

MPA-6 GREEN SERIES

Miniature Pushbutton

A-25-21

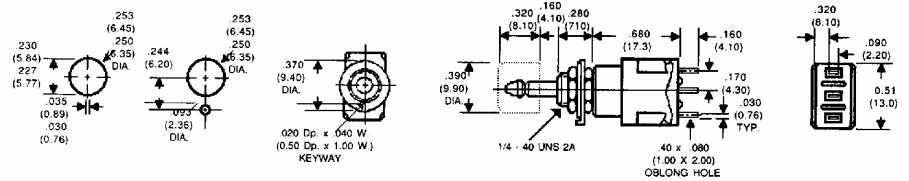
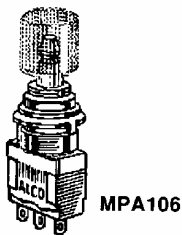
SPECIFICATIONS

Contacts: solid silver with gold flash
Contact Rating: 6 A at 125 VAC, 3 A at 250 VAC, 4 A at 28 VDC
Initial Contact Resistance: 20 milliohms max.
Contact Timing: non-shorting
Insulation Resistance: 1000 megohms min.
Dielectric Strength: 1500 volts RMS at sea level
Life Expectancy: 50,000 actuations
Operating Temperature: -20°C to +80°C (-4°F to +176°F)
Storage Temperature: -40°C to +80°C (-40°F to +176°F)

Case Material: thermoset
Actuator Material: nickel plated brass
Actuation Force: 1.3 lbs. to 2.7 lbs.
Plunger/Actuator Travel: 125 average
Terminal Seal: molded in
Process Seal: N/A
Terminals: gold flash
High Torque Bushing Shoulder: standard
Solder Heat Resistance: see page 10.

SPDT

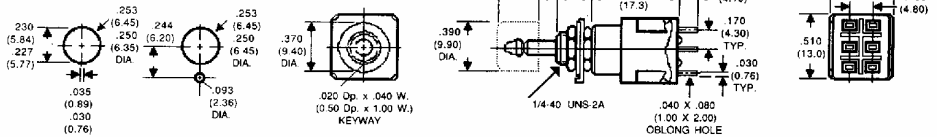
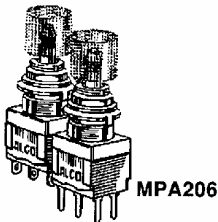
Cap not supplied, order separately
 (See Cap Model C22 and C33 on page 32.)



MODEL	TYPE	ACT. CODE	ACTION
MPA106D	SPDT	23	PUSH-ON/PUSH-OFF MOMENTARY
MPA106F	SPDT	19	

DPDT

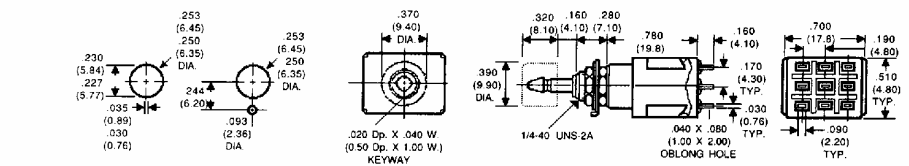
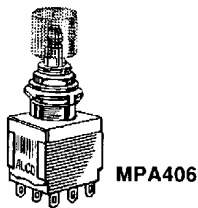
Cap not supplied, order separately.
 (See Cap Model C22 and C23 on page 32.)



MPA206N	DPDT	24	PUSH-ON/PUSH-OFF MOMENTARY
MPA206R	DPDT	20	
MPA206NPC	DPDT	24	PUSH-ON/PUSH-OFF MOMENTARY
MPA206RPC	DPDT	20	

3PDT

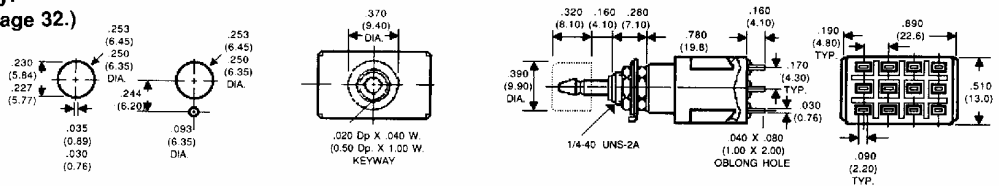
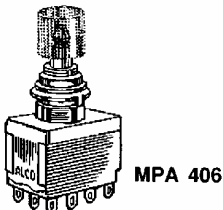
Cap not supplied, order separately.
 (See Cap Model C22 and C23 on page 32.)



MPA306D	3PDT	25	PUSH-ON/PUSH-OFF MOMENTARY
MPA306F	3PDT	21	

4PDT

Cap not supplied, order separately.
 (See Cap Model C22 and C23 on page 32.)



MPA406N	4PDT	26	PUSH-ON/PUSH-OFF MOMENTARY
MPA406R	4PDT	22	

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE



Alcoswitch®

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D23

The majority of customers utilizing miniature or sub miniature switches in the industry today have a great concern about the switches capabilities during their soldering and cleaning cycles. This concern centers around the introduction of contaminants into the switch contact area which could cause the switch to experience various failure modes either immediately or during the life cycle of the switches usage. These failure modes can show in a number of manners. The following are just a few examples: high contact resistance, open contacts, low dielectric strength breakdown, and high actuation forces causing use related applications to malfunction. Since most fluxes become active with the introduction of the high temperatures used in all soldering techniques, the switch must either prevent these fluxes from entering into its contact area or allow cleaning techniques to carry flux particles out. It must be understood that switch contamination can occur during any procedure: from hand soldering to the new age Surface Mount systems using vapor phase , I.R., or Convection chambers for solder reflow.

We at Augat/Alcoswitch offer a wide range of switches to handle any soldering operations. However, certain soldering conditions will not apply to all switches. The following conditions and charts should help assist you in the soldering of our switches in your application. If you need additional information, feel free to contact the factory.

SOLDERING TYPES

A. Wave Soldering:

Top & Bottom board preheats: 200°F(93°C) for approximately 3 to 4 minutes.

Solder Temperature and Dwell Time: 500°F(260°C) for approximately 3 to 5 seconds.

B. Hand Soldering

1. 500°F-600°F(260°C-316°C)utilizing a controlled 40 Watt iron for 3 to 5 seconds maximum.

2. 500°F(260°C) utilizing a controlled 30 Watt iron for 10 seconds maximum.

C. Dip Soldering

Solder Temperature & Dwell Time: 500°F(260°C) for 10 seconds maximum.

D.Surface Mount

1. Convection IR

Zone 1 = 212°F(100°C) for 120 seconds maximum.

Zone 2 = 419°F(215°C) is reaches in approximately 160 seconds after zone 1, and held at that temperature for approximately 10 seconds.

2. Radiant IR

Zones 1 & 2 combined = 330°F(166°C) maximum with a total run of 210°C(99°C) seconds.

Zone 3 & 4 combined = 460°F(238°C) is reached in approximately 30 seconds after zones 1 & 2 and held at that temperature for approximately 10 seconds.

3. Vapor Phase

Zone 1 = 140°F (60°C) for 15 seconds.

Zone 2 = 419°F(215°C) for 30 seconds.

CLEANING TYPES

A. Solvent Wash (1.1.1 Trichlorethylene, T.M.S., T.M.C.)

B. Vapor Degreasing

C. Solvent Immersion

D. Aqueous Cleaning

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ACTUATION CODE CHART

Pushbuttons and Slides

The following CODE CHARTS show schematically, the electrical contact closures of a switch relative to the actuator position. All diagrams represent a TOP view of the switch with the ALCO imprint facing and bushing slot, if any, pointing left. Terminal numbers are for reference only and may not appear on switches.

Code numbers are found throughout the catalog alongside part numbers. The same schematic may show either maintained or momentary action in some cases; momentary closures are indicated by the symbol (ON).

PUSHBUTTONS

13 N.O. 	MOMENTARY ON 	21 	MOMENTARY
14 N.C. 	MOMENTARY OFF 	22 	MOM.
15 ON 	MOMENTARY ON 	23 PUSH-ON 	PUSH-OFF
16 PUSH-ON 	PUSH-OFF 	24 PUSH-ON 	PUSH-OFF
17 PUSH-ON 	PULL-OFF 	25 PUSH-ON 	PUSH-OFF
18 PULL-ON 	PUSH-OFF 	26 PUSH-ON 	PUSH-OFF
19 	MOMENTARY 		
20 	MOMENTARY 		

TP SERIES PUSHBUTTONS

C 	NONE
F FT 	NONE
M 	NONE
R 	NONE

TSS SERIES SLIDE SWITCHES

A 	NONE
D 	NONE
E 	
K 	NONE
N 	NONE
P 	
PA 	

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DIP SWITCHES

GD SERIES DIP SWITCHES

- *GDS Low Profile Page A1
- *GDP Classic Piano Style Page A1
- *GDR Recessed Rocker Page A2
- *GDB Flush Rocker Actuator Page A2
- *GDH Half Pitch (.050") DIP Page A2

LOW PROFILE DIP SWITCHES

- *AD, AR, AA/C & ATT Series
Specifications Page A3
- *AD Series
Features
Order Format Page A4
- AR, AA/C Series
Diagrams
Termination Options Page A5

LOW PROFILE HYBRID DIPS

- *AR Series
Features
Order Format Page A5
- *AA/C Series
Features
Order Format Page A5

DIGITAL DIP ATTENUATORS

- *ATT Series
Diagrams
Termination Options
Features
Order Format Page A6

LOW PROFILE SIP SWITCHES

- S Series
Specifications Page A8
- Diagrams
Mounting Layouts
Features
Order Format Page A8

ROTARY DIP SWITCHES

- *DR, RR & RA/C Series
Specifications Page A9
- Options
Pad Layouts Page A10
- DR Series
Features
Order Format Page A12
- DRS Series Page A14

HYBRID ROTARY DIP SWITCHES

- RR Series
Features
Order Format Page A12
- RA/C Series
Features
Order Format Page A13

DIP SHUNT

- TS Series Page A15

STANDARD PROFILE

- DIP SWITCHES
DTS Series with tape seal Page A17
- DYS Series piano style Page A17
- DPU/T Series piano style Page A16

*AUTO INSERTABLE SURFACE MOUNTABLE
PROCESS COMPATIBLE

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