

ET Series

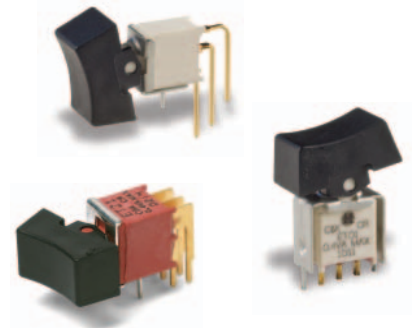
Sealed Subminiature Rocker Switches

Features/Benefits

- Sealed against solder and cleaning process contaminants
- Rocker, bushing & case—UL 94V-0
- Small footprint—saves space
- RoHS compliant

Typical Applications

- Telecommunications
- Instrumentation
- Computers & peripherals



Specifications

CONTACT RATING: B contact material: 0.4 VA max. @ 20 V AC or DC max. Q contact material: Copper alloy, silver plated. See page G-44 for additional ratings.

ELECTRICAL LIFE: ETX1 models: 60,000 make-and-break cycles at full load. All other models: 30,000 cycles.

CONTACT RESISTANCE: Below 20 m Ω typ. initial @ 2-4 V DC, 100 mA, for both silver and gold plated contacts.

INSULATION RESISTANCE: $10^9 \Omega$ min.

DIELECTRIC STRENGTH: 1000 Vrms min. @ sea level.

OPERATING TEMPERATURE: -30°C to 85°C.

SOLDERABILITY: Per MIL-STD-202F method 208D, or EIA RS-186E method 9 (1 hour steam aging).

PACKAGING: Surface mount switches standard in tape and reel packaging, see page G-45 for drawings and reel information.

Materials

CASE & BUSHING: Glass filled nylon 6/6, flame retardant, heat stabilized (UL 94V-0) or glass filled 4/6 nylon, flame retardant, heat stabilized (UL 94V-0).

ACTUATOR: Nylon, black standard. Internal o-ring seal standard with all actuators. SA surface mount: High temperature material, glass filled 46 nylon, flame retardant, heat stabilized (UL 94V-0).

SWITCH SUPPORT: Brass, matte-tin plated.

CONTACTS & TERMINALS: B contact material: Copper alloy, with gold plate over nickel plate. Q contact material: Copper alloy, silver plated. See page G-44 for additional contact materials.

TERMINAL SEAL: Epoxy.

NOTE: Any models supplied with Q, B, G, S, P & R contact material are RoHS compliant.

NOTE: Specifications and materials listed above are for switches with standard options. For information on specific and custom switches, consult Customer Service Center.

Build-A-Switch

To order, simply select desired option from each category and place in the appropriate box. Available options are shown and described on pages G-41 thru G-45. For additional options not shown in catalog, consult Customer Service Center. All models are process sealed to withstand machine soldering temperatures and pressure wash cleaning methods.

Switch Function	Actuator	Terminations	Contact Material	Seal	Actuator Color
ET01 SP On-None-On	J1 Rocker	A Right angle, PC thru-hole	B Gold	E Epoxy	2 Black
ET02 SP Off-None-On	J6 Rocker	AV Vertical Right angle, PC thru-hole	P Gold, matte tin		1 White
ET03 SP On-Off-On		C PC Thru-hole	Q Silver		3 Red
ET05 SP Mom.-Off-Mom.		V3 V-bracket	S Silver, matte-tin		
ET07 SP On-Off-Mom.		AV2 Vertical Right angle, PC thru-hole	G Gold over silver		
ET08 SP On-None-Mom.		SA Right Angle Surface mount	R Gold over silver, matte-tin		
ET21 DP On-None-On		SA1 Right Angle Surface mount			
ET27 DP On-Off-Mom.					
ET28 DP On-None-Mom.					

Rocker

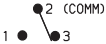
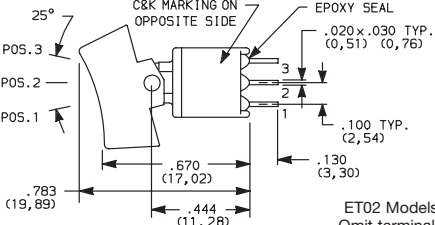
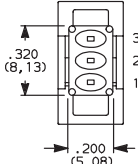
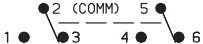
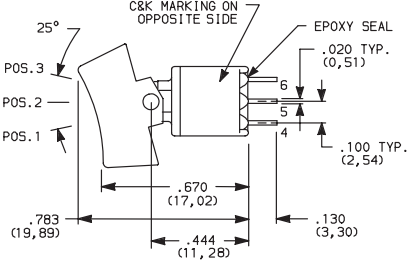
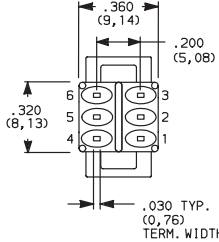


G



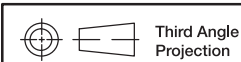
ET Series Sealed Subminiature Rocker Switches

SWITCH FUNCTION

NO. POLES	MODEL NO.	SWITCH FUNCTION			CONNECTED TERMINALS			SCHEMATIC
		POS. 1	POS. 2	POS. 3	POS. 1	POS. 2	POS. 3	
SP	ET01	ON	NONE	ON	2-3	N/A	2-1	
	ET03	ON	OFF	ON				
	ET05	MOM.	OFF	MOM.				
	ET07	ON	OFF	MOM.				
	ET08	ON	NONE	MOM.	N/A			
	ET02	OFF	NONE	ON	OPEN	N/A	3-1	
SPDT								
 25° POS. 3 POS. 2 POS. 1 .783 (19,89) .670 (17,02) .444 (11,28) C&K MARKING ON OPPOSITE SIDE EPOXY SEAL .020 x .030 TYP. (0,51) (0,76) .100 TYP. (2,54) .130 (3,30) ET02 Models: Omit terminal 2  Terminal Nos. For Reference Only								
DP	ET21	ON	NONE	ON	2-3,5-6	N/A	2-1,5-4	
	ET27	ON	OFF	MOM.		OPEN		
	ET28	ON	NONE	MOM.		N/A		
DPDT								
 25° POS. 3 POS. 2 POS. 1 .783 (19,89) .670 (17,02) .444 (11,28) C&K MARKING ON OPPOSITE SIDE EPOXY SEAL .020 TYP. (0,51) .100 TYP. (2,54) .130 (3,30)  Terminal Nos. For Reference Only								

MOM. = Momentary

All models with all options when ordered with G, S, R or Q contact material.



Dimensions are shown: Inches (mm)
Specifications and dimensions subject to change

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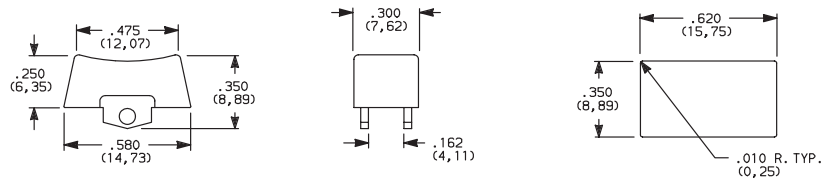
ET Series Sealed Subminiature Rocker Switches

ACTUATOR

ACTUATOR COLOR

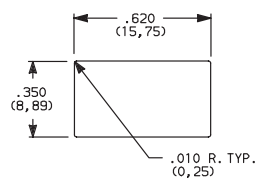
ACTUATOR

J1 **ROCKER**



Available with all models except ET0X with A & SA & SA1 terminations.

PANEL MOUNTING

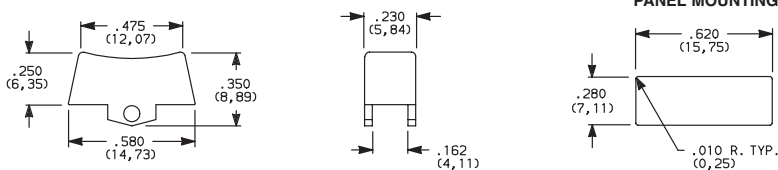


OPTION CODE	ACTUATOR COLOR
2	BLACK
1	WHITE
3	RED

Actuators available separately, see page G-45.
Finish: Matte. Other colors, custom actuator
markings and legends available, consult
Customer Service Center.

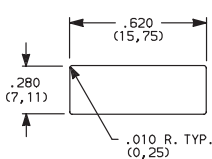
NOTE: Internal o-ring actuator seal standard.

J6 ROCKER



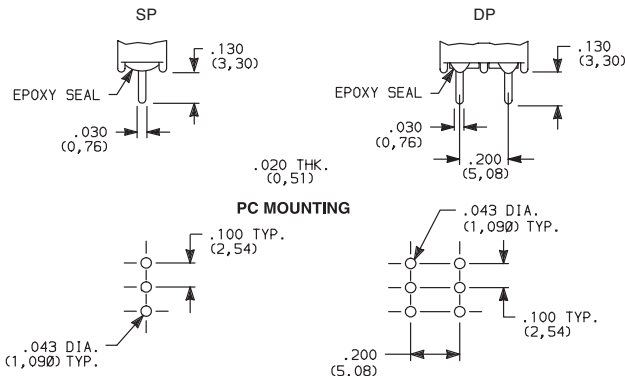
Standard with ET0X model with A & SA & SA1 terminations.

PANEL MOUNTING



TERMINATIONS

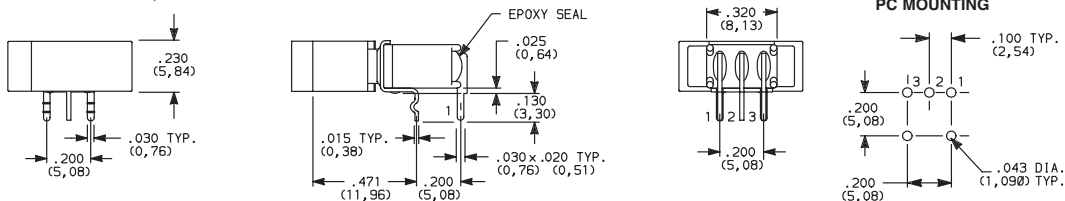
C PC THRU-HOLE



ET02 Models: Omit center hole.

SP & DP

A RIGHT ANGLE, PC THRU-HOLE



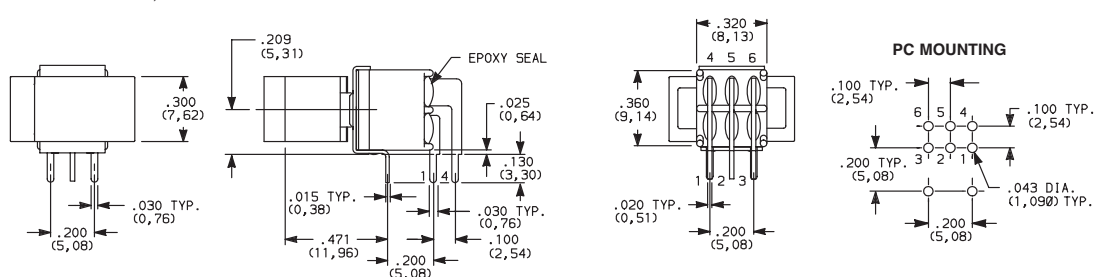
Actuator Shown In Pos. 1

Not available with ET02 model.
J6 actuator std. only on ET0X models with A terminations.



ET01J6ABE2
Horizontal Actuation
SPDT

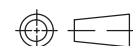
A RIGHT ANGLE, PC THRU-HOLE



Actuator Shown In Pos. 1



ET21J1ABE2
Horizontal Actuation
DPDT



Third Angle Projection

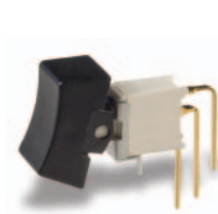
Dimensions are shown: Inches (mm)

Specifications and dimensions subject to change

ET Series Sealed Subminiature Rocker Switches

TERMINATIONS

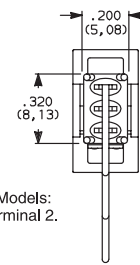
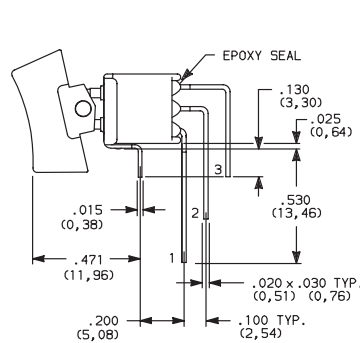
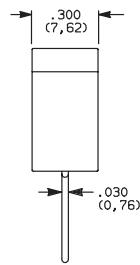
AV VERTICAL RIGHT ANGLE, PC THRU-HOLE



ET01J1AVBE2
Vertical Actuation
SPDT

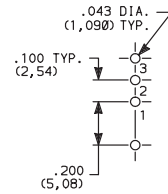
Actuator Shown In Pos. 1

NOTE: Terminal bend radii and lead-in manufacturing option.

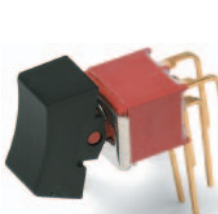


ET02 Models:
Omit terminal 2.

PC MOUNTING



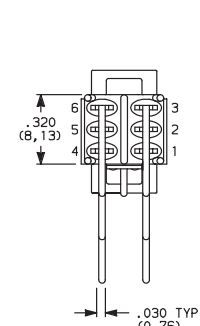
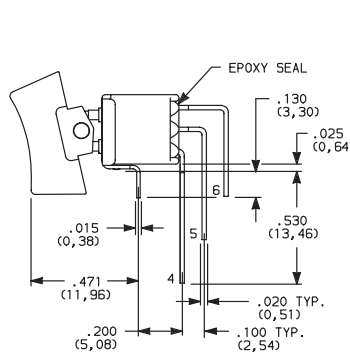
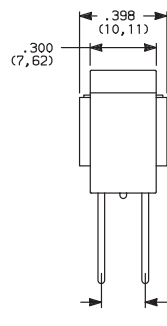
AV VERTICAL RIGHT ANGLE, PC THRU-HOLE



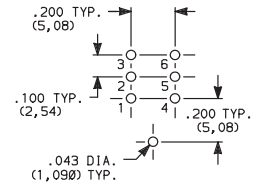
ET21J1AVBE2
Vertical Actuation
DPDT

Actuator Shown In Pos. 1

NOTE: Terminal bend radii and lead-in manufacturing option.



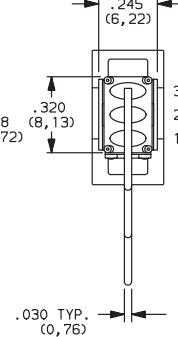
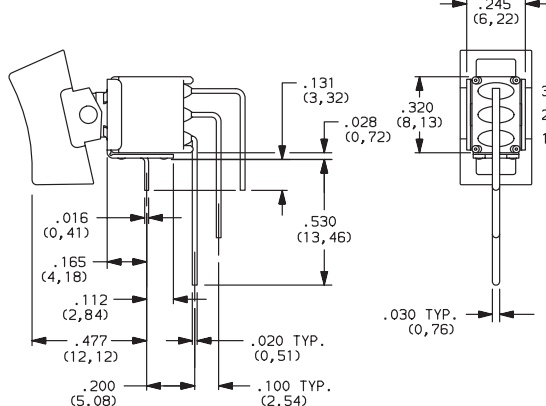
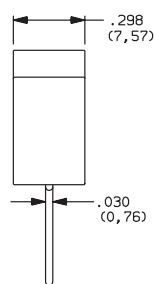
PC MOUNTING



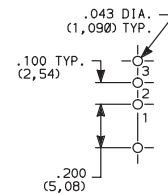
AV2 VERTICAL RIGHT ANGLE, PC THRU-HOLE



ET01J1AV2BE2
Vertical Actuation
SPDT



PC MOUNTING



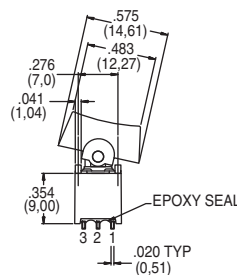
SA1 RIGHT ANGLE, SURFACE MOUNT



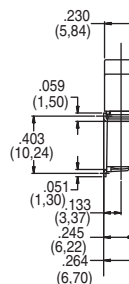
ET01J6SA1BE2
Horizontal Actuation
SPDT

NOTE: Standard with tape & reel packaging, see page G-45.

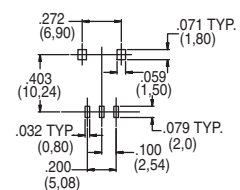
NOTE: Available in B contact materials only.
Available in J6 actuator black only.
Not available in ET02.



ACTUATOR SHOWN
POS. 1



PC MOUNTING



ET Series

Sealed Subminiature Rocker Switches

TERMINATIONS

SA

RIGHT ANGLE, SURFACE MOUNT

.232 (5,89)
 .075 (1,91)
 .289 (7,64)
 .025 (0,64)
 .030 (0,76)
 .105 TYP (2,67)
 .020 (0,51) TYP.
 .410 (10,41) MAX.
 .100 (2,54) TYP.
 EPOXY SEAL

PANEL MOUNTING

.040 (1,02)
 .070 (1,78)
 .143 TYP. (3,63)
 .128 TYP. (3,25)
 .080 TYP. (2,03)
 .357 (9,07)
 .090 (2,29)
 .040 (1,02)
 .080 TYP. (2,03)
 .150 TYP. (3,81)

ET01J6SAPE2
Horizontal Actuation
SPDT

NOTE: Standard with tape & reel packaging, see page G-45.
Available with P contact material only.

V3

VERTICAL MOUNT, V-BRACKET

.670 (17,02)
 C&K MARKING ON OPPOSITE SIDE
 EPOXY SEAL
 .015 TYP. (0,38)
 .100 TYP. (2,54)
 .020x.030 TYP. (0,51) (0,76)
 .400 (10,16)
 .300 (7,62)
 .366 (9,30)
 .130 (3,30)
 .030 TYP. (0,76)
 .200 (5,08)

PC MOUNTING

.043 DIA. (1,090) TYP.
 .100 TYP. (2,54)
 .400 (10,16)

ET01J1V3BE2
SPDT

Actuator shown in Pos. 1

V3

VERTICAL MOUNT, V-BRACKET

.670 (17,02)
 C&K MARKING ON OPPOSITE SIDE
 EPOXY SEAL
 .015 TYP. (0,38)
 .100 TYP. (2,54)
 .020x.030 TYP. (0,51) (0,76)
 .400 (10,16)
 .300 (7,62)
 .366 (9,30)
 .130 (3,30)
 .030 TYP. (0,76)
 .200 (5,08)
 .398 (10,11)

PC MOUNTING

.043 DIA. (1,090) TYP.
 .100 TYP. (2,54)
 .200 TYP. (5,08)
 .400 (10,16)

ET21J1V3BE2
DPDT

Actuator shown in Pos. 1

CONTACT MATERIAL

OPTION CODE	CONTACT MATERIAL	TERMINAL PLATING	RATINGS	
B	GOLD ¹	GOLD ¹	LOW LEVEL/ DRY CIRCUIT	0.4 VA MAX. @ 20 V AC OR DC MAX.
P		MATTE-TIN ⁶		
Q	SILVER ^{4,5}	SILVER ⁵	POWER	ETX1 MODELS: 3 AMPS @ 120 V AC OR 28 V DC. ALL OTHER MODELS: 2 AMPS @ 120 V AC OR 28 V DC.
S		MATTE-TIN ⁶		
G	GOLD OVER SILVER ^{2,3}	GOLD ³	LOW LEVEL/DRY CIRCUIT OR POWER	ETX1 MODELS: 0.4 VA MAX @ 20 V AC OR DC MAX. OR 3 AMPS @120 V AC OR 28 V DC. ALL OTHER MODELS: 0.4 VA MAX @ 20 V AC OR DC MAX. OR 2 AMPS @ 120 V AC OR 28 V DC.
R		MATTE-TIN ⁶		

* Note: See Technical Data section of this catalog for RoHS compliant and compatible definitions and specifications.

¹ CONTACTS & TERMINALS: Copper alloy, with gold plate over nickel plate.

² END CONTACTS: Coin silver, with gold plate over nickel plate.

³ CENTER CONTACTS & ALL TERMINALS: Copper alloy, with gold plate over nickel plate.

⁴ END CONTACTS: Coin silver, silver plated.

⁵ CENTER CONTACT & ALL TERMINALS: Copper alloy, silver plated.

⁶ TERMINALS: Copper alloy, with matte-tin over nickel plate.

NOTE: Any models supplied with Q, B, G, S, P & R contact material are RoHS compliant.

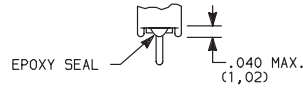
All models with all options when ordered with G, Q, S & R contact material.

ET Series Sealed Subminiature Rocker Switches

SEAL



E EPOXY SEAL



AVAILABLE HARDWARE

J1 Actuator



PART NO.

261A01000 WHITE
261A02263 BLACK
261A03000 RED

Material: Nylon
Finish: Matte

NOT AVAILABLE WITH A, SA, SA1

J6 Actuator



PART NO.

621C01000 WHITE
621C02263 BLACK
621C03000 RED

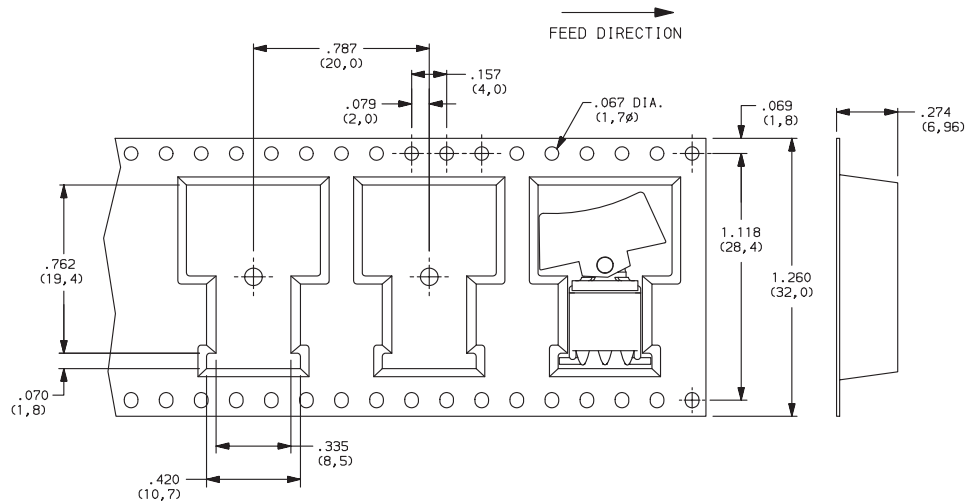
Material: Nylon
Finish: Matte
For Hi Temp, Consult Factory

NOTE: Other colors available,
consult Customer Service Center.

TAPE & REEL SA TERMINATION

ET01J6SABE (SHOWN)

REEL INFORMATION	
OUTSIDE DIAMETER	13.00 (330,0)
PILOT HOLE	.512 (13,0)
QUANTITY PER REEL	500



ET01J6SA1BE (SHOWN)

REEL INFORMATION	
OUTSIDE DIAMETER	13.00 (330,0)
PILOT HOLE	.795 (20,2)
QUANTITY PER REEL	450

