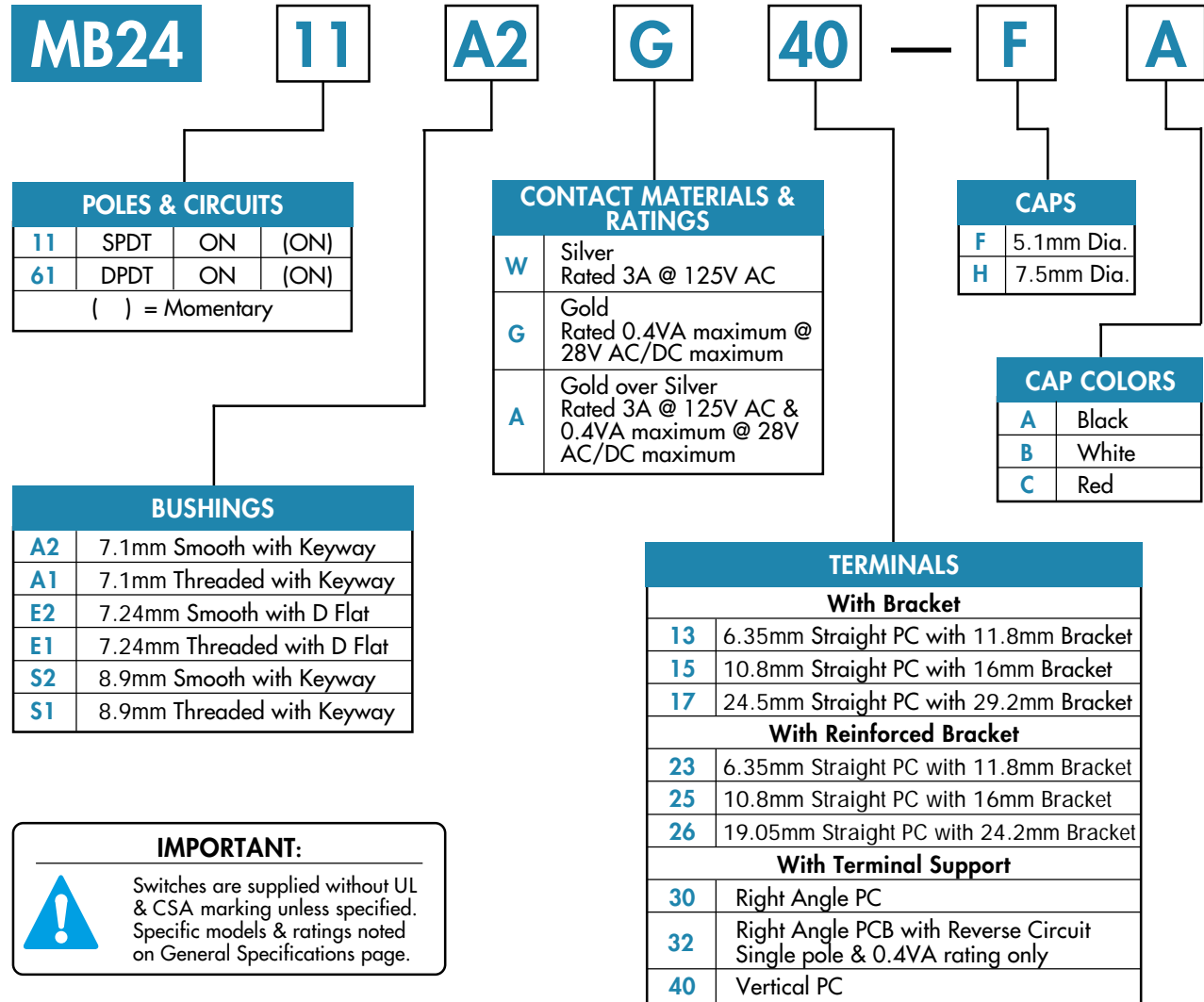




Series MB2400

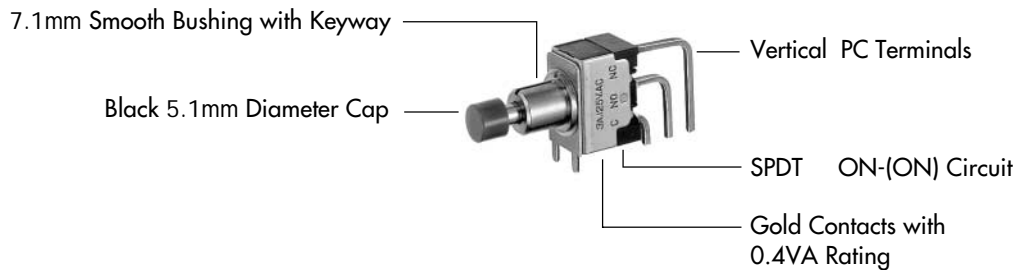
Momentary Snap-Action Miniature Pushbutton Switches

TYPICAL SWITCH ORDERING EXAMPLE



DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

MB2411A2G40-FA





Series MB2400

Momentary Snap-Action Miniature Pushbutton Switches

GENERAL SPECIFICATIONS

Electrical Capacity (Resistive Load)

Power Level (code W):	3A @ 125V AC
Logic Level (code G):	0.4VA maximum @ 28V AC/DC maximum
Power/Logic Level (code A):	Combines W & G ratings

Note: See [Supplement Index](#) to find explanation of dual rating & operating range.

Other Ratings

Contact Resistance:	20 milliohms maximum for silver; 30 milliohms maximum for gold
Insulation Resistance:	1,000 megohms minimum @ 500V DC
Dielectric Strength:	1,000V AC minimum between contacts; 1,500V AC minimum between contacts & case
Mechanical Life:	200,000 operations minimum
Electrical Life:	25,000 operations minimum for silver; 100,000 operations minimum for gold
Nominal Operating Force:	Single pole 250 grams; double pole 400 grams
Travel:	0.6mm (.024") pretravel; 0.4mm (.016") overtravel; 1.0mm (.039") total travel

Materials & Finishes

Plunger:	Brass with nickel plating
Bushing:	Brass with nickel plating
O-ring:	Nitrile butadiene rubber
Frame:	Stainless steel
Support Bracket:	Steel with tin-lead plating
Case:	Glassfiber reinforced polyester (PBT)
Base:	Diallyl phthalate resin
Movable Contactor:	Phosphor bronze with silver or gold plating
Movable Contacts:	Silver alloy (code W); copper with gold plating over nickel plating (code G); or silver alloy with gold plating over nickel plating (code A)
Stationary Contacts:	Silver with silver plating (code W); copper or brass with gold plating over nickel plating (code G); or silver with gold plating over nickel plating (code A)
Terminals:	Copper or brass with silver plating; copper or brass with gold plating over nickel plating

Applicable Environment

Operating Temp Range:	-30°C through +85°C (-22°F through +185°F)
Humidity:	90 ~ 95% humidity for 96 hours @ 40°C (104°F)
Vibration:	10 ~ 55Hz with peak-to-peak amplitude of 1.5mm traversing the frequency range & returning in 1 minute; 3 right angled directions for 2 hours
Shock:	50g acceleration (tested in 6 right angled directions, with 3 shocks in each direction)
Sealing:	Dustproof bushing

Installation

Mounting Torque:	15kgf/cm (13lb/in) for double nut; 7kgf/cm (6lb/in) for single nut
Cap Installation Force:	8.16 kg (18 lbs) maximum permissible
Soldering Time & Temperature:	3 seconds @ 350°C or 5 seconds @ 270°C
Process Seal:	Not available

Standards & Certifications






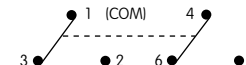
Flammability Standards:	UL94V-0 available
UL Recognized:	All single & double pole models recognized at 3A @ 125V AC or 0.4VA maximum @ 28V AC/DC maximum; UL File No. E44145
CSA Certified:	Single pole models with PC, solder lug, or Wirewrap terminals & double pole models with PC or Wirewrap terminals certified at 3A @ 125V AC or 0.4VA maximum @ 28V AC/DC maximum; CSA File No. LR23535



Series MB2400

Momentary Snap-Action Miniature Pushbutton Switches

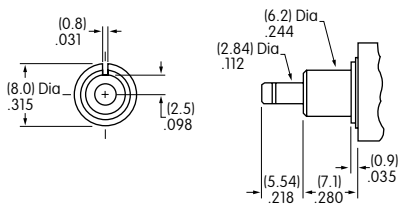
POLES & CIRCUITS

		Plunger Position () = Momentary		Connected Terminals		Throw & Schematics
Pole	Model	Normal  Keyway	Down 	Normal  Keyway	Down 	Note: Terminal numbers are not actually on the switch. * When using terminal code 32, connected terminals & schematic are reversed.
SP	MB2411*	ON	(ON)	1-3	1-2	SPDT 
DP	MB2461	ON	(ON)	1-3 4-6	1-2 4-5	DPDT 

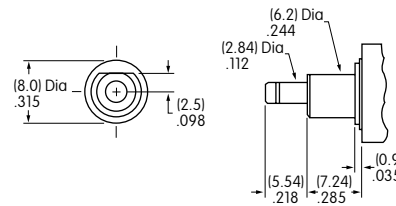
BUSHINGS

Note: Plunger selection is not required for MB2400 pushbuttons. The plunger can be used with or without a cap.

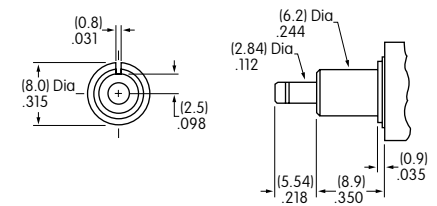
A2 7.1mm Smooth with Keyway



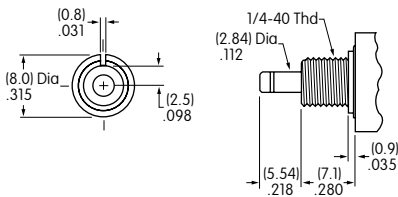
E2 7.24mm Smooth with D Flat



S2 8.9mm Smooth with Keyway

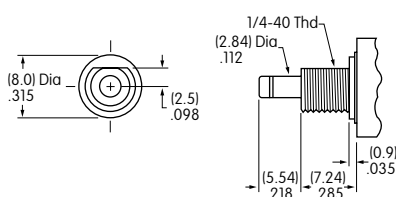


A1 7.1mm Threaded with Keyway



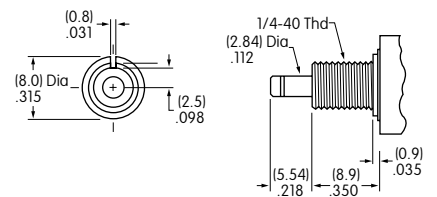
Max. panel thickness with standard hardware: 1.74mm (.068")

E1 7.24mm Threaded with D Flat



Max. panel thickness with standard hardware: 1.74mm (.068")

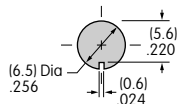
S1 8.9mm Threaded with Keyway



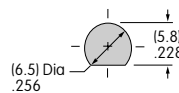
Max. panel thickness with standard hardware: 3.40mm (.134")

Panel Cutouts

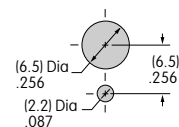
For A1, A2, S1, or S2 Bushing with Keyway



For E1 or E2 Bushing with D Flat



With Optional Locking Ring



Standard and optional hardware



Series MB2400

Momentary Snap-Action Miniature Pushbutton Switches

CONTACT MATERIALS & RATINGS

W	Silver over Silver	Power Level	3A @ 125V AC
G	Gold over Brass or Copper	Logic Level	0.4VA maximum @ 28V AC/DC maximum
Note: See Supplement Index to find complete explanation of operating range.			
A	Gold over Silver	Power Level or Logic Level	3A @ 125V AC or 0.4VA maximum @ 28V AC/DC maximum
Note: This dual rated option is suitable when two or more identical switches are used in logic and in power circuits within the same application. See Supplement Index to find complete explanation of dual rating and operating range.			

TERMINALS

Straight PC Mount with Bracket

13

6.35mm Terminal
w/11.8mm Bracket

15

10.8mm Terminal
w/16mm Bracket

17

24.5mm Terminal
w/29.2mm Bracket

23

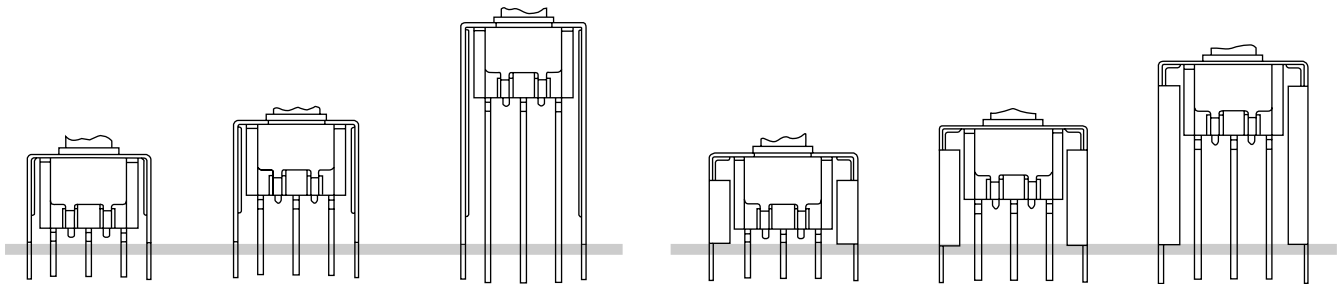
6.35mm Terminal
w/11.8mm Bracket

25

10.8mm Terminal
w/16mm Bracket

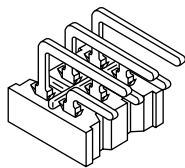
26

19.05mm Terminal
w/24.2mm Bracket



30

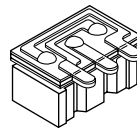
Right Angle PC



32

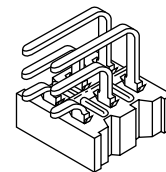
Right Angle PCB
with Reverse Circuit

Available only in single pole
with 0.4VA rating (code G)



40

Vertical PC



PCB footprints are on the following Typical Switch Dimension pages.

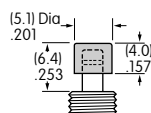
CAPS & COLORS

F

AT475
5.1mm Diameter Cap

Material: Polycarbonate

Finish: Glossy

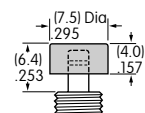


H

AT496
7.5mm Diameter Cap

Material: Polycarbonate

Finish: Glossy



Colors Available:

A

Black

B

White

C

Red

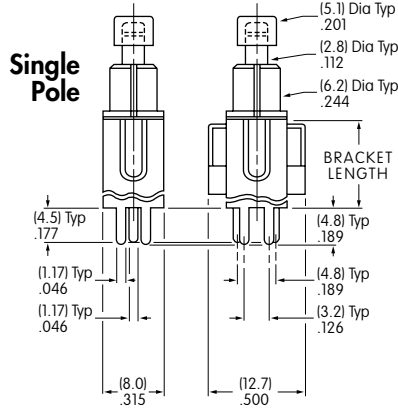
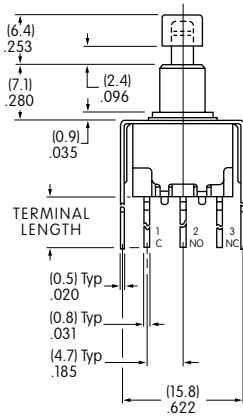


Series MB2400

Momentary Snap-Action Miniature Pushbutton Switches

TYPICAL SWITCH DIMENSIONS

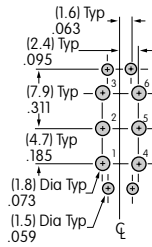
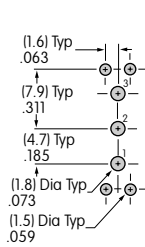
Straight PC • Bracket



Double Pole

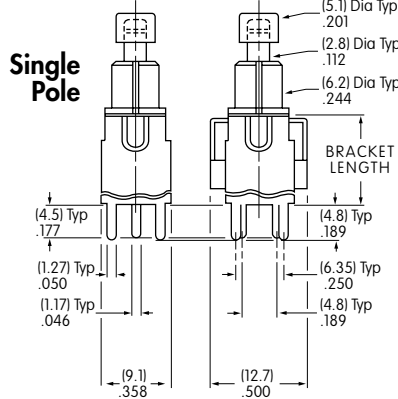
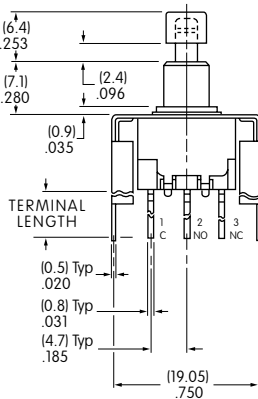


MB2411A2G13-FA



Terminal Code:	Terminal Length:	Bracket Length:
13	6.35mm / .250"	11.8mm / .465"
15	10.8mm / .425"	16mm / .630"
17	24.5mm / .964"	29.2mm / 1.150"

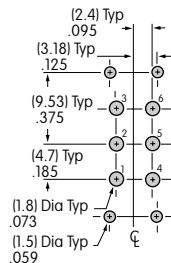
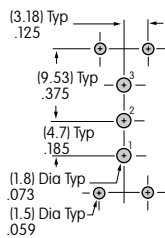
Straight PC • Reinforced Bracket



Double Pole



MB2411A2G23-FA



Terminal Code:	Terminal Length:	Bracket Length:
23	6.35mm / .250"	11.8mm / .465"
25	10.8mm / .425"	16mm / .630"
26	19.05mm / .750"	24.2mm / .953"



Series MB2400

Momentary Snap-Action Miniature Pushbutton Switches

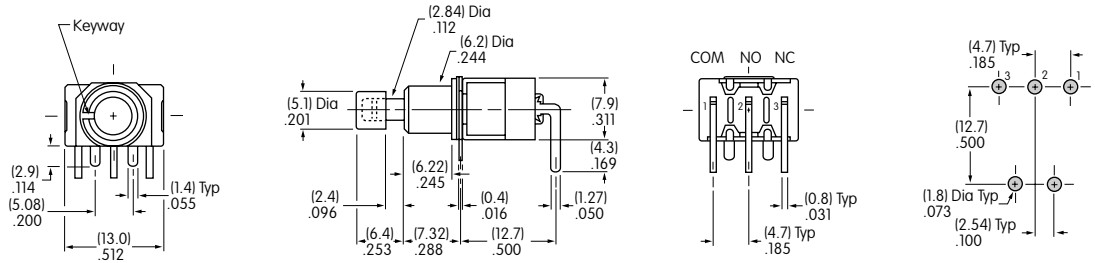
TYPICAL SWITCH DIMENSIONS

Right Angle PC



MB2411A2G30-FA

Single Pole

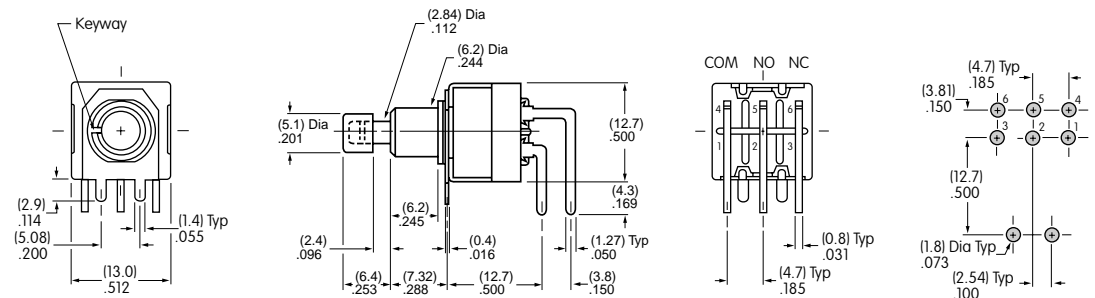


Right Angle PC



MB2461A2G30-FA

Double Pole

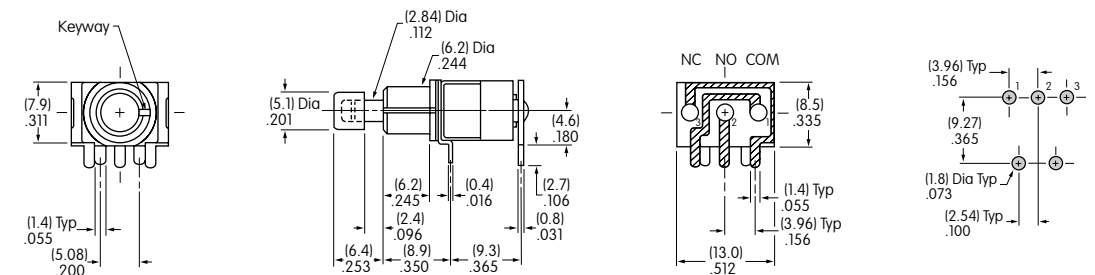


Right Angle PCB



MB2411A2G32-FA

Single Pole • Reverse Circuit

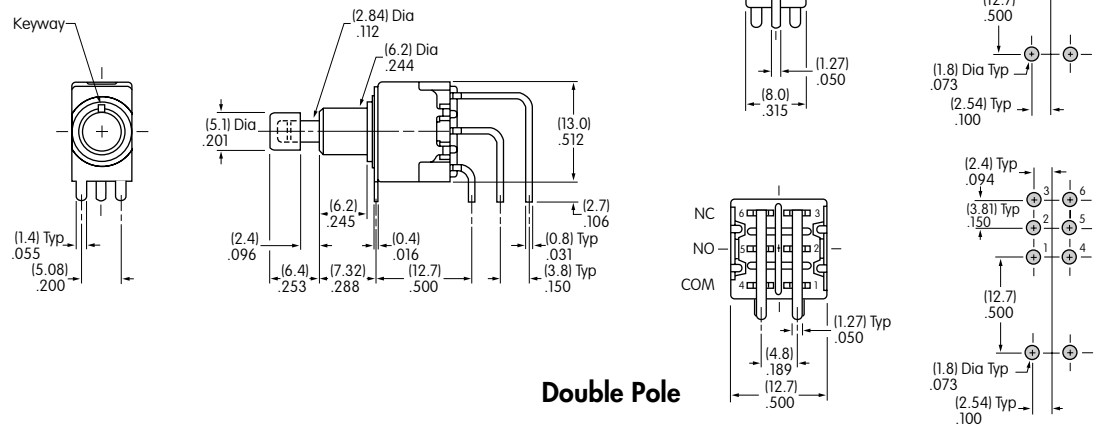


Vertical PC

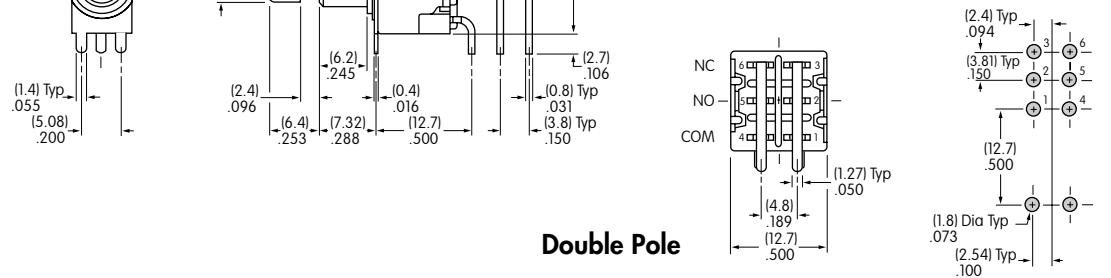


MB2411A2G40-FA

Single Pole



Double Pole





Series MB2400

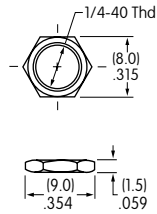
Momentary Snap-Action Miniature Pushbutton Switches

HARDWARE

Standard Hardware

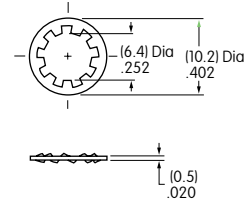
AT513M Inch Threaded Hex Nut
2 included with each switch

Brass, nickel plated



AT509 Lockwasher
1 included with each switch

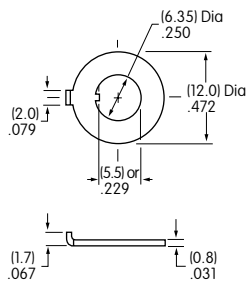
Steel, chromate over zinc plating



Optional Hardware

AT507M Locking Ring for A1 or S1 Bushing

Steel, chromate over zinc plating



AT515 Locking Ring for E1 Bushing

Steel, chromate over zinc plating

