

2 TOGGLE SWITCHES

Military Purpose Toggle Switches

DESCRIPTION

Eaton's Military Purpose switches are designed to meet the requirements of MIL-S-83731 or JAN-S-23. 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.

SPECIFICATIONS

Ratings:

See selection table.

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.

AC/DC RATED (MEDIUM DUTY) MIL-S-83731 SWITCHES SELECTION TABLE (BOLD FACE TYPE INDICATES ITEMS NORMALLY IN DISTRIBUTOR STOCK)

Rating	Poles and Throw	Circuit with Toggle in			BASE CIRCUIT SEE PAGE 4.28	Dimension "A" mm (inches)	Dimension "B" mm (inches)	CATALOG NUMBERS	
		UP Position 	CENTER Position 	DOWN Position (Keyway) 				Military or JAN (ST) Solder Lug Terminals	
								MIL-S-83731 With Sealed Lever	Catalog Number
SINGLE POLE									
1	1 P.S.T.	ON	NONE	OFF	A	—	23.01 (.906)	MS25098-22	8261K22
1		ON	NONE	OFF*				MS25098-29	8261K29
1		OFF	NONE	ON*				MS25098-30	8261K30
1	1 P.D.T.	ON	NONE	ON	B	23.80 (.937)	—	MS25098-23	8261K23
1		ON	NONE	ON*				MS25098-26	8261K26
DOUBLE POLE									
2	2 P.S.T.	ON	NONE	OFF	C	—	23.01 (.906)	MS25100-22	8262K22
2		ON	NONE	OFF*				MS25100-29	8262K29
2		OFF	NONE	ON*				MS25100-30	8262K30
3	2 P.D.T.	ON	NONE	ON	D	23.80 (.937)	—	MS25100-23	8262K23
3		ON	NONE	ON*				MS25100-26	8262K26

* Momentary Contact.

CURRENT RATINGS

Code From Selection Table	Part Number	CURRENT CAPACITY IN AMPERES PER POLE	
		125V ac, 60 Hz	
		Resistive Load	Inductive Load
1	All MS25098	3.0	1.5
2	MS25100-22, 29, 30	3.0	1.5
3	MS25100-23, 26	1.0	1.0

Terminal Types:

**Heavy Duty
MIL-S-83731 Types**

Screw Terminals — Brass designed to accept #6-32 x 6.35mm (.250") pan head (Cat. No. 11-1893) screws and Si bronze #6 Helical lockwasher (Cat. No. 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 4.78mm (.188") binding head (Cat. No. 811-2) screws.
Furnished unassembled.

Solder Lug Terminals — Tintillate plated brass.

**Medium Duty
MIL-S-83731 Types**

Solder Lugs — Brass silver plated furnished with 2.39mm (.094") dia. hole.

Base Material:

Thermoset molding material.

Mounting Means:

Threaded Bushing — 11.89mm (.468") dia., 32 threads/inch.

Keyway — 1.73 x .89mm deep (.068 x .035" deep) — provides anti-rotation feature.

Hardware Supplied —

MIL-S-83731 Types:

2 hexagon facenuts (Cat. No. 15-966-6),
1 locking ring (Cat. No. 29-761) and
1 internal tooth lockwasher (Cat. No. 16-886).
Furnished unassembled.

Jan-S-23 Types:

2 hexagon facenuts (Cat. No. 15-966-6).
Furnished unassembled.

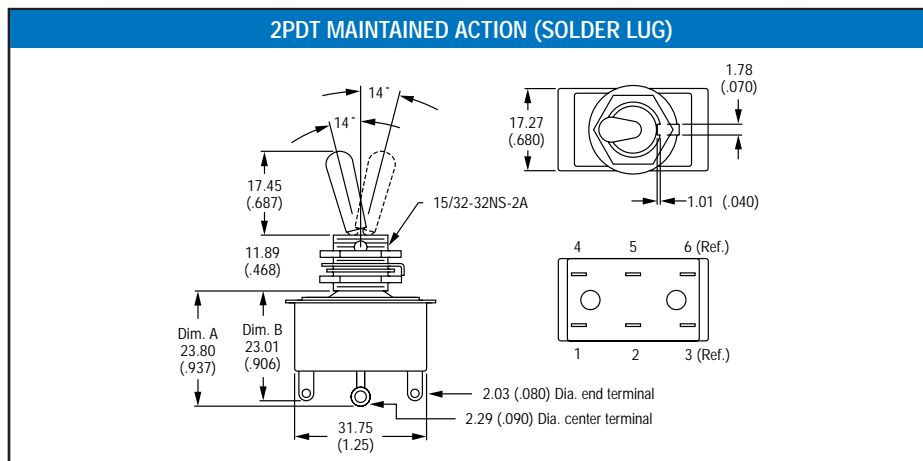
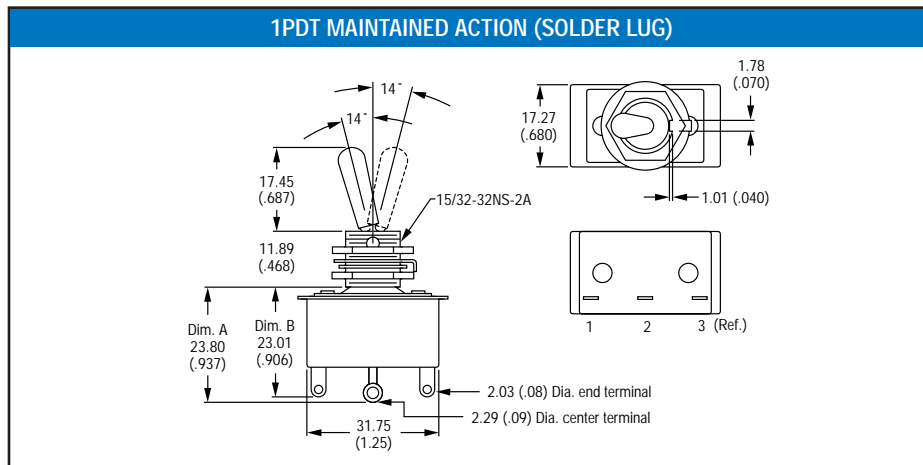
Dielectric:

1000V RMS minimum.

Operating Temperature Range:

-17.8°C to +65.6°C
(0°F 10 + 150°F).

DIMENSIONS APPROXIMATE IN MM (INCHES)



8261K22
Medium Duty



8262K22
Medium Duty



8801K22
Heavy Duty






8820K16
Heavy Duty

2 TOGGLE SWITCHES

Military Purpose Toggle Switches (continued) AC Rated (Heavy Duty) MIL-S-83731 Switches with Lever Seal

AC RATED (HEAVY DUTY) MIL-S-83731 SWITCHES SELECTION TABLE (BOLD FACE TYPE INDICATES ITEMS NORMALLY IN DISTRIBUTOR STOCK)

Rating	Poles and Throw	Circuit with Toggle in			BASE CIRCUIT SEE PAGE 4.28	Bushing Length "A" mm (inches)	Lever Length "B" mm (inches)	CATALOG NUMBERS	
		UP Position	CENTER Position	DOWN Position				Screw Terminals with Sealed Lever	
				 (Keyway)				MS Part Number	Catalog Number
ONE POLE									
1 1 2 2 2 2	1 P.S.T.	ON ON ON ON NONE OFF	NONE OFF NONE OFF* OFF NONE	OFF NONE OFF* NONE ON* ON*	A	11.89 (.468) 11.89 (.468) 11.89 (.468) 11.89 (.468) 11.89 (.468) 11.89 (.468)	17.45 (.687) 17.45 (.687) 17.45 (.687) 17.45 (.687) 17.45 (.687) 17.45 (.687)	MS35058-22 MS35058-24 MS35058-29 MS35058-25 MS35058-28 MS35058-30	8801K22 8801K23 8813K17 8813K18 8811K18 8811K17
1 1 2 2 2	1 P.D.T.	ON ON ON ON*	OFF NONE NONE OFF	ON ON ON* ON*	B	11.89 (.468) 11.89 (.468) 11.89 (.468) 11.89 (.468) 11.89 (.468)	17.45 (.687) 17.45 (.687) 17.45 (.687) 17.45 (.687) 17.45 (.687)	MS35058-21 MS35058-23 MS35058-26 MS35058-27 MS35058-31	8800K16 8810K15 8804K13 8812K14 8809K16
TWO POLE									
3 3 4 4 4 4	2 P.S.T.	ON ON ON ON NONE OFF	NONE OFF NONE OFF* OFF NONE	OFF NONE OFF* NONE ON* ON*	C	11.89 (.468) 11.89 (.468) 11.89 (.468) 11.89 (.468) 11.89 (.468) 11.89 (.468)	17.45 (.687) 17.45 (.687) 17.45 (.687) 17.45 (.687) 17.45 (.687) 17.45 (.687)	MS35059-22 MS35059-24 MS35059-29 MS35059-25 MS35059-28 MS35059-30	8822K20 8822K21 8828K13 8828K12 8826K14 8826K15
3 3 4 4 4	2 P.D.T.	ON ON ON ON*	OFF NONE NONE OFF	ON ON ON* ON*	D	11.89 (.468) 11.89 (.468) 11.89 (.468) 11.89 (.468) 11.89 (.468)	17.45 (.687) 17.45 (.687) 17.45 (.687) 17.45 (.687) 17.45 (.687)	MS35059-21 MS35059-23 MS35059-26 MS35059-27 MS35059-31	8820K16 8824K14 8830K13 8834K5 8832K6
5 5 5 5 5 5	1 P.3.T in a 2P Base	ON 3 ON 3 ON* 3 ON 3 ON 3 ON* 3	ON 3 ON 3 ON 3 ON 3 ON 3 ON 3	ON 10 ON* 10 ON 10 ON* 10 ON 10 ON* 10	See Diagram On Page 4.28	11.89 (.468) 11.89 (.468) 11.89 (.468) 11.89 (.468) 11.89 (.468) 11.89 (.468)	17.45 (.687) 17.45 (.687) 17.45 (.687) 17.45 (.687) 17.45 (.687) 17.45 (.687)	MS25201-4 MS25201-5 MS25201-6 MS25201-7 MS25201-8 MS25201-9	8860K4 8860K5 8860K6 8860K7 12 8860K8 12 8860K9 12
FOUR POLE									
6 6 7 7 7	4 P.S.T.	ON ON ON NONE OFF	NONE OFF OFF* OFF NONE	OFF NONE NONE ON* ON*	E	11.89 (.468) 11.89 (.468) 11.89 (.468) 11.89 (.468) 11.89 (.468)	17.45 (.687) 17.45 (.687) 17.45 (.687) 17.45 (.687) 17.45 (.687)	— MS25068-24 MS25068-25 MS25068-28 —	7660K12 7660K13 7668K7 7666K9 7666K6
6 6 7 7 7	4 P.D.T.	ON ON ON ON*	OFF NONE NONE OFF	ON ON ON* ON*	F	11.89 (.468) 11.89 (.468) 11.89 (.468) 11.89 (.468) 11.89 (.468)	17.45 (.687) 17.45 (.687) 17.45 (.687) 17.45 (.687) 17.45 (.687)	MS25068-21 MS25068-23 MS25068-26 MS25068-27 MS25068-31	7662K7 7664K5 7674K5 7672K5 7670K6

* Momentary Contact.

CURRENT RATINGS

Code From Selection Table	Switch	Type of Operation	CURRENT CAPACITY IN AMPERES PER POLE								
			28V dc			115V ac, 60 Hz			115V ac, 400 Hz		
			Lamp Load	Resistive Load	Inductive Load	Lamp Load	Resistive Load	Inductive Load	Lamp Load	Resistive Load	Inductive Load
1 2	MS35058	Maintained Momentary	7 5	25 20	15 10	— —	10 10	10 7	3 —	10 —	10 —
3 4	MS35059	Maintained Momentary	7 5	20 18	15 10	— —	20 11	— —	4 —	20 —	15 —
5	MS25201	ON-ON-ON	5	18	10	2	11	8	2	11	8
6 7	MS25068	Maintained Momentary	5 4	20 18	12 10	— —	— —	— —	4 2	20 11	15 5

3 Across terminals 2-3 and 5-6.
4 Across terminals 1-2 and 5-6.
10 Across terminals 1-2 and 4-5.
11 Across terminals 2-3 and 4-5.
12 For "INDEPENDENT ON-ON-ON" circuit arrangement see page 4.28.

DIMENSIONS APPROXIMATE IN MM (INCHES)

ONE POLE MAINTAINED & MOMENTARY ACTION	TWO POLE MAINTAINED ACTION
<p>Keyway 0.76 (.030) Deep 1.52 (.060) Wide</p> <p>15/32-32 Thds.</p> <p>15.75 (.620)</p> <p>28.45 (1.120)</p> <p>26.42 (1.040)</p> <p>#6-32 x 4.57 (.180) Long Pan Head Screws</p>	<p>Keyway 0.76 (.030) Deep 1.52 (.060) Wide</p> <p>15/32-32 Thds.</p> <p>19.05 (.750)</p> <p>33.27 (1.310)</p> <p>26.92 (1.060)</p> <p>#6-32 X 6.35 (.250) Pan Head Screws</p>
TWO POLE MOMENTARY ACTION & 3 "ON" CIRCUITS	FOUR POLE MAINTAINED & MOMENTARY ACTION
<p>Keyway 0.76 (.030) Deep 1.52 (.060) Wide</p> <p>15/32-32 Thds.</p> <p>19.05 (.750)</p> <p>33.27 (1.310)</p> <p>30.48 (1.200)</p> <p>#6-32 X 6.35 (.250) Pan Head Screws</p>	<p>Keyway 0.76 (.030) Deep 1.52 (.060) Wide</p> <p>15/32-32 Thds.</p> <p>36.32 (1.430)</p> <p>33.53 (1.320)</p> <p>31.75 (1.250)</p> <p>#6-32 X 6.35 (.250) Long Pan Head Screws</p>



8858K39
Heavy Duty



8859K44
Heavy Duty



7301K36
Heavy Duty



7310K38
Heavy Duty

2 TOGGLE SWITCHES

Military Purpose Toggle Switches (continued) AC Rated (Heavy Duty) MIL-S-83731 Lever Lock Switches with Lever Seal

AC RATED (HEAVY DUTY) MIL-S-83731 LEVER LOCK SWITCHES SELECTION TABLE (BOLD FACE TYPE INDICATES ITEMS NORMALLY IN DISTRIBUTOR STOCK)

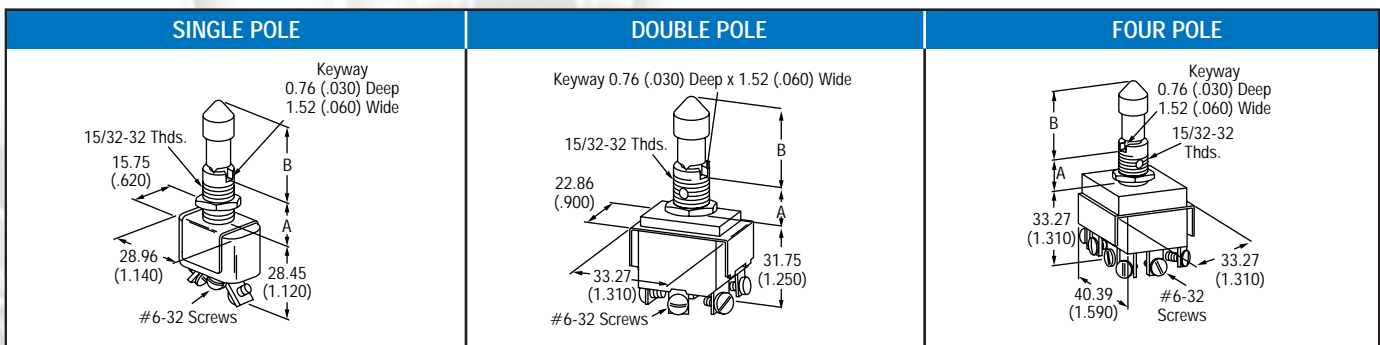
Rating	Poles and Throw	Circuit with Toggle in			BASE CIRCUIT SEE PAGE 4.28	Lever Lock Bushing Style (see below)	Bushing Length "A" mm (inches)	Lever Lock Length "B" mm (inches)	CATALOG NUMBERS	
		UP Position	CENTER Position	DOWN Position (Keyway)					Screw Terminals with Sealed Lever	
									MS Part Number	Catalog Number
ONE POLE		ONE POLE								
1 1 1	1 P.S.T.	ON	NONE	←OFF	A	3	25.40 (1.000)	MS25125-C2 MS25125-E2 MS25125-J4	8857K47 8857K48 8857K49	
		ON→	NONE	←OFF		4	25.40 (1.000)			
		ON→	←OFF	NONE		5	25.40 (1.000)			
1 1 1	1 P.D.T.	ON	←OFF→	ON	B	2	25.40 (1.000)	MS25125-B1 MS25125-C3 MS25125-E3	8857K40 8857K45 8857K44	
		ON	←OFF→	←ON		3	25.40 (1.000)			
		ON→	NONE	←ON		4	25.40 (1.000)			
TWO POLE		TWO POLE								
2 2 2	2 P.D.T.	ON→	←OFF→	←ON	C	1	25.40 (1.000)	MS25126-A1 MS25126-B1 MS25126-E3	8858K39 8858K40 8858K44	
		ON	←OFF→	ON		2	25.40 (1.000)			
		ON→	NONE	←ON		4	25.40 (1.000)			
FOUR POLE		FOUR POLE								
3	4 P.D.T.	ON→	NONE	←ON	F	4	25.40 (1.000)	MS25127-E3	8859K44	

← Indicates direction against which lever is locked.

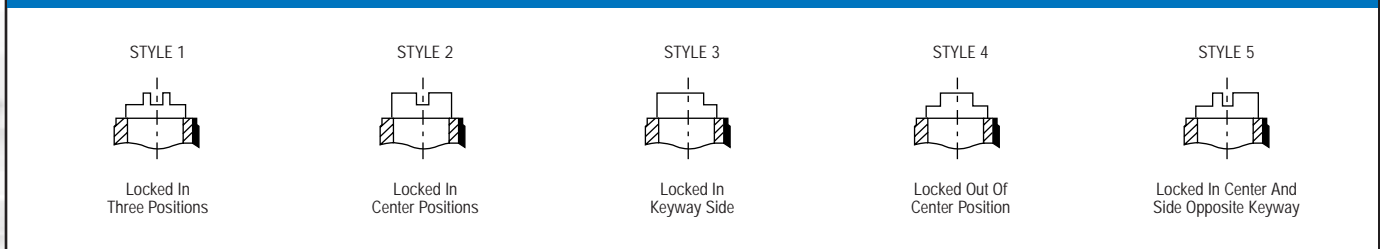
CURRENT RATINGS

Code From Selection Table	Switch	Type of Operation	CURRENT CAPACITY IN AMPERES PER POLE								
			28V dc			115V ac, 60 Hz			115V ac, 400 Hz		
			Lamp Load	Resistive Load	Inductive Load	Lamp Load	Resistive Load	Inductive Load	Lamp Load	Resistive Load	Inductive Load
1	MS25125	Maintained	5	20	15	—	—	—	3	10	10
2	MS25126	Maintained	7	20	15	—	—	—	4	20	15
3	MS25127	Maintained	5	20	15	—	—	—	4	20	15

DIMENSIONS APPROXIMATE IN MM (INCHES)



LEVER LOCK BUSHING STYLES



1 For pictorial representation only — keyway on right hand side.



Military Purpose Toggle Switches (continued)

AC Rated (Heavy Duty) Military (Jan-S-23 Equivalents) with Unsealed Lever

AC RATED (HEAVY DUTY) MILITARY JAN-S-23 EQUIVALENTS SELECTION TABLE (BOLD FACE TYPE INDICATES ITEMS NORMALLY IN DISTRIBUTOR STOCK)

Rating	Poles and Throw	Circuit with Toggle in			BASE CIRCUIT SEE PAGE 4.28	Bushing Length "A" mm (inches)	Bushing Length "B" mm (inches)	CATALOG NUMBERS			
		UP Position	CENTER Position	DOWN Position (Keyway)				Solder Lug Terminals		Screw Terminals	
								Former Jan-S-23 with Unsealed Lever	Catalog Number	Former Jan-S-23 with Unsealed Lever	Catalog Number
ONE POLE											
1	1 P.S.T.	ON	NONE	OFF	A	11.89 (.468)	17.45 (.688)	ST-42A	7300K38	ST-40A	7300K36
2		ON	NONE	OFF*		11.89 (.468)	17.45 (.688)	ST-42B	7304K38	ST-40B	7304K36
2		OFF	NONE	ON*		11.89 (.468)	17.45 (.688)	ST-42C	7303K38	ST-40C	7303K36
1	1 P.D.T.	ON	OFF	ON	B	11.89 (.468)	17.45 (.688)	ST-42E	7301K38	ST-40E	7301K36
1		ON	NONE	ON		11.89 (.468)	17.45 (.688)	ST-42D	7302K38	ST-40D	7302K36
2		ON	NONE	ON*		11.89 (.468)	17.45 (.688)	ST-42F	7307K38	ST-40F	7307K36
2		ON*	OFF	ON*		11.89 (.468)	17.45 (.688)	ST-42G	7306K38	ST-40G	7306K36
2		ON	OFF	ON*		11.89 (.468)	17.45 (.688)	ST-42H	7305K38	ST-40H	7305K36
TWO POLE											
3	2 P.S.T.	ON	NONE	OFF	C	11.89 (.468)	17.45 (.688)	ST-52K	7310K38	ST-50K	7310K36
4		ON	NONE	OFF*		11.89 (.468)	17.45 (.688)	ST-52L	7314K38	ST-50L	7314K36
4		OFF	NONE	ON*		11.89 (.468)	17.45 (.688)	ST-52M	7313K38	ST-50M	7313K36
3	2 P.D.T.	ON	OFF	ON	D	11.89 (.468)	17.45 (.688)	ST-52P	7311K38	ST-50P	7311K36
3		ON	NONE	ON		11.89 (.468)	17.45 (.688)	ST-52N	7312K38	ST-50N	7312K36
4		ON	NONE	ON*		11.89 (.468)	17.45 (.688)	ST-52R	7317K38	ST-50R	7317K36
4		ON*	OFF	ON*		11.89 (.468)	17.45 (.688)	ST-52S	7316K38	ST-50S	7316K36
4		ON	OFF	ON*		11.89 (.468)	17.45 (.688)	ST-52T	7315K38	ST-50T	7315K36

* Momentary Contact.

CURRENT RATINGS

Code From Selection Table	Type of Operation	CURRENT CAPACITY IN AMPERES PER POLE								
		30V dc			125V ac, 60 Hz			250V ac, 60 Hz		
		Lamp Load	Resistive Load	Inductive Load	Resistive Load	Inductive Load	Horse Power	Resistive Load	Inductive Load	Horse Power
ONE POLE										
1	Maintained Momentary	5	20	15	15	—	—	6	—	—
2		4	15	10	15	—	—	6	—	—
TWO POLE										
3	Maintained Momentary	7	30	15	25	—	—	9	—	—
4		5	20	10	15	—	—	6	—	—

DIMENSIONS APPROXIMATE IN MM (INCHES)

