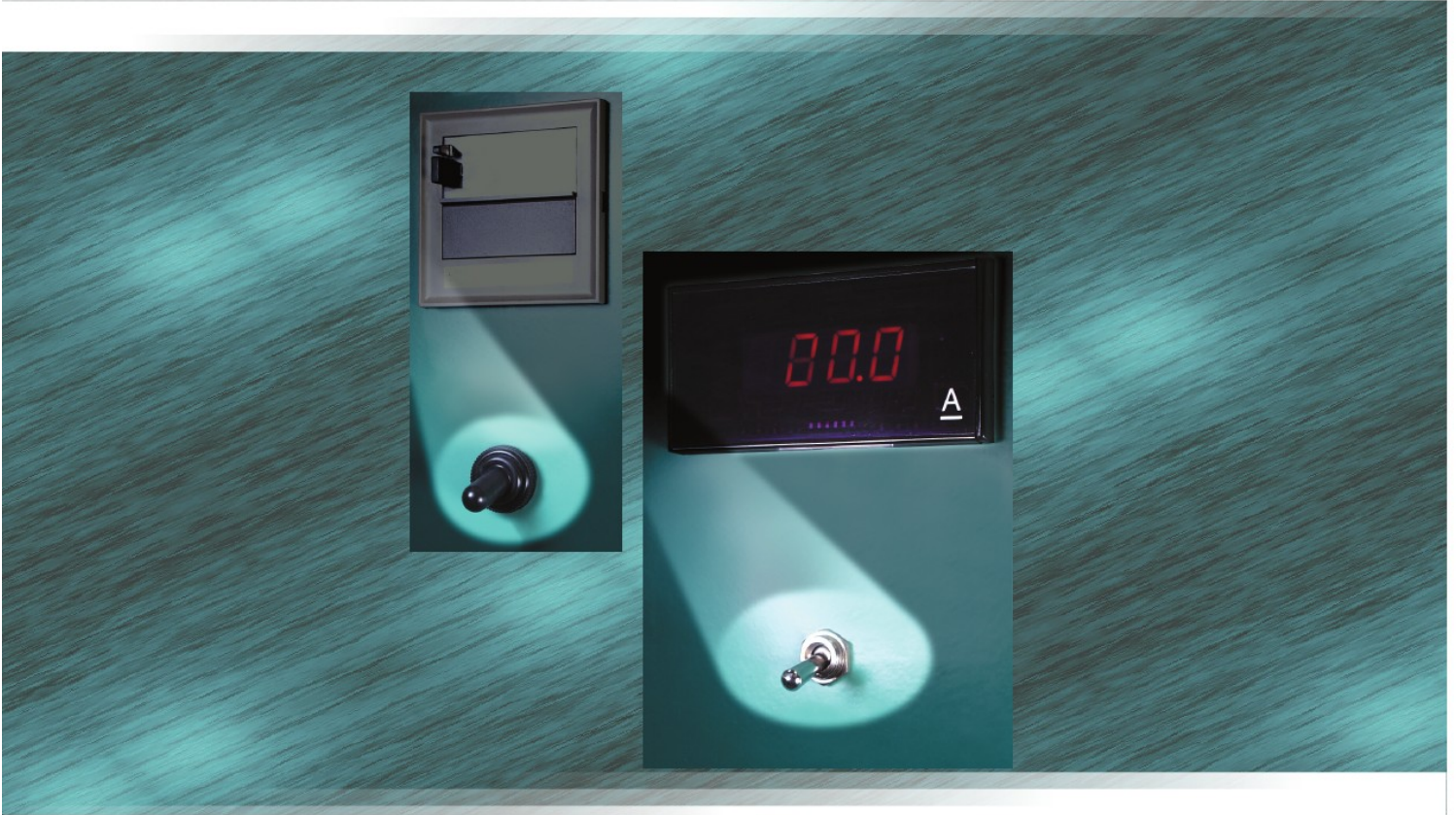
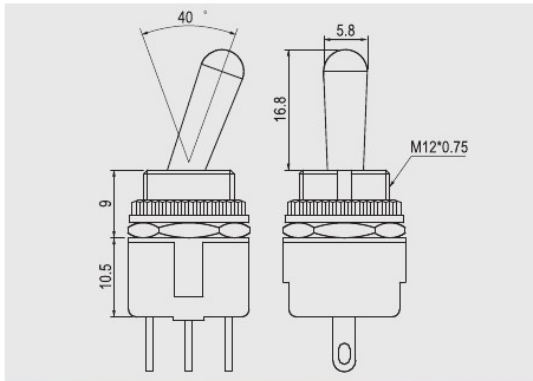


# R13 TOGGLE SWITCH

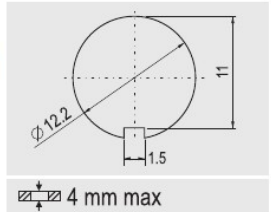
Switches



## R13-37



Rating	6A 125V AC 3A 250V AC
Contact resistance	50mΩ Max
Insulation resistance	DC 500V 100MΩ Min
Dielectric strength	AC 1000V 1 minute
Cut-out	

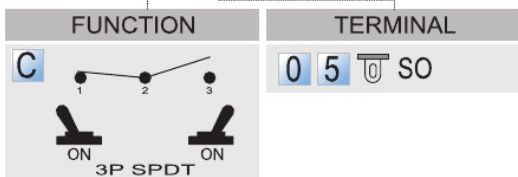


### FEATURES

- \* MATERIAL: Base is phenolic. Metal lever and bushing are nickel plated metal. Frame is metal plated steel.
- \* Indicator plate and watertight boot are optional.
- \* Application: Ceiling fan.

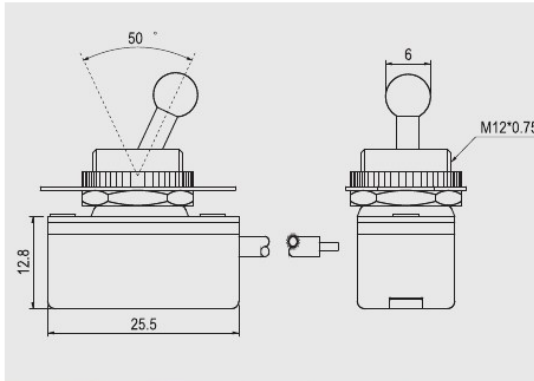


R13-37  -

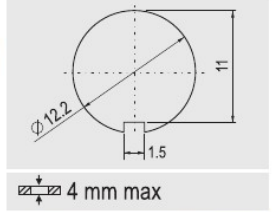


THE DRAWING IS FOR REFERENCE ONLY.

# R13-36



Rating
6A 125V AC 3A 250V AC
Contact resistance
50mΩ Max
Insulation resistance
DC 500V 100MΩ Min
Dielectric strength
AC 1000V 1 minute
Cut-out



## FEATURES

- \* MATERIAL: Metal lever and bushing are nickel plated metal. Frame is metal plated steel. Base is phenolic.
- \* Indicator plate and watertight boot (W-70A) only for lever #3 are optional.

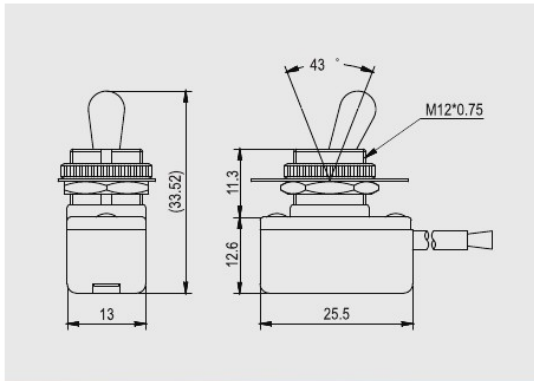


R13-36

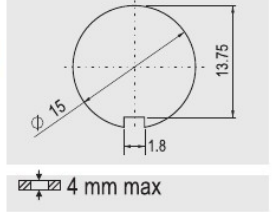
FUNCTION	LEVER & MOUNTING SHAFT	TERMINAL
<b>A</b>  2P SPST	<b>1</b>  4.3 mm max  <b>2</b>  2 mm max	<b>0 5</b> SO <b>0 8</b> SC 6-32UNC <b>1 1</b> WIRE
	<b>3</b>  10.0 mm max	



# R13-424



Rating
6A 125V AC 3A 250V AC
Contact resistance
50mΩ Max
Insulation resistance
DC 500V 100MΩ Min
Dielectric strength
AC 1000V 1 minute
Cut-out



## FEATURES

- \* MATERIAL: Metal lever is nickel plated metal. Bushing is nylon (UL flame: 94V-2). Base is phenolic.
- \* Indicator plate is optional.
- \* Watertight boot (W-70B) is optional only for lever #1.

R13-424

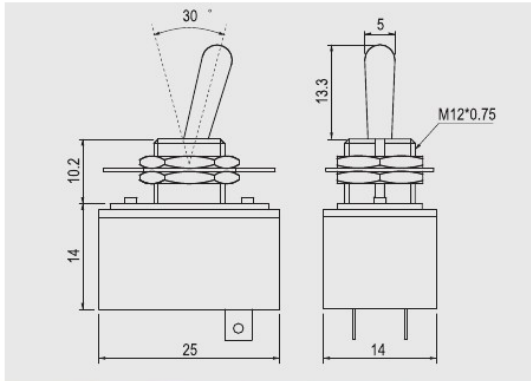
FUNCTION	LEVER	TERMINAL
<b>A</b>  2P SPST	<b>1</b>  10.0 mm max  <b>2</b>  10.0 mm max	<b>0 5</b> SO <b>0 8</b> SC 6-32UNC <b>1 1</b> WIRE



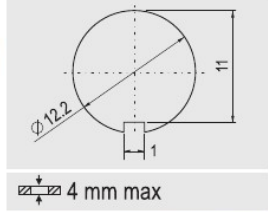
THE SPECIFICATIONS & APPROVALS SUBJECT TO CHANGE WITHOUT NOTICE.



# R13-2.4



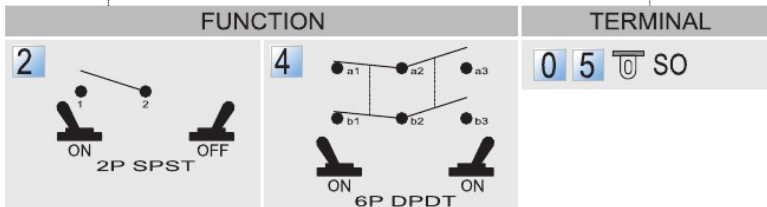
<b>Rating</b>
3A 125V AC 1.5A 250V AC
<b>Contact resistance</b>
50mΩ Max
<b>Insulation resistance</b>
DC 500V 100MΩ Min
<b>Dielectric strength</b>
AC 1000V 1 minute
<b>Cut-out</b>



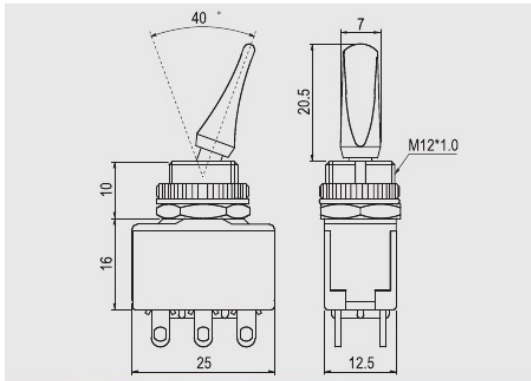
## FEATURES

- \* MATERIAL: Metal lever and bushing are nickel plated metal. Frame is nickel plated steel. Base is phenolic.
- \* Standard toggle lever.
- \* Indicator plate and watertight boot (W-70B) are optional.

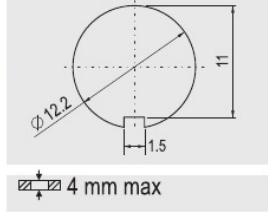
# R13- [ ] - [ ]



# R13-406



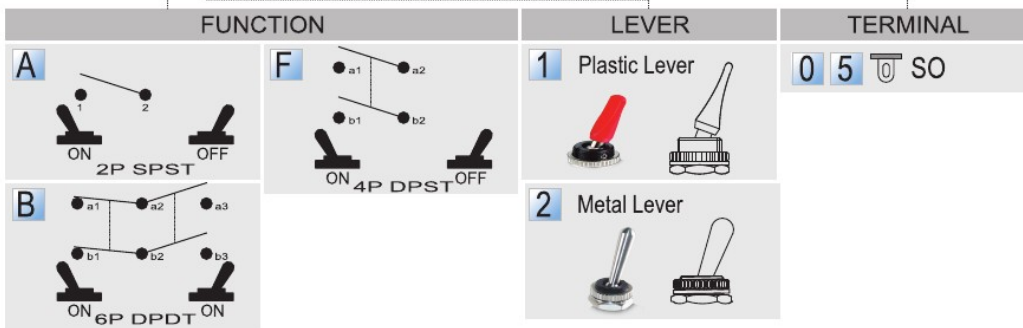
<b>Rating</b>
6A 125V AC 3A 250V AC
<b>Contact resistance</b>
50mΩ Max
<b>Insulation resistance</b>
DC 500V 100MΩ Min
<b>Dielectric strength</b>
AC 1500V 1 minute
<b>Cut-out</b>



## FEATURES

- \* MATERIAL: Plastic lever is ABS (UL flame: 94V-2). Bushing and frames are nylon (UL flame: 94V-2). Base is phenolic.
- \* Watertight boot (W-70A) is optional only for lever #2.

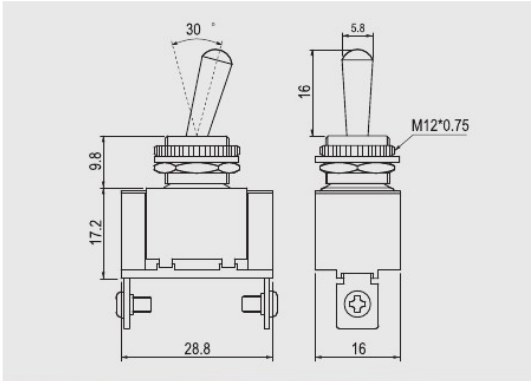
# R13-406 [ ] - [ ]



THE DRAWING IS FOR REFERENCE ONLY.

# R13-5.6.7

## Metal Housing



<b>Rating</b>
10A 125V AC 6A 250V AC
<b>Contact resistance</b>
50mΩ Max
<b>Insulation resistance</b>
DC 500V 100MΩ Min
<b>Dielectric strength</b>
AC 1500V 1 minute
<b>Cut-out</b>
4 mm max

### FEATURES

- \* MATERIAL: Metal lever and bushing are nickel plated metal. Frame is nickel plated steel. Base is phenolic.
- \* Indicator plate, watertight boot (W-70B) and safety cover are optional.

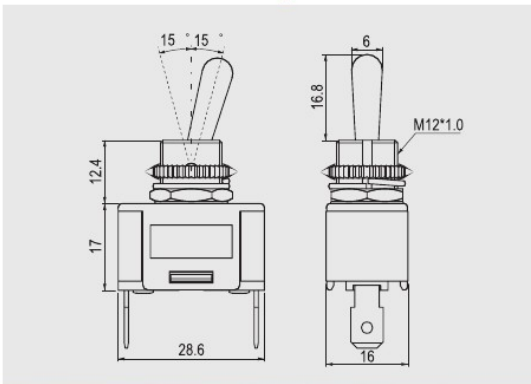


R13- -

FUNCTION			TERMINAL	
<b>5</b>	2P SPST		<b>0 1</b> .250" SQ	<b>0 6</b> SC 3
<b>6</b>	3P SPDT		<b>0 5</b> SO	<b>0 7</b> SC 4
<b>7</b>	3P SPDT			

# R13-416

## Plastic Housing



<b>Rating</b>
10A 125V AC 6A 250V AC
<b>Contact resistance</b>
50mΩ Max
<b>Insulation resistance</b>
DC 500V 100MΩ Min
<b>Dielectric strength</b>
AC 1500V 1 minute
<b>Cut-out</b>
5 mm max

### FEATURES

- \* MATERIAL: Metal toggle is nickel plated brass. Frame and bushing are nylon (UL flame: 94V-2). Terminals are nickel plated brass. Base is phenolic.
- \* Indicator plate and watertight boot only for lever #1 are optional.



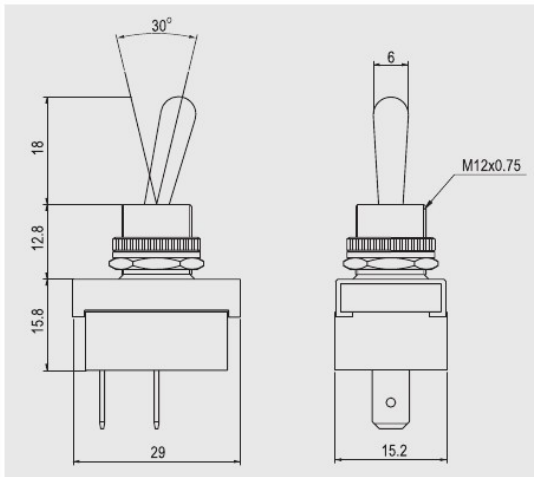
R13-416 -

FUNCTION		LEVER		TERMINAL	
<b>A</b>	2P SPST	<b>1</b> Metal Lever	<b>6</b> Plastic Lever	<b>0 1</b> .250" SQ	
<b>C</b>	3P SPDT	<b>2</b> Plastic Lever	<b>7</b> Plastic Lever	<b>0 5</b> SO	
<b>D</b>	3P SPDT			<b>0 6</b> SC 3	
				<b>0 7</b> SC 4	



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# R13-25



<b>Rating</b>
10A 125V AC 6A 250V AC
<b>Contact resistance</b>
50mΩ Max
<b>Insulation resistance</b>
DC 500V 100MΩ Min
<b>Dielectric strength</b>
AC 1500V 1 minute
<b>Cut-out</b>

## FEATURES

- \* MATERIAL: Metal lever and bushing are nickel plated metal. Frame is metal plated steel. Terminals are silver plated brass. Plastic lever is ABS (UL flame: 94V-2). Base is phenolic.
- \* Indicator plate and watertight boot only for lever #2 are optional.



## R13-25

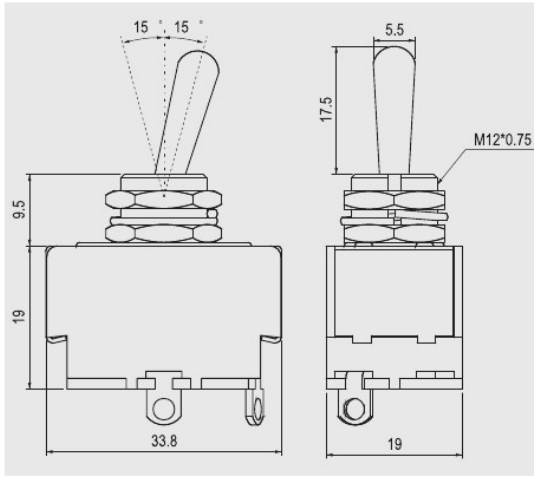
FUNCTION		LEVER	TERMINAL
<b>A</b>		<b>1 Plastic Lever</b> 	<b>0 1</b> .250" SQ <i>For A,C only</i>
<b>E</b>			<b>0 5</b> SO
<b>B</b>		<b>2 Metal Lever</b> 	
<b>C</b>			
<b>D</b>			



THE DRAWING IS FOR REFERENCE ONLY.



# R13-28



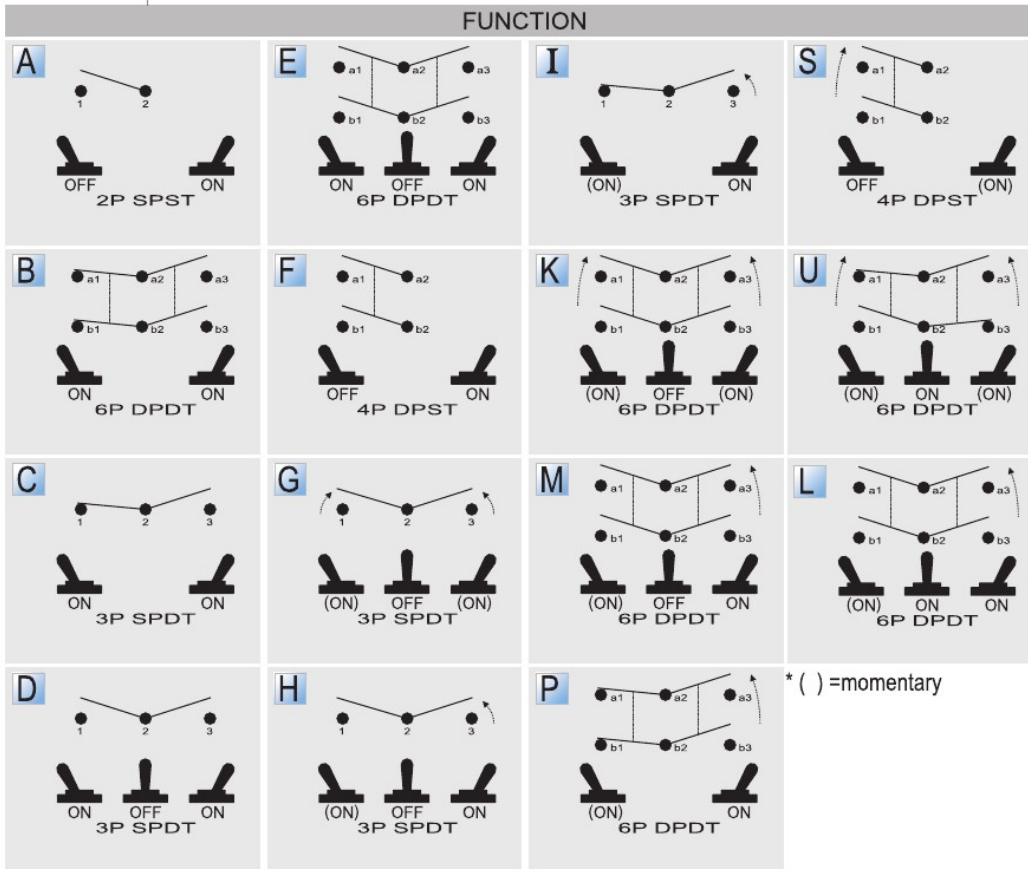
<b>Rating</b>
15A 125V AC 10A 250V AC
<b>Contact resistance</b>
50mΩ Max
<b>Insulation resistance</b>
DC 500V 100MΩ Min
<b>Dielectric strength</b>
AC 1500V 1 minute
<b>Cut-out</b>

## FEATURES

- \* MATERIAL: Metal lever and bushing are nickel plated metal. Frame is metal plated steel. Terminals are nickel plated brass. Base is phenolic.
- \* Standard toggle lever.
- \* Indicator plate, watertight boot, safety cover and connector are optional.

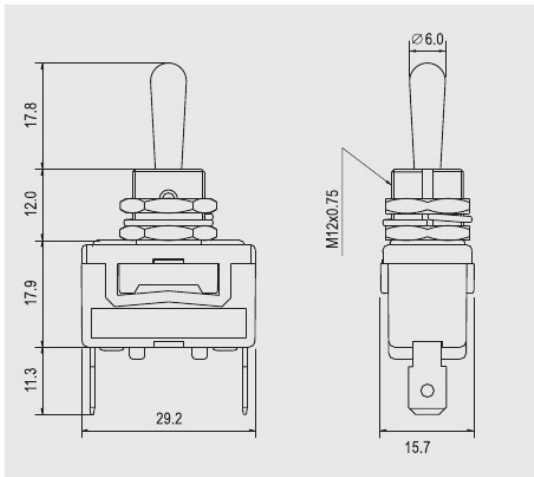


## R13-28



TERMINAL	
0 1	.250" SQ
0 5	SO
0 6	SC 3
0 7	SC 4

# R13-29



<b>Rating</b>
15A 125V AC 1/8HP 10A 250V AC 1/3HP
<b>Contact resistance</b>
50mΩ Max
<b>Insulation resistance</b>
DC 500V 100MΩ Min
<b>Dielectric strength</b>
AC 1500V 1 minute
<b>Cut-out</b>

## FEATURES

- \* MATERIAL: Metal lever and bushing are nickel plated metal. Frame is metal plated steel. Base is phenolic.
- \* Standard toggle lever.
- \* Indicator plate and watertight boot are optional.

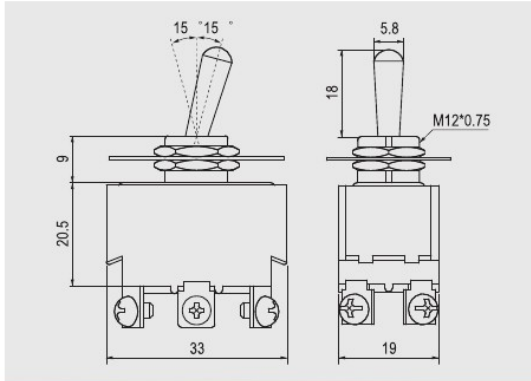


## R13-29 -

FUNCTION			TERMINAL
<b>A</b>  OFF 2P SPST ON	<b>E</b>  ON OFF ON 6P DPDT	<b>K</b>  (ON) OFF (ON) 6P DPDT	<b>0 1</b> .250" SQ
<b>B</b>  ON 6P DPDT ON	<b>F</b>  OFF 4P DPST ON	<b>M</b>  (ON) OFF ON 6P DPDT	<b>0 5</b> SO
<b>C</b>  ON 3P SPDT ON	<b>G</b>  (ON) OFF (ON) 3P SPDT	* ( ) = momentary	
<b>D</b>  ON 3P SPDT OFF ON	<b>H</b>  (ON) 3P SPDT OFF ON		
<b>0 6</b> SC 3	<b>0 7</b> SC 4		

# R13-8

## Metal Lever



<b>Rating</b>
10A 125V AC 6A 250V AC
<b>Contact resistance</b>
50mΩ Max
<b>Insulation resistance</b>
DC 500V 100MΩ Min
<b>Dielectric strength</b>
AC 1500V 1 minute
<b>Cut-out</b>
 4 mm max

### FEATURES

- \* MATERIAL: Metal lever and bushing are nickel plated metal. Frame is metal plated steel. Terminals are nickel plated brass. Base is phenolic.
- \* Standard toggle lever.
- \* Indicator plate, watertight boot, safety cover and connector are optional.



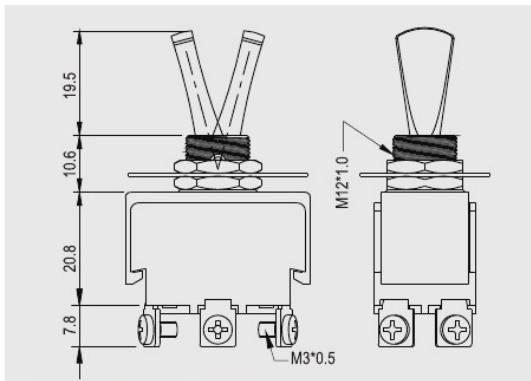
R13-8 -

FUNCTION		TERMINAL	
<b>B</b>		<b>0 1</b> .250" SQ	<b>0 6</b> SC 3
<b>E</b>		<b>0 5</b> SO	<b>0 7</b> SC 4

\* ( ) =momentary

# R13-450

## Plastic Lever



<b>Rating</b>
10A 125V AC 6A 250V AC
<b>Contact resistance</b>
50mΩ Max
<b>Insulation resistance</b>
DC 500V 100MΩ Min
<b>Dielectric strength</b>
AC 1500V 1 minute
<b>Cut-out</b>
 4 mm max

### FEATURES

- \* MATERIAL: Paddle, bushing and frame are nylon ( UL flame: 94V-2). Base is phenolic.
- \* Indicator plate is optional.

R13-450 -

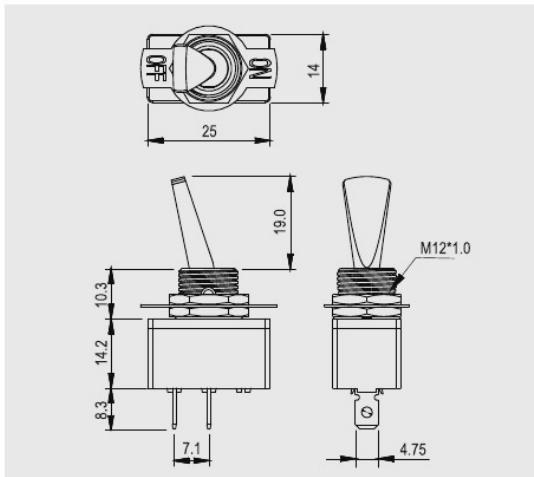
FUNCTION		TERMINAL	
<b>B</b>		<b>0 1</b> .250" SQ	<b>0 6</b> SC 3
<b>E</b>		<b>0 5</b> SO	<b>0 7</b> SC 4
		<b>0 8</b> SC 6-32UNC	

\* ( ) =momentary

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# R13-449

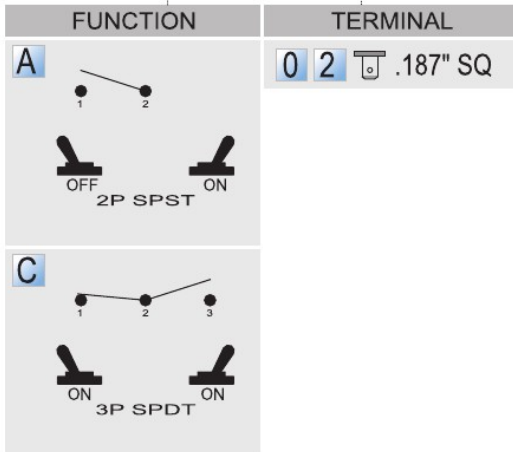


<b>Rating</b>
15A 125V AC 10A 250V AC
<b>Contact resistance</b>
50mΩ Max
<b>Insulation resistance</b>
DC 500V 100MΩ Min
<b>Dielectric strength</b>
AC 1000V 1 minute
<b>Cut-out</b>
$\varnothing 12.0$ 11.0 1.0
5 mm max

## FEATURES

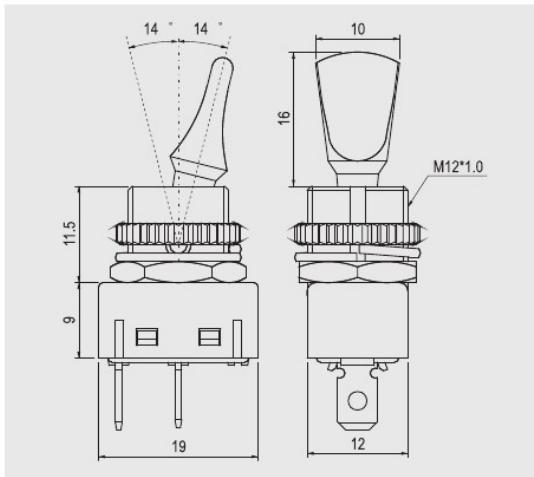
- \* MATERIAL: Paddle, frame and bushing are nylon (UL flame: 94V-2). Terminals are copper alloy. Base is PBT (UL flame: 94V-0).
- \* Indicator plate is optional.

## R13-449 -



THE DRAWING IS FOR REFERENCE ONLY.

# R13-412



<b>Rating</b>
8A 125V AC 1/3HP 8A 250V AC 1/2HP
<b>Contact resistance</b>
50mΩ Max
<b>Insulation resistance</b>
DC 500V 100MΩ Min
<b>Dielectric strength</b>
AC 1500V 1 minute
<b>Cut-out</b>

## FEATURES

- \* MATERIAL: Paddle, frame and bushing are nylon (UL flame: 94V-2). Terminals are silver plated brass. Base is PBT (UL flame: 94V-0)..
- \* Watertight boot (W-70A) is optional for lever #2 only.

## R13-412 -

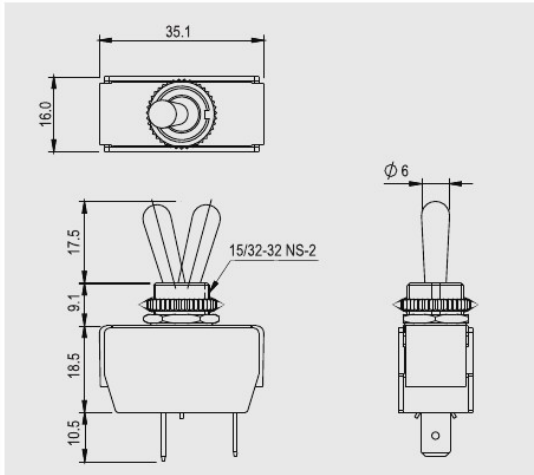
FUNCTION	LEVER	TERMINAL
<b>A</b>  2P SPST	<b>1</b> Plastic Lever 	<b>0 2</b> .187" SQ
<b>C</b>  3P SPDT	<b>2</b> Metal Lever 	
<b>D</b>  3P SPDT		
<b>F</b>  2P SPST		

\* ( ) =momentary



THE SPECIFICATIONS & APPROVALS SUBJECT TO CHANGE WITHOUT NOTICE.

# R13-447



<b>Rating</b>
16(4)A 250V AC (A,N,R)
12(4)A 250V AC (C,D,G,H,I)
<b>Contact resistance</b>
50mΩ Max
<b>Insulation resistance</b>
DC 500V 100MΩ Min
<b>Dielectric strength</b>
AC 1500V 1 minute
<b>Cut-out</b>
$\phi 12.2$
6 mm max

## FEATURES

- \* MATERIAL: Metal lever is nickel plated metal. Bushing is nylon with glass fiber ( UL flame: 94V-0). Frame is nylon ( UL flame: 94V-2).
- \* Watertight boot (W-72) is optional for lever #1 only.

## R13-447

FUNCTION		LEVER	TERMINAL
<b>A</b> 	<b>H</b> 	<b>1</b> Metal Lever 	<b>0 1</b> .250" SQ
<b>C</b> 	<b>I</b> 	<b>3</b> Plastic Lever 	<b>0 5</b> SO
<b>D</b> 	<b>N</b> 		<b>0 8</b> SC 6-32UNC
<b>G</b> 	<b>R</b> 		<b>1 2</b> SO

\* ( ) =momentary

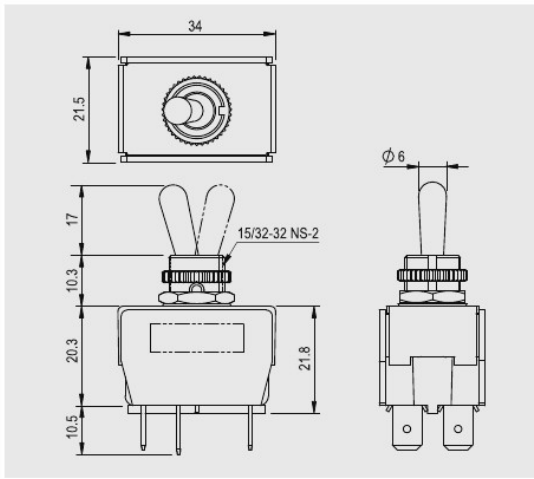
THE DRAWING IS FOR REFERENCE ONLY.



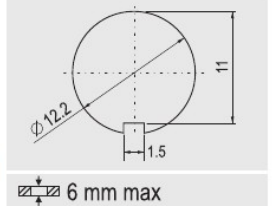


# R13-448

## Double Poles of R13-447



<b>Rating</b>
16(4)A 250V AC (F,S,Q) 12(4)A 250V AC (B,E,K,M,P)
<b>Contact resistance</b>
50mΩ Max
<b>Insulation resistance</b>
DC 500V 100MΩ Min
<b>Dielectric strength</b>
AC 1500V 1 minute
<b>Cut-out</b>



### FEATURES

- \* MATERIAL: Metal lever is nickel plated metal. Bushing is nylon with glass fiber ( UL flame: 94V-0). Frame is nylon ( UL flame: 94V-2).
- \* Watertight boot (W-72) is optional for lever #1 only.

## R13-448

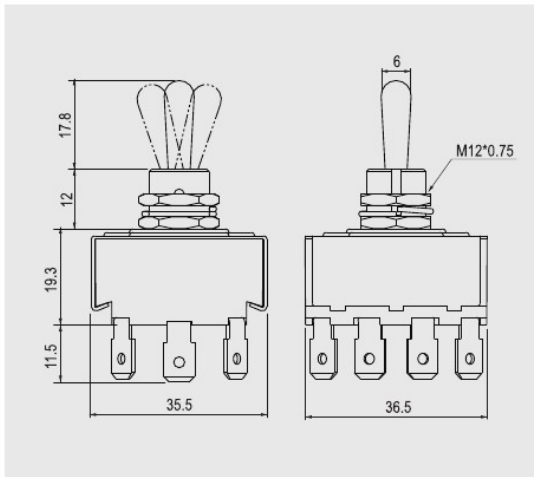
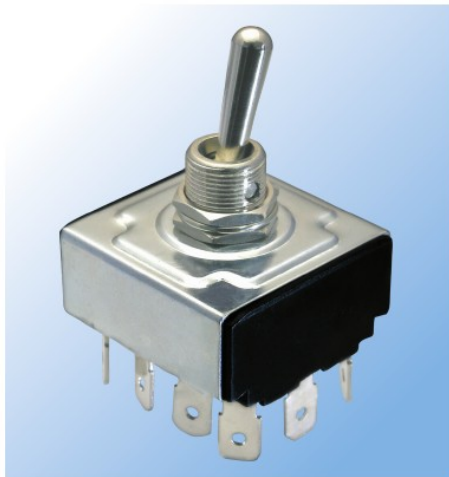
FUNCTION		LEVER	TERMINAL	TERMINAL BARRIER
<b>B</b> 	<b>M</b> 	<b>1</b> Metal Lever 	<b>0 1</b> .250" SQ <b>0 5</b> SO <b>0 8</b> SC 6-32UNC <b>1 2</b> SO	<b>A</b>  WITHOUT TERMINAL BARRIER <b>B</b>  WITH TERMINAL BARRIER
<b>E</b> 	<b>P</b> 	<b>3</b> Plastic Lever 		<b>DUST AND WATER SEALED</b> <input checked="" type="checkbox"/> IP40 <input checked="" type="checkbox"/> IP56
<b>F</b> 	<b>Q</b> 			
<b>K</b> 	<b>S</b> 			

\* ( ) =momentary



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# R13-44



<b>Rating</b>	16A 125V AC 10A 250V AC
<b>Contact resistance</b>	50mΩ Max
<b>Insulation resistance</b>	DC 500V 100MΩ Min
<b>Dielectric strength</b>	AC 1500V 1 minute
<b>Cut-out</b>	 6 mm max

## FEATURES

- \* MATERIAL: Metal lever and bushing are nickel plated metal. Frame is metal plated steel. Base is phenolic.
- \* Watertight boot is optional.



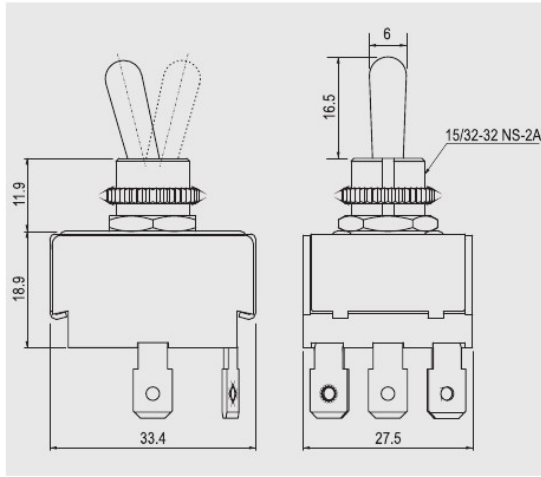
## R13-44 -

FUNCTION		TERMINAL
<b>A</b>		0 1  .250" SQ
<b>M</b>		0 4  SAE SQ
<b>B</b>		0 5  SO
<b>P</b>		0 6  SC 3
<b>E</b>		0 7  SC 4
<b>S</b>		0 8  SC 6-32UNC
<b>F</b>		
<b>Q</b>		

\* ( ) =momentary

THE DRAWING IS FOR REFERENCE ONLY.

# R13-432



### Rating

18A 125V/10A 250V AC  
 3/4HP 125-250V AC  
 (A,C,D,N,R)  
 16A 125V/10A 250V AC  
 3/4HP 125-250V AC  
 (G,H,I)

### Contact resistance

50mΩ Max

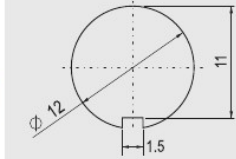
### Insulation resistance

DC 500V 100MΩ Min

### Dielectric strength

AC 1500V 1 minute

### Cut-out



± 5 mm max

### FEATURES

- \* MATERIAL: Metal lever and bushing are nickel plated metal. Frame is metal plated steel. Base is phenolic.
- \* Watertight boot (W-72) is optional.

## R13-432

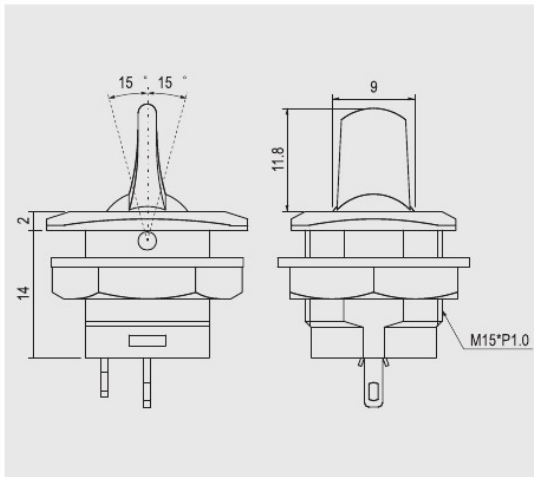
FUNCTION		LEVER	TERMINAL
<b>A</b>  6P 3PST	<b>H</b>  9P 3PDT	<b>1</b>  Standard Type	<b>0 1</b> .250" SQ
<b>C</b>  9P 3PDT	<b>I</b>  9P 3PDT		<b>0 4</b> SAE SQ
<b>D</b>  9P 3PDT	<b>N</b>  6P 3PST		<b>0 5</b> SO
<b>G</b>  9P 3PDT	<b>R</b>  6P 3PST		<b>0 6</b> SC 3
			<b>0 7</b> SC 4
			<b>0 8</b> SC 6-32UNC

\* ( ) = momentary



# R13-402

## Screw type

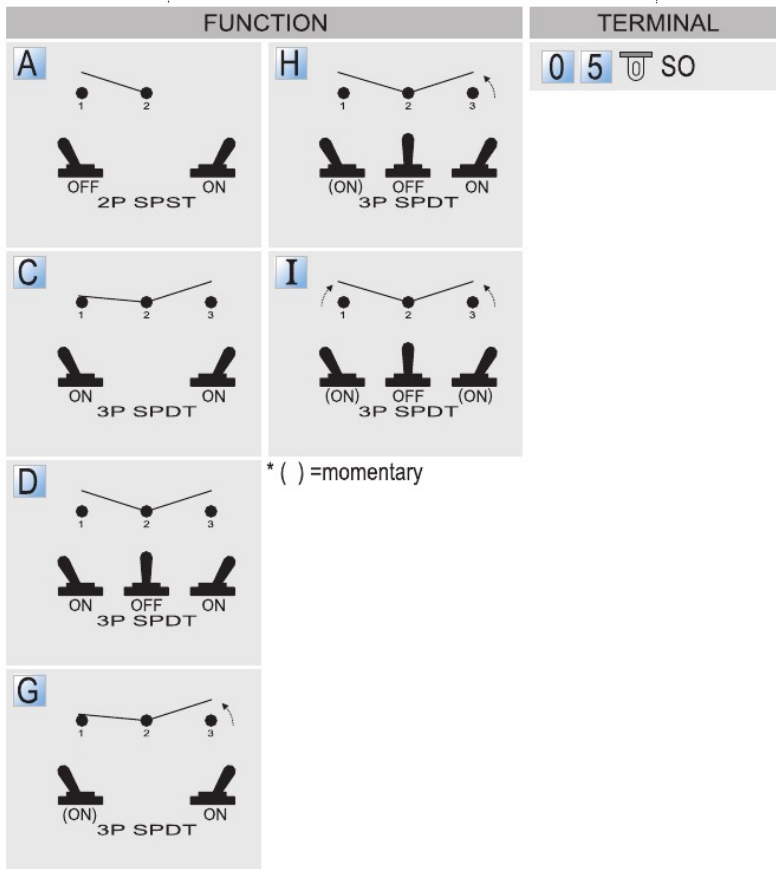


<b>Rating</b>
6A 125V AC 3A 250V AC
<b>Contact resistance</b>
50mΩ Max
<b>Insulation resistance</b>
DC 500V 100MΩ Min
<b>Dielectric strength</b>
AC 1500V 1 minute
<b>Cut-out</b>
13.6 6 mm max

### FEATURES

- \* MATERIAL: Frame is nylon (UL flame: 94V-2). Base is PBT (UL flame:94V-0). Terminals are silver plated brass.
- \* Mounted by nut.

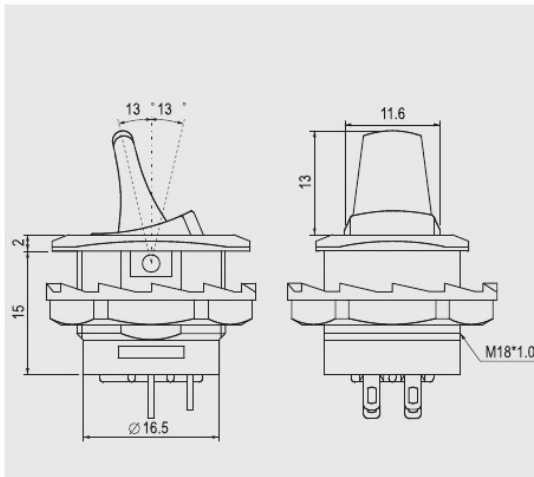
### R13-402 -



THE DRAWING IS FOR REFERENCE ONLY.

# R13-405

## Screw type



<b>Rating</b>
10A 125V AC 6A 250V AC
<b>Contact resistance</b>
50mΩ Max
<b>Insulation resistance</b>
DC 500V 100MΩ Min
<b>Dielectric strength</b>
AC 1500V 1 minute
<b>Cut-out</b>

### FEATURES

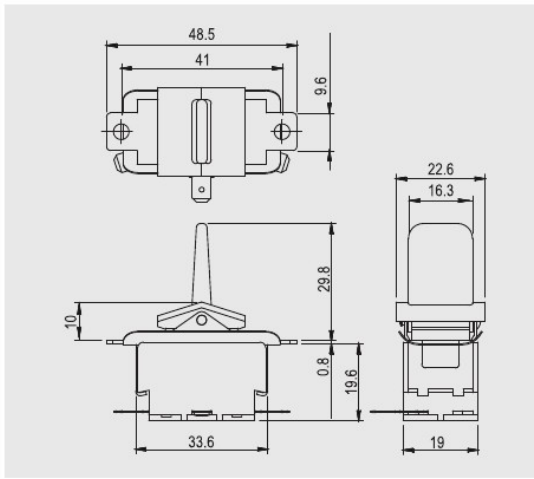
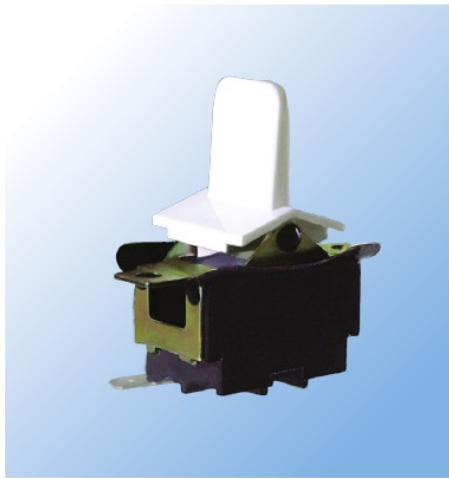
- \* MATERIAL: Frame is nylon (UL flame: 94V-2). Base is PBT (UL flame: 94V-0). Terminals are silver plated brass.
- \* LED indicator on the top of lever. (AL, CL, DL type only). LED available with red, amber, green, blue and white colors.

### R13-405

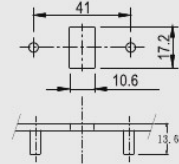
FUNCTION		TERMINAL	LEVER
<b>A</b>  4P DPST	<b>AL</b>  4P SPST (LED)	<b>0 5</b> SO	<b>A/C/D/G</b> 
<b>C</b>  6P DPDT	<b>CL</b>  5P SPST (LED)		<b>AL/CL/DL</b> 
<b>D</b>  6P DPDT	<b>DL</b>  5P SPST (LED)		
<b>G</b>  6P DPDT	* ( ) = momentary		



# R13-80



<b>Rating</b>
15A 125V/10A 250V AC 3/4HP 125V-250V AC
<b>Contact resistance</b>
50mΩ Max
<b>Insulation resistance</b>
DC 500V 100MΩ Min
<b>Dielectric strength</b>
AC 1500V 1 minute
<b>Cut-out</b>



## FEATURES

- \* MATERIAL: Paddle is nylon (UL flame: 94V-2). Terminals are nickel plated brass. Base is phenolic.
- \* Screw mounting.
- \* With watertight rubber gasket.

## R13-80 ■ ■ - ■ ■

FUNCTION	LEVER	TERMINAL
<b>G</b>  3P SPDT	<b>3</b> 	<b>0 5</b> SO
<b>K</b>  6P DPDT		

\* ( ) =momentary