

## AC SWITCH -- PUSH SWITCH & SLIDE SWITCH

LPS-01B



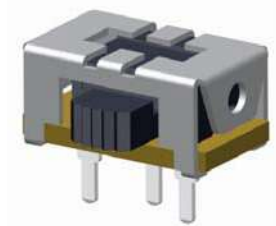
WPSB-11



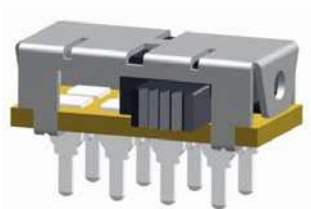
WPSC-12



WSKA-12G05



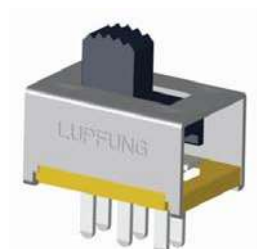
WSKA-23H05



WSSA-13K01



WSSB-22H15



WSSB-23H09



# PUSH SWITCH

## Characteristics

Series	Circuit	Travel	Operating temperature range	Soldering
LPS-01B	1P2T	9mm	-10 °C to 60 °C	Manual

## Electrical Performance

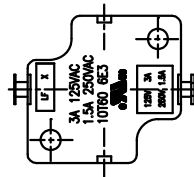
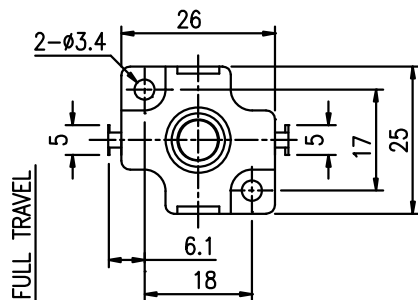
Rating (max.)	Contact resistance	Insulation resistance	Withstand voltage
AC 125V 3A AC 250V 1.5A	50 m $\Omega$ max.	100 M $\Omega$ min. 500 V DC	1,000 V AC for 1 min.

## Solderability Performance

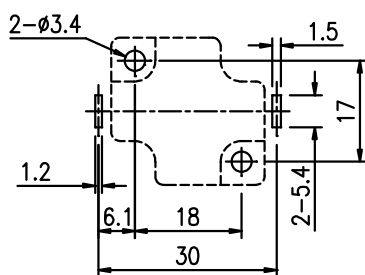
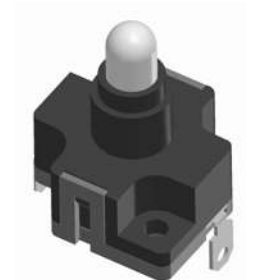
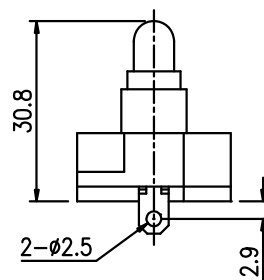
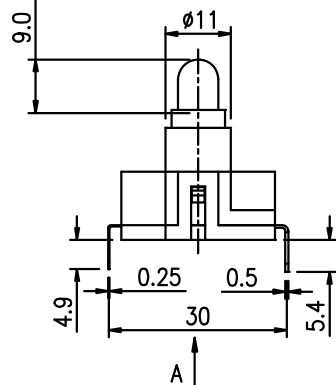
Operating force	Terminal strength	Solderability	Resistance to soldering heat
			Manual soldering
200 $\pm$ 100gf	0.5kgf for 15s	245 $\pm$ 5 °C	350°C , 3 seconds

## Endurance, Environmental Performance

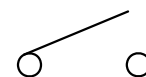
Operating life without load	Operating life with load (load: as ratings)	Cold	Dry heat	Damp heat
10,000 cycles , 100 m $\Omega$ max.	6,000 cycles , 500 m $\Omega$ max.	-25 °C for 48 hrs	70°C for 48 hrs	40 °C , 90 to 95% RH for 96 hrs



DIRECTION: A



TERMINAL LAYOUT



CIRCUIT DIAGRAM

# PUSH SWITCH

## Characteristics

Series	Circuit	Travel	Operating temperature range	Soldering
WPSB-11	1P1T	5.6mm	-25 °C to 85 °C	Manual

## Electrical Performance

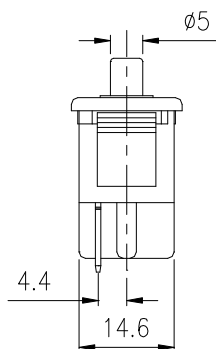
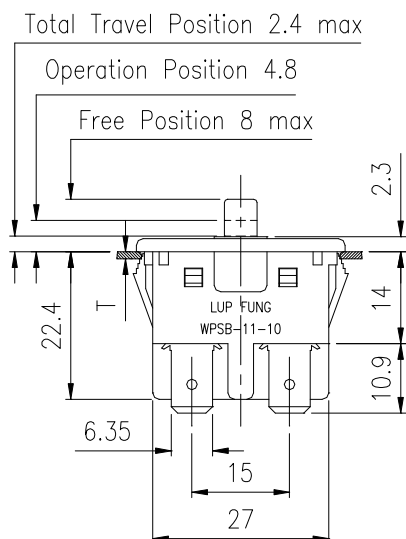
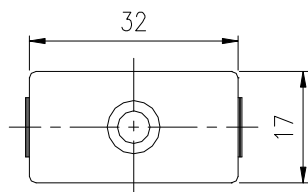
Rating (max.)	Contact resistance	Insulation resistance	Withstand voltage
10.1A 250V AC	100 m $\Omega$ max.	100 M $\Omega$ min. 500 V DC	2000 V AC for 1 min.

## Solderability Performance

Operating force	Solderability	Resistance to soldering heat
		Manual soldering
400gf max.	245 $\pm$ 5 °C	350°C , 3 seconds

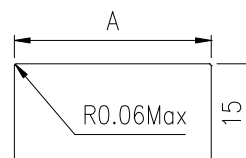
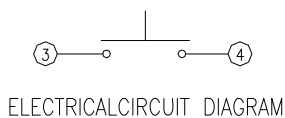
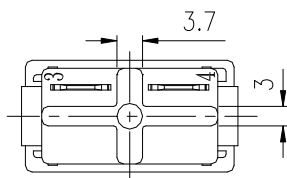
## Endurance, Environmental Performance

Operating life without load	Operating life with load (load: as ratings)	Cold	Dry heat	Damp heat
1X10 <sup>6</sup> cycles , 500 m $\Omega$ max.	1X10 <sup>5</sup> cycles , 500 m $\Omega$ max.	-45 °C for 48 hrs	90°C for 96 hrs	40 °C , 90 to 95% RH for 96 hrs



### INSULATION DISTANCE

	Clearance Distances	Creepage Distances
Total contact gap	4 Min	5 Min
Between terminal	4 Min	5 Min
Between live parts and mounting plate	8 Min	8 Min
Between live parts and accessible by man	8 Min	8 Min



CHASSIS CUTOUT

T	1.0	2.5
A	30.2 <sup>+0.1</sup> <sub>0</sub>	30.5 <sup>+0.1</sup> <sub>0</sub>

STANDARD PANEL MATERIAL:STEEL

T=1~2.5

# PUSH SWITCH

Characteristics **cALUS**

Series	Circuit	Travel	Operating temperature range	Soldering
WPSC-12	1P2T	10mm	-25 °C to 85 °C	Manual

## Electrical Performance

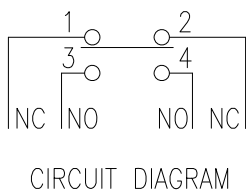
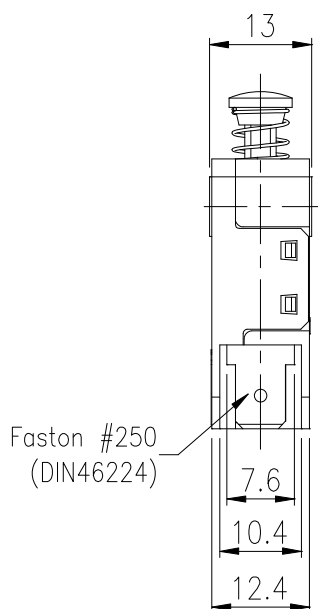
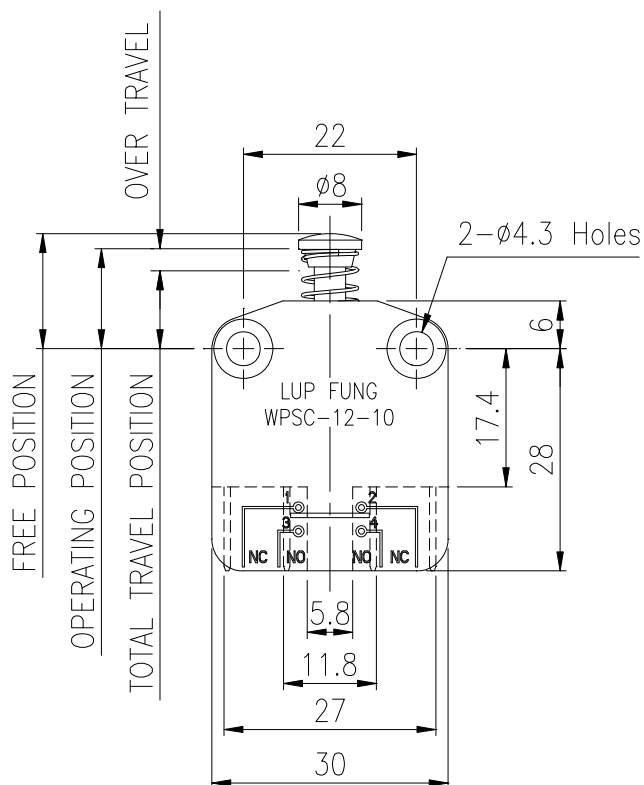
Rating (max.)	Contact resistance	Insulation resistance	Withstand voltage
10.1A 250V AC	100 mΩ max.	100 MΩ min. 500 V DC	2000 V AC for 1 min.

## Solderability Performance

Operating force	Solderability	Resistance to soldering heat
		Manual soldering
300gf max.	245 ± 5 °C	350°C , 3 seconds

## Endurance, Environmental Performance

Operating life without load	Operating life with load (load: as ratings)	Cold	Dry heat	Damp heat
1X10 <sup>6</sup> cycles , 500 mΩ max.	5X10 <sup>4</sup> cycles , 500 mΩ max.	-45 °C for 48 hrs	90°C for 96 hrs	40 °C , 90 to 95% RH for 96 hrs



FREE POSITION	15.3mm Max.
OPERATING POSITION	OFF : NC CONTACT 14.9±0.4mm
	ON : NO CONTACT 12.7±0.4mm
TOTAL TRAVEL POSITION	10.0 mm Max.
OVER TRAVEL	2.1 mm Min.
OPERATING FORCE	OFF : NC CONTACT 2.9N Max.
	ON : NO CONTACT 5.9N Max.
TOTAL TRAVEL FORCE	7.4N Max.

# SLIDE SWITCH

## Characteristics

Series	Circuit	Travel	Operating temperature range	Soldering
WSKA-12G05	1P2T	3.5mm	-25 ℃ to 85 ℃	Dip, Manual

## Electrical Performance

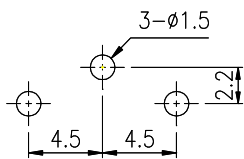
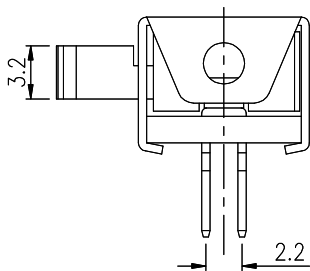
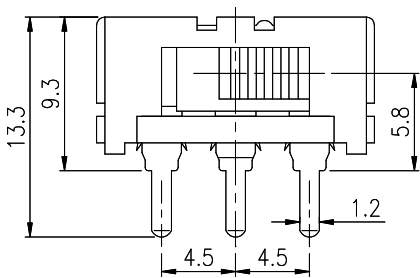
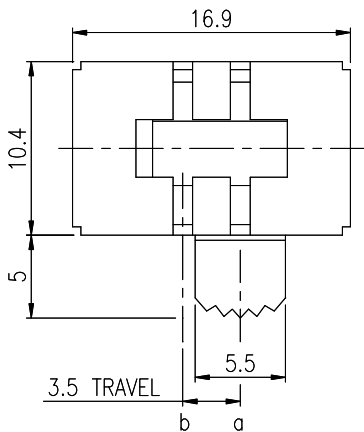
Rating (max.)	Contact resistance	Insulation resistance	Withstand voltage
1A 125V AC	30 mΩ max.	500 MΩ min. 500V DC	1,500V AC for 1 min.

## Mechanical & Solderability Performance

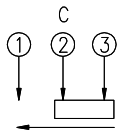
Operating force	Terminal Strength	Actuator Strength	Solderability	Resistance to soldering heat	
				Dip soldering	Manual soldering
200 gf ± 100 gf	1 kgf for 1 min.	2kgf for 15 seconds	230 ± 5 ℃	260℃ , 10 seconds	350℃ , 3 seconds

## Endurance, Environmental Performance

Operating life with load (load: as ratings)	Cold	Dry heat	Damp heat
10,000 cycles , 100 mΩ max.	-25 ℃ for 48 hrs	85℃ for 48 hrs	40 ℃ , 90 to 95% RH for 96 hrs



HOLE LAYOUT



CIRCUIT DIAGRAM  
C: COMMON PIN  
BOTTOM VIEW

# SLIDE SWITCH

## Characteristics

Series	Circuit	Travel	Operating temperature range	Soldering
WSKA-23H05	2P3T	4.0mm	-25 ℃ to 85 ℃	Dip, Manual

## Electrical Performance

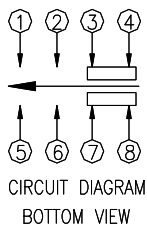
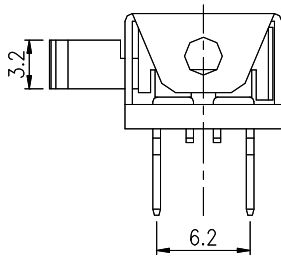
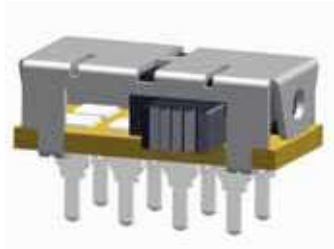
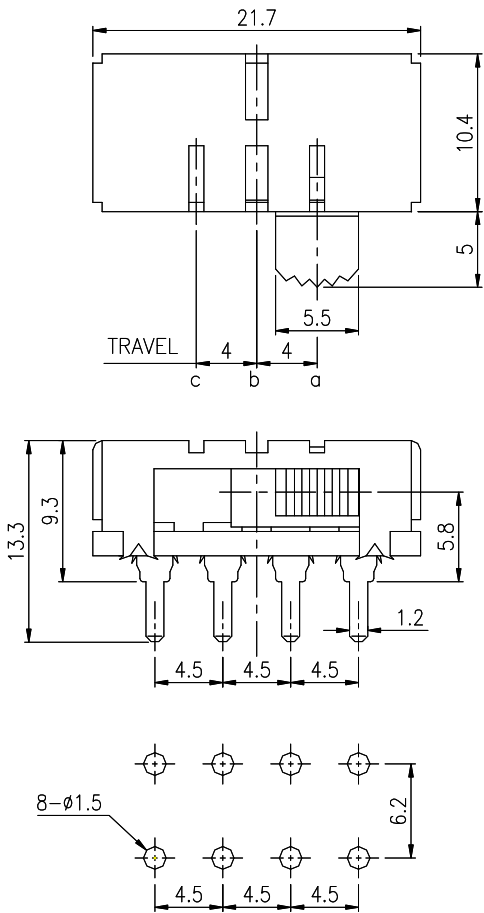
Rating (max.)	Contact resistance	Insulation resistance	Withstand voltage
1A 125V AC	30 mΩ max.	500 MΩ min. 500 V DC	1,500 V AC for 1 min.

## Mechanical & Solderability Performance

Operating force	Terminal Strength	Actuator Strength	Solderability	Resistance to soldering heat	
				Dip soldering	Manual soldering
250gf ± 100 gf (a → b , c → b) 350gf ± 100 gf (b → c , b → a)	1 kgf for 1 min.	2 kgf for 15 seconds	230 ± 5 ℃	260℃ , 10 seconds	350℃ , 3 seconds

## Endurance, Environmental Performance

Operating life with load (load: as ratings)	Cold	Dry heat	Damp heat
10,000cycles , 100 mΩ max.	-25 ℃ for 48 hrs	85℃ for 48 hrs	40 ℃ , 90 to 95% RH for 96 hrs



# POWER SWITCH



## Characteristics

Series	Approved Standard	Circuit	Travel	Operating temperature range	Soldering
WSSA-13K01	UL	1P3T	4.6mm	-10 °C to 60 °C	Dip, Manual

## Electrical Performance

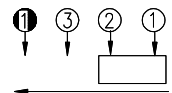
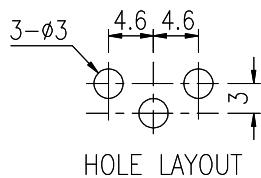
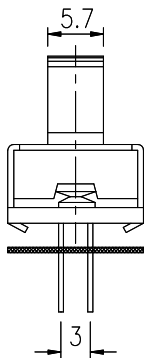
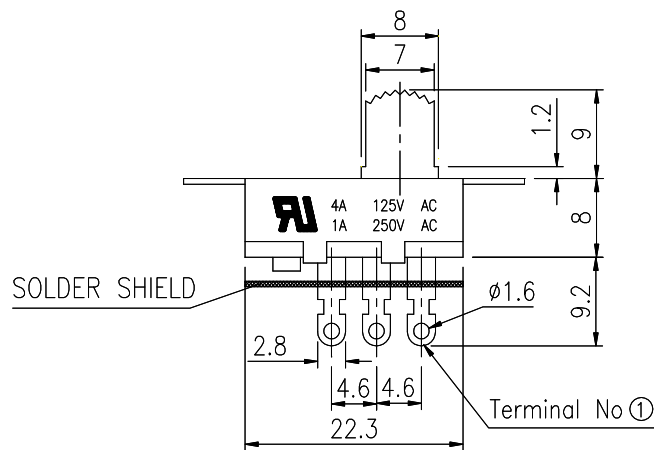
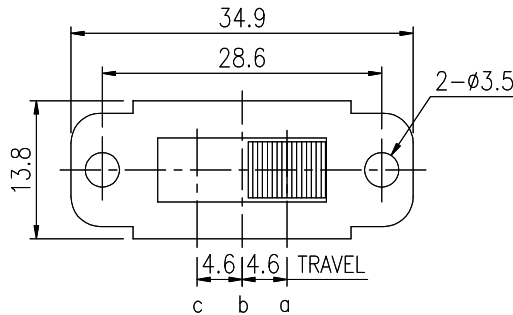
Rating (max.)	Contact resistance	Insulation resistance	Withstand voltage
4A 125V AC / 1A 250V AC	50 mΩ max.	100 MΩ min. 500 V DC	1,000 V AC for 1 min.

## Mechanical & Solderability Performance

Operating force	Terminal Strength	Actuator Strength	Solderability	Resistance to soldering heat	
				Dip soldering	Manual soldering
500gf ± 200 gf	6 kgf for 1 min.	2 kgf for 1 min.	230 ± 5 °C	260°C , 5 seconds	350°C , 3 seconds

## Endurance, Environmental Performance

Operating life without load	Operating life with load (load: as ratings)	Cold	Dry heat	Damp heat
10,000 cycles , 100 mΩ max.	6,000 cycles , 100 mΩ max.	-20 °C for 96 hrs	70°C for 96 hrs	40 °C , 90 to 95% RH for 96 hrs



CIRCUIT DIAGRAM  
●:OUT OFF PIN  
BOTTOM VIEW

# SLIDE SWITCH

## Characteristics

Series	Circuit	Travel	Operating temperature range	Soldering
WSSB-22H15	2P2T	3.7mm	-25 °C to 85 °C	Dip, Manual

## Electrical Performance

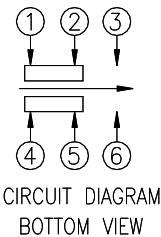
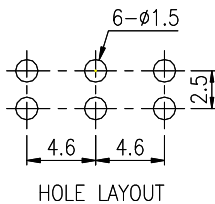
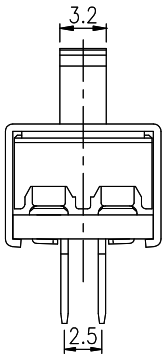
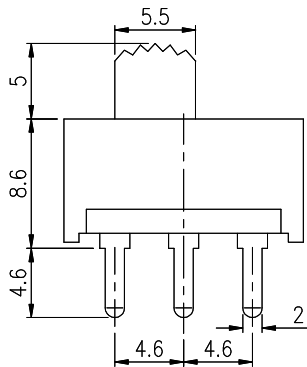
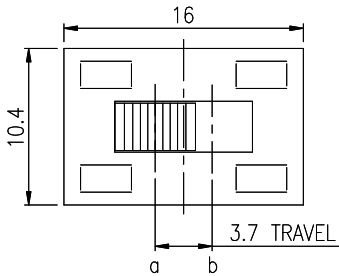
Rating (max.)	Contact resistance	Insulation resistance	Withstand voltage
1A 125V AC	50 m $\Omega$ max.	100 M $\Omega$ min. 500V DC	1,500V AC for 1 min.

## Mechanical & Solderability Performance

Operating force	Terminal Strength	Actuator Strength	Solderability	Resistance to soldering heat	
				Dip soldering	Manual soldering
400 gf $\pm$ 150 gf	0.3 kgf for 1 min.	1 kgf for 1 min.	230 $\pm$ 5 °C	260°C , 5 seconds	350°C , 3 seconds

## Endurance, Environmental Performance

Operating life with load (load: as ratings)	Cold	Dry heat	Damp heat
10,000 cycles , 100 m $\Omega$ max.	-25 °C for 96 hrs	85°C for 96 hrs	40 °C , 90 to 95% RH for 96 hrs





# SLIDE SWITCH

## Characteristics

Series	Circuit	Travel	Operating temperature range	Soldering
WSSB-23H09	2P3T	4.0mm	-25 ℃ to 85 ℃	Dip, Manual

## Electrical Performance

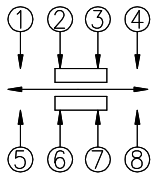
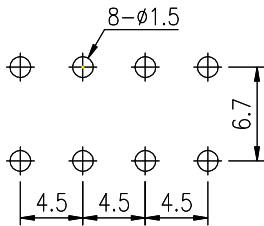
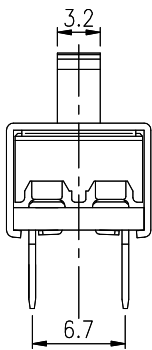
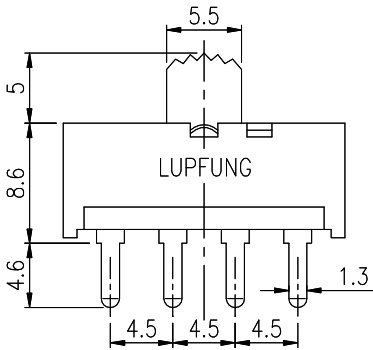
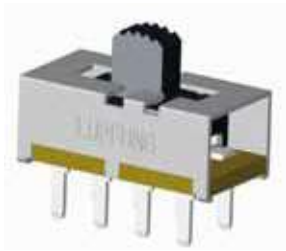
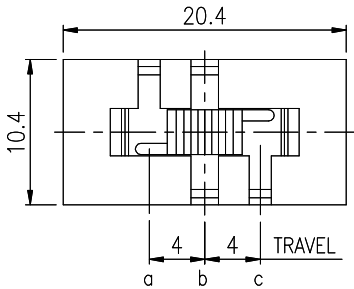
Rating (max.)	Contact resistance	Insulation resistance	Withstand voltage
1A 125V AC	50 mΩ max.	100 MΩ min. 500 V DC	1,500 V AC for 1 min.

## Mechanical & Solderability Performance

Operating force	Terminal Strength	Actuator Strength	Solderability	Resistance to soldering heat	
				Dip soldering	Manual soldering
400gf ± 100 gf (a → b , c → b) 650gf ± 200 gf (b → c , b → a)	0.3 kgf for 1 min.	1 kgf , 1 min.	230 ± 5 ℃	260℃ , 5 seconds	350℃ , 3 seconds

## Endurance, Environmental Performance

Operating life with load (load: as ratings)	Cold	Dry heat	Damp heat
10,000cycles , 100 mΩ max.	-25 ℃ for 96 hrs	85℃ for 96 hrs	40 ℃ , 90 to 95% RH for 96 hrs



CIRCUIT DIAGRAM  
BOTTOM VIEW