12mm Square Long-life (Snap-in Type)

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





■ Typical Specifications

Items	Specifications
Rating (max.)	50mA 12V DC
Rating (min.)	10μA 1V DC
Initial contact resistance	100mΩ max.
Travel (mm)	0.3

Product Line

Product No.	Operating force	Operating direction	Operating life (5mA 5V DC)	Stem color	Stem	Minimum ord Japan	er unit (pcs.) Export	Drawing No.
SKQEAAA010	1.57N			Dark gray	Joint stem	- 1,000	1,000	
SKQEACA010	2.55N	Top puch	10,000,000 cycles	Red				'
SKQEABA010	1.57N	Top push		Dark gray	Flat stem			2
SKQEADA010	2.55N			Red	i iai Steili			

Packing Specifications

Bulk

Number of pa	Export package	
1 case / Japan	case / Japan 1 case / export packing	
4,000	12,000	309×476×347

Dimensions

Unit:mm

No.	Photo	Style	PC board mounting hole dimensions (Viewed from switch mounting face)
1	Joint stem type	3.8 Stem 3.8 Stem 4. Guide bosses 12.5 14	4-ø1.25 hole 2-ø1.7 hole



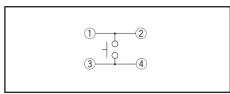
Dimensions

No.	Photo	Style	PC board mounting hole dimensions (Viewed from switch mounting face)
2	Flat stem type	Guide bosses Stem	4-ø1.25 hole 2-ø1.7 hole

Note

Please use 1.6mm thick PC boards.

Circuit Diagram



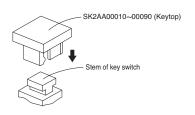
Product Line of Knobs

Unit:mm

				Variety		Unit:mm
Applicable model	Dimensions		Color	,	odel	Label dimensions
				Cap		
		2 2	Clear	SK2AA00510		□10 <u> </u>
SKQE		Cap		Keytop	Keytop + Cap	N. K.
Applicable to joint stem type		Ney top	Red Blue Ivory Black	SK2AA00010 SK2AA00020 SK2AA00030 SK2AA00040	SK2AA00060 SK2AA00070 SK2AA00080 SK2AA00090	

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.





Series		Type				Sharp Feeling Typ	е		
Photo		Турс				Snap-in	I	ı	1
Features		Series	SKHL	SKHH	SKHW	SKQJ	SKQB	SKQE	SKHC
Water-proof		Photo							
Dust-proof		Features	_	_	_	_	_	Long-life	_
P standard		Water-proof	_	_	0	_	•	_	_
Top push Side push - - - - - - - -		Dust-proof	_	_	•	•	•	•	_
Dimensions (mm) M		IP standard	_	_	_	_	_	_	_
Dimensions	Oneratii	Top push	•	•	•	•	•	•	•
Dimensions		n	_	_	_	_	_	_	_
D 3.5 H 4.3/5 See the relevation table for respective product descriptions to 1 N to 2 N 1 N to 2 N 1 N to 2 N 2 N to 3 N to 4 N 4 N to 5 N to		W	6						1
H 4.3/5 Set the relevant page to to 1 1 1 1 1 1 1 1 1 1			3.5		6	□6.6		L]12
1	(11111)		4.3/5	See the relevant pages for respective product descriptions	4.3/5	5	5/13/23.2	See the rele respective pro	vant pages for duct descriptions
Ground terminal -	force	on 1N to 2N 2N to 3N 3N to 4N	Ţ		1	Ţ	Ţ	1	Ţ
Operating temperature range	Travel (mm)		0.25 0.3		0.3	0.25	0.3		
Automotive use Life Cycle Rating (max.) (Resistive load) Rating (min.) (Resistive load) Insulation resistance Voltage proof Vibration Vibration Vibration Lifetime Cold -40°C 96h Dy heat Pages host COND 90 to 95% RH COND 90 to	Ground terminal		_	•	_	_	_	_	_
Life Cycle Rating (max.) (Resistive load) Rating (min.) (Resistive load) Rating (min.) (Resistive load) Insulation resistance Voltage proof Voltage proof 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 2 hours respectively Lifetime Shall be in accordance with individual specifications. Cold -40°C 96h Dry heat Page heat Page heat Corp. 90 to 95% RH 90°C 96h Corp. 90 to 95% RH 90°C 96h	Operating temperature range			-40°C to +90°C		-20℃ to 70℃	-40℃ t	o +90°C	-40℃ to +85℃
Rating (max) (Resistive load) 50mA 12V DC Rating (min.) (Resistive load) 10μA 1V DC Insulation resistance 100MΩ min. 100V DC 1min. Voltage proof 250V AC 1min. 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 2 hours respectively Lifetime Shall be in accordance with individual specifications. Cold -40°C 96h -30°C 96h 90°C 96h Environmental performance Dry heat 90°C 96h 80°C 96h 90°C 96h Deep heat 60°C, 90 to 95% PH 106 heat 60°C, 90 to 95%	А	utomotive use	•	•	_	_	•	_	_
Rating (min.) (Resistive load) 10μΑ 1V DC Insulation resistance 100ΜΩ min. 100V DC 1 min. Voltage proof 250V AC 1 min. 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 2 hours respectively Lifetime Shall be in accordance with individual specifications. Cold -40℃ 96h -30℃ 96h 90℃ 96h Environmental performance Dry heat 90℃ 96h 80℃ 96h 90℃ 96h Damp host 60℃ 90 to 95%RH 6		Life Cycle	*2	*3	*3	* 2	* 2	* 2	* 2
Resistive load Insulation resistance IOOMΩ min. 100V DC 1 min.		Rating (max.) (Resistive load)				50mA 12V DC			
Insulation resistance Voltage proof 250V AC 1min. 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 2 hours respectively Lifetime Shall be in accordance with individual specifications. Cold -40°C 96h -30°C 96h Dry heat Page host Colc, 90 to 95%RH	Electrical		10μΑ 1V DC						
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 2 hours respectively	performance	Insulation resistance	100MΩ min. 100V DC 1min.						
Durability Lifetime Shall be in accordance with individual specifications. Cold -40°C 96h -30°C 96h Dry heat Page host Solve 96h Page host Solve 96h Solve		Voltage proof	250V AC 1min.						
Lifetime Shall be in accordance with individual specifications. Cold -40°C 96h Environmental performance Dry heat 90°C 96h 80°C 96h 90°C 96h Parm heat 60°C, 90 to 95%RH 60°C, 90 to 95%RH	Durahility	Vibration		10 to 55 t in t	o 10Hz/min., th he 3 direction (ne amplitude is 1.5 of X, Y and Z for 2	omm for all the free hours respective	equencies, ely	
Environmental performance	Durability	Lifetime	Shall be in accordance with individ				lual specifications	6.	
performance Dry neat 900 96n 800 96n 900 96n	Cold -40°C 96h -30°C 96h			-40°C 96h					
Damp heat 60°C, 90 to 95%RH 96h 60°C, 90 to 95%RH 96h		Dry heat		90°C 96h		80°C 96h		90℃ 96h	
		Damp heat		60°C, 90 to 95%RH 96h			60°C, 90 to 95%RH 1,000h	60°C, 90 to	95%RH 96h
Page 193 195 199 200 202 204 206		Page	193	195	199	200	202	204	206

W: Width. The most outer dimension excluding terminal portion.

<u>Notes</u>

- $\hbox{1. The automotive operating temperature range to be individually discussed upon request.}\\$
- 2. Indicates applicability to all products in the series, while \bigcirc indicates applicability to some products in the series.

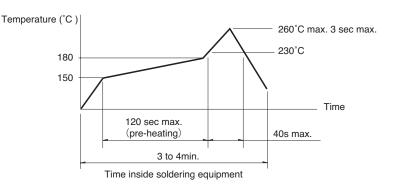
 $[\]mathsf{D}:\mathsf{Depth}.$ The most outer dimension excluding terminal portion. $\mathsf{H}:\mathsf{Height}.$ The minimum dimension if there are variances.

TACT Switch™ Soldering Conditions

Condition for Reflow

Available for Surface Mount Type.

- 1. Temperature measurement: Thermocouple ϕ 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.
- 2. Temperature profile



Notes

- The above temperature shall be measured of the top of switch. 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.
- 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.

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°C max.
Preheating time	60s max.
Soldering temperature	260℃ max.
Duration of immersion	5s max.
Number of soldering	2times max.

SKHH, SKPD 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. 110°C max.
Preheating time	60s max.
Soldering temperature	260°C max.
Duration of immersion	5s max.
Number of soldering	2times max.

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°C max.
Preheating time	45s max.
Soldering temperature	255℃ max.
Duration of immersion	5s max.
Number of soldering	2times max.

Manual Soldering

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

SKHH, SKHW, SKRG, SKPD Series

Items	Condition
Soldering temperature	360°C max.
Duration of soldering	3s max.
Capacity of soldering iron	60W max.

SKTD, SKTG, SKQJ, SKQK, SKEG Series

Items	Condition
Soldering temperature	350°C max.
Duration of soldering	3s max.
Capacity of soldering iron	20W max.

Notes

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

