

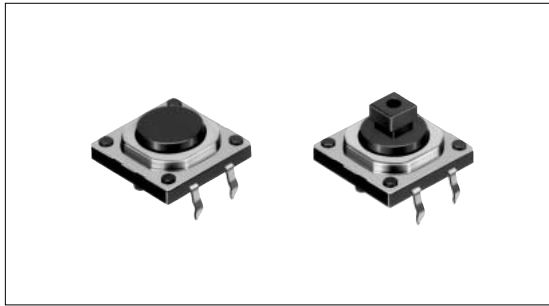
TACT Switch™ 12mm Square Long-life (Snap-in Type)

SKQE Series

w w w . a l p s . c o



Long-life type with unique dust-proof structure and highly reliable metal contacts.



Product Line

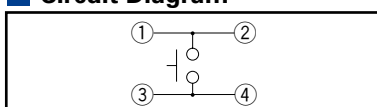
Product No.	Operating force	Operating direction	Travel (mm)	Rating (max.)	Rating (min.)	Operating life (5mA 5V DC)	Initial contact resistance	Stem color	Variety	Minimum order unit (pcs.)	Drawing No.	
SKQEAAA010	1.57N	Vertical	0.3	50mA 12V DC	10μA 1V DC	10,000,000 cycles	100m max.	Dark gray	Joint stem	1,000	1	
SKQEACA010	2.55N							Red				
SKQEABA010	1.57N							Dark gray	Flat stem			2
SKQEADA010	2.55N							Red				

Dimensions

Unit:mm

No.	Photo	Style	PC board mounting hole dimensions (Viewed from switch mounting face)
1			
2			

Circuit Diagram



Note

Please use 1.6mm thick PC boards.

Refer to P.306 for soldering conditions.
Refer to P.308 for standard knobs.

Detector

Push

Slide

Rotary

Encoders

Power

Dual-in-line
Package Type

TACT Switch™

Custom-
Products

Sharp
Feeling

Soft
Feeling

Snap-in
Type

Surface
Mount Type

Radial
Type

List of Varieties

Sharp Feeling Type

Series	SKQU	SKQB	SKQE	SKHC	SKHK	SKRW	SKRM	SKQR	SKRB	SKRR	SKQG	
Detector	Photo											
Push	Type Snap-in					Type Surface mount						
Slide	Features 4-direction switch + push switch		Water-proof Horizontal type		Long Life	Long Stem	Low-profile			Low-profile and long life	Low-profile	
Rotary	Operating direction	Vertical										
Encoders		Horizontal										
Power	Dimensions (mm)	W	10	11.5	12		3.7	4.5	4.8		7.5	5.2
Dual-in-line Package Type		D		11.9							7	
TACT Switch™		H	7.1	11.3	4.3		12	0.35	0.4	0.5	0.55	0.6
Custom-Products	Operation force coverage		1N	See the relevant pages for respective product descriptions	•	↕	↕↕	•	↕	↕	↕	↕↕
			5N									
	Ground terminal											
	Operating temperature range -30 to +85											
Sharp Feeling	Electrical performance	Insulation resistance 100M min. 100V DC										
Soft Feeling		Voltage proof 250V AC for 1min. SKRW/RM/RB/RR : 100V AC for 1min.										
Snap-in Type	Durability	Vibration 10 to 55 to 10Hz/min., the amplitude is 1.5mm for all the frequencies, in the 3 direction of X, Y and Z for 2hours respectively										
Surface Mount Type		Lifetime Shall be in accordance with individual specifications.										
Radial Type	Environmental performance	Cold -30 ± 2 for 96h										
		Dry heat 80 ± 2 for 96h										
		Damp heat 60 ± 2 , 90 to 95%RH for 96h										
	Page	482	265	267	268	270	271	272	273	274	275	276

W : Width. The most outer dimension excluding terminal portion.
 D : Depth. The most outer dimension excluding terminal portion.
 H : Height. The minimum dimension if there are variances.

TACT Switch™ Soldering Conditions306
 TACT Switch™ Cautions307
 Product Line of Knob for TACT Switch™308

Note

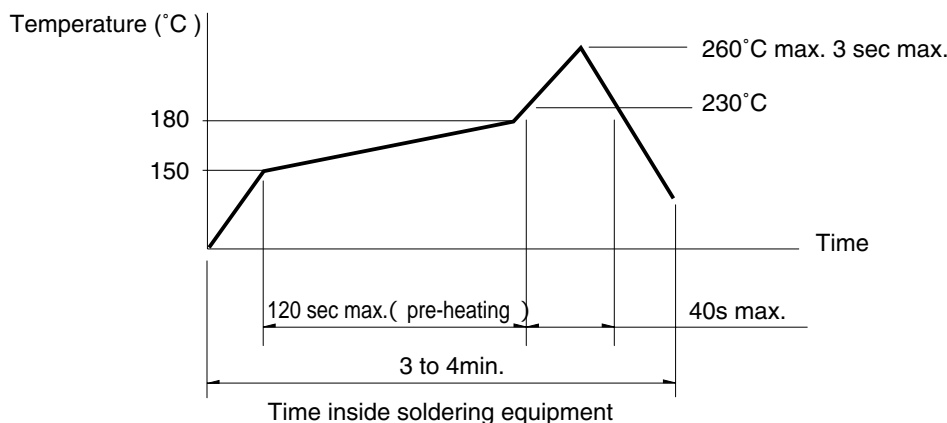
The automotive operating temperature range to be individually discussed upon request.

Soldering Conditions

Condition for Reflow

Available for Surface Mount Type.

1. Heating method: Double heating method with infrared heater.
2. Temperature measurement: Thermocouple 0.1 to 0.2 CA(K) or CC(T) at solder joints(copper foil surface). A heat resistive tape should be used to fix thermocouple.
3. Temperature profile



Note

1. The above temperature shall be measured on the mounting surface of a PC board. There are cases where the PC board's temperature greatly differs from that of the switch, depending on the material, size, thickness of PC boards and others. The above-stated conditions shall also apply to switch surface temperatures.
2. Soldering conditions differ depending on reflow soldering machines. Prior verification of soldering condition is highly recommended.

Conditions for Auto-dip

Available for Snap-in Type and Radial Type
(Except SKHJ, SKHL, SKQJ, SKQK, SKEG series)

Items	Condition
Flux built-up	Mounting surface should not be exposed to flux
Preheating temperature	Ambient temperature of the soldered surface of PC board. 100 max.
Preheating time	60s max.
Soldering temperature	260 max.
Duration of immersion	5s max.
Number of soldering	2times max.

Manual Soldering (Except SKRT Series)

Items	Condition
Soldering temperature	350 max.
Duration of soldering	3s max.
Capacity of soldering iron	60W max.

Notes

1. Consult with us for availability of TACT Switch™ washing.
2. Prevent flux penetration from the top side of the TACT Switch™.
3. Switch terminals and a PC board should not be coated with flux prior to soldering.
4. The second soldering should be done after the switch is stable with normal temperature.
5. Use the flux with a specific gravity of min 0.81.
(EC-19S-8 by TAMURA Corporation, or equivalents.)

Detector
Push
Slide
Rotary
Encoders
Power
Dual-in-line Package Type
TACT Switch™
Custom-Products

Sharp Feeling
Soft Feeling
Snap-in Type
Surface Mount Type
Radial Type

Product Line of Knobs

Unit:mm

Applicable model	Dimensions	Variety		Label dimensions (Unit:mm)
		Color	Model	
Detector				
Push				
Slide				
Rotary				
Encoders				
Power				
Dual-in-line Package Type				
TACT Switch™				
Custom-Products				
SKHH		Red Blue Ivory Black Yellow	SK2AA00410 SK2AA00420 SK2AA00430 SK2AA00440 SK2AA00450	
Applicable to joint stem type				
SKHC SKQE		Clear	SK2AA00510	
Applicable to joint stem type				Thickness 0.1
SKHJ		Red Blue Ivory Black Yellow	SK2AA00210 SK2AA00220 SK2AA00230 SK2AA00240 SK2AA00250	
Applicable to joint stem type				Thickness 0.1
SKEG		Clear	SK2AA00540	
Applicable to joint stem type				Thickness 0.1

Notes

1. The knob will be delivered together with the switch but packed separately.
2. The label is not included.
3. For SK2AA00010 to SK2AA00090 types, please check the mounting direction.

