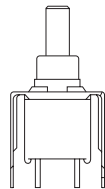
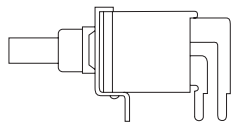


**FEATURES:**

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 m $\Omega$  max. initial @ 2-4 VDC, 100 mA  
 INSULATION RESISTANCE: 1,000 M $\Omega$  min.  
 DIELECTRIC STRENGTH: 1,500 V RMS @ sea level.  
 DEGREE OF PROTECTION : IP67  
 OPERATING TEMPERATURE: -30 $^{\circ}$  C to 85 $^{\circ}$  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 - Brass, tin-lead  
 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					
				5 yellow					
				6 green					
				7 blue					
				8 brown					
				9 gray					
					Contact Material				
					Q	silver plated			
					R	gold plated			
					G	gold over silver			
					K	gold / tin-lead			

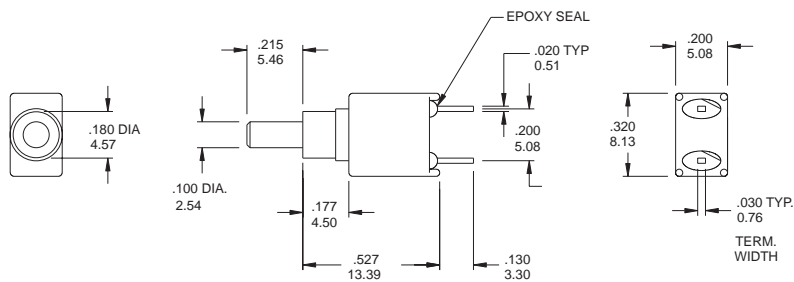
(B) **E S - 2 1 A - C V - 2 - R - S**

Horizon Right Angle	Vertical Right Angle	Switches Function	Cap		Cap color	Plunger		Support Bracket Option	
ES-21A	ES-21B	SPST off-mom.	CV	5.08	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				
					Contact Material				
					Q	silver plated			
					R	gold plated			
					G	gold over silver			
					K	gold / tin-lead			

**SPST**

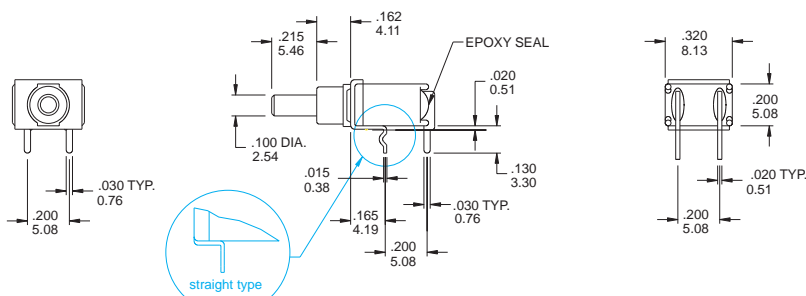

Model No.	Switching position	
ES-21	off	Mom
Term. Comm.	open	1-2

SCHEMATIC


**ES-21- CR**
**SPST**

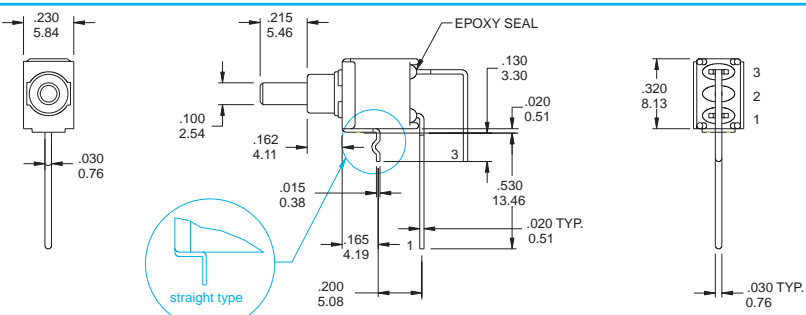

Model No.	Switching position	
ES-21A	off	Mom
Term. Comm.	open	1-2

SCHEMATIC


**ES-21A-R-S/ ES-21A-R**
**SPST**

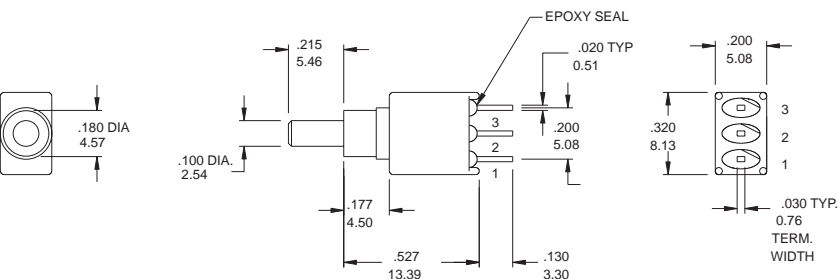
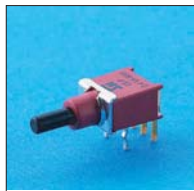

Model No.	Switching position	
ES-21B	off	Mom
Term. Comm.	open	1-2

SCHEMATIC


**ES-21B-R-S/ ES-21B-R**
**SPDT**

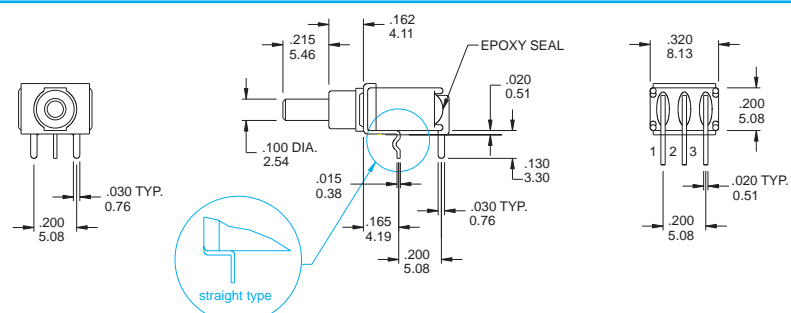
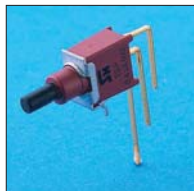

Model No.	Switching position	
ES-22	On	Mom
Term. Comm.	2-1	2-3

SCHEMATIC


**ES-22-CR**
**SPDT**


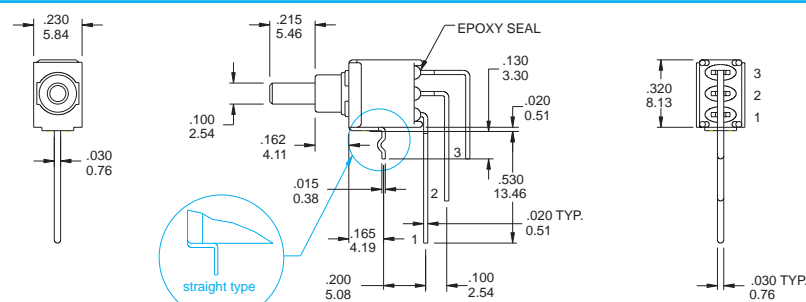
Model No.	Switching position	
ES-22A	On	Mom
Term. Comm.	2-1	2-3

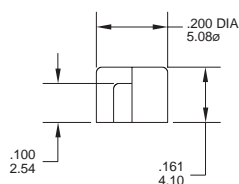
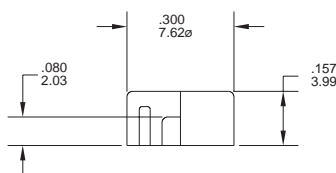
SCHEMATIC


**ES-22A-R-S/ ES-22A-R**
**SPDT**


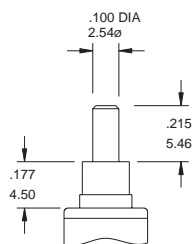
Model No.	Switching position	
ES-22B	On	Mom
Term. Comm.	2-1	2-3

SCHEMATIC

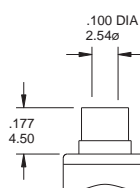

**ES-22B-R-S/ ES-22B-R**

**Cap and Actuator Option**
**CV**

**CV1**

**Cap color Option**

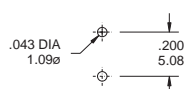
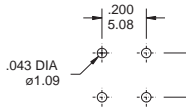
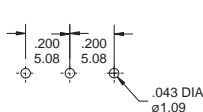
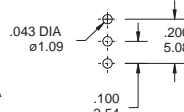
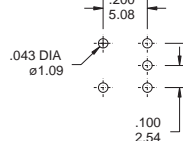
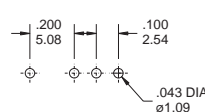
CAP & ACTUATOR OPTIONS	
1	White
2	Black(Std.)
3	Red
4	Orange
5	Yellow
6	Green
7	Blue
8	Brown
9	Gray

**The Plunger Option**


(none) std.



FP flush type

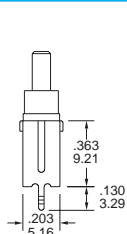
**The P.C.B MOUNTING**
**ES-21**

**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-lead over nickel plated	0.4VA MAX @ 20 V AC or DC MAX

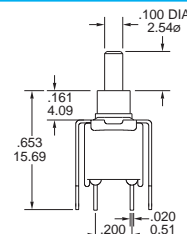
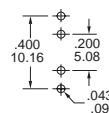
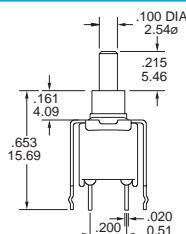
\* THE K option is only for some special item. Please inquiry first when you need the "K" option

**VERTICAL SUPPORT BRACKET OPTION**

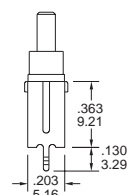
only for the ES-21/ES-22 .

**A5S**


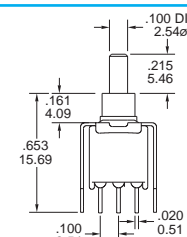
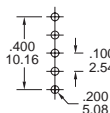
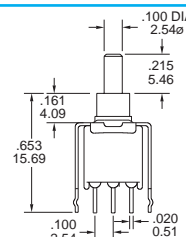
ES-21-CR-A5S (std.) snap-in type



A5 straight type



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



A5 straight type

- FEATURES:**
  - Sealed construction** - internal actuator o-ring and epoxy terminal seal standard
  - Carry the IP67 approvals**
  - Surface mounting (SMT)**
  - Tape and Reel package**

**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 m? max. initial @2-4 VDC,100 mA

INSULATION RESISTANCE: 1,000 M? 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 4/6,flame retardant heat stabilized (UL94V-0 )

PLUNGER - Thermoplastic polyester or glass filled nylon (UL94V-0)

CONTACT AND TERMINAL - Capper alloy , silver plated

SWITCH SUPPORT - Brass , tin-lead

TERMINAL SEAL - Epoxy



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

(A)
 

E

S

 -
 

2

0

 -
 

C

V

 -
 

1

 -
 

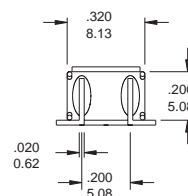
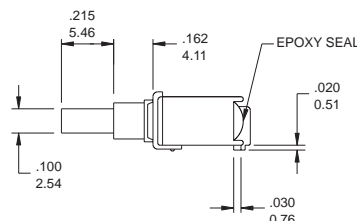
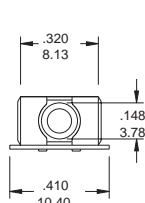
R

Switches Function			Cap		Cap color		Plunger		Contact Material	
ES-20	SPST	off-mom. Sideward terminal	CV	5.08	1	white	(none)	std.	Q	silver plated
ES-20A	SPDT	on-mom. Sideward terminal	CV1	7.62	2	black	FP	flush type	R	gold plated
ES-26	SPST	off-mom. Backward terminal			3	red			G	gold over silver
ES-26A	SPDT	on-mom. Backward terminal			4	orange			K	gold / tin-lead
ES-27	SPST	off-mom. Backward terminal			5	yellow				
ES-27A	SPDT	on-mom. Backward terminal			6	green				
					7	blue				
					8	brown				
					9	gray				

\* the Contact K only apply to the ES-26/ES-26A/ES-27/ES-27A

**SPST**

Model No.	Switching position	
ES-20	off	Mom
Term. Comm.	open	2-1



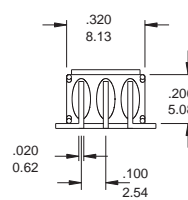
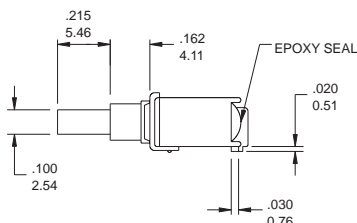
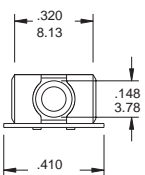
SCHEMATIC



ES-20- R

**SPDT**

Model No.	Switching position	
ES-20A	on	Mom
Term. Comm.	2-1	2-3



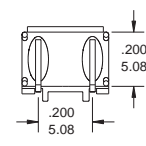
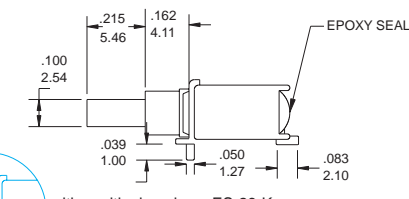
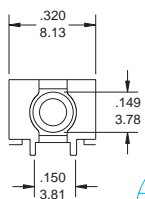
SCHEMATIC



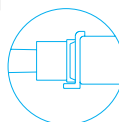
ES-20A- R

**SPST**

Model No.	Switching position	
ES-26	off	Mom
ES-27	off	Mom
Term. Comm.	open	2-1



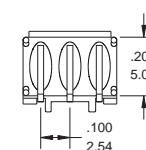
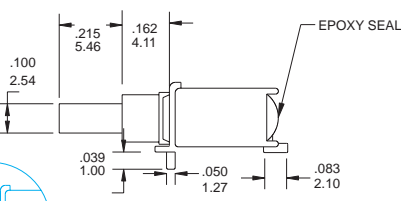
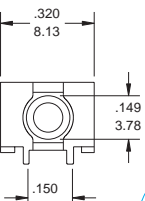
SCHEMATIC


 with positioning pings: ES-26-K  
without positioning pings: ES-27-K

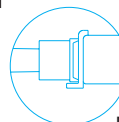
ES-26K / ES-27K

**SPDT**

Model No.	Switching position	
ES-26A	on	Mom
ES-27A	on	Mom
Term. Comm.	2-1	2-3

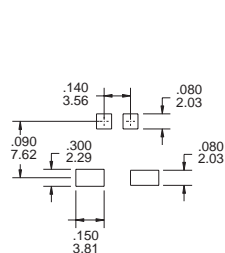


SCHEMATIC

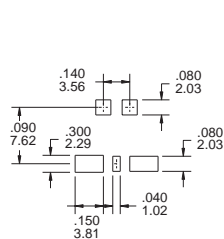

 with positioning pings: ES-26A-K  
without positioning pings: ES-27A-K

ES-26A- K / ES-27A-K

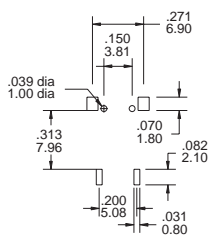
Cap and Actuator Option / Cap color Option / Plunger Option please see the page D15

**THE P.C.B MOUNTING**


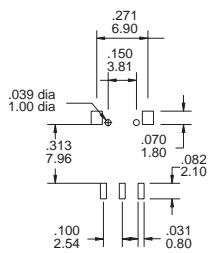
ES-20



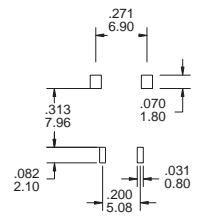
ES-20A



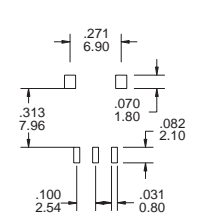
ES-26



ES-26A



ES-27



ES-27A

**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-lead over nickel plated	0.4VA MAX @ 20 V AC or DC MAX

\* THE K option is only for ES-26/ES-26A/ES-27/ES-27A