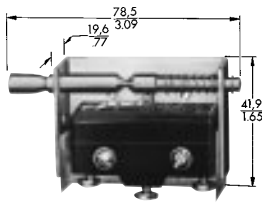
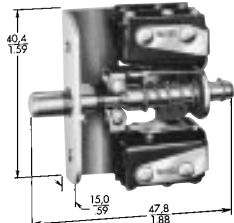


Basic Switches

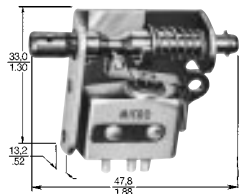
Door



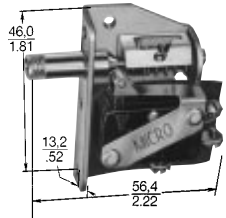
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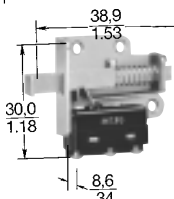
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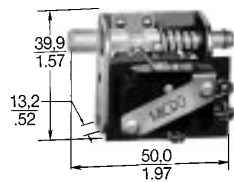
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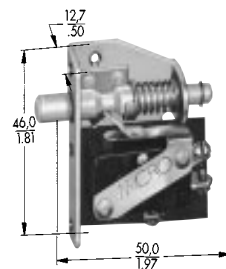
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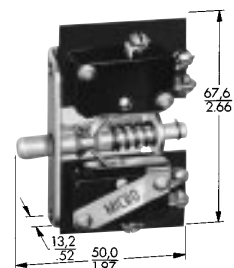
Style 5



Style 6



Style 7



Style 8

FEATURES

- Automatically cut power when service door or drawer is opened, helping protect personnel and equipment.
- Enables circuit testing with power On by manually pulling rod actuator to maintained-On position. (Closing door or drawer resets switch.)
- Basic switches are component recognized by UL to UL1054 special use switches.
- UL recognized AC are available

ELECTRICAL RATINGS

A	15 amps, 125, 250 or 480 VAC; 1/2 amp, 125 VDC; 1/4 amp, 250 VDC.
B	5 amps, 125 or 250 VAC; 30 VDC ind., 3 amps (sea level) and 2.5 amps (50,000 ft.); res., 5 amps (sea level and 50,000 ft.); max. inrush 25 amps.
C	15 amps, 125 or 250 VAC; 1/2 amp, 125 VDC; 1/4 amp, 250 VDC; 1/3 hp, 125 or 250 VAC.

Characteristics:
 F.P. — Free Position;
 O.P. — Operating Position;
 D.P. — Depressed Position.

ORDER GUIDES WITH STEEL ROD ACTUATORS

Style No.	Description	Basic Switch	Elec. Rating	Catalog Listing	F.P. max. mm In.	O.P. min. mm In.	D.P. max. mm In.	Temp. Ratings
1	15 amps, SPDT.	BZ	A	1AC2	11,1 .438	6.35 .250	3.18 .125	-65°F to +180°F
2	5 amps, Four SPDT ckts.	SM(4)	B	8AC1	9,53 .375	5,16 .203	3,18 .125	-65°F to +250°F
3	Three 6-foot leads. Sealed basic switches 5 amps, SPDT	SE	B	9AC4	9,53 .375	5,16 .203	3,18 .125	-65°F to +221°F
3	Two 3-foot leads. Sealed basic switches. 5 amps, SPST-N.O.	SE	B	9AC12-3	9,53 .375	5,16 .203	3,18 .125	-65°F to +221°F
4	Can be reset without momentary ckt. break. 15 amps, SPDT.	V3	C	13AC1	15,9 .625	12,3 .485	6,68 .263	-67°F to +300°F
5	Miniature size. 5 amps, SPDT	SM	B	17AC1-T 17AC18-T† (MS16106-4)	9,53 .375	5,59 .220	4,45 .175	-65°F to +250°F -67°F to +185°F
6	Tapped hole in end of actuator rod. 15 amps, SPDT.	V3	C	2AC59† (MS16106-1)	9,53 .375	5,16 .203	3,18 .125	-67°F to +185°F

†-These are military approved listings and the temperature range shown is for the finished product. All other listings are not military approved and the temperature range shown is the range for the basic switch only.

WITH HIGH STRENGTH THERMOPLASTIC ROD ACTUATORS*

2	5 amps. Four SPDT ckts.	SM(4)	B	8AC9 (MS16106-3)	9,53 .375	5,16 .203	3,18 .125	
6	15 amps. SPDT.	V3	C	22AC1	9,53 .375	5,16 .203	3,18 .125	
6	Tapped hole in end of actuator rod. 15 amps. SPDT.	V3	C	22AC2	9,53 .375	5,16 .203	3,18 .125	
7	15 amps. SPDT.	V3	C	23AC1	9,53 .375	5,16 .203	3,18 .125	
7	Tapped hole in end of actuator rod. 15 amps. SPDT.	V3	C	23AC2	9,53 .375	5,16 .203	3,18 .125	
8	15 amps. Two SPDT ckts.	V3(2)	C	24AC1	9,53 .375	4,75 .187	3,18 .125	
8	Tapped hole in end of actuator rod. 15 amps. Two SPDT ckts.	V3(2)	C	24AC2 4AC54** (MS16106-2) 4AC55 (MS16106-5)	9,53 .375	4,75 .187	3,18 .125	

*Not for use above 85°C (+185°F). Use steel actuators at higher temperatures. For additional catalog listings, contact the 800 number.

**Both switches operate on pull stroke, only one switch operates on push (reset) stroke.

Sealed/High Temperature

Basic Switches

Snap-in Panel Mount

Momentary Action



Bullet nose plunger (SPDT shown)

Alternate Action



Bullet nose plunger (DPDT shown)

Push-Pull



Finger grip plunger (DPDT shown)

Pull-to-Cheat



Finger grip plunger with flat tip (SPDT shown)



Finger grip plunger with spherical tip (DPDT shown)

FEATURES

- Attractive, rugged snap-in panel mount design — easy installation
- Choice of momentary, alternate push-pull and pull-to-cheat operation
- Quick-connect terminals
- Expected mechanical life: 1 million operations, 95% survival
- Temperature range: -35° to $+180^{\circ}$ F (-37° to 82° C)
- UL recognized file #E22779, CSA certified file #LR4442

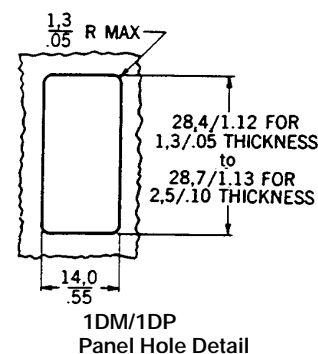
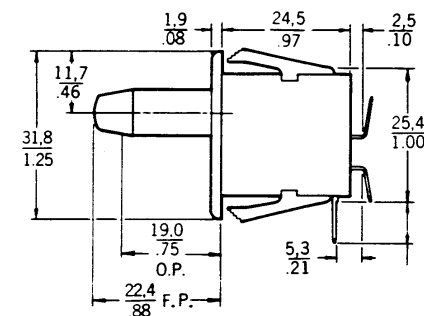
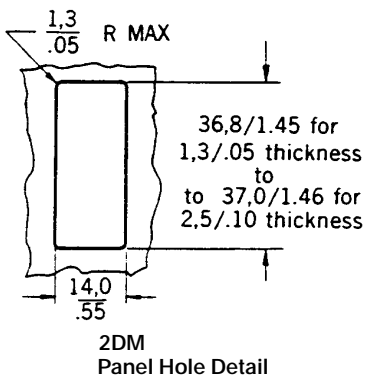
DM electrical rating — UL and CSA rating: 10 amps, 1/2 HP, 125, 250 or 277 VAC

DP electrical rating — UL standard 508, 14 amps 3/4 hp, 125, 250 VAC; Pilot Duty: 150 V A – 125, 250 VAC; 16 amps, 125, 250, 277 VAC, 3/4 hp, 125, 250 VAC; Pilot Duty: 150 V A – 125, 250 VAC.

NOTE: Refer to MICRO SWITCH Catalog 30 for DM switches with snap-on pushbuttons.

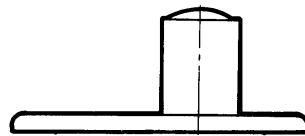
MOUNTING DIMENSIONS

Dimensions shown are for reference only.

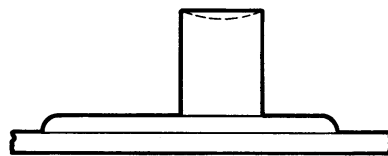


MOMENTARY ACTION

Momentary action switches are available in a choice of concave, convex, or bullet nose plunger styles.



Convex plunger



Concave plunger

ALTERNATE ACTION

These switches have push-on, push-off operation. The alternate action is at two levels, with the maintained On position of the plunger at a lower level than the normal Off.

PUSH-PULL

When plunger is depressed, it remains down and maintains circuit transfer. Switch contacts return to the previous position when the plunger is pulled to the extended position.

PULL-TO-CHEAT

Pull-to-cheat operates normally as a momentary action switch. However, by pulling the plunger beyond the normal free position, a maintained On position is achieved.

POSSIBLE VARIATIONS

In addition to the standard quick-connect .188 x .020" (4,78 x 0,51 mm) terminals, angled forms and .250 x .032" (6,35 x 0,81 mm) terminals can be provided. DM plungers and faceplates are available in any combination of white, black, gray, or red.

Basic Switches

Snap-in Panel Mount

DM/DP Series

Characteristics: F.P. — Free Position; O.P. — Operating Position; O.T. — Overtravel; O.F. — Operating Force; R.F. — Release Force

ORDER GUIDE – DM

Catalog Listing	Action	Circuitry	Plunger Type/Color	Faceplate Color	F.P. mm in.	O.P. mm in.	O.T. max. mm in.	O.F. max. N oz.	R.F. min. N oz.
1DM1	Momentary	SPDT	Bullet nose/White	White	22,4 .880	19,1±1,5 .750±.060	9,53 .375	4,17 15	0,83 3
1DM2	Momentary	SPNC	Bullet nose/White	White	22,4 .880	19,1±1,5 .750±.060	9,53 .375	4,17 15	0,83 3
1DM3	Momentary	SPNO	Bullet nose/White	White	22,4 .880	19,1±1,5 .750±.060	9,53 .375	4,17 15	0,83 3
1DM18	Momentary	SPDT	Concave/Black	Gray	11,4 .450	—	3,05 .120	4,17 15	0,83 3
1DM19	Momentary	SPDT	Concave/Red	Gray	11,4 .450	—	3,05 .120	4,17 15	0,83 3
1DM21	Momentary	SPDT	Convex/White	White	11,4 .450	9,02±1,5 .355±.060	3,05 .120	4,17 15	0,83 3
1DM38	Momentary	SPNO	Convex/White	White	11,4 .450	9,02-1,5 .355±.060	3,05 .120	4,17 15	0,83 3
1DM301	Push-Pull	SPDT	Finger grip/Black	Gray	24,1 .950	—	15,9 .625	—	—
1DM401**	Pull-to-Cheat	SPDT	Finger grip/White	White	17,8 .700	—	13,2 .520	4,17 15	0,83 3
2DM1	Momentary	DPDT	Bullet nose/Black	Black	22,4 .880	19,6±1,0 .770±.040	10,2 .400	6,67 24	1,67 6
2DM5	Momentary	DPDT	Concave/Black	Gray	11,4 .450	—	3,05 .120	6,67 24	1,67 6
2DM6	Momentary	DPDT	Concave/Red	Gray	11,4 .450	—	3,05 .120	6,67 24	1,67 6
2DM301	Push-Pull	DPDT	Finger grip/Black	Gray	24,1 .950	—	15,9 .625	—	—
2DM409	Pull-to-Cheat	DPDT	Finger grip/Black	Black	21,6 .850	18,9±1,3 .745±.050	15,0 .590	6,67 24	—
2001DM1*	Alternate	SPDT	Bullet nose/White	White	22,4 .880	—	15,4 .605	5,56 20	—

* Latch position 16,9 mm ± 0,76 mm (.665 in. ± .030 in.)

** Extended position 23,6 mm (.930 in. max.)

ORDER GUIDE – DP

Catalog Listing	Action	Circuitry	Plunger Type/Color	Faceplate Color	F.P. mm in.	O.P. mm in.	O.T. max. mm in.	O.F. max. N oz.	R.F. min. N oz.
1DP5	Momentary	SPNO	Bullet nose/White	White	22,4 .880	15,1±1,5 .595±.060	9,53 .375	4,45 16	0,83 3
1DP801	Momentary	SPDT	Concave/White	White	11,4 .45	9,0±1,5 .355±.060	3,0 .120	6,67 24	0,83 3

Door Switches

Basic Switches

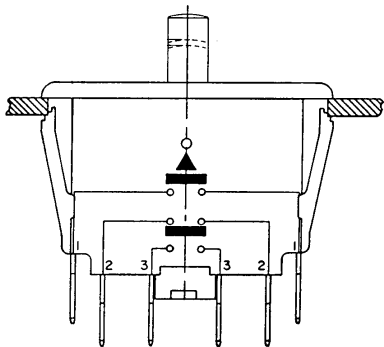
Door



GENERAL INFORMATION

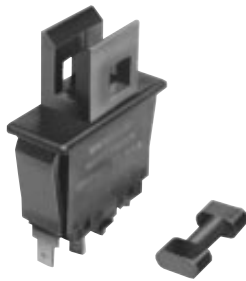
The WW Series switching mechanism is a non-snap double break shorting bar type construction. One, two or three circuit versions are available.

The three-circuit unit has two poles. The term "pole" denotes the number of completely separate circuits that can pass through the switch at one time. On a three-circuit switch in the unoperated condition (see drawing) circuit #2 is closed and circuit #1 and #3 are open. As the plunger is depressed, circuit #2 opens and circuit #1 and #3 are closed. The switch is two-pole since it makes and breaks two separate circuits (#1 and #3). When the plunger is released, circuit #1 and #3 are broken and circuit #2 is closed.



FEATURES

- Snap-in panel mounting
- Variety of terminal sizes
- Accepts quick-connect insulated terminals
- 10-16 amps electrical rating at 125 or 250 VAC depending on number of circuits and termination
- Same panel cutout as double-pole DM switch
- Quick-connect D7 and D9 termination complies with VDE requirements for 3mm air gap
- Switches with plunger guards and D7, D9 terminations are VDE approved
- UL recognized, CSA certified
- Meets UL's 100,000 operations requirement for operator-accessible interlock switches
- Covered under UL standard 508 Industrial Motor Controls



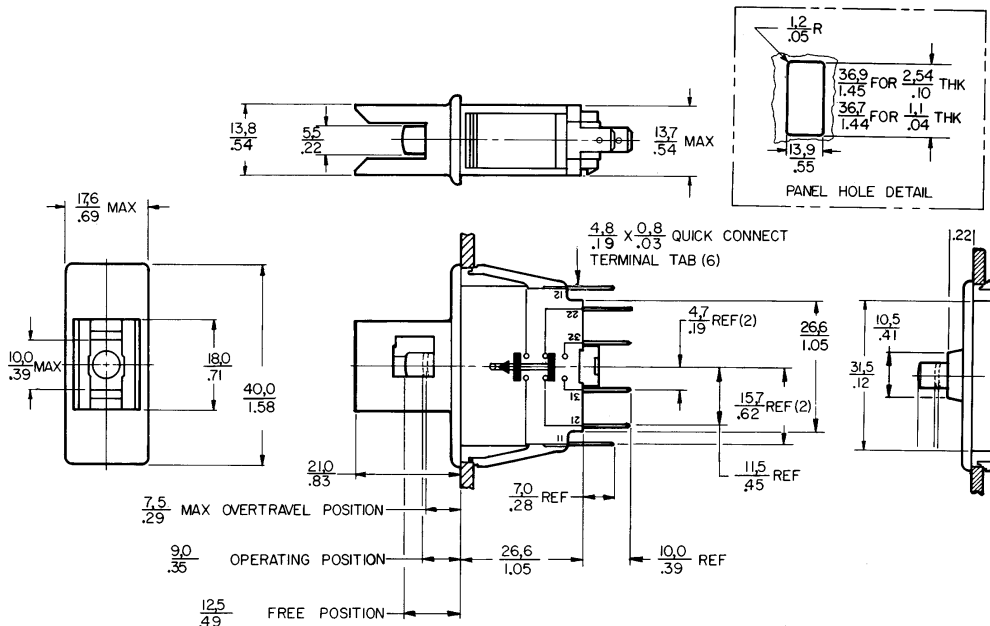
Plunger guard version and cheat-key.



With cheat-key installed.

WWs are available with or without a plunger guard. A cheat-key can be furnished for use with the plunger guard to maintain the switch plunger in the depressed condition (see photos →).

MOUNTING DIMENSIONS (For reference only)



NOTE: Terminals will accept quick-connect receptacles available from AMP, Hollingsworth and others.

Basic Switches

Door

ELECTRICAL RATINGS

UL and CSA * Asterisked loads tested for 100,000 cycles

Electrical Rating	3-Pole	Electrical Rating	2-Pole	Electrical Rating	1-Pole
C	Contacts 1-1, 3-3: †*15A, 125VAC, *10A, 250VAC: ½ hp @ 125, 250VAC; 3A "L", 125VAC; 150VA pilot duty @ 125/250VAC	A	Contacts 1-1, 3-3: †*16A, 125/250VAC: ½ hp, 125/250 VAC; 3A "L", 125VAC; 150 VA pilot duty 125/250 VAC; *2A, 24VDC	B	Contacts 1-1: *16A, 125/250VAC; ¾ hp, 125/250VAC; 150VA pilot duty 125/250 VAC; 3A, "L", 125VAC
D	Same as C with 0.1A, 125 VAC; *2A, 24VDC	F	Same as A with 0.1A, 125VAC		
E	†Contacts 2-2: 0.1A, 125VAC/VDC	G	*5A, 125VAC, 2A, *24VDC		

VDE †

Flagged loads tested for 10,000 cycles

Circuits #1 and #3 †16 (4)A, 250VAC Circuit #2 †0.1 (0.05) A, 250VAC

ORDER GUIDE

Catalog Listings*	Circuitry	Electrical Rating	Plunger Guard
WW1A04A-D7	#1 - N.O.	A	No
WW1G03A-D7	#1 & #3 - N.O.	A	No
WW1K06D-D7	#1 & #3 - N.O. #2 - N.C.	C E	No
WW1G02A-D9	#1 & #3 - N.O.	A	Yes
WW1K05D-D9	#1 & #3 - N.O. #2 - N.C.	C E	Yes

Cheat-key: Catalog Listing **15PA256-WW**

Termination Options

To order other termination options, substitute the option letter and number at the end of the catalog listing.

D7: .187 x .032 in. (4,75 x 0,8 mm).

D8: .187 x .020 in. (4,75 x 0,5 mm).

D9: .250 x .032 in. (6,35 x 0,8 mm).

D7 and D9 terminals are VDE certified.
VDE limits D7 terminals to 12A.

CATALOG LISTING CODE

WW

Type

1

Action

K

Circuitry

00

Variations

D

Elec. Rating

-

D8

Termination

Door Switches