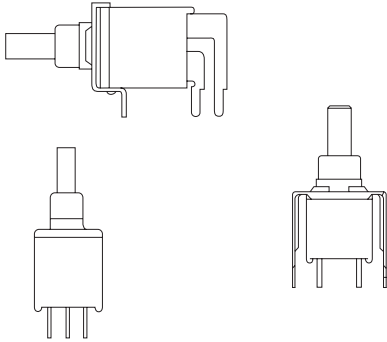


# ES40-P Sealed Sub-Miniature Push button Switches

## FEATURES:

1. Sealed construction - internal plunger o-ring and epoxy terminal seal standard
2. Carry the IP67 approvals



**IP67 approvals**

## SPECIFICATIONS

CONTACT RATING: R- 0.4 VA max @ 20 V AC or DC  
 ELECTRICAL LIFE: 30,000 make-and-break cycles at full load  
 CONTACT RESISTANCE: 20 mΩ max. initial @ 2-4 VDC, 100 mA  
 INSULATION RESISTANCE: 1,000 MΩ min.  
 DIELECTRIC STRENGTH: 1,500 V RMS @ sea level.  
 DEGREE OF PROTECTION : IP67  
 OPERATING TEMPERATURE: -30°C to +85°C

## MATERIALS

CASE and BUSHING - glass filled nylon 6/6, flame retardant heat stabilized (UL94V-0)  
 PLUNGER - Thermoplastic polyester or glass filled nylon (UL94V-0)  
 CONTACT AND TERMINAL - Copper alloy, tin-lead plated  
 SWITCH SUPPORT - Copper alloy, tin plated  
 TERMINAL SEAL - Epoxy

**How do you build the switches you need!!**

The ES-21 / ES-22 (straight terminal type), please see the (A);

The ES-21A/ES-21B/ES-22A/ES-22B, (Right angle type) please see the (B)

(A) E S - 2 1 - C V   - 1 -     C R - A 5 S -  

Switches Function		Cap		Cap color		Plunger		Terminal		Vertical support Bracket	
ES-21	SPST off-mom.	CV	5.08	1	white	(none)	std.	C	(std) P.C	(none)	
ES-22	SPDT on-mom.	CV1	7.62	2	black	FP	flush type			A5S	std. snap-in type
				3	red					A5	straight type
				4	orange					<b>RoHS code</b> <input type="checkbox"/> = none H = RoHS Compliant	
				5	yellow						
				6	green						
				7	blue						
				8	brown						
				9	gray						

(B) E S - 2 1 A - C V   - 2 -     R - S -  

Horizon Right Angle	Vertical Right Angle	Switches Function	Cap		Cap color		Plunger		Support Bracket Option	
ES-21A	ES-21B <input type="checkbox"/>	SPST off-mom.	CV	5.08 <input type="checkbox"/>	1	white	(none)	std.	S	(std.) snap-in type
ES-22A	ES-22B	SPDT on-mom.	CV1	7.62	2	black	FP	flush type		
					3	red				
					4	orange				
					5	yellow				
					6	green				
					7	blue				
					8	brown				
					9	gray				

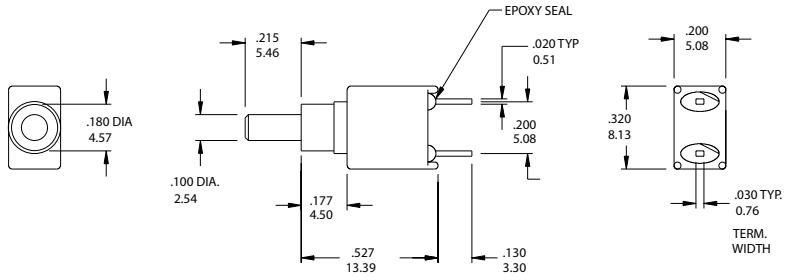
# ES40-P Sealed Sub-Miniature Push button Switches

## SPST



Model No.	Switching position	
ES-21	Off	Mom
Term. Comm.	open	1-2

SCHMATIC



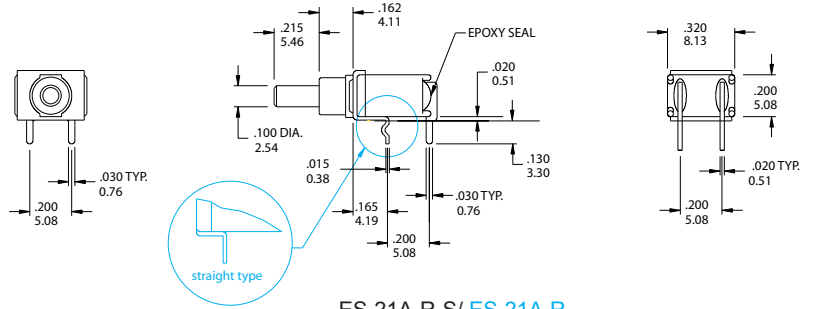
ES-21-CR

## SPST



Model No.	Switching position	
ES-21A	Off	Mom
Term. Comm.	open	1-2

SCHMATIC



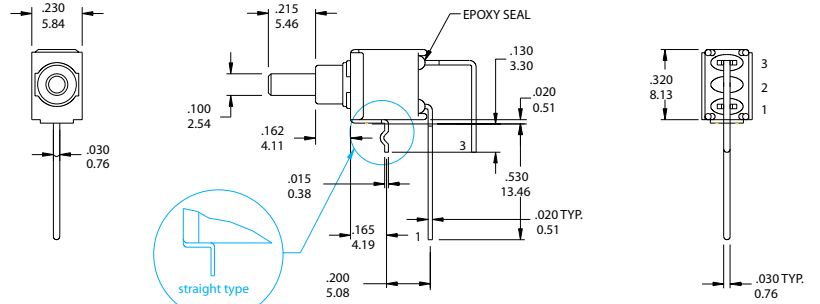
ES-21A-R-S/ ES-21A-R

## SPST



Model No.	Switching position	
ES-21B	Off	Mom
Term. Comm.	open	1-2

SCHMATIC



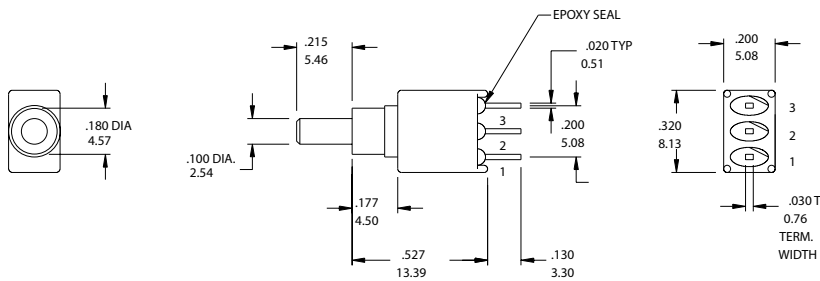
ES-21B-R-S/ ES-21B-R

## SPDT



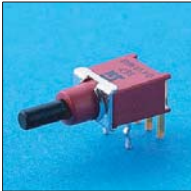
Model No.	Switching position	
ES-22	On	Mom
Term. Comm.	2-1	2-3

SCHMATIC



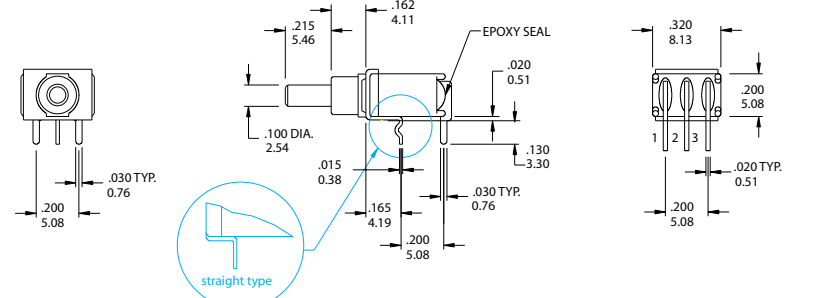
ES-22-CR

## SPDT



Model No.	Switching position	
ES-22A	On	Mom
Term. Comm.	2-1	2-3

SCHMATIC



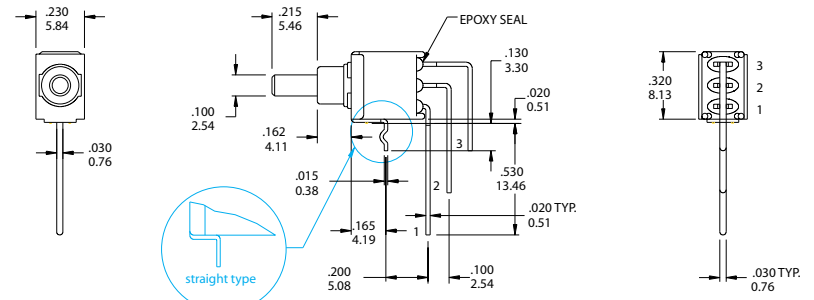
ES-22A-R-S/ ES-22A-R

## SPDT



Model No.	Switching position	
ES-22B	On	Mom
Term. Comm.	2-1	2-3

SCHMATIC



ES-22B-R-S/ ES-22A-R

INDEX

TOGGLE

ROCKER

SLIDE

PUSHBUTTON

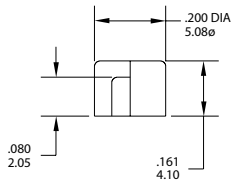
DIP

TACT

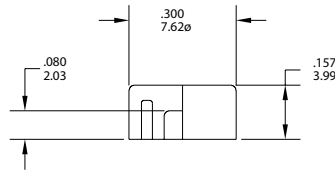
# ES40-P Sealed Sub-Miniature Push button Switches

## Cap Option

CV



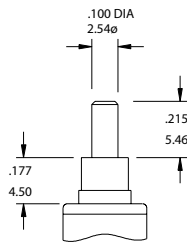
CV1



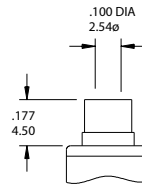
## Cap color Option

CAP & ACTUATOR OPTIONS	
1	White
2	Black(Std.)
3	Red
4	Orange
5	Yellow
6	Green
7	Blue
8	Brown
9	Gray

## The Plunger Option



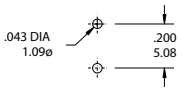
(none) std.



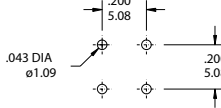
FP flush type

## The P.C.B MOUNTING

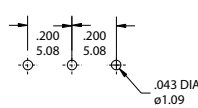
ES-21



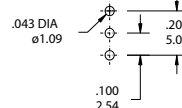
ES-21A



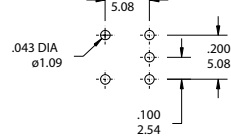
ES-21B



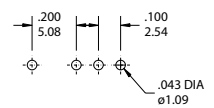
ES-22



ES-22A



ES-22B



## CONTACT MATERIAL OPTIONS

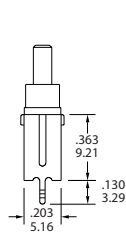
CODE	CONTACT MATERIAL	TERMINAL MATERIAL	RATING
Q	Silver plated	Silver plated	1 A @ 120V AC or 28 V DC;
R	Gold plated over nickel plated	Gold plated over nickel plated	0.4VA MAX @ 20 V AC or DC MAX
G	Gold plated over silver plated	Gold plated over silver plated	0.4 VA MAX @ 20 V AC or DC MAX or 1 A @ 120V AC or 28 V DC;
K	Gold plated over nickel plated	Tin over nickel plated	0.4VA MAX @ 20 V AC or DC MAX

\* THE K option is only for some special item. Please inquire first when you need the "K" option

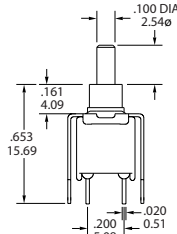
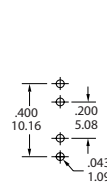
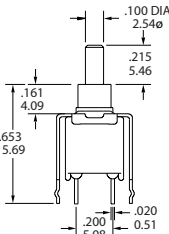
## VERTICAL SUPPORT BRACKET OPTION

only for the ES-21/ES-22 .

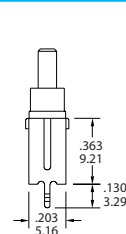
A5S



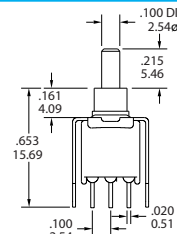
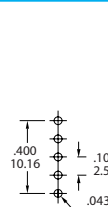
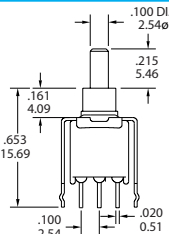
ES-21-CR-A5S (std.) snap-in type



A5 straight type



ES-22-CR-A5S (std.) snap-in type



A5 straight type