

A SERIES



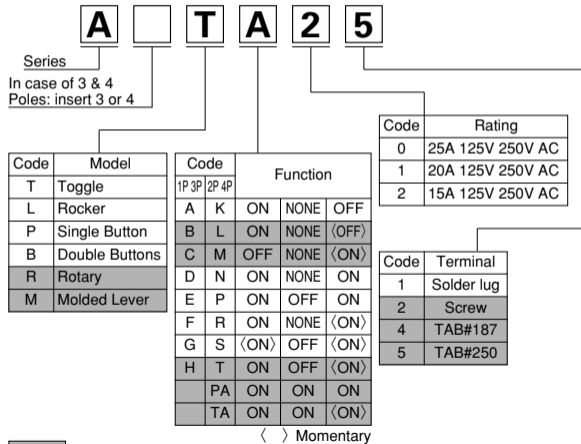
INDUSTRIAL GRADE POWER SWITCHES

UL, CSA LISTED
(except 3&4 poles)

FEATURES

- All of switch-housings cases of the standard switches are made of the approved UL standard 94V-O materials.
- Contact mechanism is designed to minimize producing noise and secure stable switching from small current to large.
- Molded-in terminals give a perfect seal against the ingress of flux at wave soldering.
- No electrical trouble will occur even if the case might be deformed during soldering process.
- The series A does comply to Japanese National Defence Standards, Japanese Industrial Standards and Electrical Apparatus Regulations and is designed to enhance its durability, humidity, corrosion, heat, cold, shock and vibration resistance.

HOW TO ORDER



Made to order basis.

AV SERIES



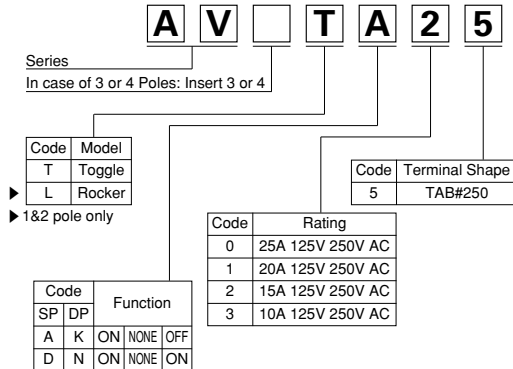
INDUSTRIAL GRADE TOGGLE & ROCKER SWITCHES

UL, CSA LISTED
(except 3&4 poles)

FEATURES

- The AV series was re-developed as V/A switch of A series.
- Electrical ratings from 10A to 25A are available and this series is designed to meet USER'S demand for various applications as well as series "A Models".

HOW TO ORDER



B SERIES

GENERAL SWITCHES

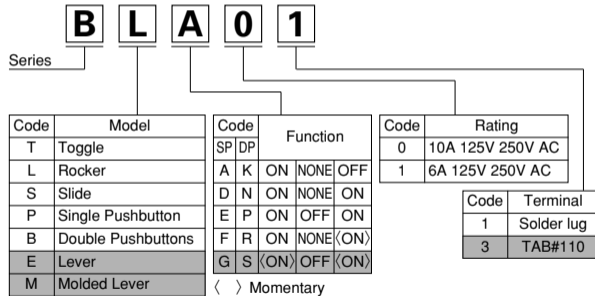
UL, CSA LISTED
(TOGGLE, ROCKER)


FEATURES

- All cases of standard switches are made of UL94V-O.
- Contact mechanism is designed to minimize occurring noise and secure stable closing and opening circuit.
- All models in this series fulfill the requirements of electric rating 10A, 250VAC, and are compact designed.
- Molded-in terminals give a perfect seal to ingress of soldering flux.
- Free from electric trouble as contact points and terminals are built into one piece.



HOW TO ORDER

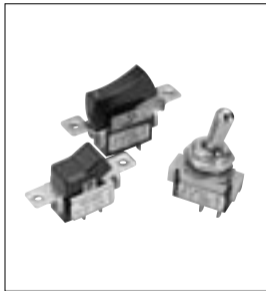


 Made to order basis.



MINIATURE SWITCHES

UL, CSA LISTED
(TOGGLE 3A)



HOW TO ORDER

C T A 0 1


Series

Code	Model
T	Toggle
L	Rocker
S	Slide

Code		Function		
SP	DP			
A	K	ON	NONE	OFF
D	N	ON	NONE	ON
E	P	ON	OFF	ON
G	S	<ON>	OFF	<ON>

Code	Rating
0	6A 125V 250V AC
1	3A 125V 250V AC

Code	Terminal
1	Solder lug

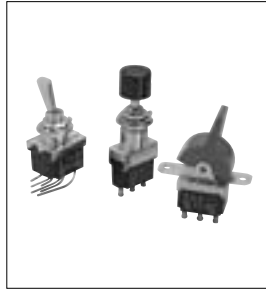
 Made to order basis.

< > Momentary

F SERIES

SUB-MINIATURE SWITCHES

UL, CSA LISTED



HOW TO ORDER

Series: **F** (3 for 3P, 4 for 4P) **T** **D** **O** **1** **G** Contact Gold Plating (Marking does not appear on switch)

Code	Model	Code	Function			Code	Actuator	Code	Terminal
		SP 3P DP 4P							
T	Toggle	D N	ON	NONE	ON	0	Standard Toggle	1	Solder lug
W	Watertight Toggle	E P	ON	OFF	ON	1	Large Toggle	2	Solder lug for thick leadwire
H	P/C Mount Toggle	F R	ON	NONE	ON	2	Short Toggle	3	P.C.B
P	Pushbutton	G S	ON	OFF	ON	3	Long Toggle	4	Wire-wrap
M	Watertight Pushbutton	H T	ON	OFF	ON	4	Flat Toggle	5V 66V 89V	Vertical
E	Small P/C Mount Lever & Rocker - Small Lever & Rocker	PA	ON	ON	ON	5	Locking Lever	5H 65H 88H	Horizontal
L	Snap-in Lever & Rocker	SA	ON	ON	ON	1.3	Small Lever		
		TA	ON	ON	ON	2.4	Small Rocker	9	Leadwire hooking type

< > Momentary

① ACTUATORS

Wide choice of levers i.e., standard, large, short long, flatted and locking levers available to meet varying requirements in panel design and applications.

② LEVER-STOP DEVICE

Toggle lever-stopper is built in to prevent "push-in" when a downward force is applied to the lever.

③ INDIVIDUAL SPRING

Individual spring for each pole is employed to provide stable and reliable contacts.

④ NEW FRAME DESIGN

New frame design assures high insulation and stability.

⑤ GLASS-FILLED POLYESTER CASE (UL94V-O)

The case is manufactured from UL94V-O which has excellent heat and arc resistant properties and high insulation resistance. Creepage barriers are featured in all Multipole Switches providing increased creepage between contacts.

⑥ MOVING CONTACT SUPPORT

Unlike many other switches that rely on the molding to provide support for the moving contact, series F does utilize a unique system to fulfill this important function, greatly increasing the mechanical life of the switch.

⑦ TERMINAL PITCH

Spacing between terminals in 0.2" (5.08mm) conforming to ISO standard P/C board hole matrix.

⑧ GOLD-FLASHED TERMINALS

Available in 6 different configurations such as half-hollow cylindrical, P/C, right angle and wire-wrapping terminals. All gold-flashed to prevent perfectly oxidation and for ease of soldering.

⑨ MOLDED-IN TERMINAL CONSTRUCTION

Molded-in terminals prevent the ingress of solder flux and contaminants.

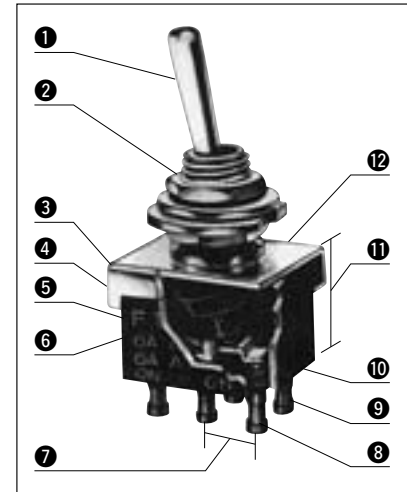
⑩ FINE SILVER CONTACTS

Ensure long life and contact reliability (For option of gold contact, please contact us.)

⑪ COMMON MOUNTING HEIGHT FROM SP TO 4P

The height of SP to 4P switches is identical enabling various switches to be mounted on the same P/C board.

⑫ STAINLESS STEEL FRAME



■ NOTE:

- Special designs are always considered. (O.E.M.)
- Contact Rating 0.4VA 28V DC max. is also available with contact and terminal options in GOLD.

MINIATURE SWITCHES

UL, CSA LISTED

G
SERIES

GE
SERIES

FEATURES

- Panel design, 6 kinds of actuators are available.
- Both silver and gold-plated contact are available. The gold-plated contact is for low current application.
- Terminals are sealed with epoxy, which prevent solder or flux from flowing into the switch.
- Terminal shape: Solder terminal, P/C terminal, Horizontal terminal, Vertical terminal and W/W terminal.
- 94V-O grade materials are used.

AC125V 5A, AC250V 2A(resistive load)
DC30V 2A(resistive load)
Low current: DC20V max 0.4VA

LEVER/ROCKER SWITCHES

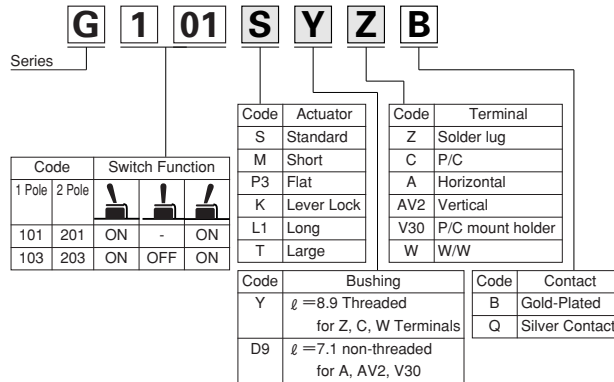
G **1** **01** **J1** **Z** **B** ※

※Color of Actuator

Shape	Code	Actuator
Lever	J2	Small
	J5	Large
	J60	Snap-in
Rocker	J1	Small
	J3	Large
	J50	Snap-in

HOW TO ORDER

IN CASE OF TOGGLE SWITCHES



WASHABLE TYPE

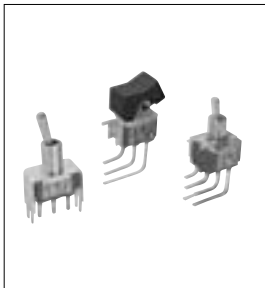
GE **1** **01** **S** **D1** **Z** **Q** ※

※Color of Actuator

S & M types only(Toggle without Threaded Bushing)

Shape	Code	Actuator
Toggle	S	Standard Toggle without Threaded Bushing
	M	Short Toggle without Threaded Bushing
Lever	J2	Small Lever
Rocker	J1	Small Rocker

Not indicated in switch body.



The information on the "G" Series discontinuance as of October '05 was announced before, but we have decided to continue to produce the G101, G103, G201, G203, because of users' strong request.

L SERIES



ROCKER SWITCHES WITH FUSE BOXES

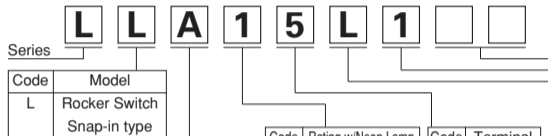
UL, CSA, TÜV, SEMKO, DEMKO LISTED

FEATURES

Applying the Rocker Switch with its incorporated Fuse onto your unit/tools, the following convenience will be provided;

- It will help to avoid switching the wrong buttons by recognizing the high lighted switches' On or Off position.
- All T-models do possess an Incorporated Fuse, which saves not only space on your unit, but also time to replace old fuses.
- Mounting of the fuse incorporated rocker switches onto the panel can be easily performed, because all models are "snap-in types".

HOW TO ORDER



Code	Circuit	Function		
※ A	SP ST	ON 2-3	—	OFF
D	SP DT	ON 2-3	—	ON 1-2
※ K	DP ST	ON 2-3 5-6	—	OFF
N	DP DT	ON 2-3 5-6	—	ON 1-2 4-5

※ The lighted rocker switches are only acceptable with switching function in Code A(SP·ST) and K(DP·ST).
 [EXAMPLE] T-L-A-1-5-L-1
 Fuse Incorporated·Rocker Switch, Snap-in type·SP·ST·Rating 10A 125V AC. w/ neon lamp or 10A 125V/250V AC. w/o neon lamp·Amp Terminal#250·With integral neon lamp; actuator is transparent orange colored button or without integral neon lamp; black button.

Code	Rating w/Neon Lamp
1	10A 125V AC
2	10A 250V AC

Code	Rating w/o Neon Lamp
1	10A 125V AC 10A 250V AC

Code	Button Types	Neon Lamp Incorporated or not
L	Transparent	W/Neon Lamp
F	Flat Shaped	W/O Neon Lamp
C	Curved Shaped	
A	Angle Shaped	

Code	Terminal
5	TAB#250

	Button Color	
	W/Neon Lamp	w/o Neon Lamp
1	Transparent Orange Colored	Black
2	Transparent Red Colored	Red
3	Transparent Green Colored	

Black is the standard color of the button of a rocker switch which has not a neon lamp incorporated. (Others are optional) Please note that the above code number of the color option is not marked on the switch.

Manual soldering temperature: 270°C 3 seconds Max.

When you need specific legend on switches, please contact us. (UL, CSA, TUV, etc.)



SNAP-IN ROCKER SWITCHES

UL, CSA, TÜV, SEMKO,
DEMKO, FIMKO, VDE LISTED

FEATURES

LED INCORPORATED TYPE

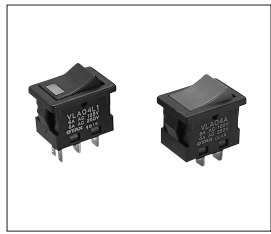
In addition to the standard snap-in rocker switch, LED version becomes available. ON/OFF condition can be confirmed more easily.

- Snap-in panel mounting
- TAB#187 Terminal(Single pole)

DUST-PROOF TYPE

In addition to the standard snap-in rocker switch, dust-proof version becomes available.

- Snap-in panel mounting
- TAB#187 Terminal
- Dust-proof constructed inside design



SNAP-IN ROCKER SWITCHES WITH L.E.D.

V L A O 4 L 1

Series

Code	Model	Code	Rating	Code	Actuator	Code	L.E.D. Color	min./DC	max./DC	AMP
L	Rocker Snap in Mounting	0	6A 125V AC 6A 250V AC	L	Rocker with LED	1	Yellow	2.1V	2.5V	20mA
						2	Red	1.7V	2.0V	
						3	Green	2.1V	2.5V	

Code	Circuit	Function	Code	Terminal
A	SP ST	ON 2-3 - OFF	4	TAB#187 (Applicable to Solder)

■Note: Code numbers do not appear on switches.

HOW TO ORDER

V L K 5 3

Series

Code	Model	Code	Rating	Code	Terminal
L	Rocker Snap in Mounting	5	10A	1	Solder lug
				3	P.C. Board

Code	Circuit	Function
K	SP ST	ON 2-3 - NONE OFF

* VLK5() is also available with vertical T/H terminals.
* VLK41 · 43 types will be discontinued as of March, 2007.

SNAP-IN DUST-TIGHT ROCKER SWITCHES

V L A O 4 A 1

Series

Code	Model	Code	Rating	Code	Actuator Color
L	Rocker Snap in Mounting	0	6A 125V AC 6A 250V AC	1	Black
				2	Red

Code	Actuator Legend
A	Imprint
B	Imprint
C	Imprint
D	No Marking

Code	Circuit	Function	Code	Terminal
A	SP ST	ON 2-3 - OFF	4	TAB#187 (App. as Solder Term)

■Note: Code number of color does not appear on a switch.

HOW TO ORDER

V L A O 4 [] []

Series

Code	Model	Code	Rating	Code	Terminal
L	Rocker Snap in Mounting	0	6A	4	TAB#187
		1	3A		

Code	Circuit	Function	Code	Terminal
A	SP ST	ON NONE OFF		
D	SP DT	ON NONE OFF		

Bar/Circle Imprint Coding