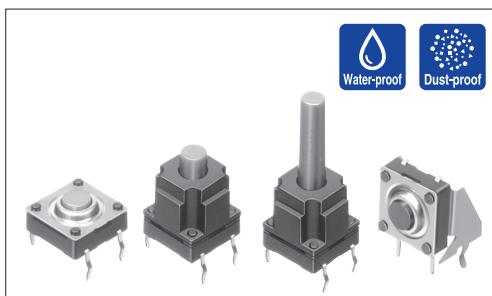




Excellent water-proof and dust-proof structure suitable for home appliances used around water.



■ Typical Specifications

Items	Specifications
Rating (max.)	50mA 12V DC
Rating (min.)	10μA 1V DC
Initial contact resistance	500mΩ max.
Travel (mm)	0.3

■ Product Line

Toppush Type

Product No.	Operating force	Operating direction	Operating life (5mA 5V DC)	Stem color	Stem height	Minimum order unit (pcs.)		Drawing No.			
						Japan	Export				
SKQBARA010	1.57N	Toppush	100,000cycles	Dark gray	5mm	1,000	1,000	1			
SKQBASA010	2.55N			Red							
SKQBAPA010	1.57N			Dark gray	13mm			2			
SKQBAJA010	2.55N			Red							
SKQBAQA010	1.57N			Dark gray	23.2mm						
SKQBAMA010	2.55N			Red							

Sidepush Type

Product No.	Operating force	Operating direction	Operating life (5mA 5V DC)	Stem color	Minimum order unit (pcs.)		Drawing No.
					Japan	Export	
SKQBLBA010	1.57N	Sidepush	100,000cycles	Dark gray	1,000	1,000	3

■ Packing Specifications

Bulk

Series	Number of packages (pcs.)		Export package measurements (mm)
	1 case / Japan	1 case / export packing	
Other	4,000	12,000	309 × 476 × 347
SKQBAQ, SKQBAM	2,000	6,000	

Detector

Push

Slide

Rotary

Encoders

Power

Dual-in-line
Package Type

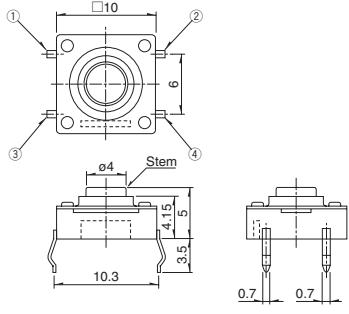
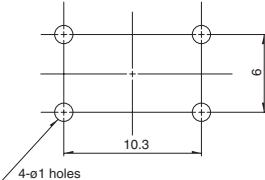
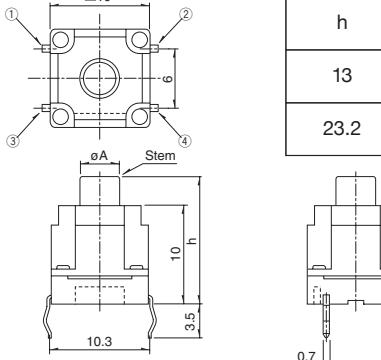
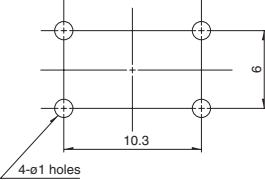
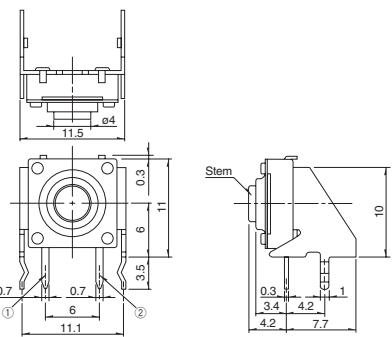
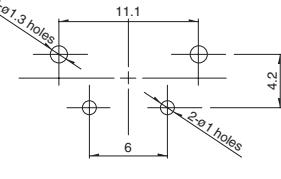
TACT Switch™

Sharp
FeelingSoft
FeelingSnap-in
TypeSurface
Mount TypeRadial
Type

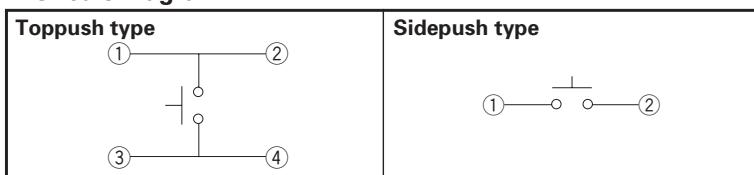
Dimensions

Unit:mm

Detector
Push
Slide
Rotary
Encoders
Power
Dual-in-line Package Type
TACT Switch™
Sharp Feeling
Soft Feeling
Snap-in Type
Surface Mount Type
Radial Type

No.	Photo	Style	PC board mounting hole dimensions (Viewed from switch mounting face)
1	Toppush Type Stem height : 5mm		
2	Toppush Type		
3	Sidepush Type		

Circuit Diagram



Note

Please use 1.6mm thick PC boards.

Water Resisting Performance

Items	Model	SKQBAP, SKQBAJ, SKQBAQ, SKQBAM, SKQBAR, SKQBA	SKQBLB
Temperature of water		60°C	60°C
Depth of water		10cm	10cm
Immersion duration		240h	1h

Notes

- When the switch is used in an environment subject to high humidity or condensation, make sure the terminals are coated thoroughly to prevent current leakage between terminals.
- Avoid using coating material containing toluene or xylene. For more information on coating material, please contact us.
- Switch terminals must be coated thoroughly until the terminals are fully covered.

TACT Switch™

■ List of Varieties

Type		Sharp Feeling Type									
		Snap-in									
Series		SKHR	SKHL	SKHH	SKHW	SKQJ	SKQB	SKQE	SKHC	SKHL	SKHH
Photo											
Features		—	—	—	—	—	—	—	Long Life	—	—
Water-proof		—	—	—	○	—	●	—	—	—	—
Dust-proof		—	—	—	●	●	●	●	—	—	—
Operating direction	Top push	●	●	●	●	●	●	●	●	—	—
	Side push	—	—	—	—	—	—	—	—	●	●
Dimensions (mm)	W	□ 4.5	6	□ 6		□ 6.6	□ 10	□ 12		7.3	7.5
	D		3.5							7.22	7.85
Operation force coverage	H	3.8	4.3			5	5	4.3			7.4
	~1N										
Operation force coverage	1N~2N										
	2N~3N										
	3N~4N										
	4N~5N										
Travel (mm)		0.25			0.3	0.25	0.3			0.25	
Ground terminal		—	—	●	—	—	—	—	—	●	●
Operating temperature range		-30°C to +85°C	-40°C to +90°C			-30°C to +85°C	-40°C to +90°C			-40°C to +85°C	-40°C to +90°C
Automotive use		—	●	●	—	—	—	—	—	—	—
Life Cycle											
Rating (max.) (Resistive load)		50mA 12V DC									
Rating (min.) (Resistive load)		10 μA 1V DC									
Electrical performance	Insulation resistance	100M Ω min. 100V DC for 1min.									
	Voltage proof	250V AC for 1min.									
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									
	Lifetime	Shall be in accordance with individual specifications.									
Environmental performance	Cold	-40 ± 2°C for 96h				-30 ± 2°C for 96h	-430 ± 2°C for 96h				
	Dry heat	90 ± 2°C for 96h				-80 ± 2°C for 96h	90 ± 2°C for 96h				
	Damp heat	60 ± 2°C, 90 to 95%RH for 96h				60 ± 2°C, 90 to 95%RH for 1000h	60 ± 2°C, 90 to 95%RH for 96h				
Page		229	230	232	236	237	239	241	243	230	232

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.

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● TACT Switch™ Cautions	289

Notes

Notes

1. The automotive operating temperature range to be individually discussed upon request.
2. ● indicates applicability to all products in the series, while ○ indicates applicability to some products in the series.

■ List of Varieties

Type		Sharp Feeling Type																
		Snap-in		Surface Mount														
Series		SKQJ	SKQB	SKSH	SKRW	SKRM	SKRB	SKRR	SKQG	SKTC	SKSK	SKSD						
Photo																		
Features		—	—	Low-profile				Low-profile and long life	Low-profile	Double action								
Water-proof		—	●	—	○	—	—	—	—	●	—	—						
Dust-proof		●	●	○	○	○	○	○	○	●	—	—						
Operating direction	Toppush	—	—	●	●	●	●	●	●	●	●	●						
	Sidepush	●	●	—	—	—	—	—	—	—	—	—						
Dimensions (mm)	W	7.5	11.5	3.3	□3.7	□4.5	□4.8	7.5	□5.2	3.4	3.5	4.1						
	D	7.85	11.9	2.9				7		2.2	3.2	3.9						
	H	7.3	11.3	0.35		0.4	0.55	0.6	0.8	0.62	0.6							
Operation force coverage	~1N	↑	↓	↔	↑	↓	↑	↓	↑	↓	*							
	1N~2N										*							
	2N~3N										*							
	3N~4N										*							
	4N~5N										*							
Travel (mm)		0.25	0.3	0.15		0.15/0.2		0.25		*								
Ground terminal		—	—	—	—	—	—	—	—	—	●	●						
Operating temperature range		-20°C to +70°C	-40°C to +90°C	-30°C to +85°C						—								
Automotive use		—	●	—	—	—	●	—	○	—	—	—						
Life Cycle																		
Rating (max.) (Resistive load)		50mA 12V DC																
Rating (min.) (Resistive load)		10 μA 1V DC																
Electrical performance	Insulation resistance	100MΩ min. 100V DC for 1min.																
	Voltage proof	250V AC for 1min.		100V AC for 1min.		250V AC for 1min.	100V AC for 1min.	250V AC for 1min.	100V AC for 1min.									
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																
	Lifetime	Shall be in accordance with individual specifications.																
Environmental performance	Cold	-30 ± 2°C for 96h	-40 ± 2°C for 96h	-30±2°C for 96h														
	Dry heat	80 ± 2°C for 96h	90 ± 2°C for 96h	80±2°C for 96h														
	Damp heat	60 ± 2°C, 90 to 95%RH for 96h	60 ± 2°C, 90 to 95%RH for 1000h	60±2°C, 90 to 95%RH for 96h														
Page		237	239	245	246	247	248	249	250	252	253	254						

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 Conditions	288
● TACT Switch™ Cautions	289

Notes

Notes

1. The automotive operating temperature range to be individually discussed upon request.
2. ● indicates applicability to all products in the series, while ○ indicates applicability to some products in the series.
3. * See the relevant pages for respective product descriptions

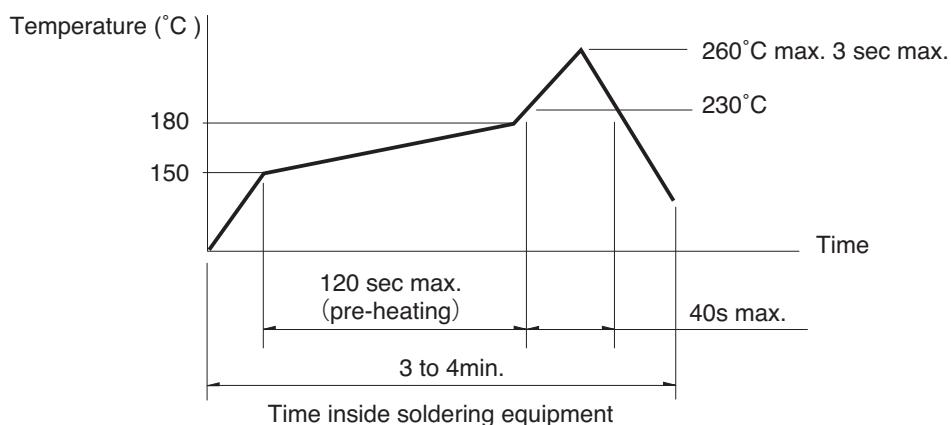
TACT Switch™ Soldering Conditions

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 φ CA (K) or CC (T) at solder joints (copper foil surface).
A heat resistive tape should be used to fix thermocouple.
3. Temperature profile

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



Notes

1. 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.
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

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°C 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°C max.
Duration of immersion	5s max.
Number of soldering	2times 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.)

Manual Soldering (Except SKRT Series)

Items	Condition
Soldering temperature	350°C 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.

SKQJ, SKQK, SKEG Series

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