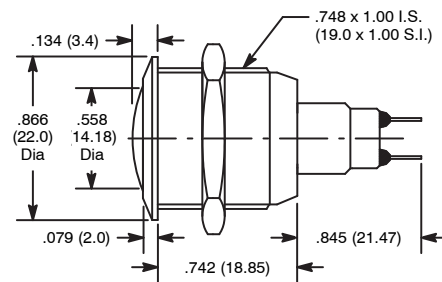


## Features

- .748" (19mm) bushing diameter



## S81



## Specifications

**Contact Rating:** 3A 120VAC or 28VDC, 1.5A 250VAC (1)  
 1A 120VAC or 28VDC, 0.5A 250VAC (2)  
 (max. resistive load)  
**Initial Contact Resistance:** 10 Milliohms (max.) at 3V, 0.1A  
**Insulation Resistance:** 10,000 Megohms (min.)  
**Dielectric Strength:** 1000V RMS (min.)  
**Temperature Rating:** -22° to +185°F (-30° to +85°C)  
**Electrical Life:** 10,000<sup>(1)</sup>/250,000<sup>(2)</sup> cycles min. full load  
**Mechanical Life:** 1,00,000 cycles (min.)  
**Terminal Type:** Solder Lug  
**Mounting Hole:** .756 (19.2)

NTE Type No.	Circuitry	Action		Actuator	Diag No.
54-465	SPST-NO	ON*	OFF*	Nickel Plated Brass, Curved	S81

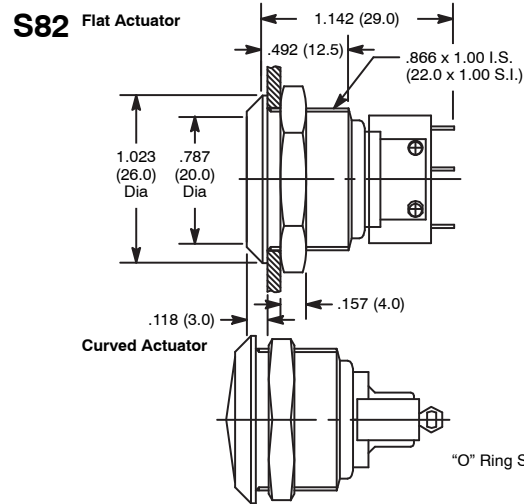
SPECIAL NOTE: ( ) = Momentary Function  
 \* = Alternate Action (Push ON/Push OFF)

# Security Pushbutton, Single Pole



## Features

- .866" (22mm) bushing diameter
- Large Actuator



## Specifications

**Contact Rating:** 5A 250VAC max.  
**Initial Contact Resistance:** 100 Milliohms (max.)  
**Insulation Resistance:** 1000 Megohms (min.) at 500VDC  
**Dielectric Strength:** 2000V RMS (min.)  
**Temperature Rating:** -4° to +131°F (-20° to +55°C)  
**Electrical Life:** 1,000,000 cycles (min.) at 1A 250VAC or 100,00 cycles at full load  
**Mechanical Life:** 3,000,000 cycles min.  
**Terminal Type:** Solder Lug  
**Mounting Hole:** .874 (22.2)

NTE Type No.	Circuitry	Action		Actuator	Diag No.
54-466	SPST-NO/NC	ON	(OFF)	Stainless Steel, Flat	S82
54-468	SPST-NO/NC	ON	(OFF)	Stainless Steel, Curved	S82

SPECIAL NOTE: ( ) = Momentary Function

# Security Pushbutton, Single Pole

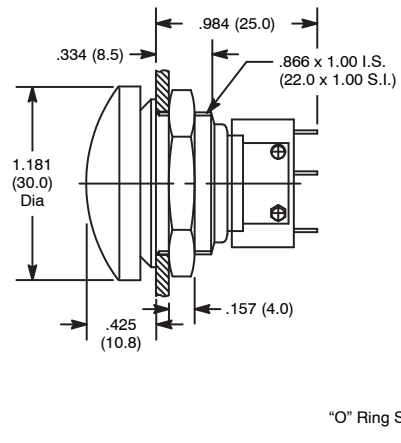


## Features

- .866" (22mm) bushing diameter
- Mushroom Head Actuator



## S83



## Specifications

**Contact Rating:** 5A 250VAC max.  
**Initial Contact Resistance:** 100 Milliohms (max.)  
**Insulation Resistance:** 1000 Megohms (min.) at 500VDC  
**Dielectric Strength:** 2000V RMS (min.)  
**Temperature Rating:** -4° to +131°F (-20° to +55°C)  
**Electrical Life:** 1,000,000 cycles (min.) at 1A 250VAC or 100,00 cycles at full load  
**Mechanical Life:** 1,000,000 cycles min.  
**Terminal Type:** Solder lug  
**Mounting Hole:** .874 (22.2)

NTE Type No.	Circuitry	Action		Actuator	Diag No.
54-469	SPST-NO/NC	ON	(OFF)	Nickel Plated Brass, Red	S83
54-470	SPST-NO/NC	ON	(OFF)	Nickel Plated Brass, Black	S83

SPECIAL NOTE: ( ) = Momentary Function

# Security Pushbutton, Single Pole



## Features

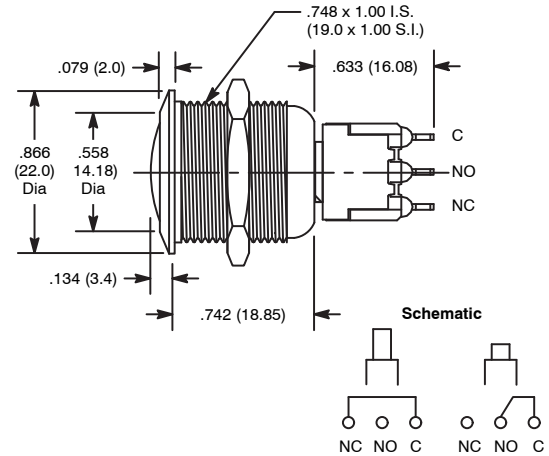
- .748" (19mm) bushing diameter



NTE Type No.	Circuitry	Action	Actuator	Diag No.
54-471	SPDT-NO/NC	ON (OFF)	Nickel Plated Brass, Curved	S84

SPECIAL NOTE: ( ) = Momentary Function

## S84



## Specifications

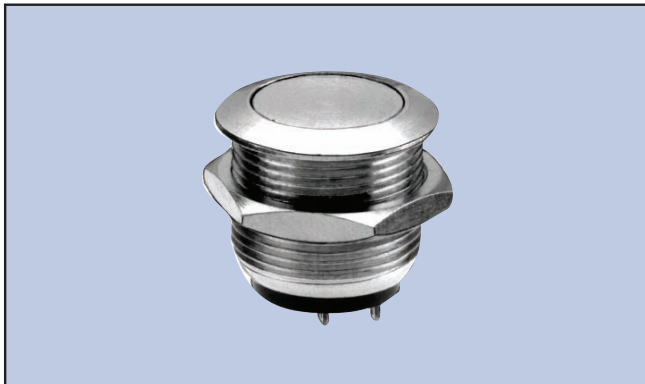
**Contact Rating:** 6A 125VAC, 3A 250VAC or 7A 30VDC  
**Initial Contact Resistance:** 20 Milliohms (max.) at 3VDC, 0.1A  
**Insulation Resistance:** 200,000 Megohms (min.)  
**Dielectric Strength:** 1500V RMS (min.)  
**Temperature Rating:** -22° to +185°F (-30° to +85°C)  
**Electrical Life:** 60,000 cycles (min.)  
**Mechanical Life:** 500,000 cycles (min.)  
**Terminal Type:** Solder lug  
**Mounting Hole:** .756 (19.2)

# Snap Action Security Pushbutton, Single Pole



## Features

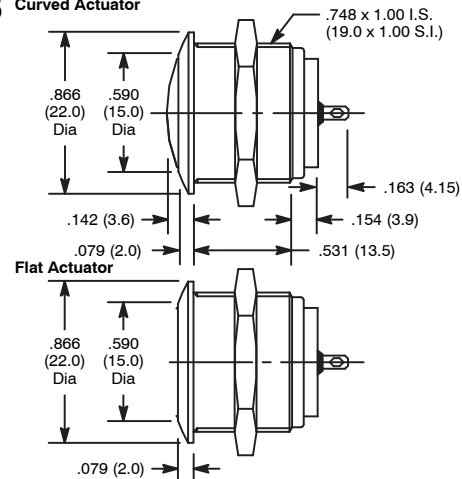
- .748" (19mm) bushing diameter



NTE Type No.	Circuitry	Action	Actuator	Diag No.
54-472	SPDT-NO	OFF (ON)	Nickel Plated Brass, Curved	S85
54-473	SPDT-NO	OFF (ON)	Nickel Plated Brass, Flat	S85

SPECIAL NOTE: ( ) = Momentary Function

## S85 Curved Actuator



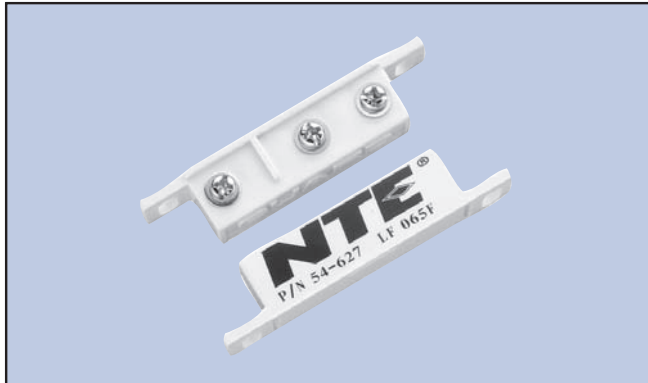
## Specifications

**Contact Rating:** 50mA 24VDC max. (Resistive Load)  
**Initial Contact Resistance:** 100 Milliohms (max.)  
**Insulation Resistance:** 1000 Megohms (min.) at 500VDC  
**Dielectric Strength:** 500V RMS (min.)  
**Temperature Rating:** -22° to +158°F (-30° to +70°C)  
**Electrical Life:** 1,000,000 cycles at full load  
**Mechanical Life:** 100,000 cycles at 300mA 24V  
**Operating Force:** 7 N ±2 N  
**Terminal Type:** Solder lug  
**Mounting Hole:** .756 (19.2)

# Magnetic Alarm Reed Switch

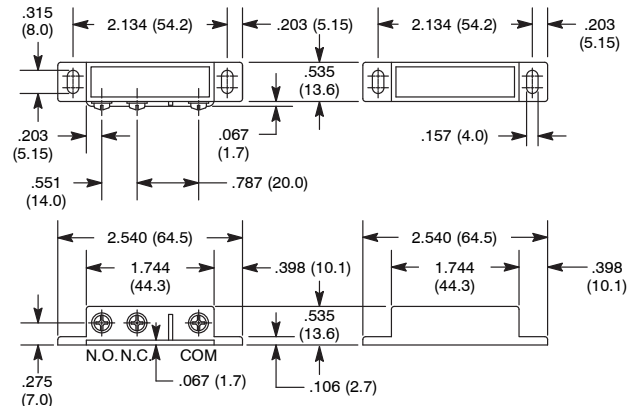
## Features

- Normally Closed & Normally Open



NTE Type No.	Circuitry	Action	Actuator	Diag No.
54-627	SPDT	NO without Magnet or NC without Magnet	Magnet	S99

## S99



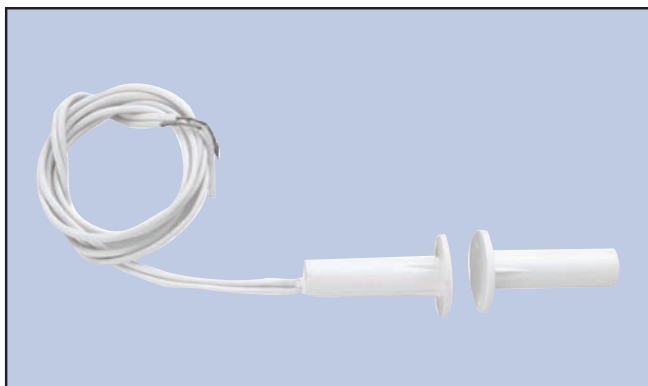
## Specifications

**Contact Rating:** 3 W/VA  
**Contact Resistance:** 200 megohms  
**Contact Material:** Ruthenium Oxide over Rhodium  
**Voltage Rating:** 125 VAC, 100 VDC  
**Switching Current:** 250mA  
**Insulation Resistance:** 10 gigohms  
**Shock Resistance:** nil  
**Vibration Resistance:** nil  
**Life Expectancy:** 10,000,000 cycles  
**Operating Gap:** 1.180" (3cm) max.  
**Terminal Type:** Screw  
**Mounting Hole:** .157" (4mm)

# Magnetic Alarm Reed Switch

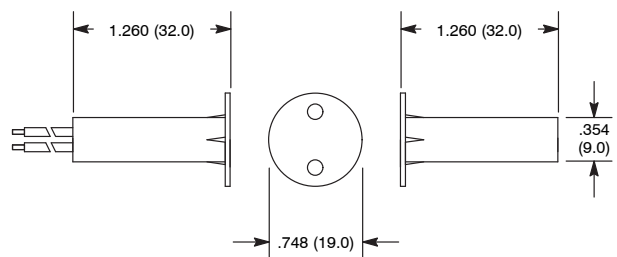
## Features

- 3/8" (9mm) Diameter Press Fit
- Operating Gap 5/8" (16mm) min.
- 18" Wire Leads
- 3/4" (19mm) Collar Flange for Better Retention



NTE Type No.	Circuitry	Action	Actuator	Diag No.
54-628	SPST-NO	NO for Closed Loop System	Magnet	S100

## S100



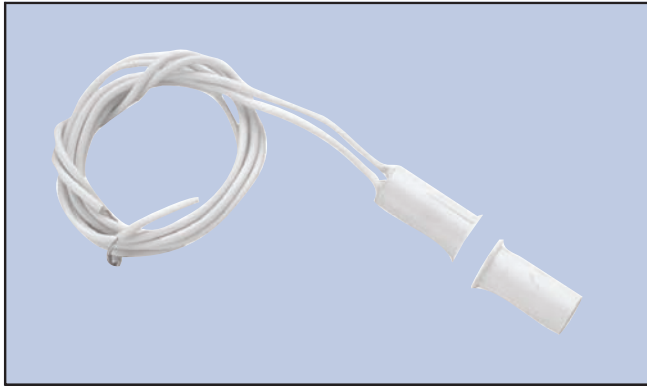
## Specifications

**Contact Rating:** 10W/VA  
**Contact Resistance:** 150 milliohms.  
**Contact Material:** Ruthenium Oxide over Palladium  
**Switching Voltage:** 200 VDC max.  
**Switching Current:** 500mA max.  
**Insulation Resistance:** 10 gigohms  
**Shock Resistance:** 30G for 11mS  
**Vibration Resistance:** 20G (10 to 1000Hz)  
**Life Expectancy:** 20,000,000 cycles (resistive load, 12VDC, 250mA)  
**Operating Gap:** .629" (16mm) min.  
**Terminal Type:** Wire Leads  
**Mounting Hole:** .375" (9mm)

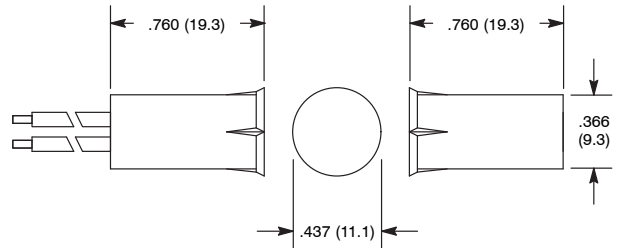
# Magnetic Alarm Reed Switch

## Features

- 3/8" (9mm) Dia with 18" Long Wire Leads
- Easy & Quick Installation
- Longer Length
- Operate Gap 3/4" (19mm) min.



## S101



## Specifications

**Contact Rating:** 10W/VA  
**Contact Resistance:** 150 milliohms.  
**Contact Material:** Ruthenium Oxide over Palladium  
**Switching Voltage:** 200 VDC max.  
**Switching Current:** 500mA max.  
**Insulation Resistance:** 10 gigohms  
**Shock Resistance:** 30G for 11mS  
**Vibration Resistance:** 20G (10 to 1000Hz)  
**Life Expectancy:** 20,000,000 cycles (resistive load, 12VDC, 250mA)  
**Operating Gap:** .748" (19mm) min.  
**Terminal Type:** Wire Leads  
**Mounting Hole:** .375" (9mm)

NTE Type No.	Circuitry	Action	Actuator	Diag No.
54-629	SPST-NO	NO for Closed Loop System	Magnet	S101

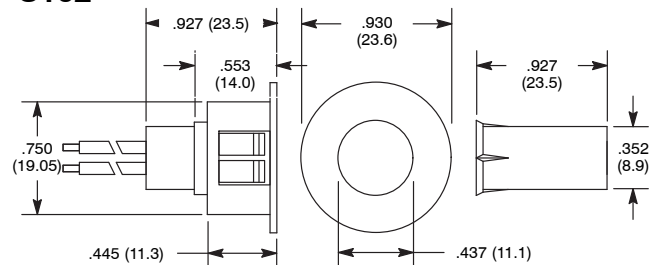
# Magnetic Alarm Reed Switch

## Features

- 3/8" (9mm) Dia with Adaptor Holder
- Wide Operating Gap 3/4" (19mm) min.
- Easy & Quick Installation
- 3/4" Adaptor/Holder



## S102



## Specifications

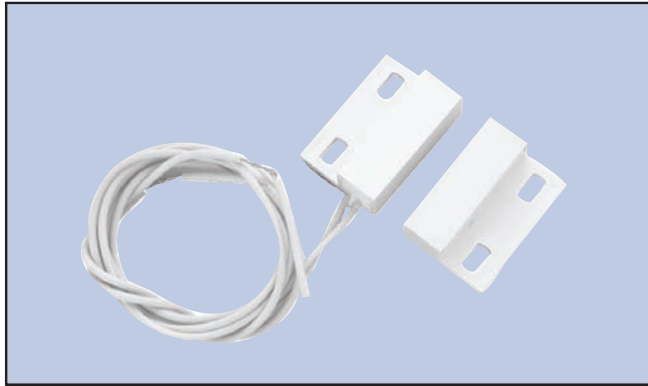
**Contact Rating:** 10W/VA  
**Contact Resistance:** 150 milliohms.  
**Contact Material:** Ruthenium Oxide over Palladium  
**Switching Voltage:** 200 VDC max.  
**Switching Current:** 500mA max.  
**Insulation Resistance:** 10 gigohms  
**Shock Resistance:** 30G for 11mS  
**Vibration Resistance:** 20G (10 to 1000Hz)  
**Life Expectancy:** 20,000,000 cycles (resistive load, 12VDC, 250mA)  
**Operating Gap:** .748" (19mm) min.  
**Terminal Type:** Wire Leads  
**Mounting Hole:** .375" (9mm)

NTE Type No.	Circuitry	Action	Actuator	Diag No.
54-631	SPST-NO	NO for Closed Loop System	Magnet	S102

# Magnetic Alarm Reed Switch

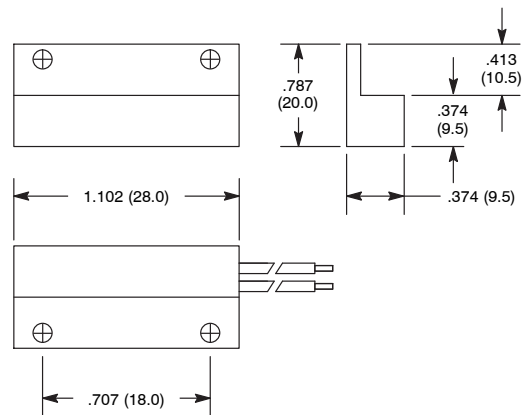
## Features

- Mini Stick-On Surface Mount Contact with Side Leads
- 18" Long Side Wire Leads
- Adhesive & Screw Mounting
- Operate Gap 3/4" (19mm) min.



NTE Type No.	Circuitry	Action	Actuator	Diag No.
54-632	SPST-NO	NO for Closed Loop System	Magnet	S103

## S103



## Specifications

**Contact Rating:** 10W/VA  
**Contact Resistance:** 150 milliohms.  
**Contact Material:** Ruthenium Oxide over Palladium  
**Switching Voltage:** 200 VDC max.  
**Switching Current:** 500mA max.  
**Insulation Resistance:** 10 gigohms  
**Shock Resistance:** 30G for 11mS  
**Vibration Resistance:** 20G (10 to 1000Hz)  
**Life Expectancy:** 20,000,000 cycles (resistive load, 12VDC, 250mA)  
**Operating Gap:** .748" (19mm) min.  
**Terminal Type:** Wire Leads  
**Mounting Hole:** .250" (6.35mm)

# Magnetic Roller Ball Switch

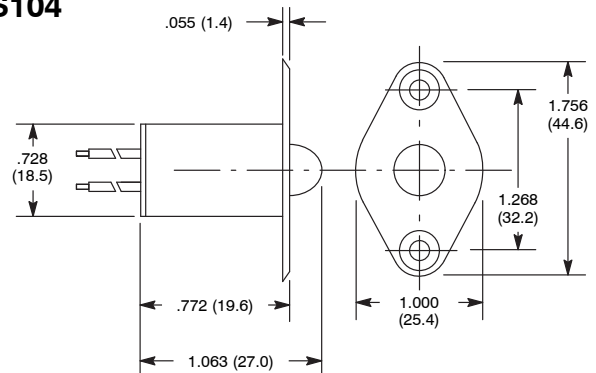
## Features

- 3/8" Dia with 18" Long Wire Leads
- Flange for Reliable Retention
- Suitable For Sliding as well as Swing Doors



NTE Type No.	Circuitry	Action	Actuator	Diag No.
54-633	SPST-NO	NO for Closed Loop System	Magnet	S104

## S104



## Specifications

**Contact Rating:** 10W/VA  
**Contact Resistance:** 150 milliohms.  
**Contact Material:** Ruthenium Oxide over Palladium  
**Switching Voltage:** 200 VDC max.  
**Switching Current:** 500mA max.  
**Insulation Resistance:** 10 gigohms  
**Shock Resistance:** 30G for 11mS  
**Vibration Resistance:** 20G (10 to 1000Hz)  
**Life Expectancy:** 20,000,000 cycles (resistive load, 12VDC, 250mA)  
**Terminal Type:** Wire Leads  
**Mounting Hole:** .375" (9mm)

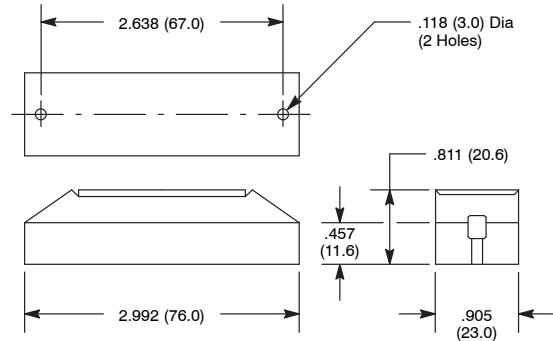
# Panic Switch

## Features

- Surface Mount Type
- Push Button Function
- Emergency Marking on the Button



## S105



## Specifications

**Contact Rating:** 10W/VA  
**Contact Resistance:** 150 milliohms.  
**Contact Material:** Silver over Palladium  
**Switching Voltage:** 200 VDC max.  
**Switching Current:** 500mA max.  
**Insulation Resistance:** 10 gigohms  
**Shock Resistance:** 30G for 11mS  
**Vibration Resistance:** 20G (10 to 1000Hz)  
**Life Expectancy:** 20,000,000 cycles (resistive load, 12VDC, 250mA)  
**Terminal Type:** Y Type Tin Plated Brass

NTE Type No.	Circuitry	Action	Actuator	Diag No.
54-634	SPST-NO	NO for Closed Loop System	Microswitch	S105

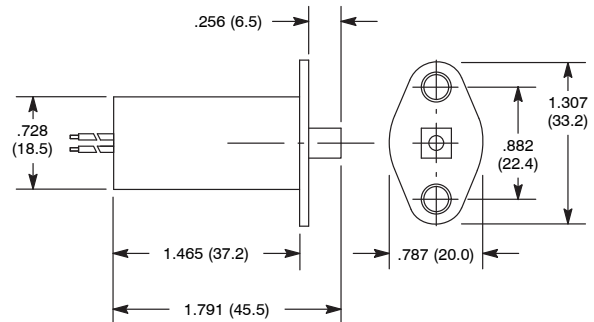
# Magnetic Plunger Switch

## Features

- 3/8" Dia Mounting Hole
- Flange for Reliable Retention
- 3mm Pre-Travel Stroke and 7mm Overall Operating Stroke
- 18" Long Wire Leads
- Screw Provided



## S106



## Specifications

**Contact Rating:** 10W/VA  
**Contact Resistance:** 150 milliohms.  
**Contact Material:** Ruthenium Oxide over Palladium  
**Switching Voltage:** 200 VDC max.  
**Switching Current:** 500mA max.  
**Insulation Resistance:** 10 gigohms  
**Shock Resistance:** 30G for 11mS  
**Vibration Resistance:** 20G (10 to 1000Hz)  
**Life Expectancy:** 20,000,000 cycles (resistive load, 12VDC, 250mA)  
**Terminal Type:** Wire Leads  
**Mounting Hole:** .375" (9mm)

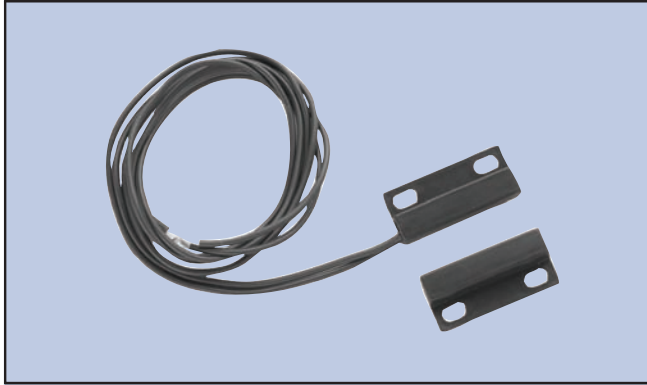
NTE Type No.	Circuitry	Action	Actuator	Diag No.
54-635	SPST-NO	NO for Closed Loop System	Magnet	S106



# Magnetic Alarm Reed Switch

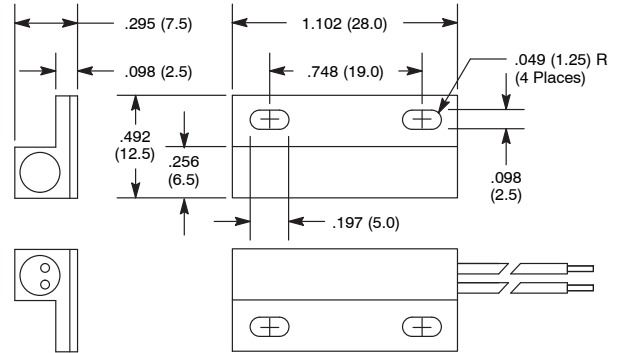
## Features

- Mini Stick-On Contact with Flange Center Leads
- 18" Leads
- Adhesive and Screw Mount
- Standard Gap: 1" (25mm)



NTE Type No.	Color	Circuitry	Action	Actuator	Diag No.
54-630	White	SPST-NO	NO for Closed Loop System	Magnet	S107
54-636	Brown	SPST-NO	NO for Closed Loop System	Magnet	S107

## S107



## Specifications

**Contact Rating:** 10W/VA

**Contact Resistance:** 150 milliohms.

**Contact Material:** Ruthenium Oxide over Palladium

**Switching Voltage:** 200 VDC max.

**Switching Current:** 500mA max.

**Insulation Resistance:** 10 gigohms

**Shock Resistance:** 30G for 11mS

**Vibration Resistance:** 20G (10 to 1000Hz)

**Life Expectancy:** 20,000,000 cycles (resistive load, 12VDC, 250mA)

**Terminal Type:** Wire Leads

**Mounting Hole:** .200" (5mm)

# Pull Chain, Single Pole



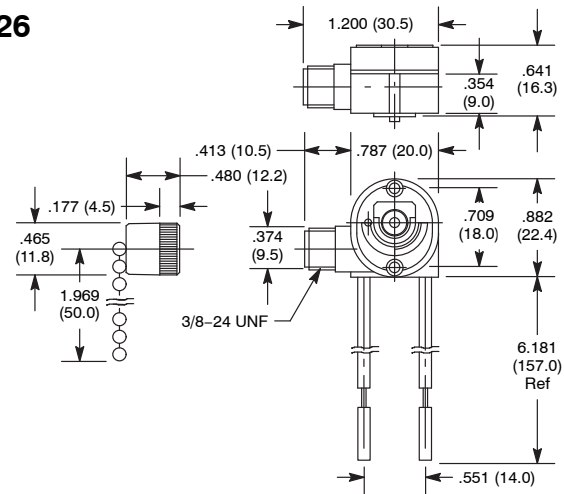
## Features

- Steel Chain w/Rope Cord



NTE Type No.	Circuitry	Action		Base	Cover		Diag No.
					Material	Color	
54-538	SPST	ON	OFF	Nylon 66	Nylon 66	Transparent	S26
54-539	SPST	ON	OFF	Nylon 66	Nylon 66	Black	S26

S26



## Specifications

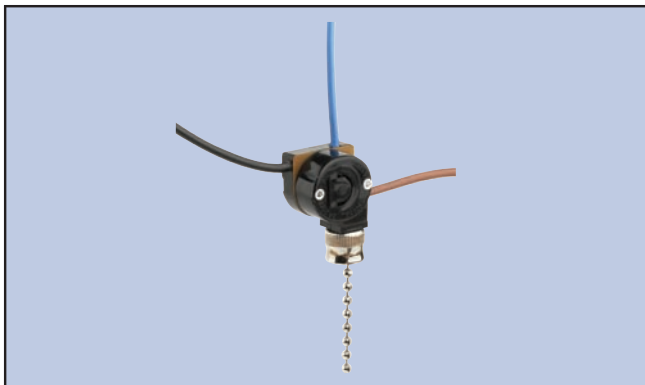
**Current Rating:** 6A 125VAC, 3A 250VAC  
**Contact Resistance:** 50 Milliohms initial (max.)  
**Insulation Resistance:** 100 Megohms (min.) at 500VDC  
**Dielectric Strength:** 1000V RMS (min.) for 1 minute  
**Operation Force:** 400 plus/minus 200 gram  
**Temperature Rating:** +32° to +149°F (0° to +65°C)  
**Electrical Life:** 6000 cycles  
**Mechanical Life:** 50,000 cycles  
**Terminal Type:** 18 AWG, 6" length  
**Mounting Hole:** .393 (10.0)

# Pull Chain, Single Pole



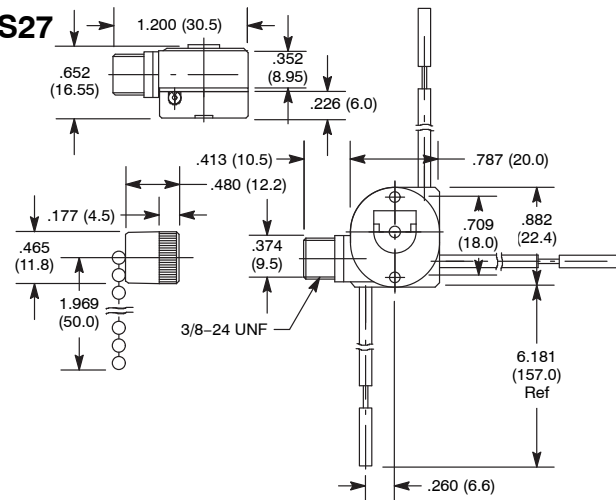
## Features

- Steel Chain w/Rope Cord
- For Use in Ceiling Fan Applications



NTE Type No.	Circuitry	Action			Base	Cover		Diag No.	
						Material	Color		
54-540	SP4T	OFF	ON	ON	ON	Nylon 66	Nylon 66	Black	S27

S27



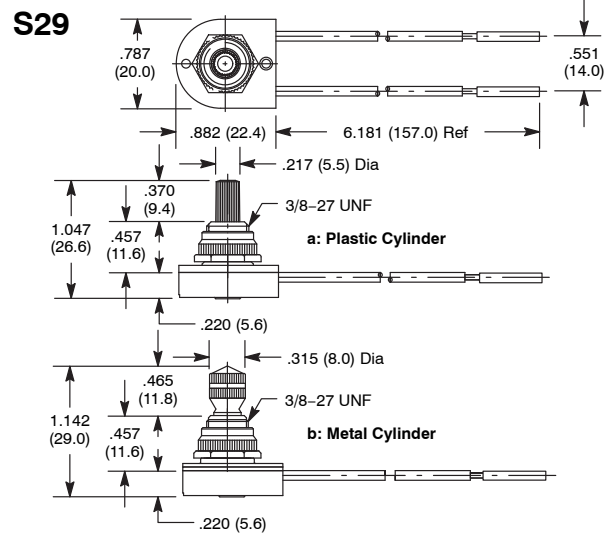
## Specifications

**Current Rating:** 6A 125VAC, 3A 250VAC  
**Contact Resistance:** 50 Milliohms initial (max.)  
**Insulation Resistance:** 100 Megohms (min.) at 500VDC  
**Dielectric Strength:** 1000V RMS (min.) for 1 minute  
**Operation Force:** 400 plus/minus 200 gram  
**Temperature Rating:** +32° to +149°F (0° to +65°C)  
**Electrical Life:** 6000 cycles  
**Mechanical Life:** 50,000 cycles  
**Terminal Type:** 18 AWG, 6" length  
**Mounting Hole:** .393 (10.0)

# Rotary, Two Position, Single Pole



NTE Type No.	Circuitry	Action		Cylinder	Actuator	Diag No.
54-541	SPST	ON	OFF	Nylon 66	Nylon 66	S29a
54-542	SPST	ON	OFF	Steel	Steel	S29b



## Specifications

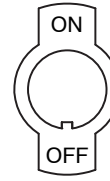
- Current Rating:** 6A 125VAC, 3A 250VAC, 1A 125VL
- Contact Resistance:** 20 Milliohms initial (max.)
- Insulation Resistance:** 100 Megohms (min.) at 500VDC
- Dielectric Strength:** 1000V RMS (min.) for 1 minute
- Operation Force:** 400 plus/minus 200 gram
- Temperature Rating:** +32° to +149°F (0° to +65°C)
- Electrical Life:** 6000 cycles
- Mechanical Life:** 50,000 cycles
- Terminal Type:** 18 AWG, 6" length
- Mounting Hole:** .393 (10.0)

# 54-900

## Hardware, Indicator Plate

### Features:

- Nickel-Plated Steel
- Fits 15/32" (.465 (11.81)) Bushing

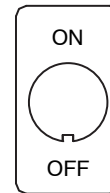


# 54-901

## Hardware, Indicator Plate

### Features:

- Nickel-Plated Steel
- Fits 15/32" (.465 (11.81)) Bushing

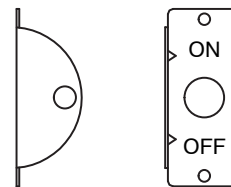


# 54-902

## Hardware, Indicator Plate

### Features:

- Nickel-Plated Steel
- Fits 15/32" (.465 (11.81)) Bushing

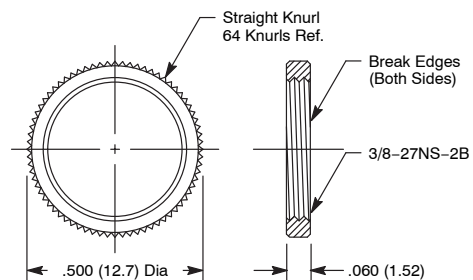


# 54-904

## Hardware, Brass Facenut

### Features:

- Bright Nickel Plating
- 3/8-27NS-2B Thread

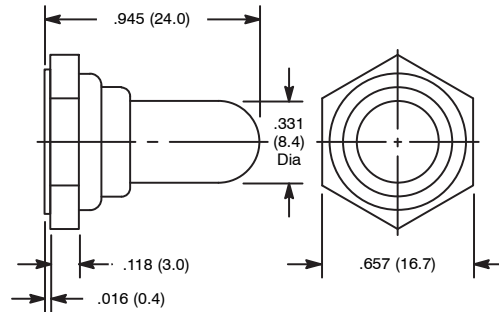


## 54-905

### Hardware, Rubber Boot

#### Features:

- For Bat Handle Toggle Switch
- 15/32-32 UNS-2A Thread

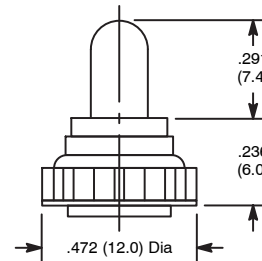


## 54-906

### Hardware, Rubber Boot/Knob

#### Features:

- For Mini Toggle Switch
- 1/4-40 Thread
- Contains "O"-Ring Seal

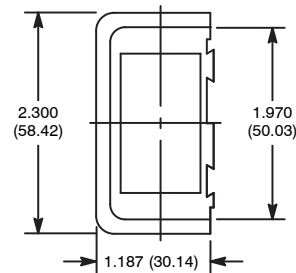


## 54-910

### Hardware, Mounting Panel

#### Features:

- End Section
- For Automotive/Marine Types
- Black Color

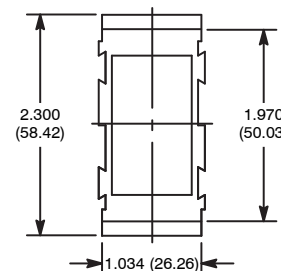


## 54-911

### Hardware, Mounting Panel

#### Features:

- Middle Section
- For Automotive/Marine Types
- Black Color

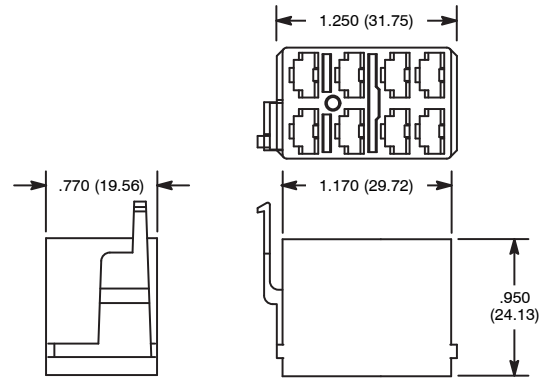


# 54-912

## Hardware, Connector Housing

### Features:

- For Automotive/Marine Types

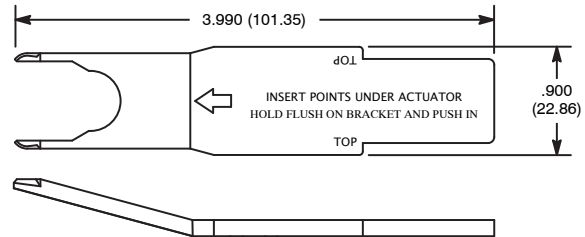


# 54-913

## Hardware, Actuator Removal Tool

### Features:

- For Automotive/Marine Types
- For Flush Bracket

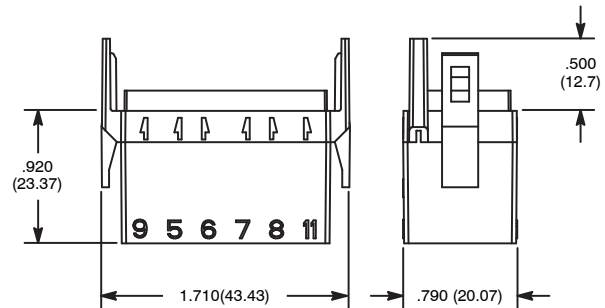


# 54-914

## Hardware, Connector

### Features:

- .250" Tab
- Black Color

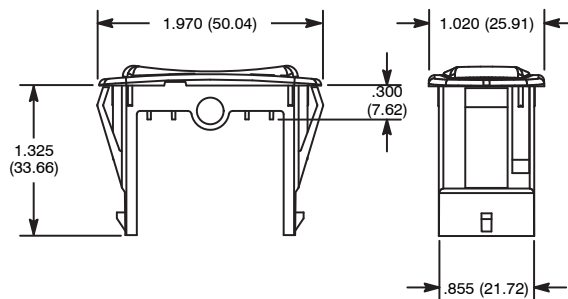


# 54-915

## Hardware, Removable Hole Plug

### Features:

- For Automotive/Marine Types
- With Non-Serrated Wings



# Switch Definitions and Glossary

- **Actuation Force**

See Operating Force.

- **Actuator**

An actuator is the mechanical component used to manually turn a switch or circuit breaker on and off.

- **Alternate Action (Double Action)**

A “Push-On/Push-Off” switch action, typically referring to maintained circuit pushbutton switches.

- **Arcing**

Sparking that occurs each time a switch is turned on or off, except in very low voltage and low current applications. This sparking can burn up the switch contacts and reduce the life of a switch. In general, the arc produced by a DC voltage will be greater and last longer than an AC voltage because DC current has a constant value in relation to ground and zero. AC current has a value that is always rising or falling in relation to zero. Whenever it reaches zero (120 times a second) it cannot produce an arc.

- **Break-Before-Make**

Switches that will only complete one circuit at a time, leaving an interval of time between the time one circuit opens and the next circuit closes.

- **Center-Off**

A switch with three actuator positions. Contact is made (with one or several circuits) in the two extreme positions; in the center position of the actuator, all circuits are off.

- **Contact Resistance**

The resistance of a pair of contacts, measured at the terminals, which effectively appears in series with the load (milliohm range).

- **Current Rating**

The maximum current in amperes, at rated current and frequency, that a device will carry continuously under defined conditions without exceeding specified performance limits.

- **Dielectric Strength**

The highest voltage an insulator can withstand without allowing current to flow. Also referred to as breakdown voltage. For switches, also represents the strength between live parts and operator at accessible surfaces.

- **Double Break/Double Make**

Contacts that open at two separate places on a circuit.

- **Double Pole (DP) Switches**

A switch device that opens, closes, or changes connection of two conductors in an electrical circuit.

- **Double Throw (DT) Switches**

A switch that opens, closes, or completes a circuit at both extreme positions of its actuator.

- **Insulation Resistance**

The resistance between two normally insulated parts measured at a specified high DC potential (megohm range). Also referred to as Leakage Resistance.

- **Life Expectancy (Useful Life)**

Depends upon the end life criteria for a specific application. In order to determine your failure criteria, the following parameters should be known; dielectric strength, duty cycle, mechanical breakdown, contact resistance, insulation resistance, operating force. Life expectancy is normally experienced in minimum switch cycles before failure.

- **Make-Before-Break**

Switches that complete a new circuit before breaking an old one.

- **Momentary Switch**

A switch that automatically returns to its original, or at rest position.

- **Normally Closed**

Often abbreviated N.C., indicates that the circuit is closed when the switch is not operated. Activation of the switch causes the circuit to open.

- **Normally Open**

Often abbreviated N.O., indicates that the circuit is open when the switch is not operated. Activation of the switch causes the circuit to close.

- **Operating Force**

Also known as Actuation Force, the force required to transfer a switch from one position to another.

- **Pole**

The number of completely separate circuits that can be active through a switch or simultaneously protected by a circuit breaker at any on time.

- **Push-On/Push-Off**

An alternate action switch, often used on lamps, vacuum cleaners, etc. When pushed, the circuit closes. When pushed again, it opens. Often called “Push-Push”.

- **Quick Break/Quick Make**

Switches designed to make or break circuits in less than 5 milliseconds to make or break. Recommended for use on DC circuits.

- **Single Break/Single Make**

Contact that open and close a circuit at only one place.

- **Single Pole (SP) Switches**

A switch device that opens, closes, or changes the connection of a single conductor in an electrical circuit.

- **Single Throw (ST) Switches**

A switch that opens, closes, or completes a circuit at only one of the extreme positions of its actuator.

- **Slow Break/Slow Make**

Switches designed to make or break circuits within 8–12 milliseconds. Typically used for AC applications.

- **Snap-Action**

Non-teasable switch action having unstable equilibrium so that it must be either “ON” or “OFF”. Can also be referred to as “Push-Push”.

- **Wiping Action Contacts**

Self-cleaning contacts that wipe or slide against each other when opening or closing a circuit.

# Special Cross Reference Notes

- \$ Minor mechanical differences exist, however will work in most applications.
- \* Minor electrical differences exist, however will work in most applications.
- + Mechanical *and* electrical differences exist, however will work in most applications.
- # Terminal type difference.
- @ Cosmetic difference.
- \*# Terminal type may vary and electrical differences exist. However, it will provide an acceptable substitute in the majority of typical applications.



# FROM AMSECO TO CALRAD

# Cross Reference by Manufacturer

Switch to be Replaced	NTE Replacement	Switch to be Replaced	NTE Replacement	Switch to be Replaced	NTE Replacement	Switch to be Replaced	NTE Replacement
<b>AMSECO</b>		5642AB9	54-337	<b>ARROW HART</b>		<b>BULGIN</b>	
AES-1	54-634	5644THAB	54-306	82600	54-008	MP0031	54-466
AMS010S	54-630	5646AB	54-307	82601	54-006	MP0037	54-463
AMS-7	54-632	5646AB9	54-333	82601P	54-007	MPOO31	54-466
AMS-21	54-629	5647AB	54-311	82602	54-010	MPOO37	54-463
AMS-39B	54-627			82603P	54-009		
		5647AB9	54-335			<b>C &amp; K</b>	
AMS-A7	54-628	5648AB	54-310	82606	54-011	CR101J12S215	54-505
PSW-22	54-635	5648AB9	54-336	82607P	54-004	CR102J3RS2157	54-531
RSW-21A	54-633	5649AB	54-308	82608	54-013	CR102J12S215	54-503@
		5649AB9	54-334	82609P	54-012	HBS2KAB4ST011C	54-451
				82611P	54-003	HBS2KCB5SP055C	54-426*
		5652AB	54-327			HBS2KCB5SR505C	54-438*
<b>APEM</b>		5652AB9	54-342	82613	54-015	HBS2KCBJSJ011C	54-425*
AV021003C200	54-462	5656AB	54-323	82616	54-016	HBS2KH4SA011C	54-455
AV091003C240N	54-377	5656AB9	54-338	82732	54-001	HBS2PBB4SJ011C	54-450
AV021003C240N	54-379	5657AB	54-325	82736	54-002	T101SYZQE	54-141
AV091003C900	54-375					T201SYZQE	54-142
AV021003C900	54-461	5657AB9	54-340	<b>AUGAT (ALCO)</b>			
		5658AB	54-326	A101SYZQ	54-302	TFECV3SP005AC	54-415
AV031003C900	54-463	5658AB9	54-341	A102SYZQ	54-303	TMCGD6SA1040C	54-408
AV0630C900	54-474	5659AB	54-324	A103SDZQ	54-303	TMCGD6SP0040C	54-411
AV09C703D200	54-473	5659AB9	54-339	A105SYZQ	54-305	TMCGD6ST2740C	54-409
AV19C703D200	54-472			A107SYZQ	54-304		
AV22LB402	54-468	5662AB	54-316			TMCD6SA1540C	54-400
		5662AB9	54-347	A108SDZQ	54-301	TMCD6ST1540C	54-414
AV22LP402	54-466	5666AB	54-312	A108SYZQ	54-301	TMCD6ST1440C	54-402
AV22PNA22	54-470	5666AB9	54-343	A201SDZQ	54-307	TMCD6ST1540C	54-403
AV22PNA62	54-469	5667AB	54-314	A201SYZQ	54-307	U11SYZQE	54-302
AV1630C900	54-460			A202SYZQ	54-308		
AV19401ZQEUL	54-465	5667AB9	54-345	A203SDZQ	54-308	U15SYZQE	54-305
		5668AB	54-315	A205SYZQ	54-311	U17SYZQE	54-304
AV19810KMZQUL	54-471	5668AB9	54-346	A207SYZQ	54-310	U21P3YQZE	54-333
AV191003C900	54-376	5669AB	54-313	A208SDZQ	54-309	U21SYZQE	54-307
AV191003C940N	54-378	5669AB9	54-344	A208SYZQ	54-309	U23SYZQE	54-308
U1229	54-906@	<b>ARCOLECTRIC</b>		CET16D	54-302	U25SYZQE	54-311
U1231	54-906@	C1350ARBB	54-081	MST105D	54-302	U27SYZQE	54-310
		C1352ARBR2	54-082*	MST105E	54-303	U28SYZQE	54-309
U1331	54-906	C1500ARBB	54-060	MST105F	54-301	U31SYZQE	54-323
U1333	54-906@	C1500ARBVEN1102W	54-059	MST105G	54-305	U43SYZQE	54-313
631H	54-354	C1510ARBB	54-061			7101P3YZQE	54-328
631H/2	54-348			MST105H	54-304	7101SYZQE	54-302
635H	54-357	C1700H	54-020	MST205D	54-307	7103P3YZQE	54-329
		C1710H	54-021	MST205N	54-307	7103SYZQE	54-303
635H/2	54-351	C1720H	54-022	MST205P	54-308	7105P3YZQE	54-330
636H	54-355	C5503AABR2	54-054	MST205R	54-309		
636H/2	54-349	C5503ARBA2	54-519			7105SYZQE	54-305
637H	54-358			MST205S	54-311	7108P3YZQE	54-332
637H/2	54-352	C5503ARBG2	54-518	MST205T	54-310	7108SYZQE	54-301
		C5503ARBR2	54-517	MST305D	54-323	7201P3YZQE	54-333
638H	54-359	C5503ARBR7	54-083	MST305E	54-324	7201SYZQE	54-307
638H/2	54-353	H8500VB	54-075	MST305F	54-327		
639H	54-356	H8503VB	54-080			7203P3YZQE	54-334
639H/2	54-350			MST305H	54-326	7203SYZQE	54-308
641H	54-367	H8550VB	54-076	MST405N	54-312	7205P3YZQE	54-335
		H8600VB	54-075	MST405P	54-313	7205SYZQE	54-311
641H/2	54-366	H8610VB	54-074	MTA106D	54-302	7207P3YZQE	54-336
644H	54-371	M331	54-905	MTA106DPC	54-302		
644H2	54-362	R13112ABB602AW	54-503			7207SYZQE	54-310
645H	54-372	R13112ABB-602AW	54-503	MTA106E	54-303	7208P3YZQE	54-337
645H2	54-363	R13112AWW602AB	54-503@	MTA106F	54-301	7208SYZQE	54-309
		R13112AWW-602AB	54-503@	MTA106G	54-305	7301P3YZQE	54-338
646H	54-369	R13112B2BR2	54-506	MTA106H	54-304	7301SYZQE	54-323
646H/2	54-360	R13112BBBR2	54-531	MTA106T	54-310		
647H	54-373			MTA206N	54-307	7303P3YZQE	54-339
647H2	54-364	R13112BBG2	54-533			7303SYZQE	54-324
648H	54-374	R13112BBR2	54-506	MTA206P	54-308	7305P3YZQE	54-340
		R13112BWR2	54-506@	MTA206R	54-309	7305SYZQE	54-325
648H2	54-365	R13112CBB	54-505	MTA206S	54-311	7307P3YZQE	54-341
649H	54-370	R13112DDB-730W	54-504	MTA206T	54-310		
649H/2	54-361			MTA306D	54-323	7307SYZQE	54-326
4631A22UU	54-319	R13208FBB	54-520@			7308P3YZQE	54-342
4636A22UU	54-317	T916LB	54-558	MTA206S	54-311	7308SYZQE	54-327
		T916LR	54-556	MTA206T	54-310	7401P3YZQE	54-343
4639A22UU	54-318	T916SR	54-394	MTA306E	54-324	7401SYZQE	54-312
4641A22UU	54-320	TG1	54-920	MTA406N	54-312		
4646A22UU	54-321			MTA406P	54-313	7403P3YZQE	54-343
4649A22UU	54-322	271-0034-00	54-451	MTF126D	54-328	7403SYZQE	54-313
5632AB	54-301	272-0021-00	54-450	MTF126E	54-329	7405P3YZQE	54-345
		281-0504-00	54-415			7405SYZQE	54-314
5632AB9	54-332	281-0508-00	54-414	MTF126F	54-332	7407P3YZQE	54-346
5636AB	54-302	286-0012-00	54-426*	MTF126G	54-330		
5636AB9	54-328			MTF226N	54-333	7407SYZQE	54-315
5637AB	54-305	288-0016-00	54-438*	MTF226P	54-334	7408P3YZQE	54-347
5637AB9	54-330	179652	54-005	MTF226S	54-335	7408SYZQE	54-316
		279672	54-099				
5638AB	54-304	379672	54-100	MTF226T	54-336		
5638AB9	54-331			MTF326D	54-338		
5639AB	54-303			MTF426N	54-343		
5639AB9	54-329					<b>CALRAD</b>	
5642AB	54-309					40-650	54-634
						40-661	54-628
						40-665	54-630
						40-671	54-633



# FROM CUTLER/HAMMER/EATON TO GC ELECTRONICS Cross Reference by Manufacturer

Switch to be Replaced	NTE Replacement	Switch to be Replaced	NTE Replacement	Switch to be Replaced	NTE Replacement	Switch to be Replaced	NTE Replacement
82602C	54-356	<b>E-SWITCH</b>		7174B	54-134	<b>GC ELECTRONICS</b>	
82603	54-350	RR3112ABLKBLKNFF	54-503	7184B	54-135	35-0000	54-140
82603P	54-350	RR3112CBLKBLKNNF	54-505	7201B	54-613	35-0000-0000	54-140
82604	54-355	RR3112DBLKBLKNNF	54-504	7201C	54-622	35-0000-00BU	54-140
82604C	54-349	RR3130ABLKBLKFSNS	54-500#	7202B	54-614	35-000	54-140
		RR3130BBLKBLKNS	54-502#			35-0001	54-141
82605	54-349			7202C	54-623	35-0001-0000	54-141
82605P	54-349	RR3130CBLKBLKNS	54-501#	7205B	54-610	35-0001-00BU	54-141
82606	54-367			7205C	54-619	35-0002	54-142
82607	54-366			7205D	54-137	35-0002-0000	54-142
82607P	54-366			7235B	54-611	35-0002-00BU	54-142
82608	54-370			7235C	54-620	35-0003	54-301
82608C	54-361			7245B	54-612	35-0003-0000	54-301
82609	54-361			7245C	54-621	35-0003-00BU	54-301
82609P	54-361			7251B	54-615	35-0004	54-302
82610	54-369			7251C	54-624	35-0004-0000	54-302
82610C	54-360			7252B	54-616	35-0004-00BU	54-302
82611	54-360			7252C	54-625	35-0005	54-303
82611P	54-360			7262B	54-617	35-0005-0000	54-303
82720	54-357			7262C	54-626	35-0005-00BU	54-303
82720C	54-357			7301B	54-596	35-0006	54-395
82724	54-359			7301C	54-582	35-0006-0000	54-395
82724C	54-353			7302B	54-597	35-0006-00BU	54-395
82726	54-358			7302B-100	54-095	35-0007	54-304
82726C	54-352			7302C	54-583	35-0007-0000	54-304
82727	54-352			7305B	54-593	35-0007-00BU	54-304
82727P	54-352			7305C	54-580	35-0008	54-305
82728	54-357			7305B-100	54-093	35-0008-0000	54-305
82728C	54-351			7305C	54-579	35-0008-00BU	54-305
82729	54-351			7305D	54-137	35-0009	54-306
82729P	54-351			7305D-100	54-137	35-0009-0000	54-306
				7335B	54-594	35-0009-00BU	54-306
82731	54-363			7335C	54-580	35-0010	54-307
82732	54-372			7345B	54-595	35-0010-0000	54-307
82732C	54-363			7345C	54-581	35-0010-00BU	54-307
82734	54-374			7351B	54-598	35-0060	54-905
82734C	54-365			7351C	54-584	35-0060-0000	54-905
						35-0060-00BU	54-905
						35-0070	54-317
82736	54-373			7352B	54-599	35-0070-0000	54-317
82736C	54-364			7352C	54-585	35-0070-00BU	54-317
82737	54-364			7362B	54-600		
82737P	54-364			7362C	54-586	35-0080	54-610
82738	54-372			9001C	54-003	35-0080-0000	54-610
						35-0080-00BU	54-610
						35-0090	54-567
82738C	54-363			9001C-100	54-003	35-001	54-141
				9002B	54-013	35-002	54-142
				9002B-100	54-013	35-003	54-301
				9002C	54-012	35-004	54-302
				9002C-100	54-012	35-005	54-303
						35-006	54-395
				9003B	54-011	35-007	54-304
				9003B-100	54-011	35-008	54-305
				9003C	54-004	35-009	54-306
				9003C-100	54-004	35-010	54-307
				9101B	54-099	35-0012	54-308
				9101B-100	54-099	35-0012-0000	54-308
				9101C	54-003	35-0012-00BU	54-308
				9101C-100	54-003	35-0014	54-309
				9102B	54-100	35-0014-0000	54-309
				9102B-100	54-100	35-0014-00BU	54-309
				9103B	54-011	35-0016	54-310
				9103B-100	54-011	35-0016-0000	54-310
				9103C	54-004	35-0016-00BU	54-310
				9103C-100	54-004	35-0018	54-311
				9201B	54-603	35-0018-0000	54-311
				9201C	54-607	35-0018-00BU	54-311
				9202B	54-604	35-0024	54-323
				9202C	54-608	35-0024-0000	54-323
				9202D-100	54-028	35-0024-00BU	54-323
				9203B	54-602	35-0026	54-324
				9203C	54-606	35-0026-0000	54-324
				9301B	54-099	35-0026-00BU	54-324
				9301B-100	54-099	35-0036	54-312
				9301C	54-591	35-0036-0000	54-312
				9302B	54-100	35-0036-00BU	54-312
				9302B-100	54-100	35-0038	54-313
				9302C	54-592	35-0038-0000	54-313
				9303C	54-590	35-0038-00BU	54-313
				707005B	54-008	35-0053	54-328#
						35-0053-0000	54-328#

# Cross Reference by Manufacturer

# FROM GC ELECTRONICS TO GC ELECTRONICS

Switch to be Replaced	NTE Replacement	Switch to be Replaced	NTE Replacement	Switch to be Replaced	NTE Replacement	Switch to be Replaced	NTE Replacement
35-0053-00BU	54-328#	35-0430-00BU	54-066	35-0153-0000	54-616	35-0674-0000	54-079
35-0055	54-329#	35-0605	54-075	35-0153-00BU	54-616	35-0674-00BU	54-079
35-0055-0000	54-329#	35-0605-0000	54-075	35-0154	54-101	35-0684	54-386
35-0055-00BU	54-329#	35-0605-00BU	54-075	35-0154-0000	54-101	35-0684-0000	54-386
35-0057	54-333#	35-0606	54-073	35-0154-00BU	54-101	35-0684-00BU	54-386
35-0057-0000	54-333#	35-0606-0000	54-073	35-0155	54-617	35-0689	54-065
35-0057-00BU	54-333#	35-0606-00BU	54-073	35-0155-0000	54-617	35-0689-0000	54-065
35-0059	54-334#	35-0608	54-076	35-0155-00BU	54-617	35-0689-00BU	54-065
35-0059-0000	54-334#	35-0608-0000	54-076	35-0167	54-071	35-0693	54-062
35-0059-00BU	54-334#	35-0608-00BU	54-076	35-0167-0000	54-071	35-0693-0000	54-062
35-060	54-905	35-0609	54-077	35-0167-00BU	54-071	35-0693-00BU	54-062
35-0061	54-901	35-0609-0000	54-077	35-0178	54-020	35-0694	54-063
35-0061-00BU	54-901	35-0609-00BU	54-077	35-0178-0000	54-020	35-0694-0000	54-063
35-070	54-317	35-0660	54-083	35-0178-00BU	54-020	35-0694-00BU	54-063
35-0071	54-318	35-0660-0000	54-083	35-0182	54-021	35-0696	54-080
35-0071-0000	54-318	35-0660-00BU	54-083	35-0182-0000	54-021	35-0696-0000	54-080
35-0071-00BU	54-318	35-0840	54-404	35-0182-00BU	54-021	35-0696-00BU	54-080
35-0072	54-321	35-0840-0000	54-404	35-0184	54-022	35-0823	54-411
35-0072-0000	54-321	35-0840-00BU	54-404	35-0184-0000	54-022	35-0823-0000	54-411
35-0072-00BU	54-321	35-0870	54-412	35-0184-00BU	54-022	35-0823-00BU	54-411
35-0073	54-322	35-0880	54-414	35-0185	54-606	35-0824	54-409
35-0073-0000	54-322	35-0880-0000	54-414	35-0185-0000	54-606	35-0824-0000	54-409
35-0073-00BU	54-322	35-0880-00BU	54-414	35-0185-00BU	54-606	35-0824-00BU	54-409
35-0078	54-348	35-012	54-308	35-0186	54-084	35-0827	54-416
35-0078-0000	54-348	35-014	54-309	35-0186-0000	54-084	35-0834	54-418
35-0078-00BU	54-348	35-016	54-310	35-0186-00BU	54-084	35-0836	54-417
35-080	54-610	35-018	54-311	35-0188	54-085	35-0836-0000	54-417
35-090	54-567	35-024	54-323	35-0188-0000	54-085	35-0836-00BU	54-417
35-0092	54-568	35-026	54-324	35-0188-00BU	54-085	35-0842	54-402
35-0094	54-569	35-036	54-312	35-0189	54-381	35-0842-0000	54-402
35-0110	54-614	35-038	54-313	35-0189-0000	54-381	35-0842-00BU	54-402
35-0110-0000	54-614	35-053	54-320#	35-0189-00BU	54-381	35-0844	54-403
35-0110-00BU	54-614	35-055	54-329#	35-0411	54-388	35-0844-0000	54-403
35-0120	54-098	35-057	54-333#	35-0411-0000	54-388	35-0844-00BU	54-403
35-0120-0000	54-098	35-059	54-334#	35-0411-00BU	54-388	35-0846	54-408
35-0120-00BU	54-098	35-071	54-318	35-0412	54-389	35-0846-0000	54-408
35-0130	54-613	35-072	54-321	35-0412-0000	54-389	35-0846-00BU	54-408
35-0130-0000	54-613	35-073	54-322	35-0412-00BU	54-389	35-0848	54-400
35-0130-00BU	54-613	35-078	54-348	35-0413	54-390	35-0848-0000	54-400
35-0140	54-015*	35-092	54-568	35-0413-0000	54-390	35-0848-00BU	54-400
35-0140-0000	54-015*	35-094	54-569	35-0413-00BU	54-390	35-0854	54-131
35-0140-00BU	54-015*	35-0117	54-003	35-0417	54-391	35-0854-0000	54-131
35-0150	54-373*#	35-0117-0000	54-003	35-0417-0000	54-391	35-0854-00BU	54-131
35-0150-0000	54-373*#	35-0117-00BU	54-003	35-0417-00BU	54-391	35-0855	54-542
35-0150-00BU	54-373*#	35-0118	54-004	35-0421	54-125	35-0855-0000	54-542
35-0160	54-070	35-0118-0000	54-004	35-0421-0000	54-125	35-0855-00BU	54-542
35-0160-0000	54-070	35-0118-00BU	54-004	35-0421-00BU	54-125	35-0856	54-541
35-0160-00BU	54-070	35-0126	54-055	35-0422	54-392	35-0856-0000	54-541
35-0180	54-020	35-0126-0000	54-055	35-0422-0000	54-392	35-0856-00BU	54-541
35-0180-0000	54-020	35-0126-00BU	54-055	35-0422-00BU	54-392	35-0864	54-538
35-0180-00BU	54-020	35-0139	54-014*	35-0423	54-385	35-0864-0000	54-538
35-0404	54-380	35-0139-0000	54-014*	35-0423-0000	54-385	35-0864-00BU	54-538
35-0404-0000	54-380	35-0139-00BU	54-014*	35-0423-00BU	54-385	35-0867	54-540
35-0404-00BU	54-380	35-0141	54-016*	35-0432	54-067	35-0867-0000	54-540
35-0405	54-393	35-0141-0000	54-016*	35-0432-0000	54-067	35-0867-00BU	54-540
35-0405-0000	54-393	35-0141-00BU	54-016*	35-0432-00BU	54-067	35-0872	54-413
35-0405-00BU	54-393	35-0143	54-017	35-0448	54-068	35-0876	54-408
35-0406	54-382	35-0143-0000	54-017	35-0448-0000	54-068	35-0882	54-406
35-0406-0000	54-382	35-0143-00BU	54-017	35-0448-00BU	54-068	35-0882	54-406
35-0406-00BU	54-382	35-0145	54-018	35-0449	54-069	35-0896	54-425*
35-0408	54-383	35-0145-0000	54-018	35-0449-0000	54-069	35-0896-0000	54-425*
35-0408-0000	54-383	35-0145-00BU	54-018	35-0449-00BU	54-069	35-0896-00BU	54-425*
35-0408-00BU	54-383	35-0146	54-603	35-0458	54-072\$	35-0982	54-450
35-0409	54-384	35-0146-0000	54-603	35-0458-0000	54-072\$	35-0982-0000	54-450
35-0409-0000	54-384	35-0146-00BU	54-603	35-0458-00BU	54-072\$	35-0982-00BU	54-450
35-0409-00BU	54-384	35-0148	54-604	35-0654	54-081	35-0984	54-451
35-0410	54-394	35-0148-0000	54-604	35-0654-0000	54-081	35-0984-0000	54-451
35-0410-0000	54-394	35-0148-00BU	54-604	35-0654-00BU	54-081	35-0984-00BU	54-451
35-0410-000	54-394	35-0149	54-028*#	35-0655	54-082*	35-0986	54-455
35-0410-00BU	54-394	35-0149-0000	54-028*#	35-0655-0000	54-082*	35-0986-0000	54-455
35-0420	54-556	35-0149-00BU	54-028*#	35-0655-00BU	54-082*	35-0986-00BU	54-455
35-0420-0000	54-556	35-0151	54-374*#	35-0656	54-053	35-110	54-614
35-0420-00BU	54-556	35-0151-0000	54-374*#	35-0656-0000	54-053	35-117	54-003
35-0430	54-066	35-0151-00BU	54-374*#	35-0656-00BU	54-053	35-118	54-004
35-0430-0000	54-066	35-0153	54-616	35-0674	54-079	35-120	54-098
						35-126	54-055
						35-130	54-613
						35-139	54-014*
						35-140	54-015*
						35-141	54-016*
						35-143	54-017

Switch to be Replaced	NTE Replacement	Switch to be Replaced	NTE Replacement	Switch to be Replaced	NTE Replacement	Switch to be Replaced	NTE Replacement
35-145	54-018	35-870	54-412	35-3092-0000	54-106	35-3555-0000	54-092
35-146	54-603	35-872	54-413	35-3092-00BU	54-106	35-3555-00BU	54-092
35-148	54-604	35-874	54-408	35-3120	54-367*#	35-3560	54-040
35-149	54-028*#	35-876	54-408	35-3120-0000	54-367*#	35-3560-0000	54-040
35-150	54-373*#	35-880	54-414	35-3120-00BU	54-367*#	35-3560-00BU	54-040
35-151	54-374*#	35-882	54-406	35-3154	54-107	35-3565	54-041
35-153	54-616	35-896	54-425*	35-3154-0000	54-107	35-3565-0000	54-041
35-154	54-101	35-982	54-450	35-3154-00BU	54-107	35-3565-00BU	54-041
35-155	54-617	35-984	54-451	35-3156	54-108	35-3570	54-042
35-160	54-070	35-986	54-455	35-3156-0000	54-108	35-3570-0000	54-042
35-167	54-071	35-1076	54-094	35-3156-00BU	54-108	35-3570-00BU	54-042
35-178	54-020	35-1076-0000	54-094	35-3158	54-109	35-3575	54-043
35-180	54-020	35-1076-00BU	54-094	35-3158-0000	54-109	35-3575-0000	54-043
35-182	54-021	35-1114	54-096	35-3158-00BU	54-109	35-3575-00BU	54-043
35-184	54-022	35-1114-0000	54-096	35-3160	54-110	35-3580	54-044
35-185	54-606	35-1114-00BU	54-096	35-3160-0000	54-110	35-3580-0000	54-044
35-186	54-084	35-1116	54-097	35-3160-00BU	54-110	35-3580-00BU	54-044
35-188	54-085	35-1116-0000	54-097	35-3162	54-111	35-3585	54-045
35-189	54-381	35-1116-00BU	54-097	35-3162-0000	54-111	35-3585-0000	54-045
35-404	54-380	35-3005	54-619	35-3162-00BU	54-111	35-3585-00BU	54-045
35-404-0000	54-380	35-3005-0000	54-619	35-3164	54-112	35-3590	54-046
35-405	54-393	35-3005-00BU	54-619	35-3164-0000	54-112	35-3590-0000	54-046
35-406	54-382	35-3005-BU	54-619	35-3164-00BU	54-112	35-3590-00BU	54-046
35-408	54-383	35-3008	54-102	35-3166	54-113	35-3600	54-047
35-409	54-384	35-3008-0000	54-102	35-3166-0000	54-113	35-3600-0000	54-047
35-410	54-394	35-3008-00BU	54-102	35-3166-00BU	54-113	35-3600-00BU	54-047
35-410-BU	54-394	35-3010	54-622	35-3425	54-133	35-3610	54-048
35-411	54-388	35-3010-0000	54-622	35-3425-0000	54-133	35-3610-0000	54-048
35-412	54-389	35-3010-00BU	54-622	35-3425-00BU	54-133	35-3610-00BU	54-048
35-413	54-391	35-3015	54-623	35-3427	54-134	35-3620	54-049
35-417	54-390	35-3015-0000	54-623	35-3427-0000	54-134	35-3620-0000	54-049
35-420	54-556	35-3015-00BU	54-623	35-3427-00BU	54-134	35-3620-00BU	54-049
35-420-BU	54-556	35-3020	54-027*#	35-3429	54-135	35-3630	54-050
35-421	54-125	35-3020-0000	54-027*#	35-3429-0000	54-135	35-3630-0000	54-050
35-422	54-392	35-3020-00BU	54-027*#	35-3429-00BU	54-135	35-3630-00BU	54-050
35-423	54-385	35-3025	54-361*	35-3454	54-132	35-3640	54-051
35-430	54-066	35-3025-0000	54-361*	35-3454-0000	54-132	35-3640-0000	54-051
35-432	54-067	35-3025-00BU	54-361*	35-3454-00BU	54-132	35-3640-00BU	54-051
35-448	54-068	35-3030	54-059	35-3484	54-577	35-3650	54-052
35-449	54-069	35-3030-0000	54-059	35-3484-0000	54-577	35-3650-0000	54-052
35-458	54-072*#	35-3030-00BU	54-059	35-3484-00BU	54-577	35-3650-00BU	54-052
35-605	54-075	35-3035	54-143	35-3500	54-034	35-3660	54-114
35-606	54-073	35-3035-0000	54-143	35-3500-0000	54-034	35-3660-0000	54-114
35-608	54-076	35-3035-00BU	54-143	35-3500-00BU	54-034	35-3660-00BU	54-114
35-609	54-077	35-3040	54-619	35-3505	54-087	35-3670	54-115
35-654	54-081	35-3040-0000	54-619	35-3505-0000	54-087	35-3670-0000	54-115
35-655	54-082*	35-3040-00BU	54-619	35-3505-00BU	54-087	35-3670-00BU	54-115
35-656	54-053	35-3045	54-606	35-3510	54-035	35-3680	54-116
35-660	54-083	35-3045-0000	54-606	35-3510-0000	54-035	35-3680-0000	54-116
35-674	54-079	35-3045-00BU	54-606	35-3510-00BU	54-035	35-3680-00BU	54-116
35-684	54-386	35-3050	54-130	35-3515	54-088	35-3690	54-117
35-689	54-065	35-3050-0000	54-130	35-3515-0000	54-088	35-3690-0000	54-117
35-693	54-062	35-3050-00BU	54-130	35-3515-00BU	54-088	35-3690-00BU	54-117
35-694	54-063	35-3055	54-620	35-3520	54-089	35-3695	54-118
35-696	54-080	35-3055-0000	54-620	35-3520-0000	54-089	35-3695-0000	54-118
35-754	54-632	35-3055-00BU	54-620	35-3520-00BU	54-089	35-3695-00BU	54-118
35-756	54-627	35-3060	54-602	35-3525	54-036	35-3710	54-060
35-761	54-631	35-3060-0000	54-602	35-3525-0000	54-036	35-3710-0000	54-060
35-762	54-629	35-3060-00BU	54-602	35-3525-00BU	54-036	35-3710-00BU	54-060
35-823	54-411	35-3065	54-104*	35-3530	54-037	35-3720	54-061
35-824	54-409	35-3065-0000	54-104*	35-3530-0000	54-037	35-3720-0000	54-061
35-827	54-416	35-3065-00BU	54-104*	35-3530-00BU	54-037	35-3720-00BU	54-061
35-834	54-418	35-3070	54-056	35-3535	54-090	35-3730	54-519
35-836	54-417+	35-3070-0000	54-056	35-3535-0000	54-090	35-3730-0000	54-519
35-840	54-404	35-3070-00BU	54-056	35-3535-00BU	54-090	35-3730-00BU	54-519
35-840-BU	54-404	35-3075	54-057	35-3540	54-038	35-3750	54-518
35-842	54-402	35-3075-0000	54-057	35-3540-0000	54-038	35-3750-0000	54-518
35-844	54-403	35-3075-00BU	54-057	35-3540-00BU	54-038	35-3760	54-058
35-846	54-408	35-3080	54-019	35-3545	54-091	35-3760-0000	54-058
35-848	54-400	35-3080-0000	54-019	35-3545-0000	54-091	35-3760-00BU	54-058
35-854	54-131	35-3080-00BU	54-019	35-3545-00BU	54-091	35-3790	54-064
35-855	54-542	35-3091	54-105	35-3550	54-039	35-3790-0000	54-064
35-856	54-541	35-3091-0000	54-105	35-3550-0000	54-039	35-3790-00BU	54-064
35-864	54-538	35-3091-00BU	54-105	35-3550-00BU	54-039	35-3795	54-054
35-867	54-540	35-3092	54-106	35-3555	54-092	35-3795-0000	54-054
						35-3795-00BU	54-054



# FROM MODE ELECTRONICS TO PACER TECHNOLOGY Cross Reference by Manufacturer

Switch to be Replaced	NTE Replacement	Switch to be Replaced	NTE Replacement	Switch to be Replaced	NTE Replacement	Switch to be Replaced	NTE Replacement
41-245-0	54-308	46-192-1	54-054	<b>NKK</b>		V-10G-2C24-K	54-412
41-245-1	54-308	46-192J-0	54-054	M203SS1W01	54-323	V-10G-3C24-K	54-413
41-245A-0	54-308	46-192J-1	54-054	M2012SS1W01	54-302	V-15G2-1C25-K	54-403
41-245A-1	54-308	47-300-0	54-418	M2012SS1W03	54-302	V-10G4-1C25-K	54-402
41-245T-0	54-308	47-300-1	54-418	M2013ES1W01	54-329	V-15G5-1B5-K	54-401
				M2013SS1W01	54-303		
41-245T-1	54-308	47-400-0	54-419			V-15G6-1B5-K	54-405
41-246-0	54-310	47-400-1	54-419	M2015ES1W01	54-332	V-15G6-1C25-K	54-400
41-246-1	54-310	47-402-0	54-403	M2018ES1W01	54-330	V-15G-1C24-K	54-404
41-246B-0	54-310	47-402-1	54-403	M2018SS1W01	54-305	V-15G-1C25-K	54-419
41-246B-1	54-310	47-403-0	54-410	M2019ES1W01	54-331	Z-15G	54-435
				M2019SS1W01	54-304		
41-246T-0	54-310	47-403-1	54-410			Z-15G-B-7K	54-423
41-246T-1	54-310	47-406-0	54-400	M2022ES1W01	54-333	Z-15GD	54-437
41-247-0	54-311	47-406-1	54-400	M2022SS1W01	54-307	Z-15GD-B-7K	54-424
41-247-1	54-311			M2022SS1W01	54-307	Z-15GL-B	54-428
41-247B-0	54-311			M2023ES1W01	54-334	Z-15GQ	54-433
				M2023SS1W01	54-308		
41-247B-1	54-311	<b>NECON</b>				Z-15GQ21-B	54-442
41-247T-0	54-311	ARD002	54-081	M2025SS1W01	54-309	Z-15GQ22-B	54-438
41-247T-1	54-311	ARD014	54-082	M2028ES1W01	54-335	Z-15GQ-B-7K	54-425
41-251-0	54-323	B0003	54-060	M2028SS1W01	54-311	Z-15GS-B-7K	54-426
41-251-1	54-323	B0003P	54-059	M2029SS1W01	54-310	Z-15GW	54-432
		B0060	54-517	M2033SS1W01	54-324		
41-251T-0	54-323					Z-15GW2-B	54-441
41-251T-1	54-323	B0046-1	54-540	M2042SS1W01	54-312	Z-15GW22-B	54-440
41-252-0	54-324	B0049-1	54-542	M2043SS1W01	54-313	Z-15GW2277-B-7K	54-430
41-252-1	54-324	B0053	54-021	SB40-11NO-H-C	54-556	Z-15GW-B-7K	54-427
41-252T-0	54-324	B0062	54-518				
		B0069	54-541				
41-252T-1	54-324						
41-253-0	54-312	B0144	54-061	<b>NSI INDUSTRIES</b>			
41-253-1	54-312	BOO63	54-519	75101CW	54-538		
41-253T-0	54-312	WLP002-1D	54-132	76010PW	54-132	RC15KKIT00B	54-503*
41-253T-1	54-312	01-79632-1E	54-348	77060RQ	54-052	RC25KKET00B	54-505*
		01-79652	54-007	77140RQ	54-047	RC35KKET00B	54-504*
41-255-0	54-313			77150RQ	54-054	RC95KKETLLLB	54-536*
41-255-1	54-313	01-79672	54-008			RC95KKETLLRB	54-534*
41-255T-0	54-313	01-79672-1E	54-093	78020TQ	54-573	RC95KKEETLLYB	54-535*
41-255T-1	54-313	01-79672C	54-001	78050TQ	54-005	RC95KKFET3ENB	54-530*
42-010-0	54-070	01-79682	54-006	78060TQ	54-622	RC95KKMET1CNB	54-533*
		01-746720-1D	54-094	78070TQ	54-623	RC95KKMET1ENB	54-526*
42-010-1	54-070			78090TQ	54-607	RC95KKMET3ENB	54-529*
42-130-0	54-004	1-70074-1F	54-110			RC95KKRET1CNB	54-506*
42-130-1	54-004	1-71152	54-047	78100TQ	54-608	RC95KKRET1ENB	54-531*
42-143-0	54-003	1-71258D-R	54-053	78110TS	54-143	RC95KKRET3ENB	54-527*
42-143-1	54-003	1-80054-1F	54-107	78120TQ	54-619	RC95KKYET1CNB	54-532*
		1-80074-1F	54-112	78130TQ	54-606	RC95KKYET1ENB	54-525*
42-145-0	54-012			78150TW	54-130		
42-145-1	54-012	1-89652	54-004				
42-340-0	54-003	1-89652-1D	54-004	78160TS	54-614	RC95KKYET3ENB	54-528*
42-340-1	54-003	1-89672	54-011	78180TS	54-001		
42-423-0	54-099	1-89672-1D	54-367	78190TS	54-002	PTD1T1B1M2-ESE	54-307PC
		1-89672C-1D	54-104	78200TS	54-613	PTD1T1B1M2ESE	54-307PC
42-423-1	54-099			78210TS	54-610	PTD2T1B1M2-ESE	54-309PC
42-425-0	54-100	1-811520	54-083			PTD2T1B1M2ESE	54-309PC
42-425-1	54-100	2-70074-1F	54-111	78220TS	54-602	PTD3T1B1M2-ESE	54-308PC
42-444-0	54-101	2-79672-1D	54-095	78230TS	54-604	PTD3T1B1M2ESE	54-308PC
42-444-1	54-101	2-80034-1F	54-084	78270TS	54-099	PTD4T1B1M2-ESE	54-311PC
42-900-0	54-905	2-80054-1F	54-108	79300MS	54-905	PTD4T1B1M2ESE	54-311PC
42-901-0	54-900					PTD5T1B1M2-ESE	54-310PC
44-201-0	54-066@	2-80074-1F	54-113			PTD5T1B1M2ESE	54-310PC
44-201-1	54-066@	2-89652	54-003	<b>OMRON</b>		PTE1T1B1M2-ESE	54-323PC
44-481-0	54-389	2-89652-1D	54-027	A-20G-B7-K	54-453	PTE1T1B1M2ESE	54-323PC
		2-89655-1D	54-003	A-20GD-B7-K	54-454	PTE2T1B1M2-ESE	54-327PC
44-481-1	54-389	2-89672-1D	54-099	A-20GQ-B7-K	54-450	PTE2T1B1M2ESE	54-327PC
44-490-0	54-392@			A-20GV2-B7-K	54-455	PTE3T1B1M2-ESE	54-324PC
44-490-1	54-392@	3-79652	54-009	A-20GV22-B7-K	54-452	PTE3T1B1M2ESE	54-324PC
44-493-0	54-392@	3-79672	54-010			PTF1T1B1M2-ESE	54-312PC
44-493-1	54-392@	3-79672L-1D	54-359			PTF1T1B1M2ESE	54-312PC
		3-79672M	54-002	A-20GV-B7-K	54-451	PTF2T1B1M2-ESE	54-316PC
44-530-0	54-385@	3-80034-1F	54-085	SS-10	54-418	PTF2T1B1M2ESE	54-316PC
44-530-1	54-385@			SS-10GL	54-417	PTF3T1B1M2-ESE	54-313PC
44-531-0	54-385@	3-80054-1F	54-109	SS-10GL2	54-416	PTF3T1B1M2ESE	54-313PC
44-531-1	54-385@	3-89632-1D	54-028	V-10G1-1C25-K	54-421	PTM-D2-T1B1-M1SE	54-142
44-532-0	54-385	3-89652	54-012			PTM-SO-T1B1-M1SE	54-140
		3-89652-1D	54-361	V-10G2-1C24-K	54-414		
44-532-1	54-385	3-89672	54-013	V-10G3-1C24-K	54-409	PTM-S1-T1B1-M1SE	54-141
46-100J-0	54-503			V-10G3-1C25-K	54-410	PTS1T1B1M2-ESE	54-302PC
46-102J-0	54-531	3-89672-1D	54-100	V-10G4-1C24-K	54-422	PTS1T1B1M2ESE	54-302PC
46-170-0	54-514@	3-89672L-1D	54-374	V-10G5-1C24-K	54-408	PTS2T1B1M2-ESE	54-301PC
46-183-0	54-516@	3-89672M-1D	54-373			PTS2T1B1M2ESE	54-301PC
		9001	54-538	V-10G5-1C25-K	54-407	PTS3T1B1M2-ESE	54-303PC
46-190-0	54-054@	71803	54-905	V-10G6-1C24-K	54-406	PTS3T1B1M2ESE	54-303PC
46-190-1	54-054@			V-10G-1B5-K	54-415	PTS4T1B1M2-ESE	54-305PC
46-190J-1	54-054@	79672-1D	54-025	V-10G-1C24-K	54-411	PTS4T1B1M2ESE	54-305PC
46-192-0	54-054	186790-1DR	54-072	V-10G-1C25-K	54-420		

**Cross Reference by Manufacturer**

**FROM PACER TECHNOLOGY TO SCI (SHIN CHIN INDUST)**

Switch to be Replaced	NTE Replacement	Switch to be Replaced	NTE Replacement	Switch to be Replaced	NTE Replacement	Switch to be Replaced	NTE Replacement
PTS5T1B1M2-ESE	54-304PC	30-670	54-115*	30-12242	54-561	30-16610	54-048
PTS5T1B1M2ESE	54-304PC	30-690	54-117*	30-12244	54-563	30-16612	54-077*
		30-695	54-118*	30-12245	54-562	30-16620	54-049
		30-720	54-061	30-12475	54-576	30-16630	54-050
		30-730	54-519	30-14114	54-391	30-16640	54-051
<b>PATTERSON</b>							
Z15G1306	54-424	30-740	54-517	30-14348	54-068	30-16680	54-116
Z-15GD-B	54-424	30-750	54-518	30-14349	54-069	30-16703	54-059
Z-15GD-B(AM1306)	54-424	30-870	54-870	30-14450	54-066	30-16710	54-060
		30-872	54-872	30-14451	54-067	30-16751	54-058
		30-874	54-874	30-14455	54-072*#	30-16867	54-082*
<b>PHILMORE</b>							
30-003	54-380	30-1250	54-920	30-16060	54-503	30-17054	54-636
30-005	54-393	30-1307	54-425	30-16062	54-520	30-17070	54-633
30-006	54-382	30-1308	54-438	30-16066	54-521	30-17076	54-634
30-008	54-383	30-1320	54-905	30-16068	54-522	30-17408	54-578
30-009	54-384	30-1425	54-133	30-16070	54-505	30-18144	54-426
						30-18205	54-409
30-010	54-614	30-1426	54-134	30-16072	54-504	30-18230	54-415
30-0018	54-311	30-1427	54-135	30-16074	54-524	30-18236	54-405
30-020	54-005	30-1701	54-451	30-16093	54-062	30-19484	54-577
30-050	54-373*#	30-1703	54-455	30-16094	54-063		
30-060	54-083	30-1720	54-131	30-16096	54-080		
30-080	54-610	30-2000	54-411*	30-16110	54-523	<b>PIZZATO ELETTRICA</b>	
30-090	54-306	30-2020	54-403	30-16122	54-527	MS02	54-435
30-013	54-613	30-2040	54-410*	30-16123	54-528	MS10	54-433
30-017	54-003	30-2060	54-400	30-16125	54-529	MS45	54-429
30-019	54-004	30-2080	54-407*	30-16126	54-530	MV02	54-423
				30-16126	54-530	MV10	54-425
30-022	54-597	30-2501	54-417+	30-16150	54-514\$	MV20	54-442
30-035	54-328#	30-3050	54-348W	30-16155	54-515	MV30	54-451
30-037	54-329#	30-3057	54-366W	30-16182	54-531	MV40	54-441
30-039	54-333#	30-9157	54-538	30-16183	54-525	MV45	54-440
30-041	54-334#	30-9159	54-541*	30-16185	54-526	MV47	54-430
						54-428	54-428
30-046	54-099	30-9161	54-542	30-16200	54-510		
30-048	54-100	30-10002	54-302	30-16210	54-512	<b>PRONIC</b>	
30-049	54-028*#	30-10004	54-301	30-16215	54-511	BR1-12A-13L	54-531
30-051	54-374*	30-10006	54-303	30-16220	54-543	BR-11A-11L	54-505
30-053	54-616	30-10008	54-305	30-16222	54-534	BR-12C-11L	54-503
						BR-13A-11L	54-504
30-054	54-101*#	30-10010	54-304	30-16223	54-535		
30-055	54-617	30-10012	54-307	30-16225	54-536	<b>RACO</b>	
30-067	54-071*#	30-10014	54-309	30-16226	54-537	6401	54-538
30-068	54-084*	30-10016	54-308	30-16260	54-544	6402	54-538@
30-069	54-054	30-10018	54-311	30-16283	54-532	6404	54-540
						6409	54-143
						6410	54-093
30-078	54-348*	30-10020	54-310	30-16285	54-533	6411	54-025
30-084	54-386	30-10022	54-323	30-16330	54-545	6412	54-131
30-088	54-085*	30-10024	54-324	30-16340	54-546	6413	54-095
30-089	54-381	30-10030	54-140	30-16360	54-548	6417	54-110
30-0354	54-132	30-10032	54-313	30-16402	54-513	6426	54-069
						6427	54-132
30-0451	54-361	30-10034	54-312	30-16404	54-549	6441	54-905
30-112	54-389	30-10042	54-141	30-16405	54-550		
30-113	54-390	30-10048	54-142	30-16422	54-551		
30-116	54-615	30-10060	54-392@	30-16423	54-552		
30-154	54-107	30-10062	54-556	30-16425	54-553		
30-156	54-108	30-10072	54-627	30-16426	54-554		
30-158	54-109	30-10131	54-055	30-16500	54-034		
30-160	54-110	30-10239	54-014*	30-16505	54-087		
30-162	54-111	30-10240	54-015*	30-16510	54-035		
30-164	54-112	30-10241	54-016*	30-16515	54-088		
30-166	54-113	30-10243	54-017	30-16520	54-089		
30-170	54-020	30-10245	54-018	30-16525	54-036		
30-171	54-021	30-10308	54-102	30-16530	54-037		
30-172	54-022	30-10318	54-105	30-16535	54-090		
30-305	54-619	30-10319	54-106	30-16540	54-038		
30-310	54-622	30-10341	54-056	30-16545	54-091		
30-312	54-367*#	30-10342	54-057*	30-16550	54-039		
30-315	54-623	30-10360	54-367#	30-16555	54-092		
30-320	54-027*#	30-10376	54-019	30-16560	54-040		
30-325	54-361*	30-12050	54-571	30-16564	54-081		
30-345	54-026*#	30-12145	54-566	30-16565	54-041		
30-350	54-130	30-12147	54-567	30-16570	54-042		
30-355	54-611	30-12149	54-568	30-16575	54-043		
30-365	54-104*	30-12150	54-569	30-16580	54-044		
30-390	54-064	30-12153	54-570	30-16585	54-045		
30-395	54-065	30-12174	54-572	30-16590	54-046		
30-650	54-052*	30-12176	54-573	30-16600	54-047		
30-652	54-053	30-12178	54-574	30-16605	54-075*		
30-654	54-079	30-12179	54-575	30-16606	54-073*		
30-660	54-114*	30-12240	54-560	30-16608	54-076*		



# FROM SCI (SHIN CHIN INDUST) TO SELECTA SWITCH

# Cross Reference by Manufacturer

Switch to be Replaced	NTE Replacement	Switch to be Replaced	NTE Replacement	Switch to be Replaced	NTE Replacement	Switch to be Replaced	NTE Replacement
R13-32B-01	54-054	R13-135L-02-BBY-L-3	54-552	R13-427A1-08Y	54-354W	RH-40	54-556
R13-40ABBLACK	54-558	R13-136A-05	54-507	R13-427C1-01Y	54-349W	SS106	54-020
R13-40ARED	54-556	R13-136B	54-509	R13-427C1-08Y	54-355W	SS107	54-538
R13-40AYELLOW	54-557	R13-136B-05	54-509	R13-427D1-01Y	54-350W	SS108	54-542
R13-49A	54-514	R13-136C	54-508	R13-427D1-08Y	54-356W	SS110A	54-573
R13-49A-05	54-514	R13-136C-05	54-508	R13-427G1-01Y	54-352W	SS110G	54-575
R13-49B	54-516	R13-166A-02	54-086	R13-427G1-08Y	54-358W	SS110R	54-572
R13-49B-05	54-516	R13-208A	54-503	R13-428B1-01AY	54-360W	SS113	54-005
R13-49C	54-515	R13-208A-02	54-503	R13-428B1-08AY	54-369W	SS114	54-024*#
R13-49C-05	54-515	R13-208B2	54-531	R13-428E1-01AY	54-361W	SS115	54-025*#
R13-61A-B/B	54-566	R13-208B2-02	54-506	R13-428E1-08AY	54-370W	SS116	54-026#
R13-61B-01AMBER	54-569	R13-208B2-02-BBG-N-1	54-533	R13-428F1-01AY	54-366W	SS117	54-027#
R13-61B-01BLUE	54-570	R13-208B2-02-BBG-L-3	54-536	R13-428F1-08AY	54-367W	SS118	54-361
R13-61B-01GREEN	54-568	R13-208B2-02-BBR-L-3	54-534	R13-428K1-01AY	54-364W	SS127	54-540
R13-61B-01RED	54-567	R13-208B2-02-BBU-L-3	54-537	R13-428K1-08AY	54-373W	SS201-1	54-143
R13-61B-B/G	54-568	R13-208B2-02-BBY-N-1	54-532	R13-432D1-08	54-015	SS204-4	54-071
R13-61B-B/R	54-567	R13-208B2-02-BBY-L-3	54-535	R13-509A	54-394	SS204L	54-070
R13-61B-B/U	54-570	R13-208B-02-BG-B-1	54-529	R13-509A-05	54-394	SS205-5	54-130
R13-61B-B/Y	54-569	R13-208B-02-BG-N-1	54-526	R17-10A	54-920	SS206-15	54-614
R13-66B8W-02GREEN/110 V	54-203W	R13-208B-02-BR-B-1	54-527	R17-10A/RED	54-920	SS206B	54-001
R13-66B8W-02GREEN/12V	54-204W	R13-208B-02-BR-N-1	54-531	R17-10B/BLUE	54-922	SS206C	54-002
R13-66B8W-02RED/110V	54-200W	R13-208B-02-BU-B-1	54-530	R17-10B/BLUE/VARNISH	54-922	SS206P	54-623
R13-66B8W-02RED/12V	54-201W	R13-208B-02-BY-B-1	54-528	R17-10B/RED	54-921	SS206R	54-613
R13-66C8-02	54-202W	R13-208B-02-BY-N-1	54-525	R17-10B/RED/VARNISH	54-921	SS206RP	54-622
R13-73B-02	54-053	R13-208C	54-505	R17-10B/SILVER	54-923	SS206S	54-610
R13-85A-05	54-066	R13-208C-02	54-505	R17-10B/SILVER/VARNISH	54-923	SS206SP	54-619
R13-110A-B/B	54-571	R13-208E-02-BB-2	54-521	R13432D108	54-015	SS207-7A	54-602
R13-110B-01AMBER	54-573	R13-208F-02-BB-2	54-520			SS207P	54-606
R13-110B-01BLUE	54-574	R13-208G-02-BB-2	54-522			SS208-16	54-100
R13-110B-01GREEN	54-575	R13-208H-02-BB-2	54-523			SS208B	54-374#
R13-110B-01RED	54-572	R13-208I-02-BB-2	54-524			SS208C	54-373#
R13-110B-B/G	54-575	R13-244A8-02	54-211W			SS208D	54-104\$
R13-110B-B/R	54-572	R13-244B8-02GREEN/110V	54-209W			SS208P	54-608
R13-110B-B/U	54-574	R13-244B8-02GREEN/12V	54-210W			SS208R	54-603
R13-110B-B/Y	54-573	R13-244B8-02RED/110V	54-205W			SS208RP	54-607
R13-112A8-02	54-503W	R13-244B8-02RED/12V	54-206W			SS209-8	54-056
R13-112B8W-02GREEN/110V	54-526W	R13-258A-01	54-221W			SS210-9	54-055
R13-112B8W-02GREEN/12V	54-526W	R13-258B-01GREEN/12V	54-220W			SS211-16A	54-057*
R13-112B8W-02RED/12V	54-527W	R13-258B-01GREEN/110V	54-219W			SS212	54-016
R13-112B8W-02RED/110V	54-531W	R13-258B-01RED/12V	54-216W			SS212A	54-015
R13-112D	54-504	R13-258B-01RED/110V	54-215W			SS212S	54-014
R13-112D-02	54-504	R13-258L-01GREEN/12V	54-220W			SS215-10	54-132
R13-129A-01	54-047	R13-258L-01RED/12V	54-216W			SS216-11	54-069
R13-129B-01	54-051	R13-260-A1-01BBBB-NNN	54-225W			SS219	54-019
R13-129C-01	54-048	R13-260-A4-01-BBGB-N1D/110V	54-232W			SS219S	54-018
R13-129D-01	54-049	R13-260-A4-01-BBGB-N1D/12V	54-233W			SS220	54-017
R13-129E-01	54-052	R13-260-A4-01-BBLB-N1D/110V	54-234W			SS222L	54-068
R13-129F-01	54-050	R13-260-A4-01-BBLB-N1D/12V	54-235W			SS224	54-133
R13-129G-01	54-118	R13-260-A4-01-BBRB-N1D/110V	54-230W			SS228	54-134
R13-129H-01	54-116	R13-260-A4-01-BBRB-N1D/12V	54-231W			SS229	54-135
R13-129M-01	54-117	R13-260-B1-01-BBBB-NNN	54-226W			SS233L	54-067
R13-130A	54-500	R13-260-C1-01-BBBB-NNN	54-227W			SS256L	54-348
R13-130A-05	54-500	R13-260-C5-01-BBRG-N2D/110V	54-238W			SS258L	54-028#
R13-130B	54-502	R13-260-C5-01-BBRG-N2D/12V	54-239W			SS268P	54-003
R13-130B-05	54-502	R13-260-C5-01-BBRR-N2D/110V	54-246W			SS277S	54-094
R13-130C	54-501	R13-260-C5-01-BBRR-N2D/12V	54-247W			SS278P	54-004
R13-130C-05	54-501	R13-260-D1-01-BBBB-NNN	54-228W			SS279S	54-097
R13-135A	54-510	R13-260-D5-01-BBRG-N2D/110V	54-240W			SS296P	54-103#
R13-135A-02	54-510	R13-260-D5-01-BBRG-N2D/12V	54-241W			SS298S	54-096
R13-135B	54-513	R13-260-D5-01-BBRR-N2D/110V	54-248W			SS501	54-020
R13-135B-02	54-513	R13-260-D5-01-BBRR-N2D/12V	54-249W			SS502	54-021\$
R13-135B-02-BG-N-1	54-550	R13-260-E1-01-BBBB-NNN	54-229W			SS503	54-022
R13-135B-02-BY-N-1	54-549	R13-401A1-A-07/BLACK	54-562			SS505	54-107
R13-135C	54-512	R13-401A1-A-07/CHROME	54-562			SS507	54-109
R13-135C-02	54-512	R13-401A1-A-07/RED	54-561			SS508	54-110
R13-135D	54-511	R13-401A1A-07-HPH	54-560			SS510	54-112
R13-135D-02	54-511	R13-401A3A-07B-HHP	54-564			SS511	54-113
R13-135E-02-BB-1	54-544	R13-401A4-A-07	54-563			SS512	54-108
R13-135F-02-BB-1	54-543	R13-401A4-A-07/BLACK	54-563			SS517	54-578
R13-135G-02-BB-1	54-545	R13-401A4-A-07/BLUE	54-563			SS520	54-905
R13-135H-02-BB-1	54-546	R13-401A4-A-07/RED	54-563			SS951	54-082*
R13-135I-02-BB-0	54-548	R13-401A4-A-07/YELLOW	54-563			SS1101	54-053
R13-135L-02-BBG-L-3	54-553	R13-401D2A-07-HR	54-565			SS1104	54-050
R13-135L-02-BBR-L-3	54-551	R13-427A1-01Y	54-348W			SS1105	54-051
R13-135L-02-BBU-L-3	54-554					SS1106	54-052
						SS1112	54-114
						SS1113	54-115
						SS1114	54-116
						SS1115	54-117
						SS1116	54-118

## SELECTA SWITCH

BZ2RQ1-A2	54-425
BZ2RQ18-A2	54-438
BZ2RW80-A2	54-427
BZ-2R-A2	54-423
BZ-2RD-A2	54-424
BZ-2RL2-A2	54-441
BZ-2RL-A2	54-428
BZ-2RQ18-A2	54-438
BZ-2RS-A2	54-426
BZ-2RW826-A2	54-430
BZ-2RW-822-A2	54-429
RH02	54-500
RH03	54-514
RH04	54-516
RH05	54-515
RH12	54-510
RH13	54-513
RH14	54-512
RH15	54-511
RH16	54-507
RH17	54-509
RH18	54-508
RH19	54-503
RH20	54-531
RH21	54-505
RH22	54-504
RH38	54-502
RH39	54-501
RH-02	54-500
RH-03	54-514
RH-04	54-516
RH-05	54-515
RH-12	54-510
RH-13	54-512
RH-14	54-512
RH-15	54-511
RH-16	54-507
RH-17	54-509
RH-18	54-508
RH-19	54-503
RH-20	54-531
RH-21	54-505
RH-22	54-504
RH-38	54-502
RH-39	54-501

# Cross Reference by Manufacturer

# FROM SELECTA SWITCH TO WALDOM (GC)

Switch to be Replaced	NTE Replacement	Switch to be Replaced	NTE Replacement	Switch to be Replaced	NTE Replacement	Switch to be Replaced	NTE Replacement
SS1201	54-059	<b>TRANKEY MICRO-TECH</b>		35-007	54-304	35-0160	54-070
SS1203	54-060	RS13A	54-503	35-008	54-305	35-0160-0000	54-070
SS1205	54-061	RS13B	54-505	35-009	54-306	35-0160-00BU	54-070
SS1206	54-063	RS13C	54-504	35-010	54-307	35-0180	54-020
SS1208	54-519	RS13L	54-531	35-0012	54-308	35-0180-0000	54-020
SS1210	54-517	<b>VANCO</b>		35-0012-0000	54-308	35-0180-00BU	54-020
SS1214	54-518	PB2	54-556	35-0012-00BU	54-308	35-0404	54-380
SS1219	54-058	SM25	54-395	35-0014	54-309	35-0404-0000	54-380
SS1225	54-064	SM35	54-302	35-0014-0000	54-309	35-0404-00BU	54-380
SS1227	54-065	SM65	54-307	35-0014-00BU	54-309	35-0405	54-393
SS1230	54-102	SM75	54-308	35-0016	54-310	35-0405-0000	54-393
SS1237	54-105	<b>SMM</b>		35-0016-0000	54-310	35-0405-00BU	54-393
SS1239	54-106	SMM23	54-140	35-0016-00BU	54-310	35-0406	54-382
SS6747	54-900	SMM33	54-141	35-0018	54-311	35-0406-0000	54-382
SS7293	54-902	SMM63	54-142	35-0018-0000	54-311	35-0406-00BU	54-382
SS-206S	54-093	SW7	54-018	35-0018-00BU	54-311	35-0408	54-383
SS-920	54-075	<b>VELLEMAN</b>		35-0024	54-323	35-0408-0000	54-383
SS-921	54-080	HAA27	54-627	35-0024-0000	54-323	35-0408-00BU	54-383
SS-923	54-076	HAA29	54-633	35-0024-00BU	54-323	35-0409	54-384
SSAN105	54-905	HAA60	54-634	35-0026	54-324	35-0409-0000	54-384
V3-101	54-415	<b>WALDOM (GC)</b>		35-0026-0000	54-324	35-0409-00BU	54-384
V3L-101-D8	54-421	35-0000	54-140	35-0026-00BU	54-324	35-0410	54-394
V3L-104-D8	54-403	35-0000-0000	54-140	35-0036	54-312	35-0410-0000	54-394
V3L-111-D8	54-400	35-0000-00BU	54-140	35-0036-0000	54-312	35-0410-000	54-394
V3L-131-D8	54-410	35-000	54-140	35-0036-00BU	54-312	35-0410-00BU	54-394
V3L-2102-D8	54-407	35-0000-0000	54-140	35-0038	54-313	35-0420	54-556
V3L-2106-D8	54-409	35-0000-00BU	54-140	35-0038-0000	54-313	35-0420-0000	54-556
V3L-3014-D8	54-402	35-000	54-140	35-0038-00BU	54-313	35-0420-00BU	54-556
7101P3YZQE	54-328	35-0001	54-141	35-0053	54-328#	35-0430	54-066
7101SYCQE	54-302	35-0001-0000	54-141	35-0053-0000	54-328#	35-0430-00BU	54-066
7103SYZQE	54-303	35-0001-00BU	54-141	35-0053-00BU	54-328#	35-0605	54-075
7105SYZQE	54-305	35-0002	54-142	35-0055	54-329#	35-0605-0000	54-075
7107SYZQE	54-304	35-0002-0000	54-142	35-0055-0000	54-329#	35-0605-00BU	54-075
7108SYZQE	54-301	35-0002-00BU	54-142	35-0055-00BU	54-329#	35-0606	54-073
7201SYZQE	54-307	35-0003	54-301	35-0057	54-333#	35-0606-0000	54-073
7203SYZQE	54-308	35-0003-0000	54-301	35-0057-00BU	54-333#	35-0606-00BU	54-073
7205SYZQE	54-311	35-0003-00BU	54-301	35-0059	54-334#	35-0608	54-076
7207SYZQE	54-310	35-0004	54-302	35-0059-0000	54-334#	35-0608-0000	54-076
7208SYZQE	54-309	35-0004-0000	54-302	35-0059-00BU	54-334#	35-0608-00BU	54-076
7301SYZQE	54-323	35-0004-00BU	54-302	35-060	54-905	35-0609	54-077
7303SYZQE	54-324	35-0005	54-303	35-0061	54-901	35-0609-0000	54-077
7401SYZQE	54-312	35-0005-0000	54-303	35-0061-00BU	54-901	35-0609-00BU	54-077
7403SYZQE	54-313	35-0005-00BU	54-303	35-070	54-317	35-0660	54-083
		35-0006	54-395	35-071	54-318	35-0660-0000	54-083
		35-0006-0000	54-395	35-0071-0000	54-318	35-0840	54-404
		35-0006-00BU	54-395	35-0071-00BU	54-318	35-0840-0000	54-404
		35-0007	54-304	35-0072	54-321	35-0840-00BU	54-404
		35-0007-0000	54-304	35-0072-0000	54-321	35-0870	54-412
		35-0007-00BU	54-304	35-0072-00BU	54-321	35-0880	54-414
		35-0008	54-305	35-0073	54-322	35-0880-0000	54-414
		35-0008-0000	54-305	35-0073-0000	54-322	35-0880-00BU	54-414
		35-0008-00BU	54-305	35-0073-00BU	54-322	35-012	54-308
		35-0009	54-306	35-0078	54-348	35-014	54-309
		35-0009-0000	54-306	35-0078-0000	54-348	35-016	54-310
		35-0009-00BU	54-306	35-0078-00BU	54-348	35-018	54-311
		35-0010	54-307	35-080	54-610	35-024	54-323
		35-0010-0000	54-307	35-090	54-567	35-026	54-324
		35-0010-00BU	54-307	35-092	54-568	35-036	54-312
		35-0060	54-905	35-094	54-569	35-038	54-313
		35-0060-0000	54-905	35-0110	54-614	35-053	54-328#
		35-0060-00BU	54-905	35-0110-0000	54-614	35-055	54-329#
		35-0070	54-317	35-0110-00BU	54-614	35-057	54-333#
		35-0070-0000	54-317	35-0120	54-098	35-059	54-334#
		35-0070-00BU	54-317	35-0120-0000	54-098	35-071	54-318
		35-0080	54-610	35-0120-00BU	54-098	35-072	54-321
		35-0080-0000	54-610	35-0130	54-613	35-073	54-322
		35-0080-00BU	54-610	35-0130-0000	54-613	35-078	54-348
		35-0090	54-567	35-0130-00BU	54-613	35-092	54-568
		35-001	54-141	35-0140	54-015*	35-094	54-569
		35-002	54-142	35-0140-0000	54-015*	35-0117	54-003
		35-003	54-301	35-0140-00BU	54-015*	35-0117-0000	54-003
		35-004	54-302	35-0150	54-373**	35-0117-00BU	54-003
		35-005	54-303	35-0150-0000	54-373**	35-0118	54-004
		35-006	54-395	35-0150-00BU	54-373**	35-0118-0000	54-004
						35-0118-00BU	54-004
						35-0126	54-055
						35-0126-0000	54-055
						35-0126-00BU	54-055

# FROM WALDOM (GC) TO WALDOM (GC)

# Cross Reference by Manufacturer

Switch to be Replaced	NTE Replacement	Switch to be Replaced	NTE Replacement	Switch to be Replaced	NTE Replacement	Switch to be Replaced	NTE Replacement
35-0139	54-014*	35-0423	54-385	35-0864-0000	54-538	35-654	54-081
35-0139-0000	54-014*	35-0423-0000	54-385	35-0864-00BU	54-538	35-655	54-082*
35-0139-00BU	54-014*	35-0423-00BU	54-385	35-0867	54-540	35-656	54-053
35-0141	54-016*	35-0432	54-067	35-0867-0000	54-540	35-660	54-083
35-0141-0000	54-016*	35-0432-0000	54-067	35-0867-00BU	54-540	35-674	54-079
35-0141-00BU	54-016*	35-0432-00BU	54-067	35-0872	54-413	35-684	54-386
35-0143	54-017	35-0448	54-068	35-0876	54-408	35-689	54-065
35-0143-0000	54-017	35-0448-0000	54-068	35-0882	54-406	35-693	54-062
35-0143-00BU	54-017	35-0448-00BU	54-068	35-0896	54-425*	35-694	54-063
35-0145	54-018	35-0449	54-069	35-0896-0000	54-425*	35-696	54-080
35-0145-0000	54-018	35-0449-0000	54-069	35-0896-00BU	54-425*	35-754	54-632
35-0145-00BU	54-018	35-0449-00BU	54-069	35-0982	54-450	35-756	54-627
35-0146	54-603	35-0458	54-072\$	35-0982-0000	54-450	35-761	54-631
35-0146-0000	54-603	35-0458-0000	54-072\$	35-0982-00BU	54-450	35-762	54-629
35-0146-00BU	54-603	35-0458-00BU	54-072\$	35-0984	54-451	35-823	54-411
35-0148	54-604	35-0654	54-081	35-0984-0000	54-451	35-824	54-409
35-0148-0000	54-604	35-0654-0000	54-081	35-0984-00BU	54-451	35-827	54-416
35-0148-00BU	54-604	35-0654-00BU	54-081	35-0986	54-455	35-834	54-418
35-0149	54-028*#	35-0655	54-082*	35-0986-0000	54-455	35-836	54-417+
35-0149-0000	54-028*#	35-0655-0000	54-082*	35-0986-00BU	54-455	35-840	54-404
35-0149-00BU	54-028*#	35-0655-00BU	54-082*	35-110	54-614	35-840-BU	54-404
35-0151	54-374*#	35-0656	54-053	35-117	54-003	35-842	54-402
35-0151-0000	54-374*#	35-0656-0000	54-053	35-118	54-004	35-844	54-403
35-0151-00BU	54-374*#	35-0656-00BU	54-053	35-120	54-098	35-846	54-408
35-0153	54-616	35-0674	54-079	35-126	54-055	35-848	54-400
35-0153-0000	54-616	35-0674-0000	54-079	35-130	54-613	35-854	54-131
35-0153-00BU	54-616	35-0674-00BU	54-079	35-139	54-014*	35-855	54-542
35-0154	54-101	35-0684	54-386	35-140	54-015*	35-856	54-541
35-0154-0000	54-101	35-0684-0000	54-386	35-141	54-016*	35-864	54-538
35-0154-00BU	54-101	35-0684-00BU	54-386	35-143	54-017	35-867	54-540
35-0155	54-617	35-0689	54-065	35-145	54-018	35-870	54-412
35-0155-0000	54-617	35-0689-0000	54-065	35-146	54-603	35-872	54-413
35-0155-00BU	54-617	35-0689-00BU	54-065	35-148	54-604	35-874	54-408
35-0167	54-071	35-0693	54-062	35-149	54-028*#	35-876	54-408
35-0167-0000	54-071	35-0693-0000	54-062	35-150	54-373*#	35-880	54-414
35-0167-00BU	54-071	35-0693-00BU	54-062	35-151	54-374*#	35-882	54-406
35-0178	54-020	35-0694	54-063	35-153	54-616	35-896	54-425*
35-0178-0000	54-020	35-0694-0000	54-063	35-154	54-101	35-982	54-450
35-0178-00BU	54-020	35-0694-00BU	54-063	35-155	54-617	35-984	54-451
35-0182	54-021	35-0696	54-080	35-160	54-070	35-986	54-455
35-0182-0000	54-021	35-0696-0000	54-080	35-167	54-071	35-1076	54-094
35-0182-00BU	54-021	35-0696-00BU	54-080	35-178	54-020	35-1076-0000	54-094
35-0184	54-022	35-0823	54-411	35-180	54-020	35-1076-00BU	54-094
35-0184-0000	54-022	35-0823-0000	54-411	35-182	54-021	35-1114	54-096
35-0184-00BU	54-022	35-0823-00BU	54-411	35-184	54-022	35-1114-0000	54-096
35-0185	54-606	35-0824	54-409	35-185	54-606	35-1114-00BU	54-096
35-0185-0000	54-606	35-0824-0000	54-409	35-186	54-084	35-1116	54-097
35-0185-00BU	54-606	35-0824-00BU	54-409	35-188	54-085	35-1116-0000	54-097
35-0186	54-084	35-0827	54-416	35-189	54-381	35-1116-00BU	54-097
35-0186-0000	54-084	35-0834	54-418	35-404	54-380	35-3005	54-619
35-0186-00BU	54-084	35-0836	54-417	35-404-0000	54-380	35-3005-0000	54-619
35-0188	54-085	35-0836-0000	54-417	35-405	54-393	35-3005-00BU	54-619
35-0188-0000	54-085	35-0836-00BU	54-417	35-406	54-382	35-3005-BU	54-619
35-0188-00BU	54-085	35-0842	54-402	35-408	54-383	35-3008	54-102
35-0189	54-381	35-0842-0000	54-402	35-409	54-384	35-3008-0000	54-102
35-0189-0000	54-381	35-0842-00BU	54-402	35-410	54-394	35-3008-00BU	54-102
35-0189-00BU	54-381	35-0844	54-403	35-410-BU	54-394	35-3010	54-622
35-0411	54-388	35-0844-0000	54-403	35-411	54-388	35-3010-0000	54-622
35-0411-0000	54-388	35-0844-00BU	54-403	35-412	54-389	35-3010-00BU	54-622
35-0411-00BU	54-388	35-0846	54-408	35-413	54-391	35-3010-00BU	54-622
35-0412	54-389	35-0846-0000	54-408	35-417	54-390	35-3015	54-623
35-0412-0000	54-389	35-0846-00BU	54-408	35-420	54-556	35-3015-0000	54-623
35-0412-00BU	54-389	35-0848	54-400	35-420-BU	54-556	35-3015-00BU	54-623
35-0413	54-390	35-0848-0000	54-400	35-421	54-125	35-3020	54-027*#
35-0413-0000	54-390	35-0848-00BU	54-400	35-422	54-392	35-3020-0000	54-027*#
35-0413-00BU	54-390	35-0854	54-131	35-423	54-385	35-3020-00BU	54-027*#
35-0417	54-391	35-0854-0000	54-131	35-430	54-066	35-3025	54-361*
35-0417-0000	54-391	35-0854-00BU	54-131	35-432	54-067	35-3025-0000	54-361*
35-0417-00BU	54-391	35-0855	54-542	35-448	54-068	35-3025-00BU	54-361*
35-0421	54-125	35-0855-0000	54-542	35-449	54-069	35-3030	54-059
35-0421-0000	54-125	35-0855-00BU	54-542	35-458	54-072*#	35-3030-0000	54-059
35-0421-00BU	54-125	35-0856	54-541	35-605	54-075	35-3030-00BU	54-059
35-0422	54-392	35-0856-0000	54-541	35-606	54-073	35-3035	54-143
35-0422-0000	54-392	35-0856-00BU	54-541	35-608	54-076	35-3035-0000	54-143
35-0422-00BU	54-392	35-0864	54-538	35-609	54-077	35-3035-00BU	54-143
						35-3040	54-619
						35-3040-0000	54-619
						35-3040-00BU	54-619
						35-3045	54-606
						35-3045-0000	54-606
						35-3045-00BU	54-606
						35-3045-00BU	54-606

## Cross Reference by Manufacturer

## FROM WALDOM (GC) TO YAMATAKE USA

Switch to be Replaced	NTE Replacement	Switch to be Replaced	NTE Replacement	Switch to be Replaced	NTE Replacement	Switch to be Replaced	NTE Replacement
35-3050	54-130	35-3505-0000	54-087	35-3650-00BU	54-052	35-3938-0000	54-410
35-3050-0000	54-130	35-3505-00BU	54-087	35-3660	54-114	35-3938-00BU	54-410
35-3050-00BU	54-130	35-3510	54-035	35-3660-0000	54-114	35-3940	54-407
35-3055	54-620	35-3510-0000	54-035	35-3660-00BU	54-114	35-3940-0000	54-407
35-3055-0000	54-620	35-3510-00BU	54-035	35-3670	54-115	35-3940-00BU	54-407
35-3055-00BU	54-620	35-3515	54-088	35-3670-0000	54-115	35-3944	54-401\$
35-3060	54-602	35-3515-0000	54-088	35-3670-00BU	54-115	35-3944-0000	54-401\$
35-3060-0000	54-602	35-3515-00BU	54-088	35-3680	54-116	35-3944-00BU	54-401\$
35-3060-00BU	54-602	35-3520	54-089	35-3680-0000	54-116	54-0117	54-003
35-3065	54-104*	35-3520-0000	54-089	35-3680-00BU	54-116	54-982	54-450
35-3065-0000	54-104*	35-3520-00BU	54-089	35-3690	54-117	<b>YAMATAKE USA</b>	
35-3065-00BU	54-104*	35-3525	54-036	35-3690-0000	54-117	BA-2R-T4-J	54-453
35-3070	54-056	35-3525-0000	54-036	35-3690-00BU	54-117	BA-2RB-T4-J	54-454
35-3070-0000	54-056	35-3525-00BU	54-036	35-3695	54-118	BA-2RQ1-T4-J	54-450
35-3070-00BU	54-056	35-3530	54-037	35-3695-0000	54-118	BA-2RV2-T4-J	54-455
35-3075	54-057	35-3530-0000	54-037	35-3695-00BU	54-118	BA-2RV22-T4-J	54-452
35-3075-0000	54-057	35-3530-00BU	54-037	35-3710	54-060	BA-2RVT4-J	54-451
35-3075-00BU	54-057	35-3535	54-090	35-3710-0000	54-060	BZ-2R-T4J	54-453
35-3080	54-019	35-3535-0000	54-090	35-3710-00BU	54-060	BZ-2RD-T4-J	54-454
35-3080-0000	54-019	35-3535-00BU	54-090	35-3720	54-061	BZ-2RQ1-T4-J	54-450
35-3080-00BU	54-019	35-3540	54-038	35-3720-0000	54-061	BZ-2RQ18-T4-J	54-438
35-3091	54-105	35-3540-0000	54-038	35-3720-00BU	54-061	BZ-2RQ181-T4-J	54-442
35-3091-0000	54-105	35-3540-00BU	54-038	35-3730	54-519	BZ-2RS-T4-J	54-426
35-3091-00BU	54-105	35-3545	54-091	35-3730-0000	54-519	BZ-2RW80-T4-J	54-451
35-3092	54-106	35-3545-0000	54-091	35-3730-00BU	54-519	BZ-2RW82-T4-J	54-441
35-3092-0000	54-106	35-3545-00BU	54-091	35-3740	54-517	BZ-2RW822-T4-J	54-452
35-3092-00BU	54-106	35-3550	54-039	35-3740-0000	54-517	BZ-2RW826-T4-J	54-430
35-3120	54-367*#	35-3550-0000	54-039	35-3740-00BU	54-517	V-5F910DN	54-420
35-3120-0000	54-367*#	35-3550-00BU	54-039	35-3750	54-518	V-5F912DN	54-414
35-3120-00BU	54-367*#	35-3555	54-092	35-3750-0000	54-518	V-5F914DN	54-408
35-3154	54-107	35-3555-0000	54-092	35-3750-00BU	54-518	V-5F915DN	54-406
35-3154-0000	54-107	35-3555-00BU	54-092	35-3760	54-058	V-5F916DN	54-402
35-3154-00BU	54-107	35-3560	54-040	35-3760-0000	54-058	V-2215B	54-405
35-3156	54-108	35-3560-0000	54-040	35-3760-00BU	54-058	V-3210B-	54-415
35-3156-0000	54-108	35-3560-00BU	54-040	35-3790	54-064	V-3210D	54-404
35-3156-00BU	54-108	35-3565	54-041	35-3790-0000	54-064	V-3212D	54-403
35-3158	54-109	35-3565-0000	54-041	35-3790-00BU	54-064	V-3214B	54-401
35-3158-0000	54-109	35-3565-00BU	54-041	35-3795	54-054	V-3214D	54-407
35-3158-00BU	54-109	35-3570	54-042	35-3795-0000	54-054	V-3215B	54-405
35-3160	54-110	35-3570-0000	54-042	35-3795-00BU	54-054	V-3215D	54-400
35-3160-0000	54-110	35-3570-00BU	54-042	35-3900	54-423	V-3216D	54-402
35-3160-00BU	54-110	35-3575	54-043	35-3900-0000	54-423	V-3310B	54-415
35-3162	54-111	35-3575-0000	54-043	35-3900-00BU	54-423	V-3310D	54-411
35-3162-0000	54-111	35-3575-00BU	54-043	35-3902	54-424	V-3312D	54-414
35-3162-00BU	54-111	35-3580	54-044	35-3904	54-428*	V-3314B	54-401
35-3164	54-112	35-3580-0000	54-044	35-3904-0000	54-428*	V-3314D	54-406
35-3164-0000	54-112	35-3580-00BU	54-044	35-3904-00BU	54-428*	V-3316D	54-422
35-3164-00BU	54-112	35-3585	54-045	35-3908	54-425	V-3410D	54-411
35-3166	54-113	35-3585-0000	54-045	35-3910	54-438*	V-3411D	54-421
35-3166-0000	54-113	35-3585-00BU	54-045	35-3910-0000	54-438*	V-3412D	54-403
35-3166-00BU	54-113	35-3590	54-046	35-3910-00BU	54-438*	V-3413D	54-409
35-3425	54-133	35-3590-0000	54-046	35-3914	54-426*	V-3414D	54-408
35-3425-0000	54-133	35-3590-00BU	54-046	35-3914-0000	54-426*	V-3415D	54-406
35-3425-00BU	54-133	35-3600	54-047	35-3914-00BU	54-426*	V-3416DN	54-402
35-3427	54-134	35-3600-0000	54-047	35-3916	54-427+	V-5210D	54-419
35-3427-0000	54-134	35-3600-00BU	54-047	35-3916-0000	54-427+	V-5212D	54-403
35-3427-00BU	54-134	35-3610	54-048	35-3916-00BU	54-427+	V-5214D	54-408
35-3429	54-135	35-3610-0000	54-048	35-3920	54-429+	V-5215D	54-405
35-3429-0000	54-135	35-3610-00BU	54-048	35-3920-0000	54-429+	V-5216D	54-422
35-3429-00BU	54-135	35-3620	54-049	35-3920-00BU	54-429+	V-5310D	54-404
35-3454	54-132	35-3620-0000	54-049	35-3930	54-415	V-5312D	54-414
35-3454-0000	54-132	35-3620-00BU	54-049	35-3930-0000	54-415	V-5314D	54-407
35-3454-00BU	54-132	35-3630	54-050	35-3930-00BU	54-415	V-5315D	54-405
35-3484	54-577	35-3630-0000	54-050	35-3932	54-419*	V-5316D	54-402
35-3484-0000	54-577	35-3630-00BU	54-050	35-3932-0000	54-419*	V-5410D	54-404
35-3484-00BU	54-577	35-3640	54-051	35-3932-00BU	54-419*	V-5411D	54-421
35-3500	54-034	35-3640-0000	54-051	35-3936	54-405	V-5412D	54-414
35-3500-0000	54-034	35-3640-00BU	54-051	35-3936-0000	54-405	V-5413D	54-410
35-3500-00BU	54-034	35-3650	54-052	35-3936-00BU	54-405	V-5414D	54-407
35-3505	54-087	35-3650-0000	54-052	35-3938	54-410	V-5415D	54-400
						V-5416D	54-402