

Military Purpose Toggles



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Description

Military Purpose Toggles

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Product Description

Eaton's military purpose switches are designed to meet the requirements of MIL-S-83731. Sealed Switches have a silicone rubber lever seal assembled between the lever and the bushing to resist the entrance of contaminants such as dust, sand or water into the contact structure.

The switch mechanisms are completely enclosed to resist the entrance of contaminants into the switch. All metal parts are plated to resist corrosion. The heavy duty switches are offered in both standard toggle lever and lever lock versions. Circuit designations are stamped on the side of each switch.

Standards and Certifications

- MIL-S-83731

Product Selection

AC/DC Rated (Medium Duty) MIL-S-83731



Current Ratings	Poles and Throw	Circuit with Toggle in ...			Base Circuit See Page V11-T4-35	Dimension "A" Inches (mm)	Dimension "B" Inches (mm)	Military Solder Lug Terminals	
		UP Position	CENTER Position	DOWN Position (Keyway)				MIL-S-83731 with Sealed Lever	Catalog Number
Single-Pole									
See A below	1PST	ON ON OFF	NONE NONE NONE	OFF MOM. OFF MOM. ON	A	—	0.906 (23.01)	MS25098-22 MS25098-29 MS25098-30	8261K22 8261K29 8261K30
See A below	1PDT	ON ON	NONE NONE	ON MOM. ON	B	0.937 (23.80)	—	MS25098-23 MS25098-26	8261K23 8261K26
Two-Pole									
See B below	2PST	ON ON OFF	NONE NONE NONE	OFF MOM. OFF MOM. ON	C	—	0.906 (23.01)	MS25100-22 MS25100-29 MS25100-30	8262K22 8262K29 8262K30
See C below	2PDT	ON ON	NONE NONE	ON MOM. ON	D	0.937 (23.80)	—	MS25100-23 MS25100-26	8262K23 8262K26

Current Ratings

Part Number	Current Capacity in Amperes per Pole = 125 Vac, 60 Hz	
	Resistive Load	Inductive Load
A All MS25098	3.0	1.5
B MS25100-22, 29, 30	3.0	1.5
C MS25100-23, 26	1.0	1.0



AC Rated (Heavy Duty) MIL-S-83731 with Lever Seal

Current Ratings	Poles and Throw	Circuit with Toggle in ...			Base Circuit See Page V11-T4-35	Bushing Length "A" Inches (mm)	Lever Length "B" Inches (mm)	Screw Terminals with Sealed Lever	
		UP Position	CENTER Position	DOWN Position				MS Part Number	Catalog Number
Single-Pole									
See A below	1PST	ON	NONE	OFF	A	0.468 (11.89)	0.687 (17.45)	MS35058-22	8801K22
See B below		ON	OFF	NONE				MS35058-24	8801K23
See B below		ON	NONE	MOM. OFF				MS35058-29	8813K17
See B below		ON	MOM. OFF	NONE				MS35058-25	8813K18
See B below		NONE	OFF	MOM. ON				MS35058-28	8811K18
See B below	OFF	NONE	MOM. ON	MS35058-30	8811K17				
See A below	1PDT	ON	OFF	ON	B	0.468 (11.89)	0.687 (17.45)	MS35058-21	8800K16
See B below		ON	NONE	ON				MS35058-23	8810K15
See B below		ON	NONE	MOM. ON				MS35058-26	8804K13
See B below		MOM. ON	OFF	MOM. ON				MS35058-27	8812K14
See B below		ON	OFF	MOM. ON				MS35058-31	8809K16
Two-Pole									
See C below	2PST	ON	NONE	OFF	C	0.468 (11.89)	0.687 (17.45)	MS35059-22	8822K20
See D below		ON	OFF	NONE				MS35059-24	8822K21
See D below		ON	NONE	MOM. OFF				MS35059-29	8828K13
See D below		ON	MOM. OFF	NONE				MS35059-25	8828K12
See D below		NONE	OFF	MOM. ON				MS35059-28	8826K14
See D below	OFF	NONE	MOM. ON	MS35059-30	8826K15				
See C below	2PDT	ON	OFF	ON	D	0.468 (11.89)	0.687 (17.45)	MS35059-21	8820K16
See D below		ON	NONE	ON				MS35059-23	8824K14
See D below		ON	NONE	MOM. ON				MS35059-26	8830K13
See D below		MOM. ON	OFF	MOM. ON				MS35059-27	8834K5
See D below		ON	OFF	MOM. ON				MS35059-31	8832K6
See E below	1P3T in a 2P base	ON ^①	ON ^②	ON ^④	See Page V11-T4-35	0.468 (11.89)	0.687 (17.45)	MS25201-4	8860K4
See E below		ON ^①	ON ^②	MOM. ON ^④				MS25201-5	8860K5
See E below		MOM. ON ^①	ON ^②	MOM. ON ^④				MS25201-6	8860K6
See E below		ON ^①	ON ^③	ON ^④				MS25201-7	8860K7 ^⑤
See E below		ON ^①	ON ^③	MOM. ON ^④				MS25201-8	8860K8 ^⑤
See E below		MOM. ON ^①	ON ^③	MOM. ON ^④				MS25201-9	8860K9 ^⑤
Four-Pole									
See F below	4PST	ON	NONE	OFF	E	0.468 (11.89)	0.687 (17.45)	—	7660K12
See G below		ON	OFF	NONE				MS25068-24	7660K13
See G below		ON	MOM. OFF	NONE				MS25068-25	7668K7
See G below		NONE	OFF	MOM. ON				MS25068-28	7666K9
See G below	OFF	NONE	MOM. ON	—	7666K6				
See F below	4PDT	ON	OFF	ON	F	0.468 (11.89)	0.687 (17.45)	MS25068-21	7662K7
See G below		ON	NONE	ON				MS25068-23	7664K5
See G below		ON	NONE	MOM. ON				MS25068-26	7674K5
See G below		MOM. ON	OFF	MOM. ON				MS25068-27	7672K5
See G below	ON	OFF	MOM. ON	MS25068-31	7670K6				

Current Ratings

Switch	Type of Operation	Current Capacity in Amperes per Pole									
		28 Vdc			115 Vac, 60 Hz			115 Vac, 400 Hz			
		Lamp Load	Resistive Load	Inductive Load	Lamp Load	Resistive Load	Inductive Load	Lamp Load	Resistive Load	Inductive Load	
A	MS35058	Maintained	7	25	15	—	10	10	3	10	10
B	MS35058	Momentary	5	20	10	—	10	7	—	—	—
C	MS35059	Maintained	7	20	15	—	20	—	4	20	15
D	MS35059	Momentary	5	18	10	—	11	—	—	—	—
E	MS25201	ON-ON-ON	5	18	10	2	11	8	2	11	8
F	MS25068	Maintained	5	20	12	—	—	—	4	20	15
G	MS25068	Momentary	4	18	10	—	—	—	2	11	5

Notes

- ① Across terminals 2-3 and 5-6.
- ② Across terminals 1-2 and 5-6.
- ③ Across terminals 2-3 and 4-5.
- ④ Across terminals 1-2 and 4-5.
- ⑤ For "INDEPENDENT ON-ON-ON" circuit arrangement, see Page V11-T4-35.

AC Rated (Heavy Duty) MIL-S-83731 Lever Lock with Lever Seal



Current Ratings	Poles and Throw	Circuit with Toggle in ...			Base Circuit See Page V11-T4-35	Lever Lock Bushing Style ^①	Bushing Length "A" Inches (mm)	Lever Lock Length "B" Inches (mm)	Screw Terminals with Sealed Lever	
		UP Position	CENTER Position	DOWN Position					MS Part Number	Catalog Number
Single-Pole										
See A below	1PST	ON	NONE	← OFF	A	3	0.562 (14.27)	1.000 (25.40)	MS25125-C2	8857K47
		ON →	NONE	← OFF		4			MS25125-E2	8857K48
		ON →	← OFF	NONE		5			MS25125-J4	8857K49
See A below	1PDT	ON	← OFF →	ON	B	2	0.562 (14.27)	1.000 (25.40)	MS25125-B1	8857K40
		ON	NONE	← ON		3			MS25125-C3	8857K45
		ON →	NONE	← ON		4			MS25125-E3	8857K44
Two-Pole										
See B below	2PDT	ON →	← OFF →	← ON	C	1	0.562 (14.27)	1.000 (25.40)	MS25126-A1	8858K39
		ON	← OFF →	ON		2			MS25126-B1	8858K40
		ON →	NONE	← ON		4			MS25126-E3	8858K44
Four-Pole										
See C below	4PDT	ON →	NONE	← ON	F	4	0.562 (14.27)	1.000 (25.40)	MS25127-E3	8859K44

← Indicates direction against which lever is locked.

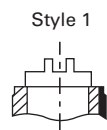
Current Ratings

Switch	MS Part	Type of Operation	Current Capacity in Amperes per Pole								
			28 Vdc			115 Vac, 60 Hz			115 Vac, 400 Hz		
			Lamp Load	Resistive Load	Inductive Load	Lamp Load	Resistive Load	Inductive Load	Lamp Load	Resistive Load	Inductive Load
A	MS25125	Maintained	5	20	15	—	—	—	3	10	10
B	MS25126	Maintained	7	20	15	—	—	—	4	20	15
C	MS25127	Maintained	5	20	15	—	—	—	4	20	15

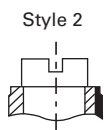
Note

① See illustrations below for lever lock bushing styles.

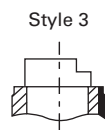
Lever Lock Bushing Styles



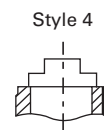
Locked in Three Positions



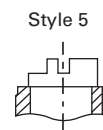
Locked in Center Positions



Locked in Keyway Side



Locked out of Center Position



Locked in Center and Side Opposite Keyway

These illustrations are for pictorial representation only—keyway on right-hand side.

AC Rated (Heavy Duty) Military with Unsealed Lever

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Current Ratings	Poles and Throw	Circuit with Toggle in ...			Base Circuit See Page V11-T4-35	Bushing Length "A" Inches (mm)	Lever Length "B" Inches (mm)	Solder Lug Terminals Catalog Number	Screw Terminals Catalog Number
		UP Position	CENTER Position	DOWN Position (Keyway)					
Single-Pole									
See A below	1PST	ON	NONE	OFF	A	0.468 (11.89)	0.688 (17.45)	7300K38	7300K36
See B below		ON	NONE	MOM. OFF					
		OFF	NONE	MOM. ON					
See A below	1PDT	ON	OFF	ON	B	0.468 (11.89)	0.688 (17.45)	7301K38	7301K36
		ON	NONE	ON					
See B below		ON	NONE	MOM. ON					
		MOM. ON	OFF	MOM. ON					
		ON	OFF	MOM. ON					
Two-Pole									
See C below	2PST	ON	NONE	OFF	C	0.468 (11.89)	0.688 (17.45)	7310K38	7310K36
See D below		ON	NONE	MOM. OFF					
		OFF	NONE	MOM. ON					
See C below	2PDT	ON	OFF	ON	D	0.468 (11.89)	0.688 (17.45)	7311K38	7311K36
		ON	NONE	ON					
See D below		ON	NONE	MOM. ON					
		MOM. ON	OFF	MOM. ON					
		ON	OFF	MOM. ON					

Current Ratings

Type of Operation	Current Capacity in Amperes per Pole								
	30 Vdc			125 Vac, 60 Hz			250 Vac, 60 Hz		
	Lamp Load	Resistive Load	Inductive Load	Resistive Load	Inductive Load	Horsepower	Resistive Load	Inductive Load	Horsepower
Single-Pole									
A Maintained	5	20	15	15	—	—	6	—	—
B Momentary	4	15	10	15	—	—	6	—	—
Two-Pole									
C Maintained	7	30	15	25	—	—	9	—	—
D Momentary	5	20	10	15	—	—	6	—	—

Technical Data and Specifications

Military Purpose Switches

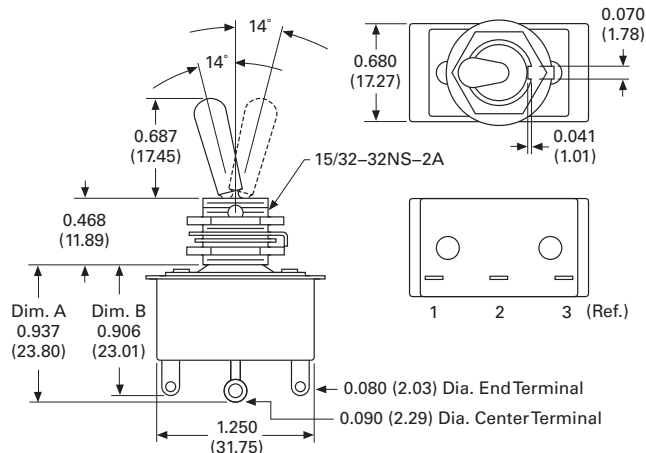
Description	Specification
Ratings	See Product Selection tables
Circuits	1PST, 1PDT, 2PST, 2PDT, 1P3T (ON-ON-ON), 4PST and 4PDT; maintained and momentary action
Contact action	Heavy duty—Slow-make/slow-break butt contact Medium duty—Quick-make/quick-break, wiping action
Contact material	Heavy duty: Movable—silver-plated copper with fine or coin silver contact face button Stationary—copper with fine or coin silver contact face button Medium duty: Movable—copper silver-plated Stationary—bronze silver-plated
Terminal types	Heavy duty MIL-S-83731 types: Screw terminals—brass designed to accept #6-32 x 6.35 mm (0.250 in) pan head (Catalog Number 11-1893) screws and Si bronze #6 helical lockwasher (Catalog Number 16-1096). Furnished unassembled. Terminal screws are tin dipped to facilitate soldering if required Heavy duty JAN-S-23 types: Screw terminals—brass designed to accept #6-32 x 4.78 mm (0.188 in) binding head (Catalog Number 811-2) screws. Furnished unassembled Solder lug terminals—tintillate plated brass Medium duty MIL-S-83731 types: Solder lugs—brass silver-plated furnished with 0.094 in (2.39 mm) dia. hole
Base material	Thermoset molding material
Mounting means	Threaded bushing—0.468 in (11.89 mm) dia., 32 threads/inch Keyway—0.068 x 0.035 in (1.73 x 0.89 mm) deep; provides anti-rotation feature Hardware supplied: MIL-S-83731 types—2 hexagon facenuts (Catalog Number 15-966-6), 1 locking ring (Catalog Number 29-761) and 1 internal tooth lockwasher (Catalog Number 16-886). Furnished unassembled JAN-S-23 types—2 hexagon facenuts (Catalog Number 15-966-6). Furnished unassembled
Dielectric	1000V minimum
Operating temperature range	0° to 150°F (–17.8° to 65.6°C)

Dimensions

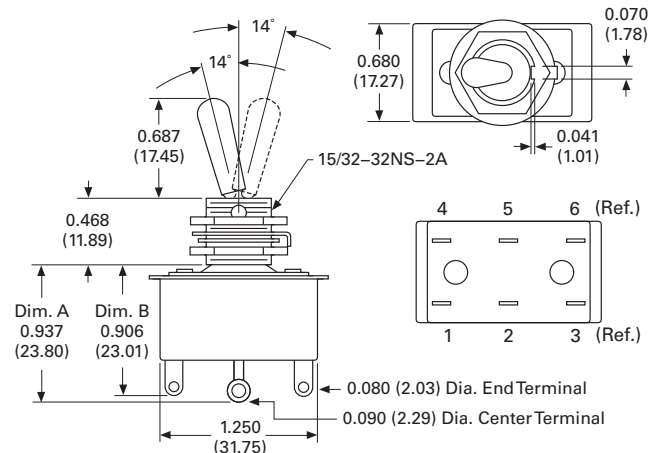
Approximate Dimensions in Inches (mm)

AC/DC Rated (Medium Duty) MIL-83731 Switches

1PDT Maintained Action (Solder Lug)

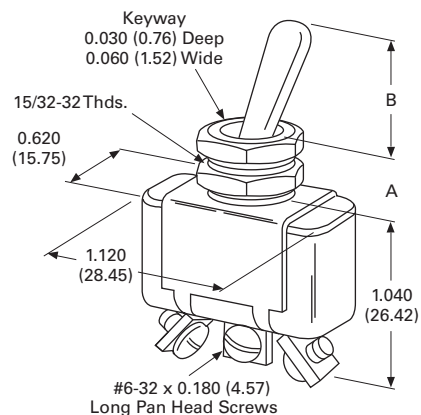


2PDT Maintained Action (Solder Lug)

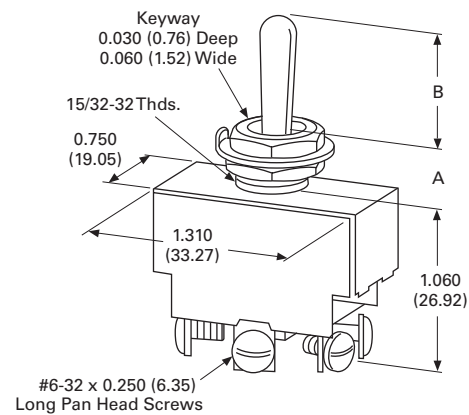


AC Rated (Heavy Duty) MIL-83731 Switches with Lever Seal

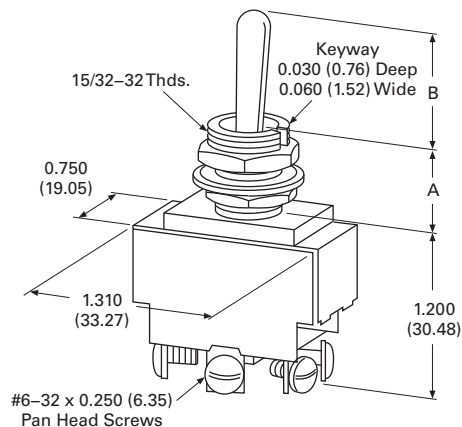
Single-Pole Maintained and Momentary Action



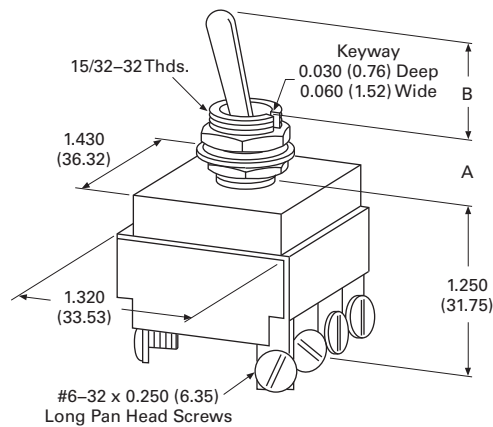
Two-Pole Maintained Action



Two-Pole Momentary Action and 3 ON Circuits



Four-Pole Maintained and Momentary Action



4.2

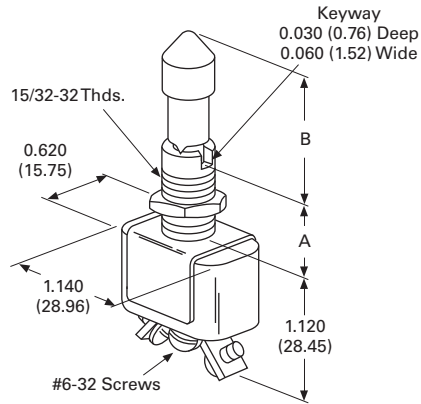
Toggle Switches

Military Purpose Toggles

Approximate Dimensions in Inches (mm)

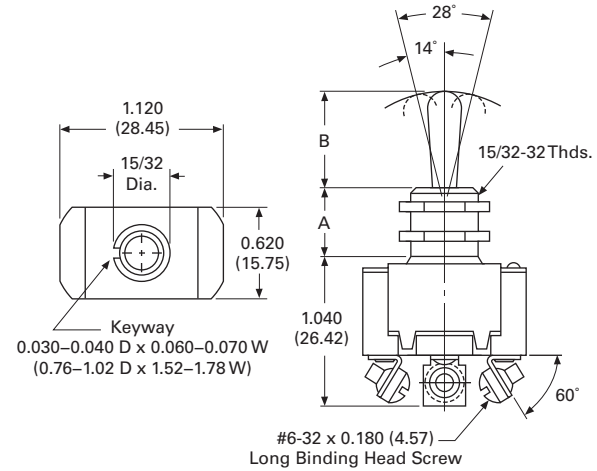
AC Rated (Heavy Duty) MIL-83731 Lever Lock Switches with Lever Seal

Single-Pole

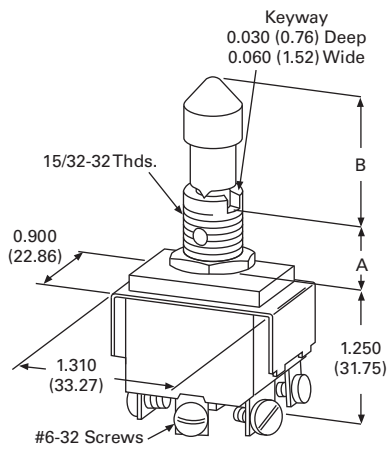


AC Rated (Heavy Duty)

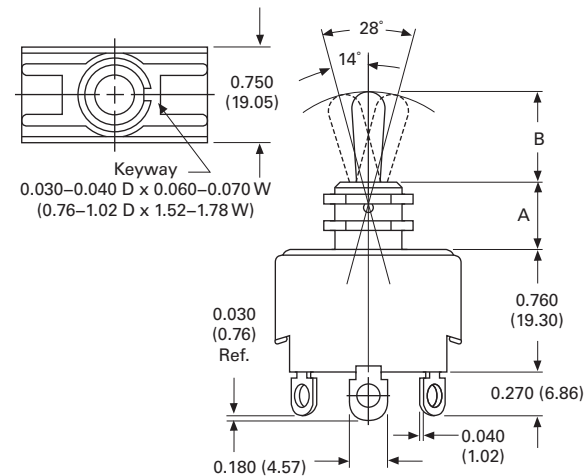
1PDT Maintained Action



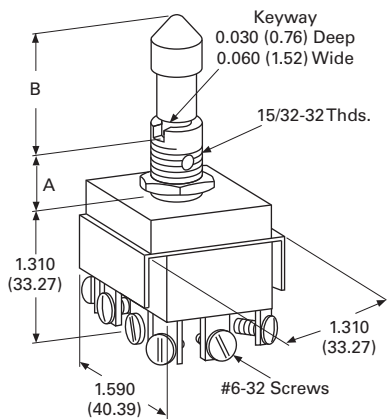
Two-Pole



2PDT Maintained Action



Four-Pole



2PDT Momentary Action

