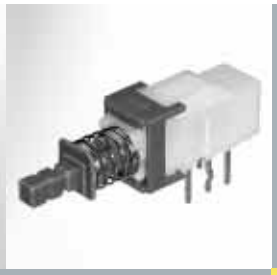
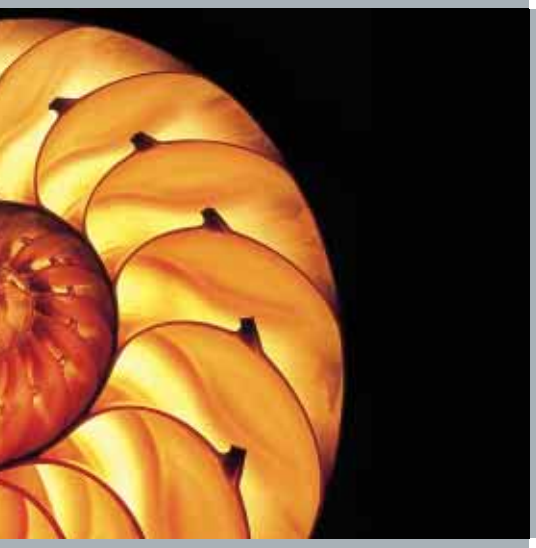
ALPS





EUROPEAN SELECTION 2000 / 2001

The publication of
ALPS ELECTRIC EUROPA GmbH
shows only a selection of the
complete ALPS product line.
Please note that the used
order no. system is only valid
for the European market.

For more information on Alps
complete line of electromechanical
components and systems and
according order instructions
please refer to ALPS specific
product catalogues or contact
our sales representatives listed
overleaf.

The information in this guide
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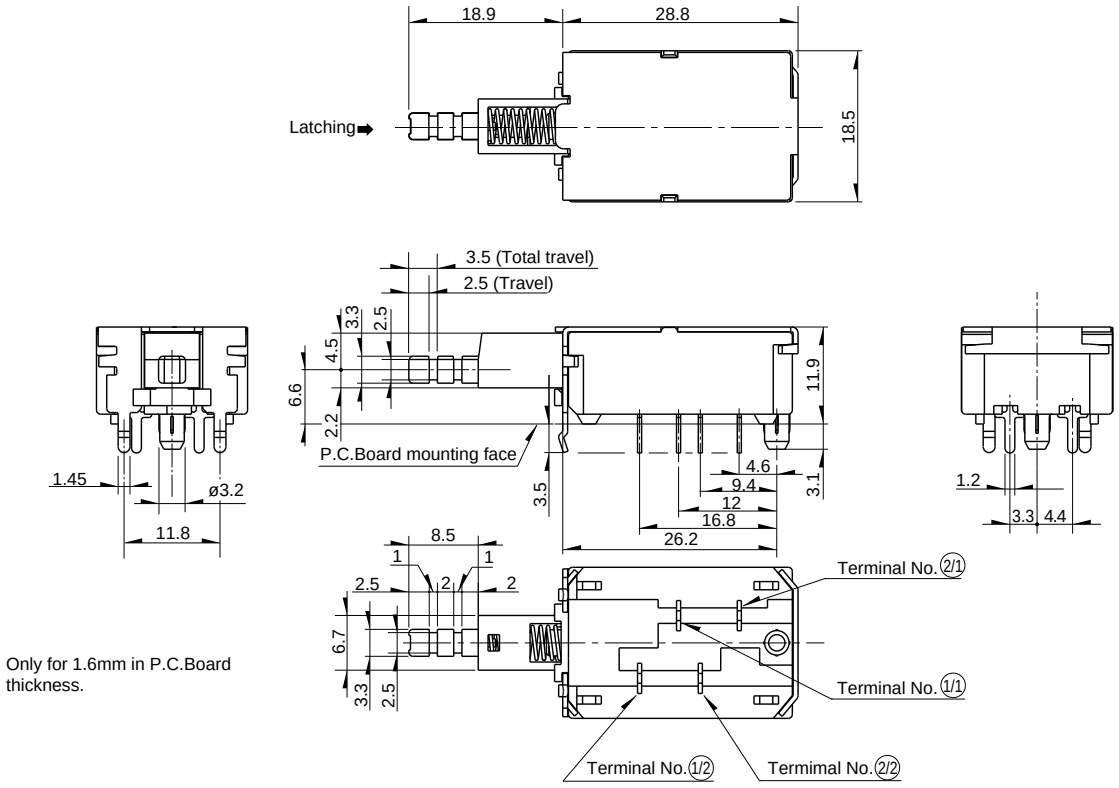
Content

Power Switch

Order Number	Model	Terminal Type	Travel
STPSDKEA3	SDKEA3	Printed Terminals	2,5 mm

STPSDKEA3



Only for 1.6mm in P.C.Board thickness.

Unit: (mm)

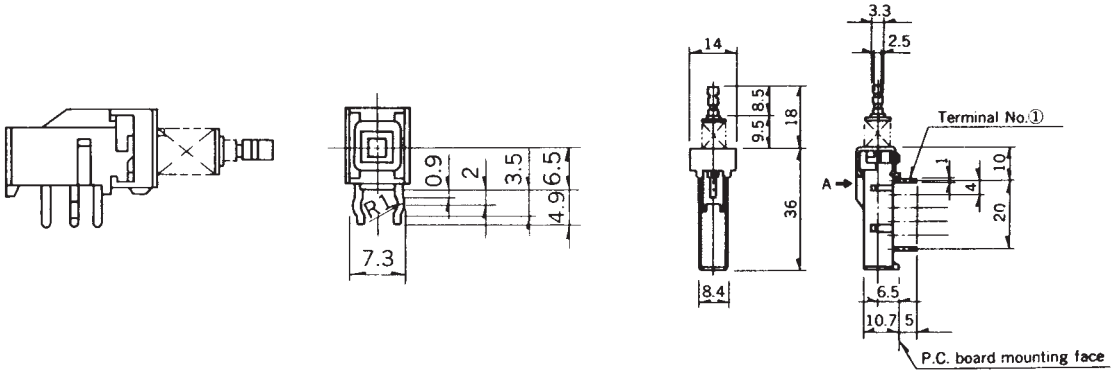
Push Switches

Order Number	Model	Number of Poles	Number of Position	Mode
STSPUN121	SPUN19-2N-LB	2	2	Momentary
STSPUN141	SPUN19-4N-LB	4	2	Momentary
STSPUN122	SPUN19-2N-W	2	2	Latching
STSPUN142	SPUN19-4N-W	4	2	Latching
STSPEC123	SPEC12-2N-W2	2	2	Latching
STSPEC124	SPEC12-2N-LB2	2	2	Momentary

Ratings: 0.1A 30V DC; straight terminals as standard

SPUN19

Snap-In Terminals Optional



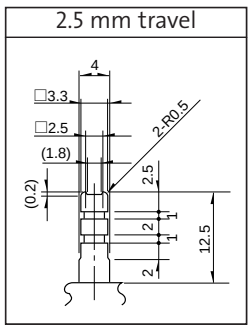
SPEC12

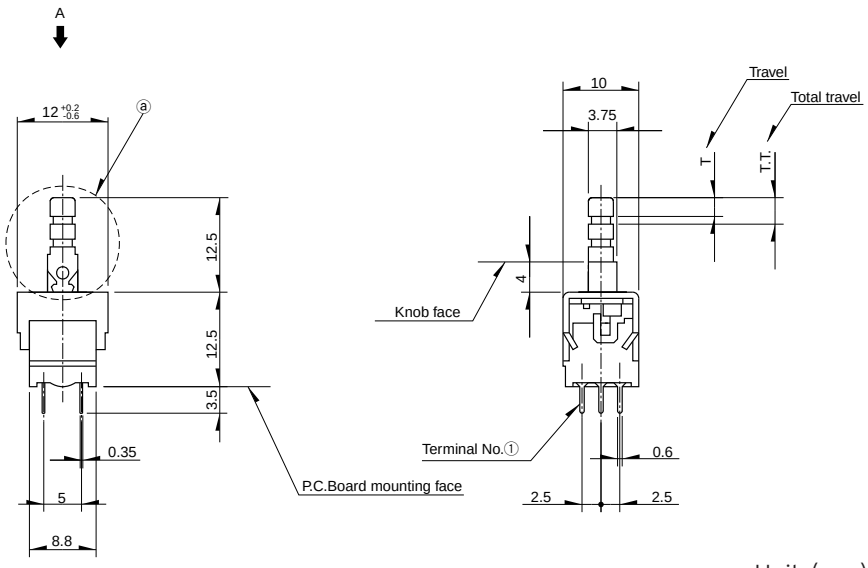
Snap-In Terminals Optional

1. Travel and Total Travel

T	T.T.
2.5	3.4

2. Detail of a



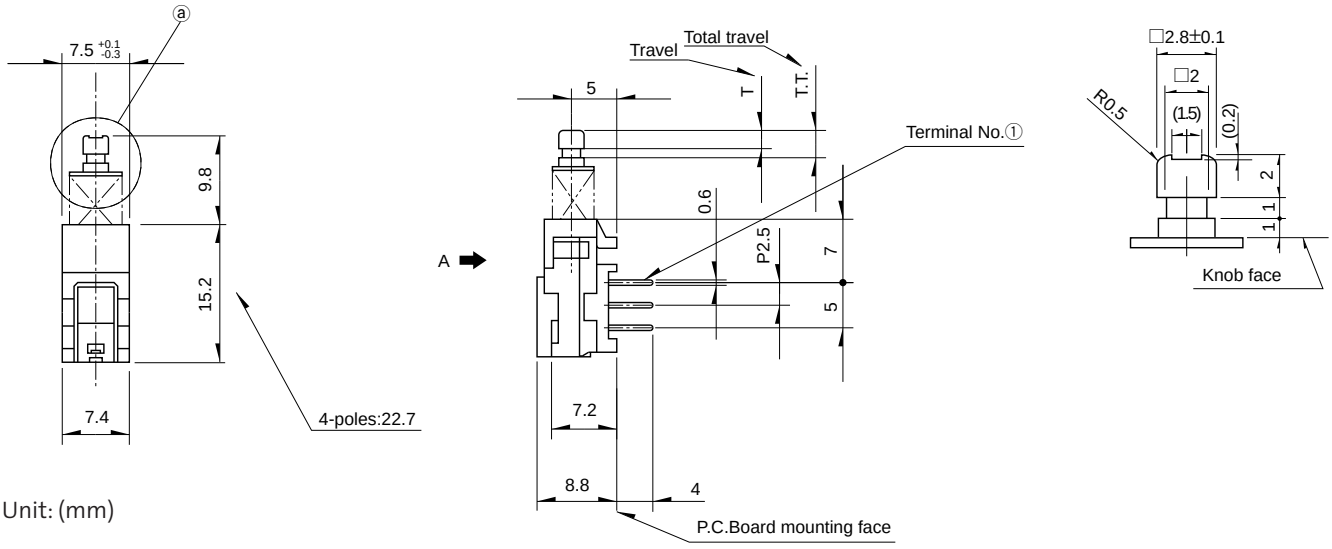


Unit: (mm)

Push Switches

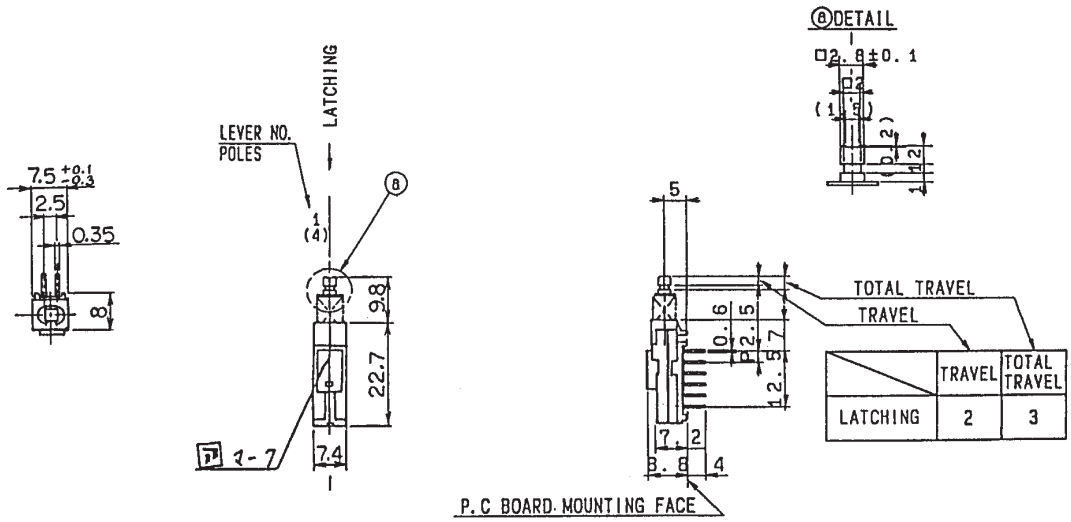
Order Number	Model	Number of Poles	Ratings	Mode	Mounting Height (mm)	Change Over Timing	Life (Cycles)
STSPUJ121	SPUJ19-2N-LB	2	0.1A 30V DC	Momentary	5 mm	Non-shorting	10.000
STSPUJ141	SPUJ19-4N-LB	4	0.1A 30V DC	Momentary	5 mm	Non-shorting	10.000
STSPUJ122	SPUJ19-2N-W	2	0.1A 30V DC	Latching	5 mm	Non-shorting	10.000
STSPUJ142	SPUJ19-4N-W	4	0.1A 30V DC	Latching	5 mm	Non-shorting	10.000

SPUJ12 Series



Unit: (mm)

SPUJ14 Series

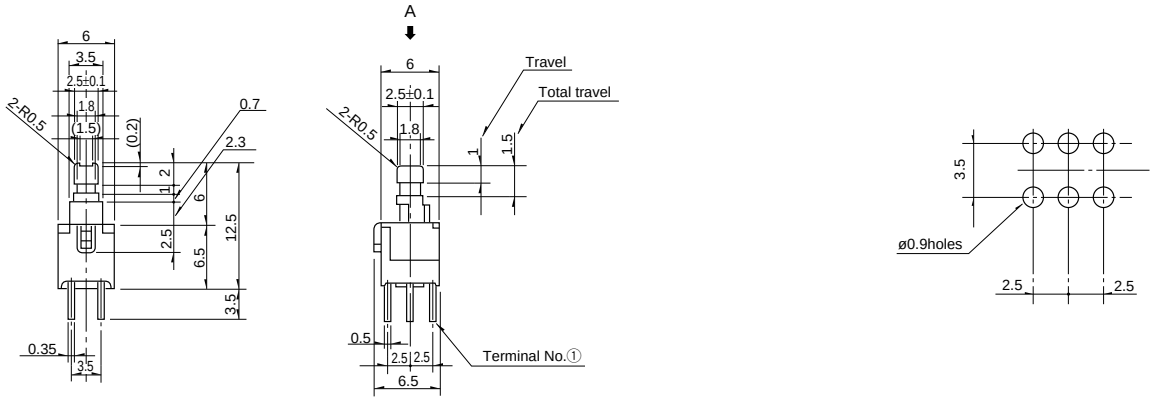


Unit: (mm)

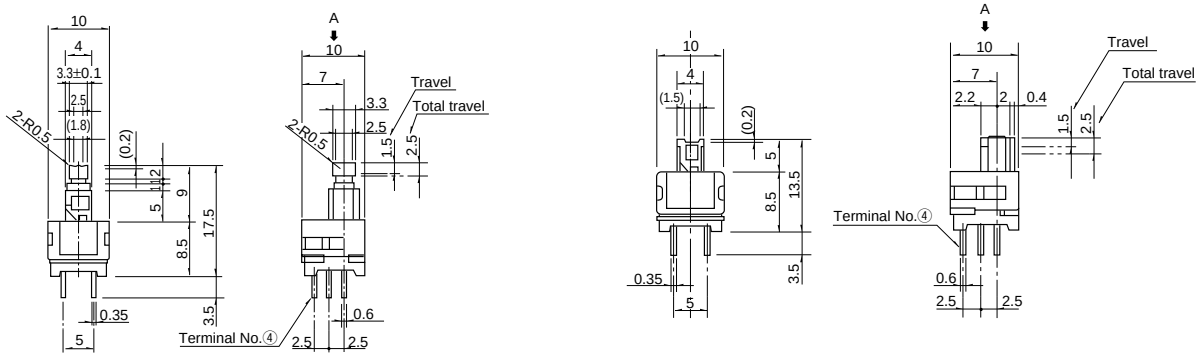
Push Switches

Order Number	Model	Number of Poles	Number of Position	Mode	Terminal Type	Change Over Timing
STSPPH211	SPPH21-W	2	2	Latching	Straight	Non-shorting
STSPPH111	SPPH11-W	2	2	Latching	Straight	Non-shorting
STSPPH411	SPPH41-W	2	2	Latching	Straight	Non-shorting
STSPPH412	SPPH41-LB	2	2	Momentary	Straight	Non-shorting

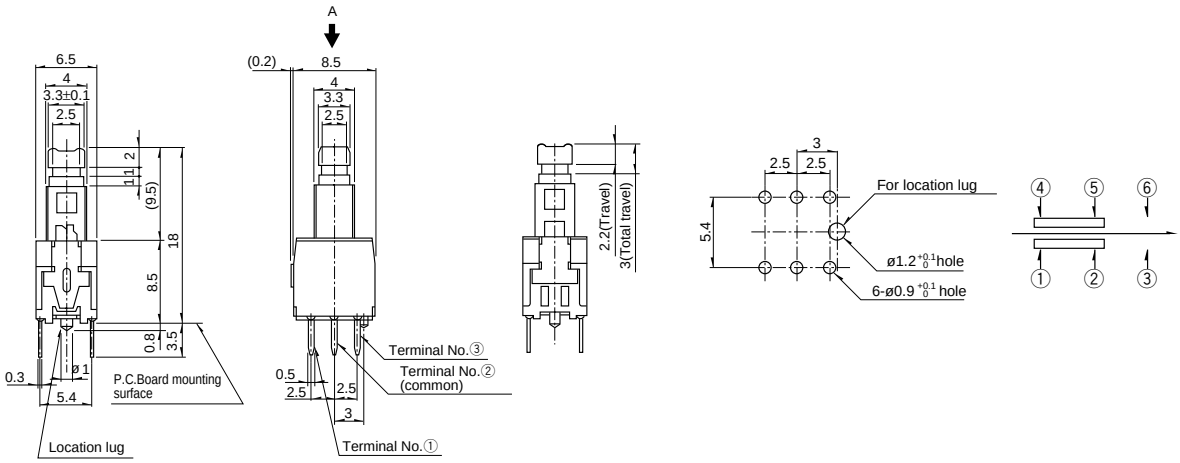
SPPH21 Series



SPPH11 Series



SPPH41 Series

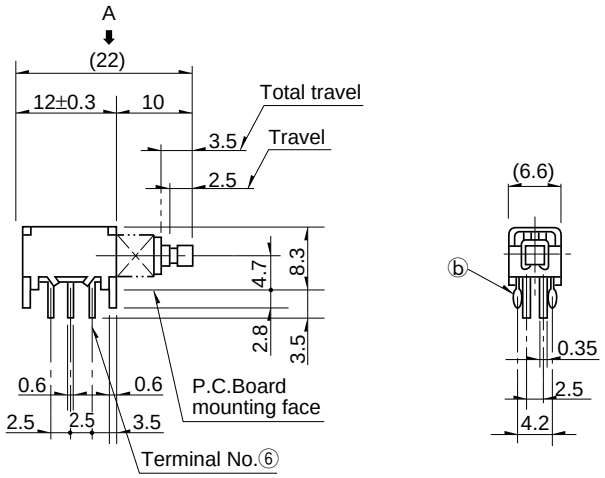


Unit: (mm)

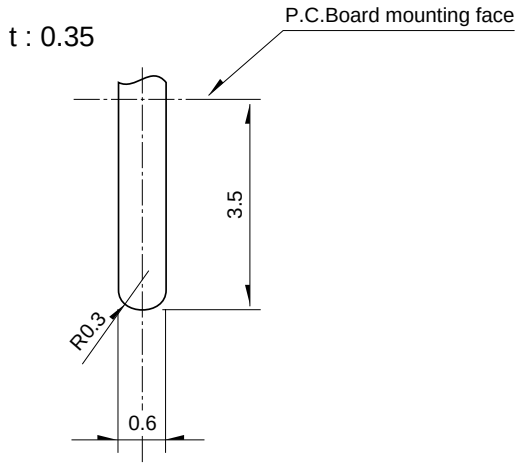
Push Switches

Order Number	Model	Number of Poles	Number of Position	Mode	Terminal Type	Change Over Timing
STSPPJ301	SPPJ3-EN2-PW	2	2	Latching	Printed wiring Terminals	Non-shorting
STSPPJ302	SPPJ3-EN2-PLB	2	2	Momentary	Printed wiring Terminals	Non-shorting

SPPJ3 Series



Terminal for printed wiring



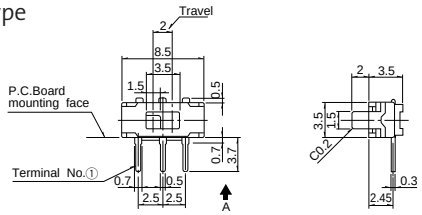
Unit: (mm)

Order Number	Model	Direction of Knob	Number of Poles	Number of Positions	Lever Height (mm)	Change Over Timing	Life (Cycles)	Contact Resistance (mΩ)	Type
STSSS2121	SSSS212-01	Vertical	1	2	2 mm	Non-shorting	5.000	70 mΩ	Standard
STSSS2131	SSSS213-01	Vertical	1	3	2 mm	Non-shorting	5.000	70 mΩ	Standard
STSSS2221	SSSS222-01	Vertical	2	2	2 mm	Non-shorting	5.000	70 mΩ	Standard
STSSS2231	SSSS223-01	Vertical	2	3	2 mm	Non-shorting	5.000	70 mΩ	Standard
STSSS2122	SSSS212-11	Horizontal	1	2	2 mm	Non-shorting	5.000	70 mΩ	Standard
STSSS2132	SSSS213-11	Horizontal	1	3	2 mm	Non-shorting	5.000	70 mΩ	Standard
STSSS2222	SSSS222-11	Horizontal	2	2	2 mm	Non-shorting	5.000	70 mΩ	Standard
STSSS2232	SSSS223-11	Horizontal	2	3	2 mm	Non-shorting	5.000	70 mΩ	Standard

SSSS2 Series

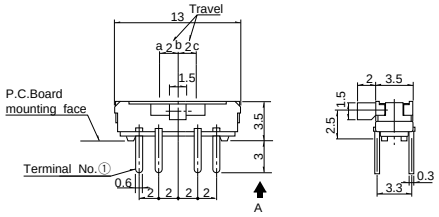
Horizontal Type

1-2



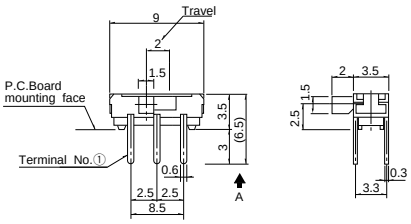
Auto-dipping is not possible
Operating force with detent : 2±1.5N{204±153gf}

1-3



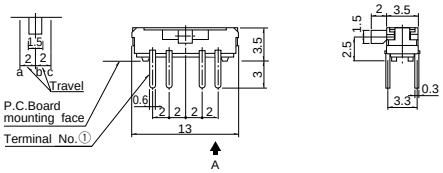
Operating force with detent : a→b, c→b } 1.5±1N{153±102gf} b→a, b→c } 2.5±1.5N{255±153gf}

2-2



Operating force with detent : 1.5±1N{153±102gf}

2-3

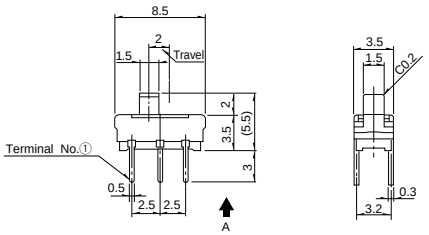


Operating force with detent : a→b, c→b } 1.5±1N{153±102gf} b→a, b→c } 2.5±1.5N{255±153gf}

SSSS2 Series

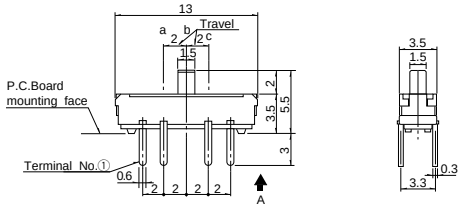
Vertical Type

1-2



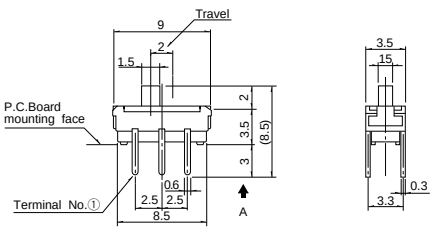
Operating force with detent : 2±1.5N{204±102gf}

1-3



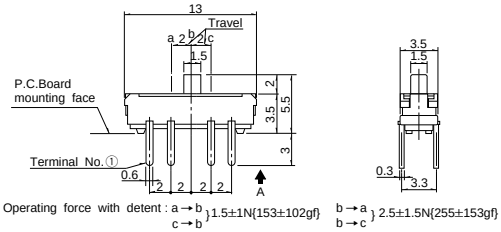
Operating force with detent : a→b, c→b } 1.5±1N{153±102gf} b→a, b→c } 2.5±1.5N{255±153gf}

2-2



Operating force with detent : 1.5±1N{153±102gf}

2-3



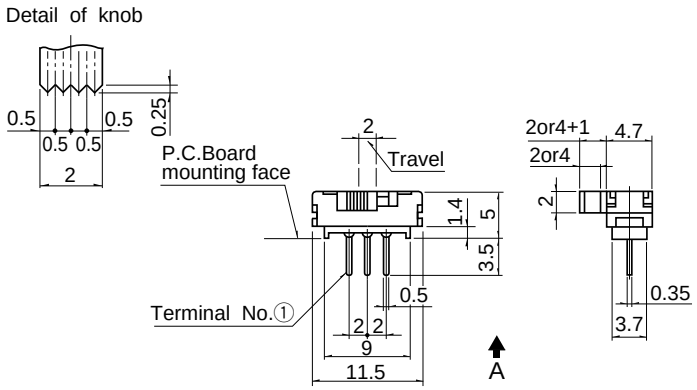
Operating force with detent : a→b, c→b } 1.5±1N{153±102gf} b→a, b→c } 2.5±1.5N{255±153gf}

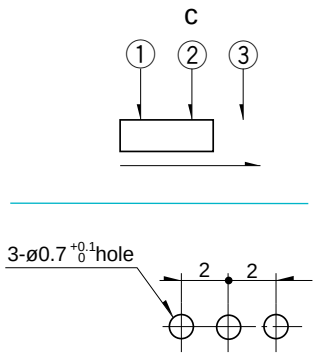
Unit: (mm)

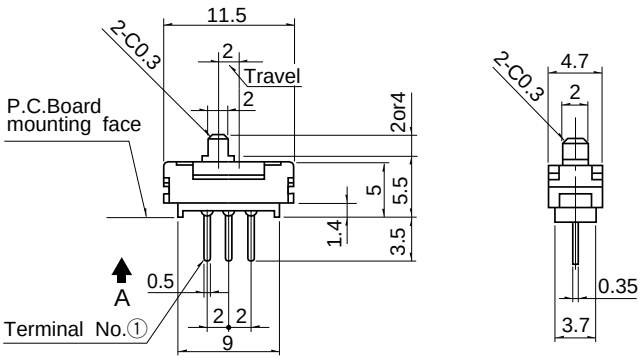
Slide Switches

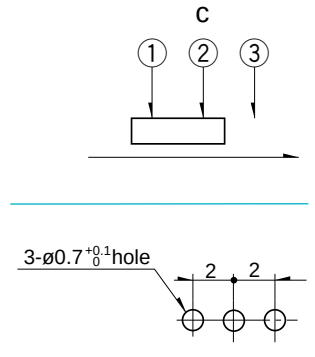
Order Number	Model	Direction of Knob	Number of Poles	Number of Positions	Knob Length (mm)	Change Over Timing	Life (Cycles)	Contact Resistance (mΩ)	Frame Style
STSSS9121	SSSS912N-4A-0	Vertical	1	2	4 mm	Non-shorting	10.000	30 mΩ	A
STSSS9131	SSSS913Z-4A-0	Vertical	1	3	4 mm	Non-shorting	10.000	30 mΩ	A
STSSS9221	SSSS922N-4A-0	Vertical	2	2	4 mm	Non-shorting	10.000	30 mΩ	A
STSSS9231	SSSS923Z-4A-0	Vertical	2	3	4 mm	Non-shorting	10.000	30 mΩ	A
STSSS9132	SSSS913Z-4A-1	Horizontal	1	3	4 mm	Non-shorting	10.000	30 mΩ	A
STSSS9233	SSSS923Z-4A-1	Horizontal	2	3	4 mm	Non-shorting	10.000	30 mΩ	A

SSSS9 Series









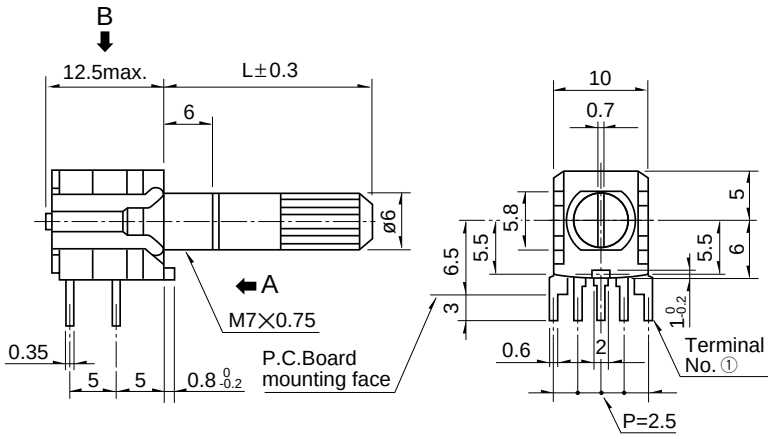
Unit: (mm)

Rotary Switches

Order Number	Model	Number of Poles	Number of Position	Shaft Style	Change Over Timing	Shaft Length (mm)
STSRBM141	SRBM14N-K20	1	4	KNURL	Non-shorting	20 mm
STSRBM151	SRBM15N-K20	1	5	KNURL	Non-shorting	20 mm
STSRBM161	SRBM16N-K20	1	6	KNURL	Non-shorting	20 mm

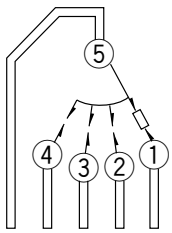
SRBM Series

1 Pole



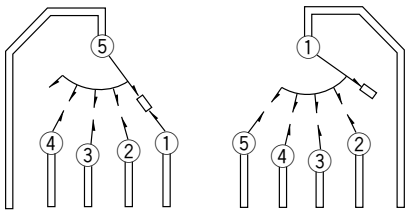
2 to 4-Position

REAR FRONT



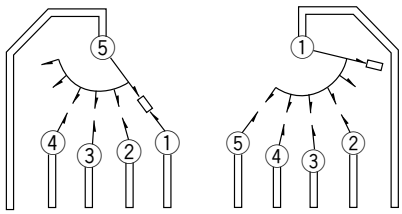
5-Position a1

REAR FRONT



6 -Position a2

REAR FRONT



a1.: Circuit steps are 2 to 5 positions at front, and 1 to 4 positions at rear.
a2.: Circuit steps are 3 to 6 positions at front, and 1 to 4 positions at rear.
a1,a2: It is necessary external wiring of common terminals.

Unit: (mm)

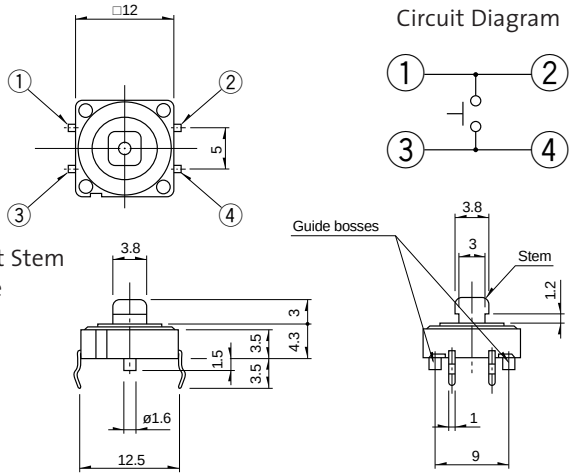
Tact Switches

Metal Contact (Standard Bulk Type)

Order Number	Model	Operating Force (N)	Life (Cycles)	Dimensions (mm)
STTSKHCAA	SKHCAA	1.274 N	10^6 cycles	Joint Stem Type (12x12 mm)
STTSKHCAC	SKHCAC	2.548 N	5 x 10^5 cycles	Joint Stem Type (12x12 mm)
STTSKHCAE	SKHCAE	0.735 N	5 x 10^5 cycles	Joint Stem Type (12x12 mm)
STTSKHCAG	SKHCAG	1.274 N	3 x 10^6 cycles	Joint Stem Type (12x12 mm)
STTSKHCAB	SKHCAB	1.274 N	10^6 cycles	Flat Stem Type (12x12 mm)
STTSKHCAD	SKHCAD	2.548 N	5 x 10^5 cycles	Flat Stem Type (12x12 mm)
STTSKHCAF	SKHCAF	0.735 N	5 x 10^5 cycles	Flat Stem Type (12x12 mm)
STTSKHCAH	SKHCAH	1.274 N	3 x 10^6 cycles	Flat Stem Type (12x12 mm)
STTSKQEAA	SKQEAA	1.568 N	10^7 cycles	Joint Stem Type (12x12 mm)
STTSKQEAC	SKQEAC	2.548 N	10^7 cycles	Joint Stem Type (12x12 mm)
STTSKQEAB	SKQEAB	1.568 N	10^7 cycles	Flat Stem Type (12x12 mm)
STTSKQEAD	SKQEAD	2.548 N	10^7 cycles	Flat Stem Type (12x12 mm)

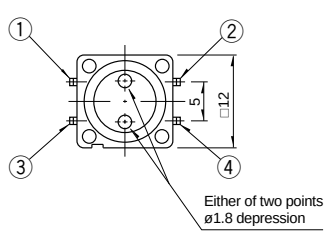
SKHC Series

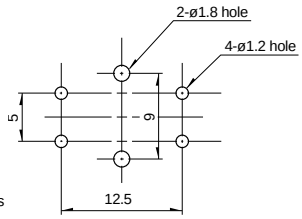
Joint Stem Type



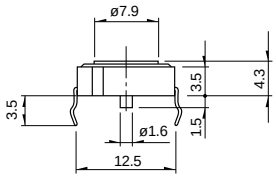
Circuit Diagram

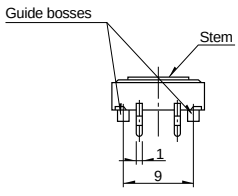
Flat Stem Type





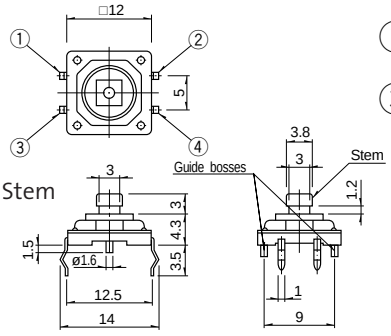
It is suggested to use a P. C. board of 1.6 mm thick.



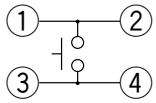


SKQE Series

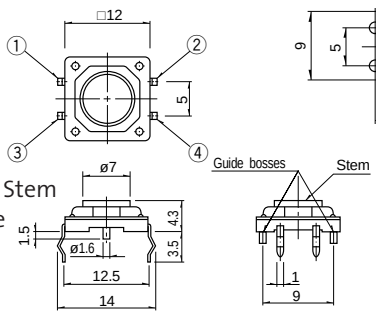
Joint Stem Type

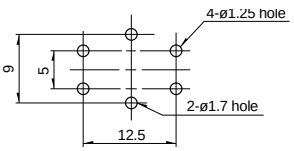


Circuit Diagram



Flat Stem Type





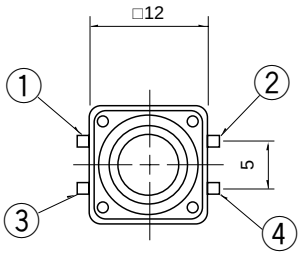
It is suggested to use a P. C. board of 1.6 mm thick.

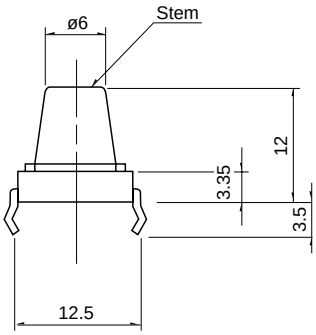
Unit: (mm)

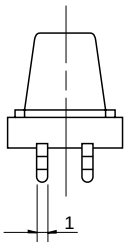
Tact Switches

Metal Contact (Standard Bulk Type)

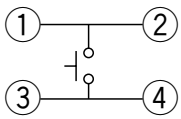
Order Number	Model	Operating Force (N)	Life (Cycles)	Initial contact resistance	Stem color	Case color
STTSKHKAA	SKHKAA	1.274N	5x10⁵ cycles	max. 100 mΩ	Light gray	Black



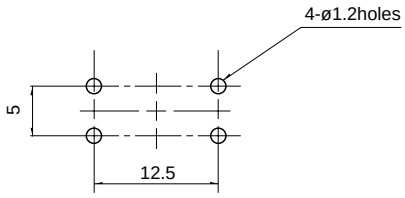




Circuit diagram



Printed circuit board mounting hole dimensions
(When viewed from switch mounting face)



It is suggested to use a P.C.Board of 1.6mm thick.

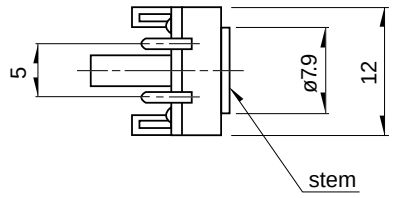
Unit: (mm)

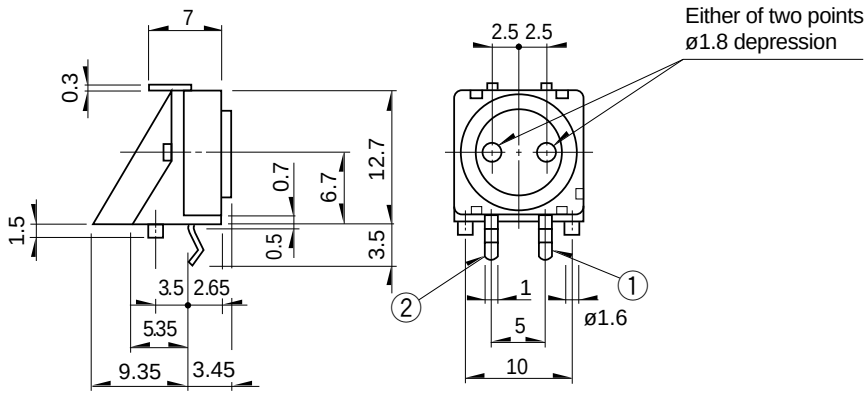
Tact Switches

Metal Contact (Standard Bulk Type)

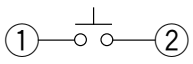
Order Number	Model	Operating Force (N)	Life (Cycles)
STTSKHCLA	SKHCLA	1.274 N	5 x 10^5 cycles

Horizontal type

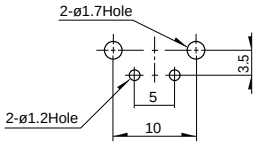




Circuit diagram



Printed Circuit board mounting hole dimensions
(When viewed from switch mounting face)



It is suggested to use a P.C. board of 1.6 mm thick

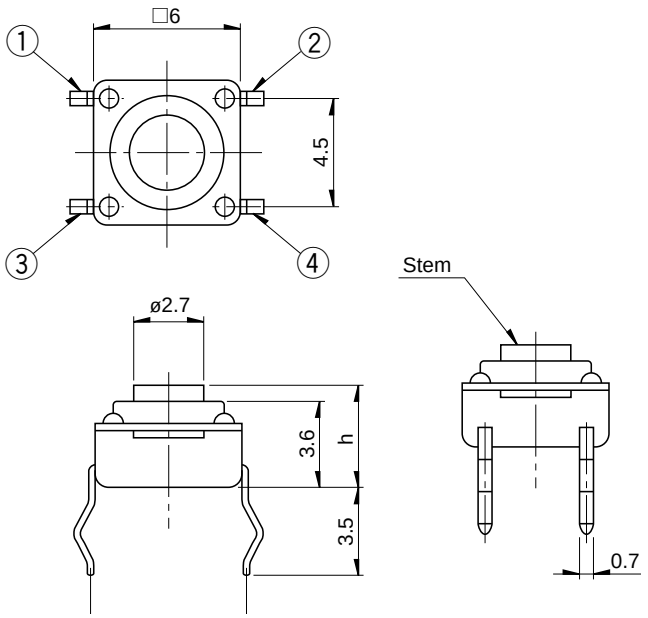
Unit: (mm)

Tact Switches

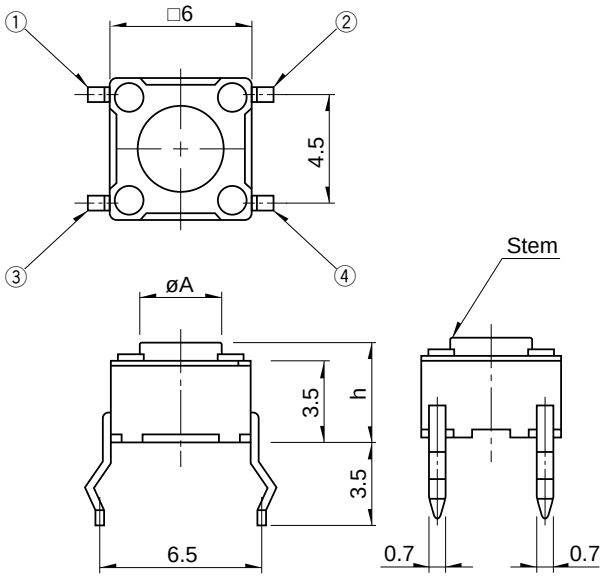
Metal Contact (Standard Bulk Type)

Order Number	Model	Operating Force (N)	Life (Cycles)	Dimensions (mm)
STTSKHWAC	SKHWAC	1.568 N	10^6 cycles	H= 4.3 mm (6x6 mm)
STTSKHWAD	SKHWAD	2.548 N	5 x 10^5 cycles	H= 4.3 mm (6x6 mm)
STTSKHWAA	SKHWAA	1.568 N	10^6 cycles	H= 5 mm (6x6 mm)
STTSKHWAB	SKHWAB	2.548 N	5 x 10^5 cycles	H= 5 mm (6x6 mm)
STTSKHHAJ	SKHHAJ	0.980 N	10^6 cycles	H= 4.3 mm (6x6 mm)
STTSKHHAL	SKHHAL	1.568 N	5 x 10^5 cycles	H= 4.3 mm (6x6 mm)
STTSKHHAQ	SKHHAQ	2.548 N	2 x 10^5 cycles	H= 4.3 mm (6x6 mm)
STTSKHHBC	SKHHBC	1.960 N	2 x 10^6 cycles	H= 4.3 mm (6x6 mm)
STTSKHHAK	SKHHAK	0.980 N	10^6 cycles	H= 5 mm (6x6 mm)
STTSKHHAM	SKHHAM	1.568 N	5 x 10^5 cycles	H= 5 mm (6x6 mm)
STTSKHHDC	SKHHDC	1.960 N	2 x 10^6 cycles	H= 5 mm (6x6 mm)
STTSKHHAR	SKHHAR	2.548 N	2 x 10^5 cycles	H= 5 mm (6x6 mm)
STTSKHHCQ	SKHHCQ	3.528 N	2 x 10^5 cycles	H= 5 mm (6x6 mm)
STTSKHHCR	SKHHCR	5.096 N	2 x 10^5 cycles	H= 5 mm (6x6 mm)
STTSKHHBV	SKHHBV	0.980 N	10^6 cycles	H= 7 mm (6x6 mm)
STTSKHHBW	SKHHBW	1.568 N	5 x 10^5 cycles	H= 7 mm (6x6 mm)
STTSKHHBY	SKHHBY	2.548 N	2 x 10^5 cycles	H= 7 mm (6x6 mm)
STTSKHHAN	SKHHAN	0.980 N	10^6 cycles	H= 9.5 mm (6x6 mm)
STTSKHHAP	SKHHAP	1.568 N	5 x 10^5 cycles	H= 9.5 mm (6x6 mm)
STTSKHHBS	SKHHBS	2.548 N	2 x 10^5 cycles	H= 9.5 mm (6x6 mm)

SKHW Series



SKHH Series



Unit: (mm)

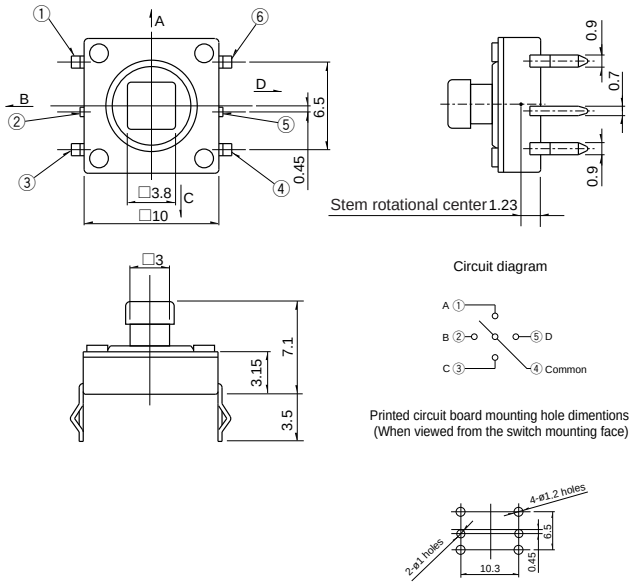
Tact Switches

Multifunction Tact Switch

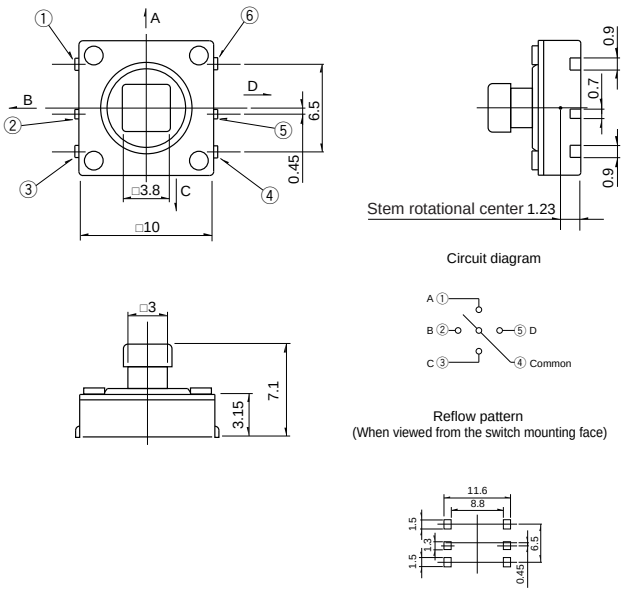
Order Number	Model	Operating Force (N)	Life (Cycles)	Dimension (mm)	Type
STTSKQUAA	SKQUAA	1,568 N	5 x 10^4 each direction	H = 7.1 mm (10 x 10 mm)	Snap-in
STTSKQUBA	SKQUBA	1,568 N	5 x 10^4 each direction	H = 7.1 mm (10 x 10 mm)	SMD
STTSKQUCA	SKQUCA	1,568 N	1 x 10^5 each direction	H = 10 mm (10 x 10 mm)	Snap-in
		Center push: 3.136 N			
STTSKQUDB	SKQUDB	1,568 N	1 x 10^5 each direction	H = 8.6 mm (10 x 10 mm)	SMD
		Center push: 3.136 N			

Note: STEM colour: Black, Ratings (max.): 50mA 12VDC

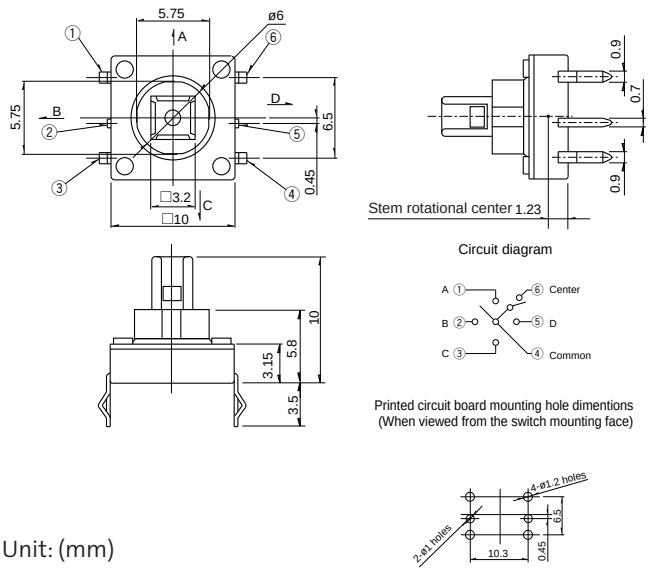
SKQUAA



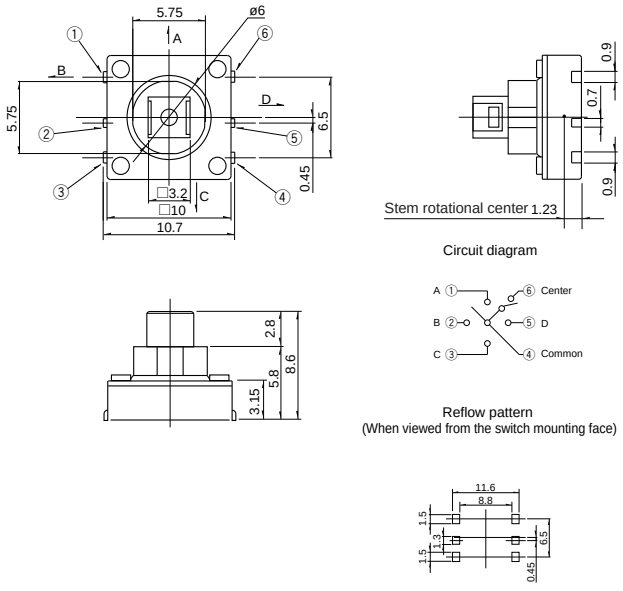
SKQUBA



SKQUCA



SKQUDB



Unit: (mm)

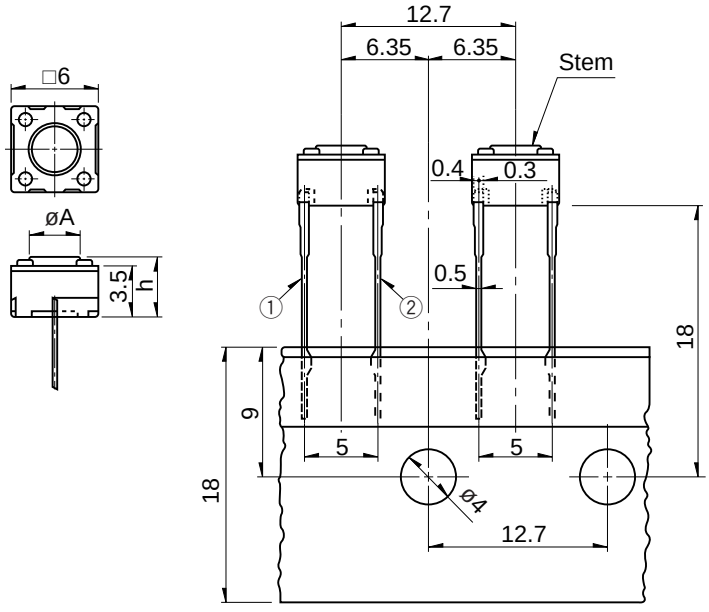
Tact Switches

Metal Contact (Standard Bulk Type)

Order Number	Model	Operating Force (N)	Life (Cycles)	Dimensions (mm)
STTSKHVBA	SKHVBA	0.980 N	10^6 cycles	H= 4.3 mm (6 x 6 mm)
STTSKHVBB	SKHVBB	1.586 N	5 x 10^5 cycles	H= 4.3 mm (6 x 6 mm)
STTSKHVBC	SKHVBC	2.548 N	2 x 10^5 cycles	H= 4.3 mm (6 x 6 mm)
STTSKHVBD	SKHVBD	0.980 N	10^6 cycles	H= 5 mm (6 x 6 mm)
STTSKHVBE	SKHVBE	1.568 N	5 x 10^5 cycles	H= 5 mm (6 x 6 mm)
STTSKHVBF	SKHVBF	2.548 N	2 x 10^5 cycles	H= 5 mm (6 x 6 mm)
STTSKHVBK	SKHVBK	0.980 N	10^6 cycles	H= 7 mm (6 x 6 mm)
STTSKHVBL	SKHVBL	1.568 N	5 x 10^5 cycles	H= 7 mm (6 x 6 mm)
STTSKHVBM	SKHVBM	2.548 N	2 x 10^5 cycles	H= 7 mm (6 x 6 mm)
STTSKHVBG	SKHVBG	0.980 N	10^6 cycles	H= 9.5 mm (6 x 6 mm)
STTSKHVBH	SKHVBH	1.568 N	5 x 10^5 cycles	H= 9.5 mm (6 x 6 mm)
STTSKHVBJ	SKHVBJ	2.548 N	2 x 10^5 cycles	H= 9.5 mm (6 x 6 mm)

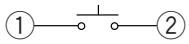
SKHV Series

Standard Type

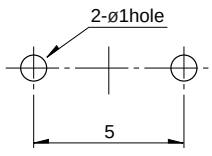


h	A
4.3	3.5
5	3.5
7	3.3
9.5	3

Circuit Diagram



Printed Circuit board mounting hole dimensions (When viewed from switch mounting face)



It is suggested to use a P. C. board of 1.6 mm thick.

Unit: (mm)

Tact Switches

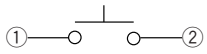
Metal Contact (Standard Bulk Type)

Order Number	Model	Operating Force	Life (Cycles)	Stem color	Stem height
STTSKQNAA	SKQNAA	0.98 N	5 x 10^5 cycles	Black	h = 4.3 mm
STTSKQNAB	SKQNAB	1.568 N	5 x 10^5 cycles	White	h = 4.3 mm
STTSKQNAC	SKQNAC	2.548 N	2 x 10^5 cycles	Gray	h = 4.3 mm
STTSKQNAD	SKQNAD	0.98 N	5 x 10^5 cycles	Black	h = 5 mm
STTSKQNAE	SKQNAE	1.568 N	5 x 10^5 cycles	White	h = 5 mm
STTSKQNAF	SKQNAF	2.548 N	2 x 10^5 cycles	Gray	h = 5 mm
STTSKQNAH	SKQNAH	0.98 N	5 x 10^5 cycles	Black	h = 7 mm
STTSKQNAJ	SKQNAJ	1.568 N	5 x 10^5 cycles	White	h = 7 mm
STTSKQNAK	SKQNAK	2.548 N	2 x 10^5 cycles	Gray	h = 7 mm
STTSKQNAL	SKQNAL	0.98 N	5 x 10^5 cycles	Black	h = 9.5 mm
STTSKQNAM	SKQNAM	1.568 N	5 x 10^5 cycles	White	h = 9.5 mm
STTSKQNAN	SKQNAN	2.548 N	2 x 10^5 cycles	Gray	h = 9.5 mm

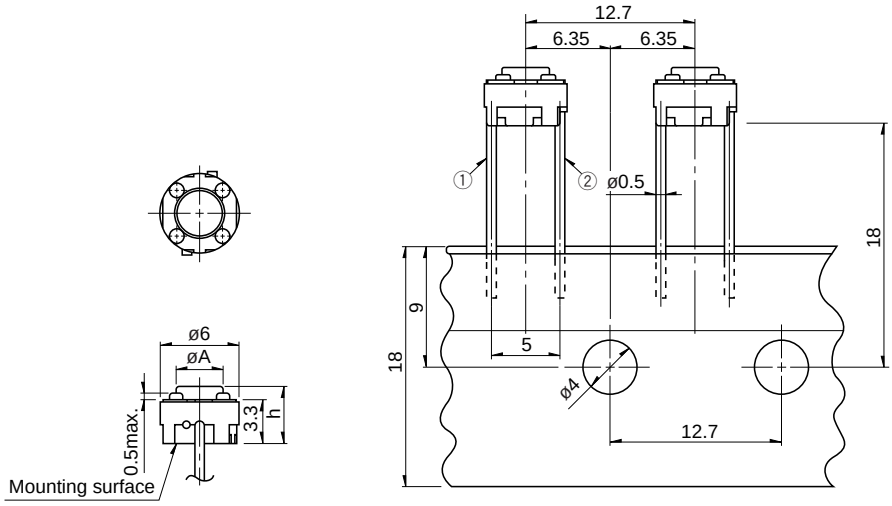
SKQN Series

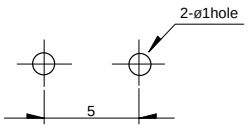
h	A
4.3	3.4
5	3.4
7	3.2
9.5	2.9

Circuit diagram



Printed circuit board mounting hole dimensions
(When viewed from the switch mounting face)





Unit: (mm)

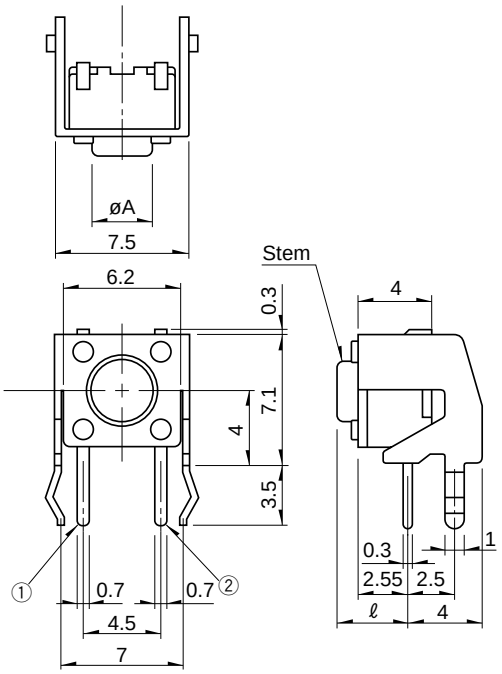
Tact Switches

Metal Contact (Standard Bulk Type)

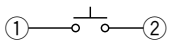
Order Number	Model	Operating Force (N)	Life (Cycles)	Dimensions (mm)
STTSKHHLM	SKHHLM	0.980 N	10^6 cycles	L= 3.85 mm (6 x 6 mm)
STTSKHHLN	SKHHLN	1.568 N	5 x 10^5 cycles	L= 3.85 mm (6 x 6 mm)
STTSKHHLP	SKHHLP	2.548 N	2 x 10^5 cycles	L= 3.85 mm (6 x 6 mm)
STTSKHHLQ	SKHHLQ	0.980 N	10^6 cycles	L= 8.35 mm (6 x 6 mm)
STTSKHHLR	SKHHLR	1.568 N	5 x 10^5 cycles	L= 8.35 mm (6 x 6 mm)
STTSKHHLS	SKHHLS	2.548 N	2 x 10^5 cycles	L= 8.35 mm (6 x 6 mm)
STTSKHHLU	SKHHLU	0.980 N	10^6 cycles	L= 5.85 mm (6 x 6 mm)
STTSKHHLV	SKHHLV	1.568 N	5 x 10^5 cycles	L= 5.85 mm (6 x 6 mm)
STTSKHHLW	SKHHLW	2.548 N	2 x 10^5 cycles	L= 5.85 mm (6 x 6 mm)

SKHHL Series

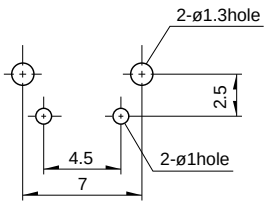
Vertical Type



Circuit diagram



Printed circuit board mounting hole dimensions
(When viewed from switch mounting face)



It is suggested to use a
P.C.Board of 1.6mm thick.

Unit: (mm)

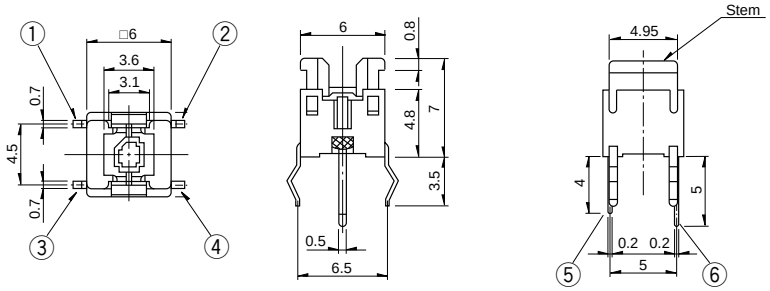
Tact Switches

Metal Contact with LED

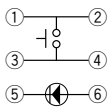
Order Number	Model	Operating Force (N)	Life (Cycles)	Dimensions (mm)
STTSKHQFF	SKHQFF	1.568 N	5 x 10^4	with LED: red (6 x 6 mm)
STTSKHJGE	SKHJGE	2.548 N	2 x 10^5	with LED: red (8 x 8 mm)
STTSKECFK	SKECFK	0.784 N	1 x 10^5	with LED: red (8 x 8 mm)
STTSKECFL	SKECFL	0.784 N	1 x 10^5	with LED: pure green (8 x 8 mm)
STTSKECFS	SKECFS	0.784 N	1 x 10^5	with LED: amber (8 x 8 mm)

SKHQ Series

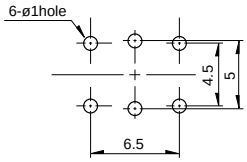
With LED Type



Circuit diagram



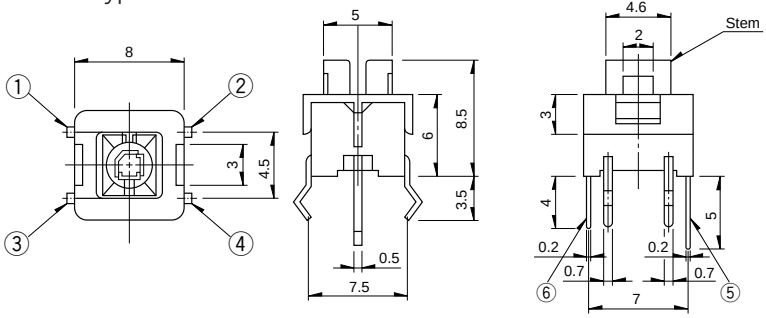
Printed circuit board mounting hole dimensions (When viewed from the switch mounting face)



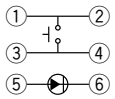
It is suggested to use a P.C.Board of 1.6mm thick.

SKHJ Series

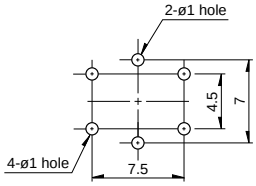
With LED Type



Circuit diagram



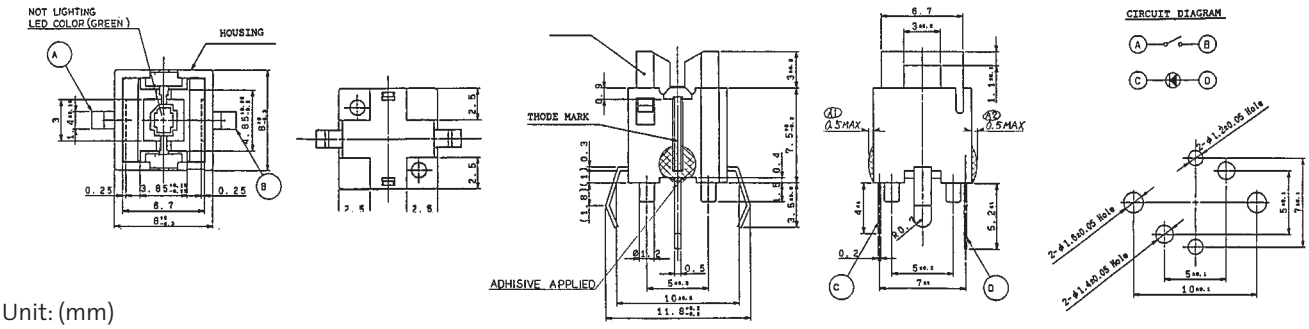
Printed circuit board mounting hole dimensions (When viewed from the switch mounting face)



It is suggested to use a P.C.Board of 1.6mm thick.

SKEC Series

With LED Type



Unit: (mm)

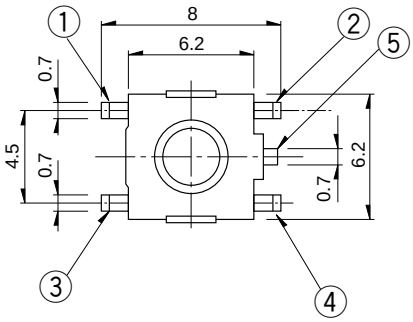
Tact Switches

Mechanical Contact (SMD Type)

Order Number	Model	Operating Force (N)	Life (Cycles)	Dimensions (mm)
STTSKHMPS	SKHMPS	0.980 N	5 x 10^5	H= 3.1 mm (6 x 6 mm)
STTSKHMPW	SKHMPW	1.568 N	3 x 10^5	H= 3.1 mm (6 x 6 mm)
STTSKHMPU	SKHMPU	2.352 N	2 x 10^5	H= 3.1 mm (6 x 6 mm)
STTSKHUAB	SKHUAB	0.980 N	3 x 10^5	H= 2.5 mm (6 x 6 mm)
STTSKHUAD	SKHUAD	1.568 N	3 x 10^5	H= 2.5 mm (6 x 6 mm)
STTSKHUAF	SKHUAF	2.548 N	10^5	H= 2.5 mm (6 x 6 mm)

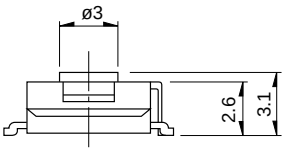
SKHM Series

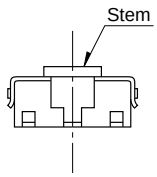
Reflow Soldering Type

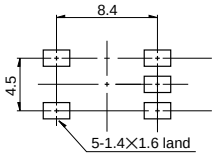


Circuit diagram

Printed circuit board land dimensions
(When viewed from the switch mounting face)

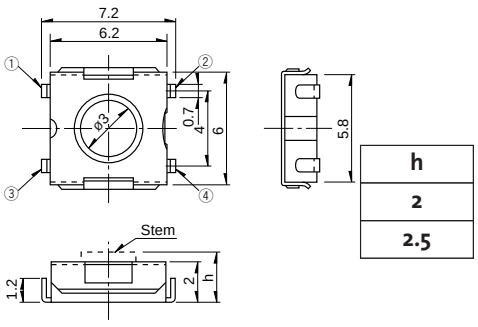






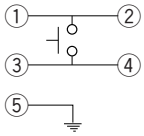
SKHU Series

Reflow Soldering Type

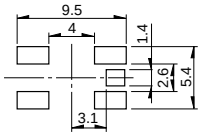


h
2
2.5

Circuit diagram



Printed circuit board land dimensions
(When viewed from switch mounting face)



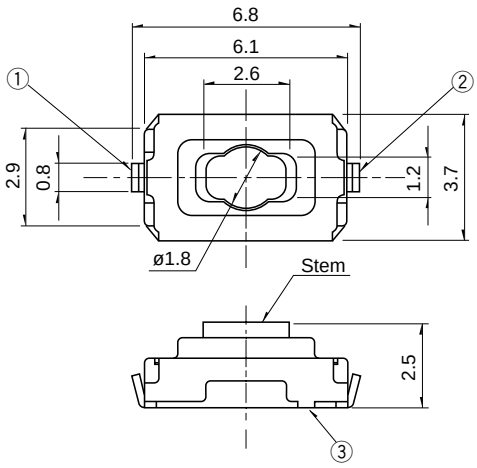
Unit: (mm)

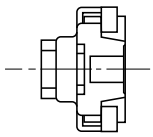
Tact Switches

Mechanical Contact (SMD Type)

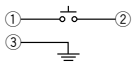
Order Number	Model	Operating Force (N)	Life (Cycles)	Dimensions (mm)
STTSKQYAA	SKQYAA	1.568 N	5 x 10^4	H= 2.5 mm (3.7 x 6.1 mm)
STTSKQYAB	SKQYAB	2.548 N	5 x 10^4	H= 2.5 mm (3.7 x 6.1 mm)
STTSKQYAC	SKQYAC	0.98 N	5 x 10^4	H= 2.5 mm (3.7 x 6.1 mm)

SKQYA Series

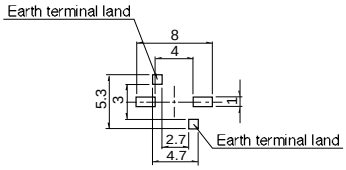




Circuit diagram



Printed circuit board land dimensions
(When viewed from the switch mounting face)



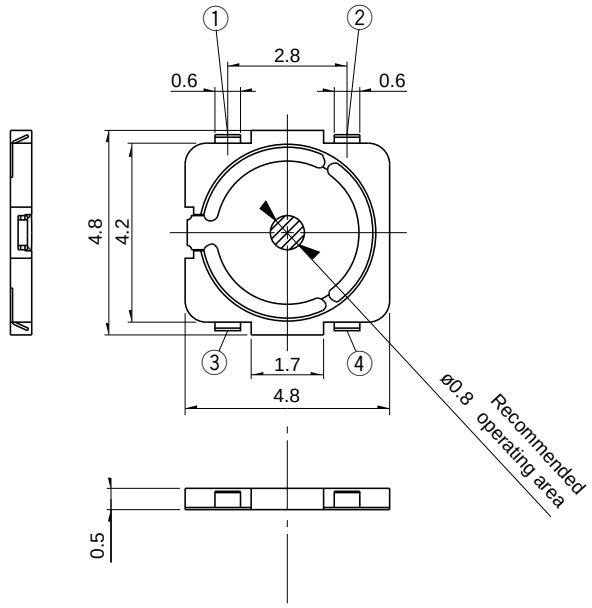
Unit: (mm)

Tact Switches

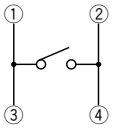
Metal Contact

Order Number	Model	Operating Force (N)	Life (Cycles)	Dimensions (mm)
STTSKQRAA	SKQRAA	1.568 N	5 x 10^5 cycles	Height = 0,5 mm
STTSKQRAC	SKQRAC	2.352 N	5 x 10^4 cycles	Height = 0,5 mm

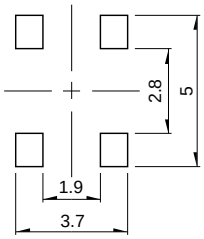
SKQRA Series



Circuit diagram



Printed circuit board land dimensions
(When viewed from the switch mounting face)



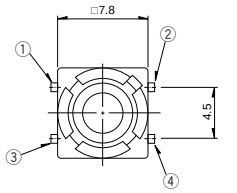
Unit: (mm)

Tact Switches

Elastic Contact (Standard Bulk Type)

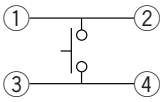
Order Number	Model	Operating Force (N)	Life (Cycles)	Dimensions (mm)
STTSKEYAG	SKEYAG	0.784 N	5 x 10^5	H= 5 mm (8 x 8 mm)
STTSKEYAF	SKEYAF	1.176 N	3 x 10^5	H= 5 mm (8 x 8 mm)
STTSKEYAC	SKEYAC	2.450 N	10^5	H= 5.5 mm (8 x 8 mm)
STTSKPEAA	SKPEAA	2.450 N	5 x 10^4	H= 5 mm (6.3 x 6.6 mm)
STTSKPGAA	SKPGAA	2.450 N	5 x 10^4	H= 5 mm (6.3 x 6.6 mm)
STTSKPGAC	SKPGAC	1.176 N	5 x 10^4	H= 5 mm (6.3 x 6.6 mm)

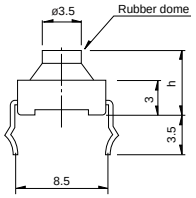
SKEY Series

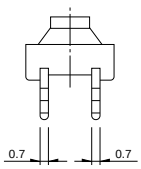


h
5
5.5

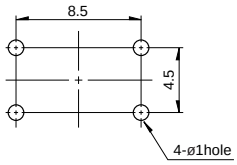
Circuit diagram





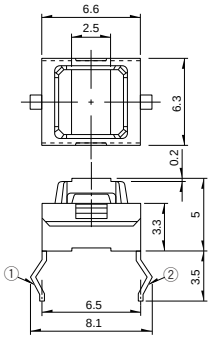


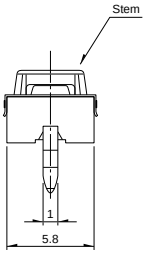
Printed circuit board mounting hole dimensions
(When viewed from the switch mounting face)



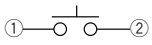
It is suggested to use
a P.C. Board of 1.6mm thick.

SKPE Series

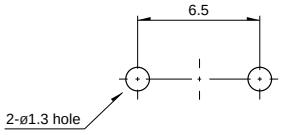




Circuit diagram

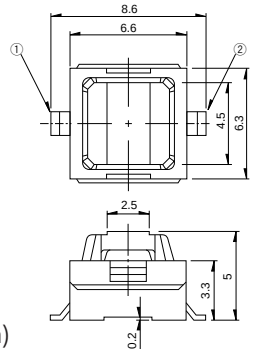


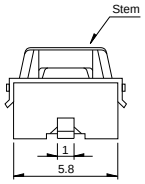
Printed circuit board mounting hole dimensions
(When viewed from the switch mounting face)



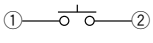
It is suggested to use
a P.C. Board of 1.6mm thick.

SKPG Series

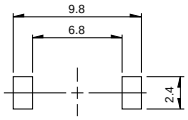




Circuit diagram



Printed circuit board mounting hole dimensions
(When viewed from the switch mounting face)



It is suggested to use
a P.C. Board of 1.6mm thick.

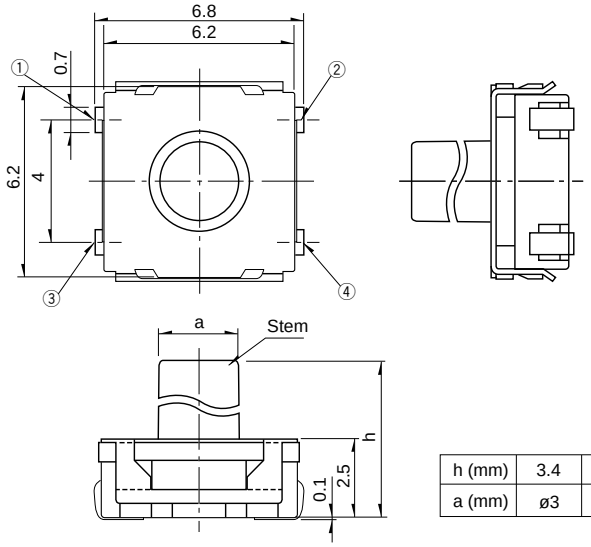
Unit: (mm)

Tact Switches

Elastic Contact (with LED)

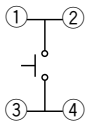
Order Number	Model	Operating Force (N)	Lifetime (Cycles)	Travel	Dimensions (mm)	Actuator Material
STTSKRAAA	SKRAAA	3.0 N	5 x 10^5	0.35 mm	H = 3.4 mm	Silicone
STTSKRAAB	SKRAAB	4.5 N	3 x 10^5	0.40 mm	H = 3.4 mm	Silicone
STTSKRAAC	SKRAAC	2.0 N	1 x 10^6	0.50 mm	H = 5.1 mm	Silicone
STTSKRAAD	SKRAAD	3.5 N	5 x 10^5	0.75 mm	H = 5.1 mm	Silicone

SKRA Series

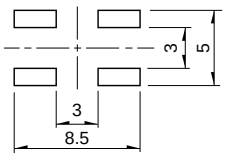


h (mm)	3.4	5.1
a (mm)	ø3	ø2.6

Circuit diagram



Printed circuit board land dimension
(When viewed from the switch mounting face)



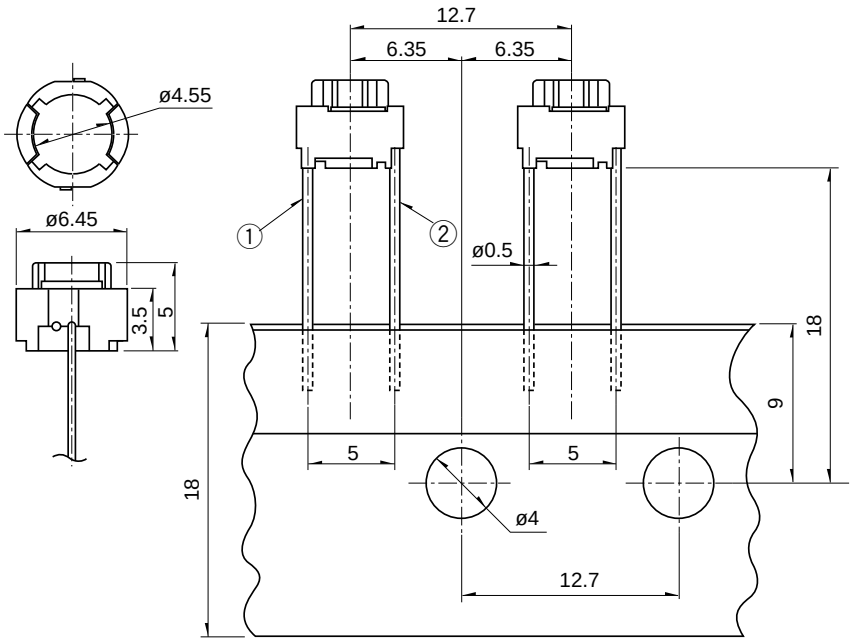
Unit: (mm)

Tact Switches

Metal Contact / Soft feeling Type

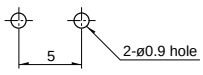
Order Number	Model	Operating Force (N)	Life (Cycles)	Dimensions (mm)	Travel
STTSKPLAA	SKPLAA	2.45 N	1 x 10^5	H= 5.0 mm Diameter 6.4 mm	1.3 mm
STTSKPLAB	SKPLAB	1.96 N	1 x 10^5	H= 5.0 mm Diameter 6.4 mm	1.3 mm

SKPLAA Series



Circuit diagram

Printed circuit board mounting hole dimensions
(When viewed from the switch mounting face)



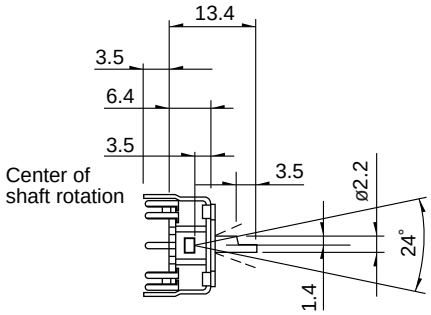
Unit: (mm)

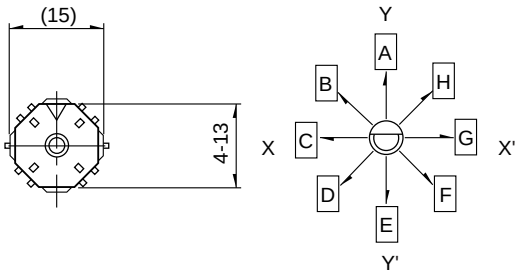
Compact Stick Switch

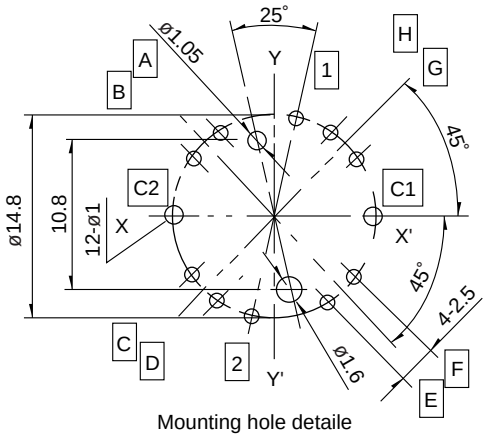
Order Number	Model	Switch ratings	Contact resistance lever/ push operation	Insulation resistance	Voltage proof	Operating life
STRKJXL01	RKJXL	DC5V10mA	500m/500m Ω max.	100M Ω min. at 250V DC	300V AC for 1 minute	100,000 cycles

Features: 8 - direction switcher with push-on selector sw
(Version without push-on switch is also available)

RKJXL

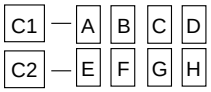


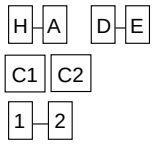




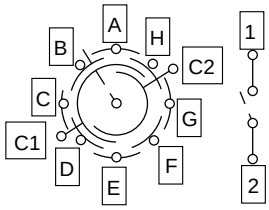
Mounting hole detaile
viewed from mounting side

The following terminals conduct according to the operational direction of the shaft.
(Adjoining terminals have a shorting zone)





(C1) and (C2) conduct between (H)-(A) and (D)-(E).
(1)-(2) conduct by push- on operation.



SW Circuit

Unit: (mm)

Rotary Potentiometer

Order Number	Size (mm)	Number of Elements	Resistance Value (kΩ)	Taper	Shaft lenght (mm)	Tap	Mounting height (mm)	Uses	Rest of Specification
STRK09701	9 mm	Single Unit	10 kΩ	A= Logarithmic	25 mm	No Tap	6.5 mm	AC-Use	Standard
STRK09702	9 mm	Single Unit	50 kΩ	A= Logarithmic	25 mm	No Tap	6.5 mm	AC-Use	Standard
STRK09703	9 mm	Single Unit	100 kΩ	A= Logarithmic	25 mm	No Tap	6.5 mm	AC-Use	Standard
STRK09704	9 mm	Single Unit	10 kΩ	B= Linear	25 mm	No Tap	6.5 mm	AC-Use	Standard
STRK09705	9 mm	Single Unit	50 kΩ	B= Linear	25 mm	No Tap	6.5 mm	AC-Use	Standard
STRK09706	9 mm	Single Unit	100 kΩ	B= Linear	25 mm	No Tap	6.5 mm	AC-Use	Standard
STRK09707	9 mm	Dual Unit	2x10 kΩ	A= Logarithmic	25 mm	No Tap	6.5 mm	AC-Use	Standard
STRK09708	9 mm	Dual Unit	2x50 kΩ	A= Logarithmic	25 mm	No Tap	6.5 mm	AC-Use	Standard
STRK09709	9 mm	Dual Unit	2x100 kΩ	A= Logarithmic	25 mm	No Tap	6.5 mm	AC-Use	Standard
STRK09710	9 mm	Dual Unit	2x10 kΩ	B= Linear	25 mm	No Tap	6.5 mm	AC-Use	Standard
STRK09711	9 mm	Dual Unit	2x50 kΩ	B= Linear	25 mm	No Tap	6.5 mm	AC-Use	Standard
STRK09712	9 mm	Dual Unit	2x100 kΩ	B= Linear	25 mm	No Tap	6.5 mm	AC-Use	Standard

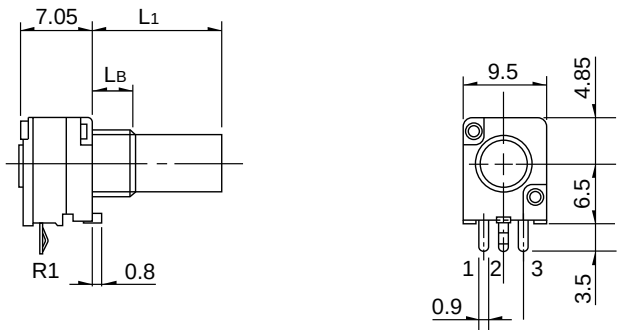
Standard Specifications:

Rotational Life:	15000 Cycles
Rotational Angle:	300 +/- 5 Degrees
Rotational Torque:	30 - 250 gf/cm
Resistance Tolerance:	+/- 20%
Rated Power:	0.05 W
max. Operating Voltage (DC):	DC 10 V
max. Operating Voltage (AC):	AC 50 V
Insulation Resistance:	100 MΩ min. at 500 V DC

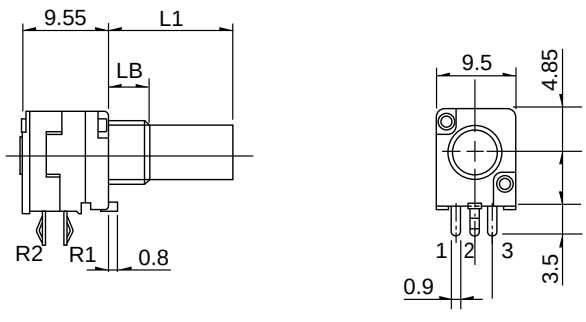
Number of Shafts:	Single Shaft
Details:	Horizontal Type
Shaft Style:	Slotted
Terminals:	Printed Wiring
Detents:	No Detent
Attachement:	No

RK097 Series

Single Unit



Dual Unit



Slotted Type

Unit: (mm)

Rotary Potentiometer

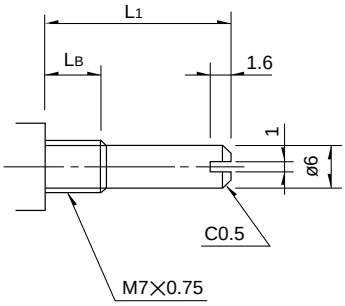
Order Number	Size (mm)	Number of Elements	Resistance Value (kΩ)	Taper	Shaft lenght (mm)	Tap	Mounting height (mm)	Uses	Rest of Specification
STRK16301	16 mm	Single Unit	10 kΩ	A= Logarithmic	30 mm	No Tap	12.5 mm	AC-Use	Standard
STRK16302	16 mm	Single Unit	50 kΩ	A= Logarithmic	30 mm	No Tap	12.5 mm	AC-Use	Standard
STRK16303	16 mm	Single Unit	100 kΩ	A= Logarithmic	30 mm	No Tap	12.5 mm	AC-Use	Standard
STRK16304	16 mm	Single Unit	10 kΩ	B= Linear	30 mm	No Tap	12.5 mm	AC-Use	Standard
STRK16305	16 mm	Single Unit	50 kΩ	B= Linear	30 mm	No Tap	12.5 mm	AC-Use	Standard
STRK16306	16 mm	Single Unit	100 kΩ	B= Linear	30 mm	No Tap	12.5 mm	AC-Use	Standard
STRK16307	16 mm	Dual Unit	2x10 kΩ	A= Logarithmic	30 mm	No Tap	12.5 mm	Volume Control	Standard
STRK16308	16 mm	Dual Unit	2x50 kΩ	A= Logarithmic	30 mm	No Tap	12.5 mm	Volume Control	Standard
STRK16309	16 mm	Dual Unit	2x100 kΩ	A= Logarithmic	30 mm	No Tap	12.5 mm	Volume Control	Standard
STRK16310	16 mm	Dual Unit	2x10 kΩ	B= Linear	30 mm	No Tap	12.5 mm	Tone Control	Standard
STRK16311	16 mm	Dual Unit	2x50 kΩ	B= Linear	30 mm	No Tap	12.5 mm	Tone Control	Standard
STRK16312	16 mm	Dual Unit	2x100 kΩ	B= Linear	30 mm	No Tap	12.5 mm	Tone Control	Standard

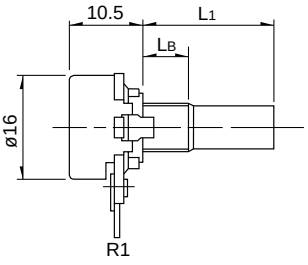
Standard Specifications:

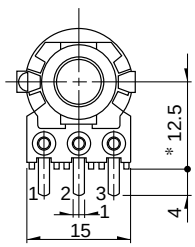
Rotational Life:	15000 Cycles
Rotational Angle:	300 +/- 5 Degrees
Rotational Torque:	30 - 250 gf/cm
Resistance Tolerance:	+/- 20%
Rated Power:	0.05 W - 0,1 W Depending on Taper
max. Operating Voltage (DC):	DC 20 V
max. Operating Voltage (AC):	AC 150 V
Insulation Resistance:	100 MΩ min. at 500 V DC

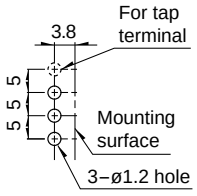
Number of Shafts:	1
Details:	Horizontal Type
Shaft Style:	Slotted
Terminals:	Printed Wiring
Detents:	No Detent
Attachement:	No

RK163 Series

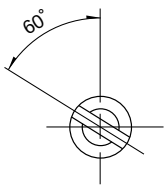




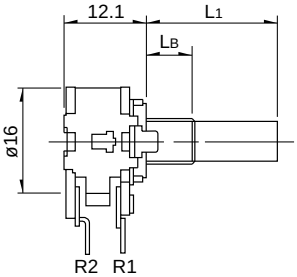


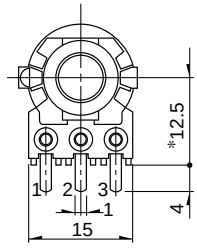


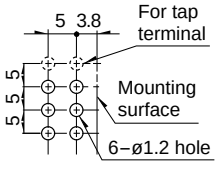
Mounting hole detail viewed from mounting side



Shaft shown in full CCW position







Mounting hole detail viewed from mounting side

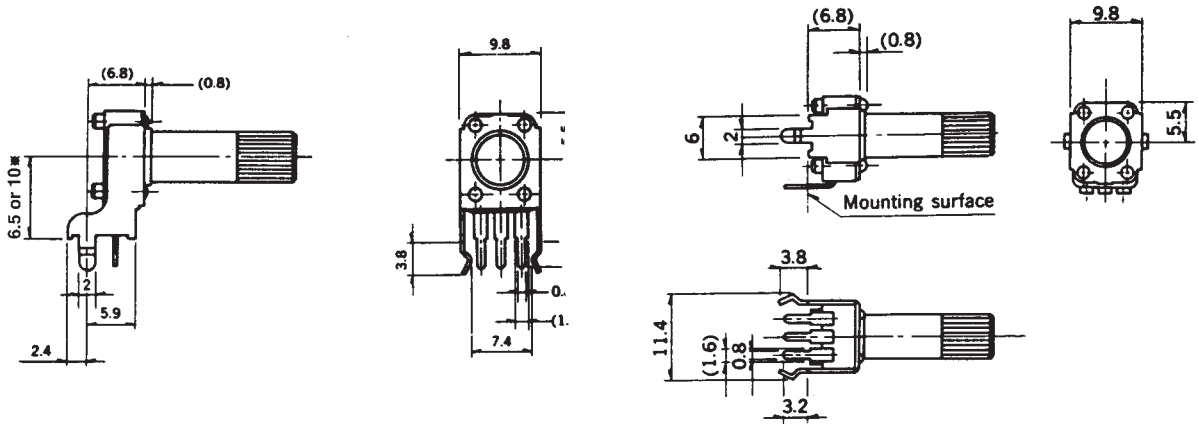
Unit: (mm)

Rotary Potentiometer

Order Number	Size (mm)	Number of Elements	Resistance Value (kΩ)	Taper	Shaft lenght (mm)	Shaft Style	Mounting height (mm)	Uses	Details
STRK09K01	9 mm	Single Unit	10 kΩ	B= Linear	25 mm	Knob	10 mm	AC-Use	Horizontal
STRK09K02	9 mm	Single Unit	50 kΩ	B= Linear	25 mm	Knob	10 mm	AC-Use	Horizontal
STRK09K03	9 mm	Single Unit	100 kΩ	B= Linear	25 mm	Knob	10 mm	AC-Use	Horizontal
STRK09K04	9 mm	Single Unit	10 kΩ	A= Logarithmic	25 mm	Knob	10 mm	AC-Use	Horizontal
STRK09K05	9 mm	Single Unit	50 kΩ	A= Logarithmic	25 mm	Knob	10 mm	AC-Use	Horizontal
STRK09K06	9 mm	Single Unit	100 kΩ	A= Logarithmic	25 mm	Knob	10 mm	AC-Use	Horizontal
STRK09K07	9 mm	Single Unit	10 kΩ	B= Linear	25 mm	Knob	Vertical	AC-Use	Vertical
STRK09K08	9 mm	Single Unit	50 kΩ	B= Linear	25 mm	Knob	Vertical	AC-Use	Vertical
STRK09K09	9 mm	Single Unit	100 kΩ	B= Linear	25 mm	Knob	Vertical	AC-Use	Vertical
STRK09K10	9 mm	Single Unit	10 kΩ	A= Logarithmic	25 mm	Knob	Vertical	AC-Use	Vertical
STRK09K11	9 mm	Single Unit	50 kΩ	A= Logarithmic	25 mm	Knob	Vertical	AC-Use	Vertical
STRK09K12	9 mm	Single Unit	100 kΩ	A= Logarithmic	25 mm	Knob	Vertical	AC-Use	Vertical
STRK09K13	9 mm	Dual Unit	2x10 kΩ	B= Linear	20 mm	Knob	6.5 mm	AC-Use	Horizontal
STRK09K14	9 mm	Dual Unit	2x50 kΩ	B= Linear	20 mm	Knob	6.5 mm	AC-Use	Horizontal
STRK09K15	9 mm	Dual Unit	2x100 kΩ	B= Linear	20 mm	Knob	6.5 mm	AC-Use	Horizontal
STRK09K16	9 mm	Dual Unit	2x10 kΩ	A= Logarithmic	20 mm	Knob	6.5 mm	AC-Use	Horizontal
STRK09K17	9 mm	Dual Unit	2x50 kΩ	A= Logarithmic	20 mm	Knob	6.5 mm	AC-Use	Horizontal
STRK09K18	9 mm	Dual Unit	2x100 kΩ	A= Logarithmic	20 mm	Knob	6.5 mm	AC-Use	Horizontal
STRK09K19	9 mm	Dual Unit	2x10 kΩ	B= Linear	20 mm	Knob	Vertical	AC-Use	Vertical
STRK09K20	9 mm	Dual Unit	2x50 kΩ	B= Linear	20 mm	Knob	Vertical	AC-Use	Vertical
STRK09K21	9 mm	Dual Unit	2x100 kΩ	B= Linear	20 mm	Knob	Vertical	AC-Use	Vertical
STRK09K22	9 mm	Dual Unit	2x10 kΩ	A= Logarithmic	20 mm	Knob	Vertical	AC-Use	Vertical
STRK09K23	9 mm	Dual Unit	2x50 kΩ	A= Logarithmic	20 mm	Knob	Vertical	AC-Use	Vertical
STRK09K24	9 mm	Dual Unit	2x100 kΩ	A= Logarithmic	20 mm	Knob	Vertical	AC-Use	Vertical

Standard Specifications:	Single Unit:	Dual Unit:	Number of Shafts:	1
Rotational Life:	5000 Cycles	10000 Cycles	Terminals:	Printed Wiring
Rotational Angle:	280 +/- 5 Degrees	280 +/- 5 Degrees	Detents:	No Detent
Rotational Torque:	10 - 80 gf/cm	10 - 80 gf/cm	Attachement:	No
Resistance Toleranz:	20% +/-	20% +/-	Tap:	No
Rated Power:	0.05 W Single Unit	0.03 W Dual Unit		
max. Operating Voltage (DC):	DC 20 V	DC 0 V		
max. Operating Voltage (AC):	AC 50 V	AC 50 V		
Insulation Resistance:	100 M Ω min. at 250 V DC	100 MΩ min at 250 V DC		

RK09K Series



Unit: (mm)

Rotary Potentiometer NEW

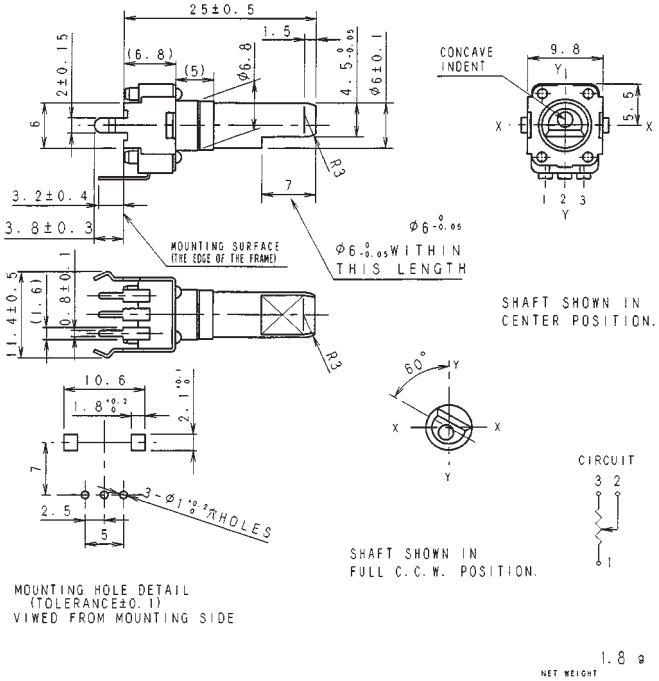
Order Number	Size (mm)	Number of Elements	Resistance Value (kΩ)	Taper	Shaft lenght (mm)	Tap	Mounting height (mm)	Uses	Details
STRK09D01	9 mm	Single Unit	10 kΩ	A= Logarithmic	25 mm	Flat	6.5 mm	AC-Use	Horizontal
STRK09D02	9 mm	Single Unit	50 kΩ	A= Logarithmic	25 mm	Flat	6.5 mm	AC-Use	Horizontal
STRK09D03	9 mm	Single Unit	100 kΩ	A= Logarithmic	25 mm	Flat	6.5 mm	AC-Use	Horizontal
STRK09D04	9 mm	Single Unit	10 kΩ	B= Linear	25 mm	Flat	6.5 mm	AC-Use	Horizontal
STRK09D05	9 mm	Single Unit	50 kΩ	B= Linear	25 mm	Flat	6.5 mm	AC-Use	Horizontal
STRK09D06	9 mm	Single Unit	100 kΩ	B= Linear	25 mm	Flat	6.5 mm	AC-Use	Horizontal
STRK09D07	9 mm	Single Unit	10 kΩ	A= Logarithmic	25 mm	Flat	Vertical	AC-Use	Vertical
STRK09D08	9 mm	Single Unit	50 kΩ	A= Logarithmic	25 mm	Flat	Vertical	AC-Use	Vertical
STRK09D09	9 mm	Single Unit	100 kΩ	A= Logarithmic	25 mm	Flat	Vertical	AC-Use	Vertical
STRK09D10	9 mm	Single Unit	10 kΩ	B= Linear	25 mm	Flat	Vertical	AC-Use	Vertical
STRK09D11	9 mm	Single Unit	50 kΩ	B= Linear	25 mm	Flat	Vertical	AC-Use	Vertical
STRK09D12	9 mm	Single Unit	100 kΩ	B= Linear	25 mm	Flat	Vertical	AC-Use	Vertical

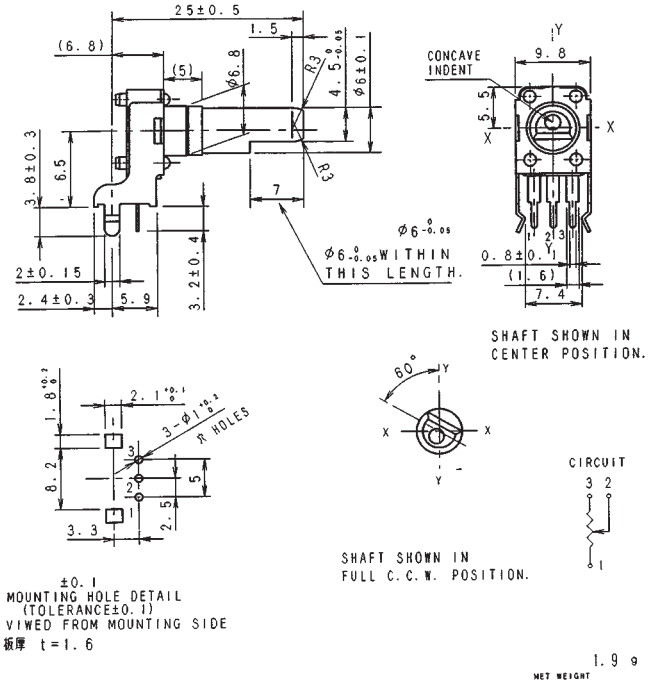
Standard Specifications:

Rotational Life:	5000 Cycles
Rotational Angle:	300 +/- 5 Degrees
Rotational Torque:	1 to 8 mM.m
Resistance Toleranz:	20% +/-
Rated Power:	0.05 W
max. Operating Voltage (DC):	DC 20 V
max. Operating Voltage (AC):	AC 50 V
Insulation Resistance:	100 M Ω min. at 250 V DC

Number of Shafts:	1
Bushing:	with Collar
Terminals:	Printed Wiring
Detents:	No Detent
Attachement:	No
Tap:	No

RK09D Series





Unit: (mm)

Rotary Potentiometer

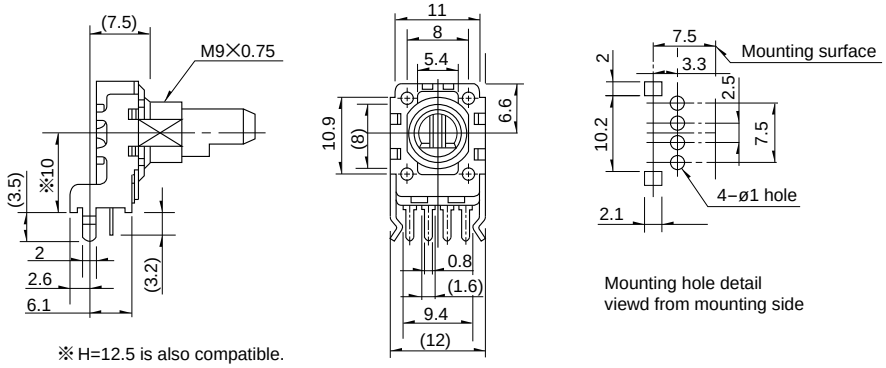
Order Number	Size (mm)	Number of Elements	Resistance Value (kΩ)	Taper	Shaft lenght (mm)	Shaft Style	Mounting height (mm)	Uses	Details
STRK11K01	11 mm	Single Unit	10 kΩ	B= Linear	20 mm	Flat	12.5 mm	AC-Use	Horizontal
STRK11K02	11 mm	Single Unit	50 kΩ	B= Linear	20 mm	Flat	12.5 mm	AC-Use	Horizontal
STRK11K03	11 mm	Single Unit	100 kΩ	B= Linear	20 mm	Flat	12.5 mm	AC-Use	Horizontal
STRK11K04	11 mm	Single Unit	10 kΩ	A= Logarithmic	20 mm	Flat	12.5 mm	AC-Use	Horizontal
STRK11K05	11 mm	Single Unit	50 kΩ	A= Logarithmic	20 mm	Flat	12.5 mm	AC-Use	Horizontal
STRK11K06	11 mm	Single Unit	100 kΩ	A= Logarithmic	20 mm	Flat	12.5 mm	AC-Use	Horizontal
STRK11K07	11 mm	Single Unit	10 kΩ	B= Linear	20 mm	Flat	Vertical	AC-Use	Vertical
STRK11K08	11 mm	Single Unit	50 kΩ	B= Linear	20 mm	Flat	Vertical	AC-Use	Vertical
STRK11K09	11 mm	Single Unit	100 kΩ	B= Linear	20 mm	Flat	Vertical	AC-Use	Vertical
STRK11K10	11 mm	Single Unit	10 kΩ	A= Logarithmic	20 mm	Flat	Vertical	AC-Use	Vertical
STRK11K11	11 mm	Single Unit	50 kΩ	A= Logarithmic	20 mm	Flat	Vertical	AC-Use	Vertical
STRK11K12	11 mm	Single Unit	100 kΩ	A= Logarithmic	20 mm	Flat	Vertical	AC-Use	Vertical

Standard Specifications:

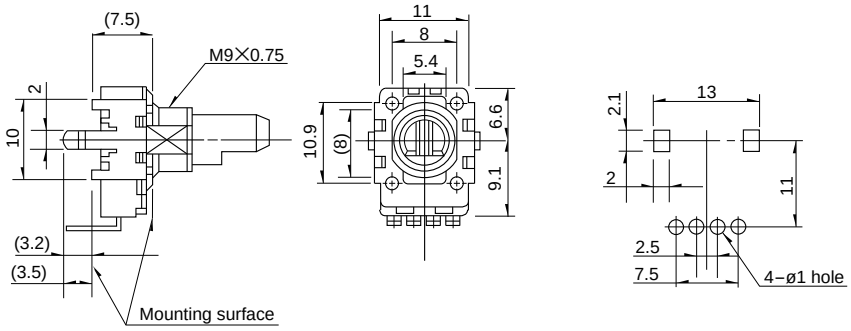
Rotational Life:	15000 Cycles
Rotational Angle:	300 ± 5 Degrees
Rotational Torque:	30 - 200 gf/cm
Resistance Tolerance:	± 20%
Rated Power:	0.05 W
max. Operating Voltage (DC):	DC 20 V
max. Operating Voltage (AaC):	AC 50 V
Insulation Resistance:	100 MΩ min. at 500 V DC
Tap:	No

Number of Shafts:	1
Details:	Horizontal Type/Vertical Type
Shaft Style:	Flat
Terminals:	Printed Wiring
Detents:	No Detent
Attachement:	No
with bushing:	M9x0.75

RK11K Series
Horizontal Type



RK11K Series
Vertical Type



Unit: (mm)

Rotary Potentiometer

Order Number	Size (mm)	Number of Elements	Resistance Value (kΩ)	Taper	Shaft lenght (mm)	Tap	Mounting height (mm)	Uses	Rest of Specification
STRK27101	27 mm	Dual Unit	2x10 kΩ	A= Logarithmic	20 mm	No Tap	12.5 mm	AC-Use	Standard
STRK27102	27 mm	Dual Unit	2x20 kΩ	A= Logarithmic	20 mm	No Tap	12.5 mm	AC-Use	Standard
STRK27103	27 mm	Dual Unit	2x50 kΩ	A= Logarithmic	20 mm	No Tap	12.5 mm	AC-Use	Standard
STRK27104	27 mm	Dual Unit	2x100 kΩ	A= Logarithmic	20 mm	No Tap	12.5 mm	AC-Use	Standard

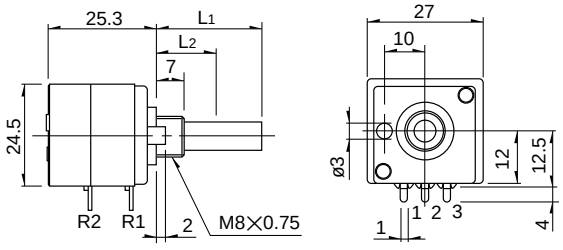
Motor version is also available
Standard Specifications:

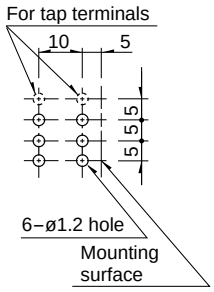
Rotational Life:	15000 Cycles
Gang Error	(-60dB to 0 dB = 2 dB max)
Rotational Angle:	300 ± 3 Degrees
Rotational Torque:	80 - 350 gf/cm
Resistance Tolerance:	± 20%

Rated Power:	0.05 W - 0.1 W Depending on Taper
max. Operating Voltage (DC):	
max. Operating Voltage (AC):	30 V
Insulation Resistance:	100 MΩ min. at 500 V DC

Number of Shafts:	1
Details:	Horizontal Type
Shaft Style:	Slotted
Terminals:	Printed Wiring
Detents:	No Detent
Attachement:	No

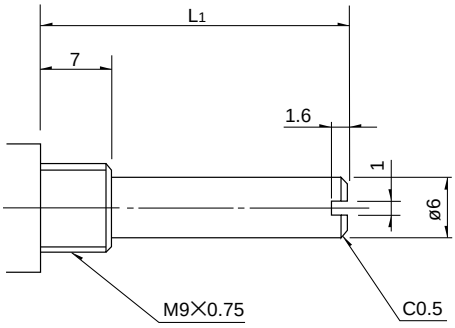
RK27 Series

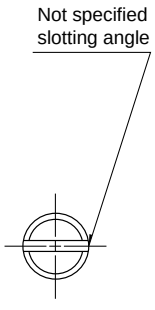




Mounting hole detail viewed from mounting side

Slotted Type





L1
10
15
20
25
30

Unit: (mm)

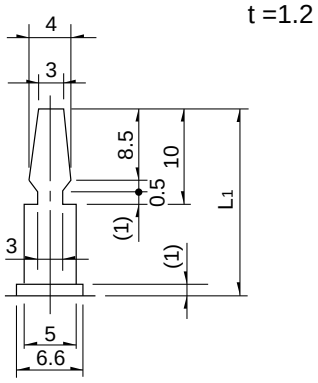
Slide Potentiometer

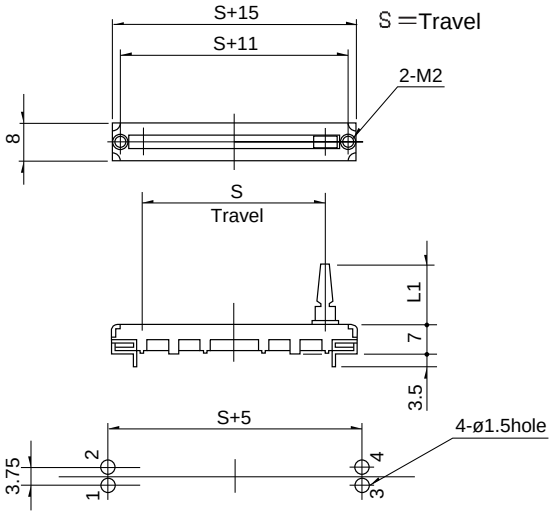
Order Number	Travel of lever (mm)	Number of Elements	Resistance Value (kΩ)	Taper	Lever lenght (mm)	Tap	Terminal	Uses	Rest of Specification
STRS30101	30 mm	Single Unit	10 kΩ	B= Linear	20 mm	No Tap	Printed Wiring	AC-Use	Standard
STRS30102	30 mm	Single Unit	50 kΩ	B= Linear	20 mm	No Tap	Printed Wiring	AC-Use	Standard
STRS30103	30 mm	Single Unit	100 kΩ	B= Linear	20 mm	No Tap	Printed Wiring	AC-Use	Standard

Standard Specifications:
Sliding Life: 15000 Cycles
Resistance Tolerance: 20% ±
Rated Power: 0,025 - 0,2W Depending on Type and Taper
Max. Operating Voltage (AC): 50 - 200V Depending on Type and Taper
Insulation Resistance: 100 MΩ at 250 VDC

Number of Levers: 1
Details: Vertical Type
Detents: No Detent
Attachement: No

RS30 Series





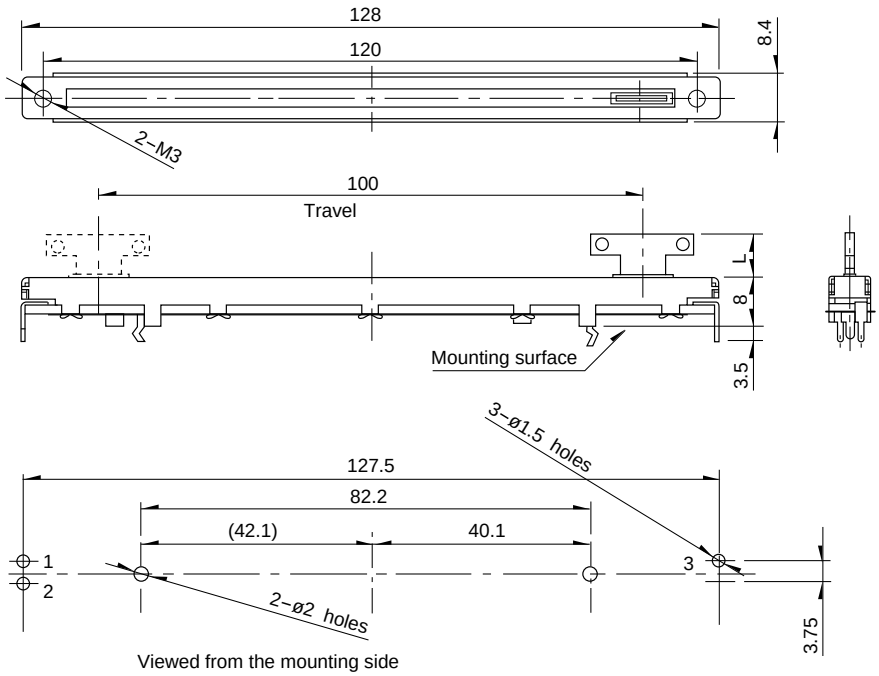
Unit: (mm)

Slide Potentiometer

Order Number	Travel of lever (mm)	Number of Elements	Resistance Value (kΩ)	Taper	Lever lenght (mm)	Lever	Uses	Rest of Specification
STRSA0N11S	100	single	10 kΩ	A= Logarithmic	8.2	T-Bar	AC-Use	Printed wiring terminals
STRSA0N12S	100	single	10 kΩ	B= Linear	8.2	T-Bar	AC-Use	Printed wiring terminals
STRS60N11S	60	single	10 kΩ	A= Logarithmic	8.2	T-Bar	AC-Use	Printed wiring terminals
STRS60N12S	60	single	10 kΩ	B= Linear	8.2	T-Bar	AC-Use	Printed wiring terminals

RSA0N11S Series

Standard type



Viewed from the mounting side

Lead terminal is available

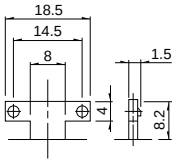
Unit: (mm)

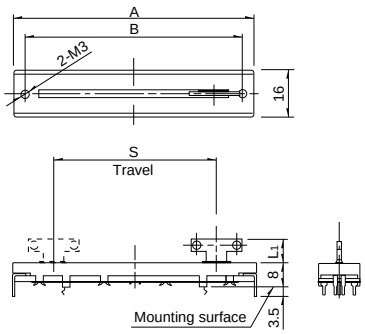
Slide Potentiometer

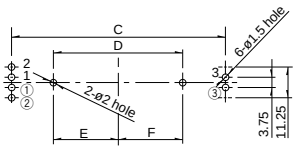
Order Number	Travel of lever (mm)	Number of Elements	Resistance Value (kΩ)	Taper	Lever lenght (mm)	Details	Lever Type	Uses	Rest of Specification
STRS60N01	60 mm	Single Unit	10 kΩ	A=Logarithmic	8.2 mm	Crank Lever	9-2 (T-Bar)	AC-Use	Standard
STRS60N02	60 mm	Single Unit	10 kΩ	B= Linear	8.2 mm	Crank Lever	9-2 (T-Bar)	AC-Use	Standard
STRS60N03	60 mm	Dual Unit	2x10 kΩ	A= Logarithmic	8.2 mm	Crank Lever	9-2 (T-Bar)	AC-Use	Standard
STRS60N04	60 mm	Dual Unit	2x10 kΩ	B= Linear	8.2 mm	Crank Lever	9-2 (T-Bar)	AC-Use	Standard
STRS60N05	60 mm	Single Unit	10 kΩ	A= Logarithmic	12 mm	Vertical	1	AC-Use	Standard
STRS60N06	60 mm	Single Unit	10 kΩ	B= Linear	12 mm	Vertical	1	AC-Use	Standard
STRS60N07	60 mm	Dual Unit	2x10 kΩ	A= Logarithmic	12 mm	Vertical	1	AC-Use	Standard
STRS60N08	60 mm	Dual Unit	2x10 kΩ	B= Linear	12 mm	Vertical	1	AC-Use	Standard
STRSA0N01	100 mm	Single Unit	10 kΩ	A= Logarithmic	8.2 mm	Crank Lever	9-2 (T-Bar)	AC-Use	Standard
STRSA0N02	100 mm	Single Unit	10 kΩ	B= Linear	8.2 mm	Crank Lever	9-2 (T-Bar)	AC-Use	Standard
STRSA0N03	100 mm	Dual Unit	2x10 kΩ	A= Logarithmic	8.2 mm	Crank Lever	9-2 (T-Bar)	AC-Use	Standard
STRSA0N04	100 mm	Dual Unit	2x10 kΩ	B= Linear	8.2 mm	Crank Lever	9-2 (T-Bar)	AC-Use	Standard
STRSA0N05	100 mm	Single Unit	10 kΩ	A= Logarithmic	12 mm	Vertical	1	AC-Use	Standard
STRSA0N06	100 mm	Single Unit	10 kΩ	B= Linear	12 mm	Vertical	1	AC-Use	Standard
STRSA0N07	100 mm	Dual Unit	2x10 kΩ	A= Logarithmic	12 mm	Vertical	1	AC-Use	Standard
STRSA0N08	100 mm	Dual Unit	2x10 kΩ	B= Linear	12 mm	Vertical	1	AC-Use	Standard

Sliding Life:	15000 Cycles		Detents:	No Detent
Resistance Tolerance:	20% +/-		Attachement:	No
Rated Power:	0,1 - 0,5 W	Depending on Type and Fader	Terminals:	Printed Wiring
Max. Operating Voltage AC:	150 - 500 V	Depending on Type and Fader	Tap:	No
Insulation Resistance:	100 MΩ at 250 VDC			

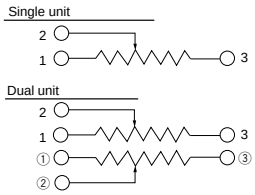
RS60N & RSA0N Series

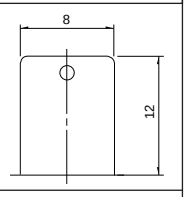
Configuration Code	9-2 (T-BAR)
Dimensions	
Length	8,2

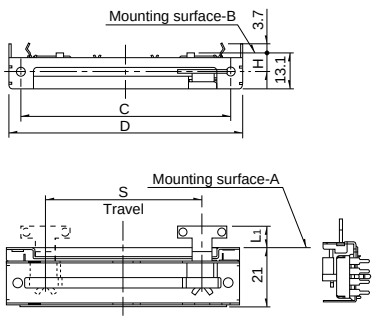


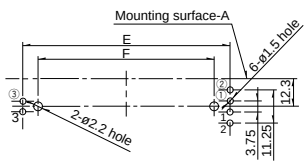


Dimensions / Model	S	A	B	C	D	E	F
RS60N	60	88	80	87.5	51.7	—	—
RSA0N	100	128	120	127.5	82.5	(43.7)	38.8



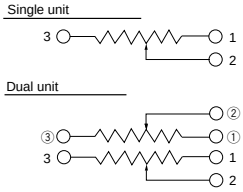
Configuration Code	1
Dimensions	
Length	12





Dimensions / Model	S	C	D	E	F
RS60N	60	80	88	87.5	74
RSA0N	100	120	128	127.5	114

Mounting hight : H = 6.5, 10



Unit: (mm)

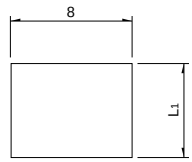
Slide Potentiometer

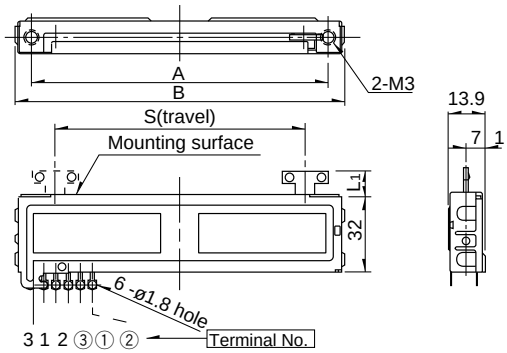
Order Number	Travel of lever (mm)	Number of Elements	Resistance Value (kΩ)	Taper	Lever lenght (mm)	Details	Lever Type	Uses	Rest of Specification
STRSA0K01	100	Single Unit	10 kΩ	A= Logarithmic	12 mm	Carbon Type	1	AC-Use	Standard
STRSA0K02	100	Single Unit	10 kΩ	B= Linear	12 mm	Carbon Type	1	AC-Use	Standard
STRSA0K03	100	Dual Unit	2x10 kΩ	A= Logarithmic	12 mm	Carbon Type	1	AC-Use	Standard
STRSA0K04	100	Dual Unit	2x10 kΩ	B= Linear	12 mm	Carbon Type	1	AC-Use	Standard
STRSA0K05	100	Single Unit	10 kΩ	A= Logarithmic	8.2 mm	Conductive Plastic*	9-2 (T-Bar)	AC-Use	Standard
STRSA0K06	100	Single Unit	10 kΩ	B= Linear	8.2 mm	Conductive Plastic*	9-2 (T-Bar)	AC-Use	Standard
STRSA0K07	100	Dual Unit	2x10 kΩ	A= Logarithmic	8.2 mm	Conductive Plastic*	9-2 (T-Bar)	AC-Use	Standard
STRSA0K08	100	Dual Unit	2x10 kΩ	B= Linear	8.2 mm	Conductive Plastic*	9-2 (T-Bar)	AC-Use	Standard
STRSA0K09	100	Single Unit	10 kΩ	A= Logarithmic	12 mm	Carbon Type*	1	AC-Use	Standard
STRSA0K10	100	Single Unit	10 kΩ	B= Linear	12 mm	Carbon Type*	1	AC-Use	Standard
STRSA0K11	100	Dual Unit	2x10 kΩ	A= Logarithmic	12 mm	Carbon Type*	1	AC-Use	Standard
STRSA0K12	100	Dual Unit	2x10 kΩ	B= Linear	12 mm	Carbon Type*	1	AC-Use	Standard

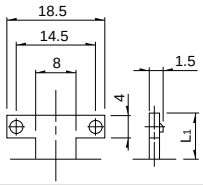
Sliding Life (Carbon Type):	100K Cycles
Sliding Life (Conductive Plastic):	300K Cycles
Resistance Tolerance:	20% +/-
Rated Power:	0,25 - 0,5 W Depending on Type and Fader
Max. Operating Voltage AC:	350V - 500V Depending on Type and Fader
Insulation Resistance:	100 MΩ min. at 250V DC

Detents:	No Detent
Attachement:	No
Terminals:	Lead Wiring/Connector
Tap:	No
* :	With micro switch

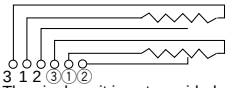
RSA0K Series

Configuration Code	1
Dimensions	
Length	12



Configuration Code	9-2 (T-BAR)
Dimensions	
Length	8,2

Circuit diagram



The single unit is not provided with terminals (1)(2)(3).

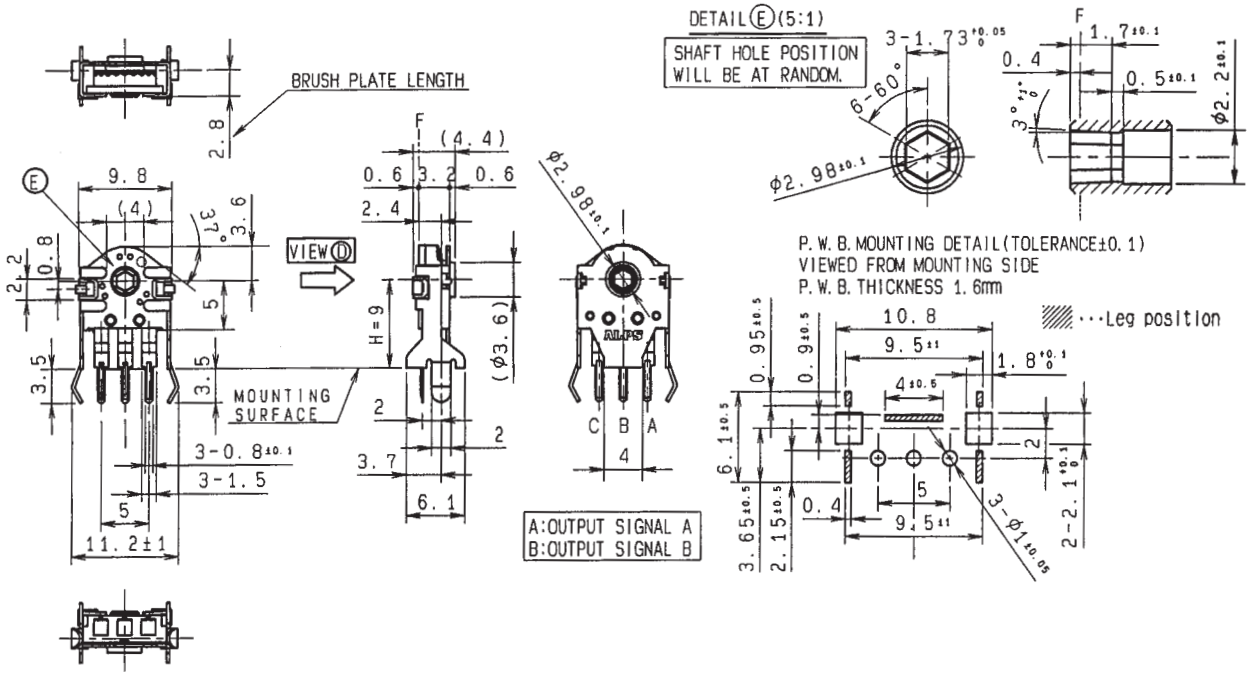
Dimensions / Model	S	A	B
RS60K	60	80	92.6
RSA0K	100	120	132.6

Unit: (mm)

Hollow Shaft
NEW Rotary Encoder

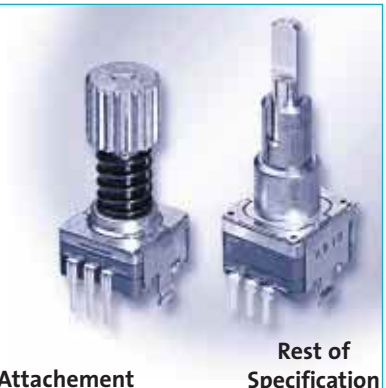
Order Number	Model	Size	Number of Pulses	Detents	Details	Life time (Cycles)	Rating
STEC10E01	EC10E1220501	10 mm	12	24	Vertical Type	100.00 min.	1mA, 5 VDC

EC10E1220501



Unit: (mm)

Dual Shaft Encoder & Pop-Up Encoder NEW

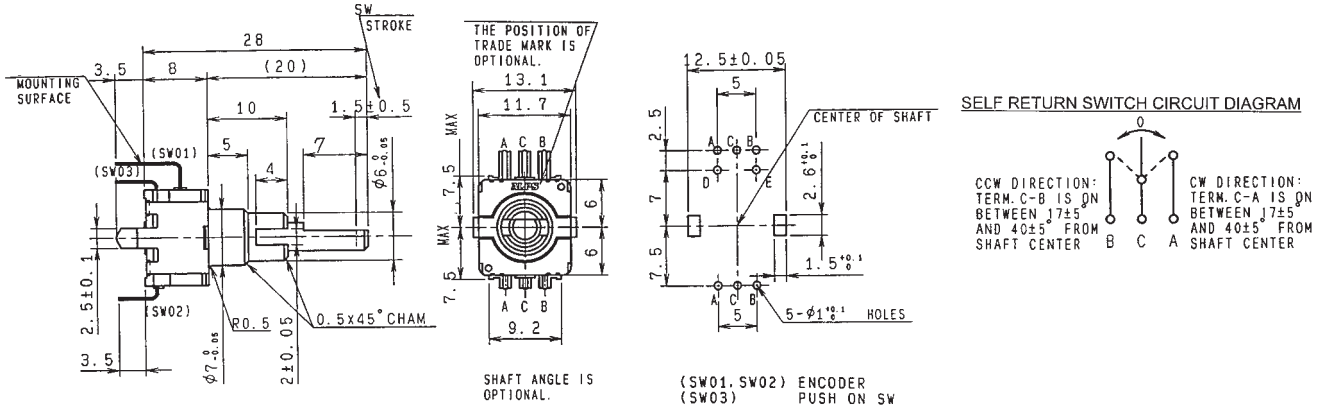


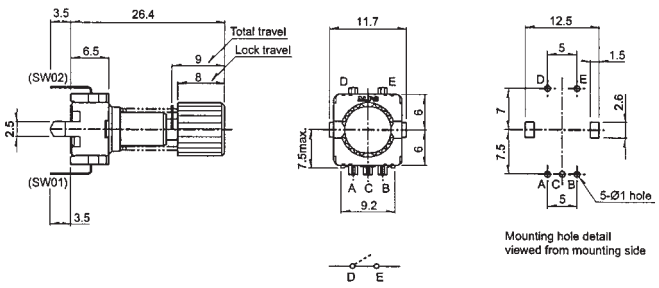
Order Number	ALPS P/N	Size (mm)	Number of Pulses	Detents	Details	Shaft lenght (mm)	Attachement	Rest of Specification
STEC11E01	EC11EBB24C	11	15	30	Vertical type	20	inner shaft: Encoder and push-on switch outer shaft: Encoder	Standard
STEC11E02	EC111XXXXX	11	15	30	Vertical type	20	inner shaft: Encoder and push-on switch outer shaft: Self-return switch	Standard
STEC11E03	EC11E1524U	11	15	30	Vertical type	refer to drawing	encoder with push-lock switch	Standard

Standard Specification: Encoder
Ratings: 10 mA 5 VDC
Insulation resistance: 250 VDC 1 mA, 100 MOhm MIN
Withstand Voltage: 300 VAC
Life cycles: 15000

Standard Specification:	Self return switch	Push-On Switch	Push-Lock Switch
Ratings:	10 mA 5 VDC	0,5 A 16 VDC (1 mA MIN)	0,5 A 12 VDC (1 mA MIN)
Insulation resistance:	250 VDC 1 mA, 100 MOhm MIN	250 VDC 1 mA, 100 MOhm MIN	50 VDC 1 mA, 10 MOhm MIN
Withstand Voltage:	300 VAC	300 VAC	300 VAC
Life cycles:	15000	20000	10000

EC11E Series





Unit: (mm)

Rotary Encoder

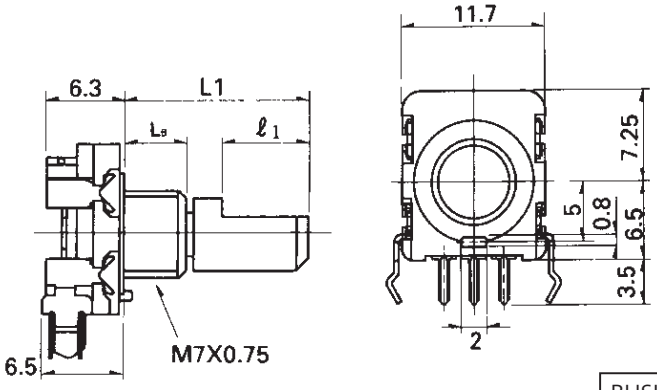
Order Number	Size (mm)	Number of Pulses	Detents	Details	Shaft lenght (mm)	Shaft Style	Attachment	Rest of Specification
STEC11B01	11 mm	15	30	Horizontal Type	25 mm	Slotted	Push-On Switch 0,5 mm	Standard
STEC11B02	11 mm	15	30	Horizontal Type	25 mm	Slotted	No	Standard
STEC11B03	11 mm	15	30	Vertical Type	25 mm	Slotted	Push-On Switch 0,5 mm	Standard
STEC11B04	11 mm	15	30	Vertical Type	25 mm	Slotted	No	Standard
STEC11B05	11 mm	15	30	Horizontal Type	20 mm	Flat	Push-On Switch 0,5 mm	Standard
STEC11B06	11 mm	15	30	Horizontal Type	20 mm	Flat	No	Standard
STEC11B07	11 mm	15	30	Vertical Type	20 mm	Flat	Push-On Switch 0,5 mm	Standard
STEC11B08	11 mm	15	30	Vertical Type	20 mm	Flat	No	Standard
STEC11B09	11 mm	20	20	Horizontal Type	20 mm	Flat	Push-On Switch 0,5 mm	Standard
STEC11B10	11 mm	20	20	Horizontal Type	20 mm	Flat	No	Standard
STEC11B13	11 mm	20	20	Vertical Type	20 mm	Flat	Push-On Switch 0,5 mm	Standard
STEC11B12	11 mm	20	20	Vertical Type	20 mm	Flat	No	Standard

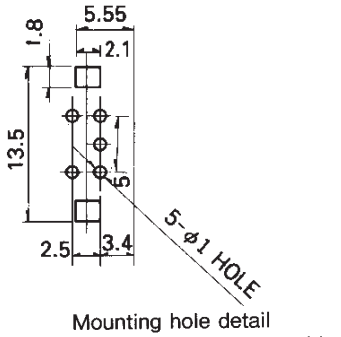
Standard Specifications:

Ratings:	10mA 5 VDC
max. Operating Current:	10mA
Insulation Resistance:	300V DC 10 MΩ min.
Withstand Voltage	300V AC
Life cycles	15.000 cycles

Number of Shafts:	1
Terminals:	Printed Wiring
Attachement:	No

EC11B Horizontal

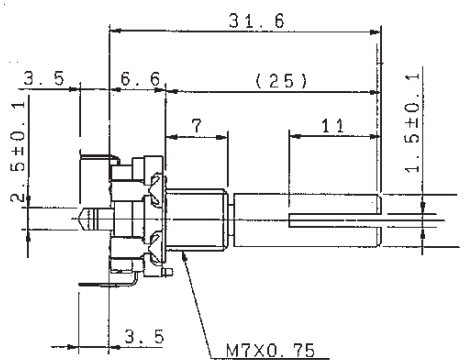


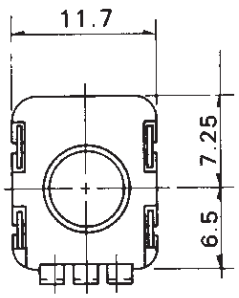


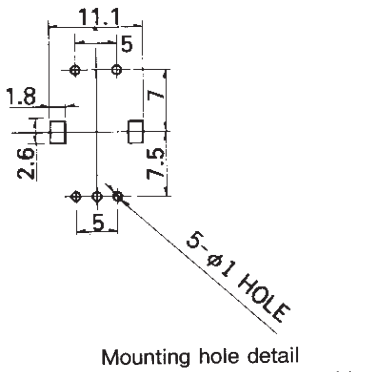
Mounting hole detail
Viewed from mounting side

BUSHING	M7x0.75
H	6.6
LB	7

EC11B Vertical



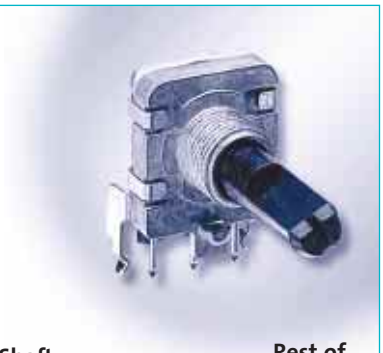




Mounting hole detail
Viewed from mounting side

Unit: (mm)

Rotary Encoder

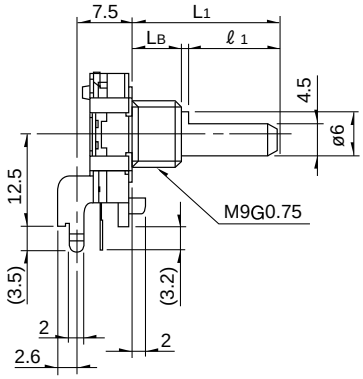


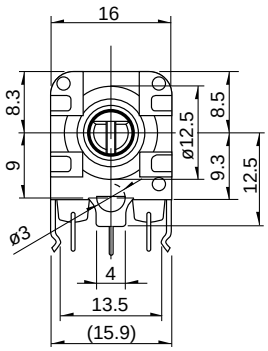
Order Number	Size (mm)	Number of Pulses	Detents	Details	Shaft lenght (mm)	Shaft Style	Attachement	Rest of Specification
STEC16B01	16 mm	24	Without Detent	Horizontal Type	25 mm	Flat	No	Standard
STEC16B02	16 mm	24	24	Horizontal Type	25 mm	Flat	No	Standard
STEC16B03	16 mm	24	Without Detent	Vertical Type	25 mm	Flat	No	Standard
STEC16B04	16 mm	24	24	Vertical Type	25 mm	Flat	No	Standard

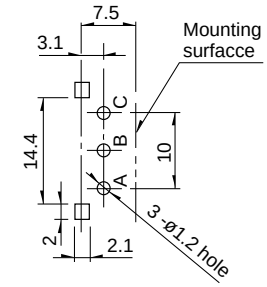
Standard Specifications:

Ratings:	0,5mA 5 VDC
max. Operating Current:	0,5mA
Insulation Resistance:	50V DC 10 MΩ min.
Withstand Voltage:	50V AC

EC16B Horizontal

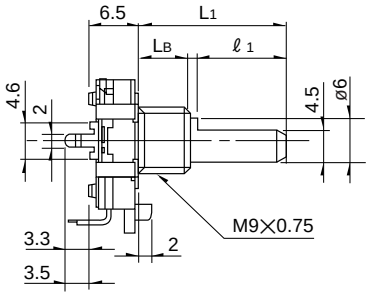


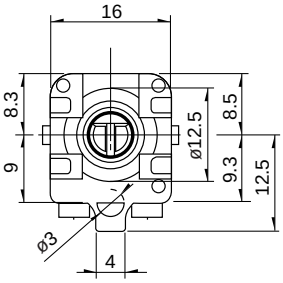


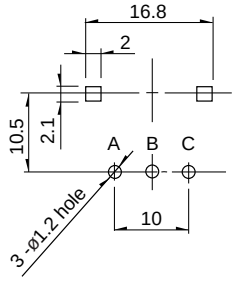


Mounting hole detail viewed from mounting side

EC16B Vertikal







Mounting hole detail viewed from mounting side

Unit: (mm)

Rotary Encoder

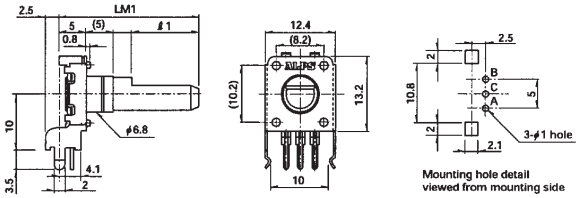
Order Number	Size (mm)	Number of Pulses	Detents	Details	Shaft lenght (mm)	Shaft Style	Attachment	Rest of Specification
STEC12E01	12 mm	12	12	Horizontal Type	20 mm	Flat	No	Standard
STEC12E02	12 mm	12	12	Horizontal Type	20 mm	Flat	Push-On Switch 0,5 mm	Standard
STEC12E03	12 mm	12	12	Vertical Type	20 mm	Flat	No	Standard
STEC12E04	12 mm	12	12	Vertical Type	20 mm	Flat	Push-On Switch 0,5 mm	Standard
STEC12E05	12 mm	24	24	Horizontal Type	20 mm	Flat	No	Standard
STEC12E06	12 mm	24	24	Horizontal Type	20 mm	Flat	Push-On Switch 0,5 mm	Standard
STEC12E07	12 mm	24	24	Vertical Type	20 mm	Flat	No	Standard
STEC12E08	12 mm	24	24	Vertical Type	20 mm	Flat	Push-On Switch 0,5 mm	Standard
STEC12E09	12 mm	24	24	Vertical Type	–	Hollow shaft	No	Standard

Standard Specifications:

Ratings:	0,5mA 5 VDC
max. Operating Current:	0,5mA
Insulation Resistance:	50V DC 10 MΩ min.
Withstand Voltage:	50V AC

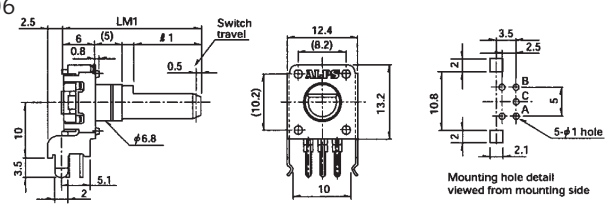
STEC12E01

STEC12E05



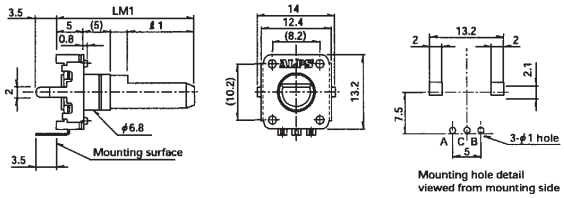
STEC12E02

STEC12E06



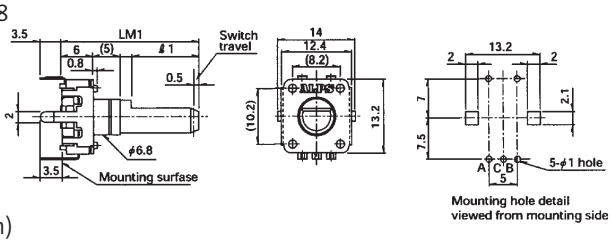
STEC12E03

STEC12E07



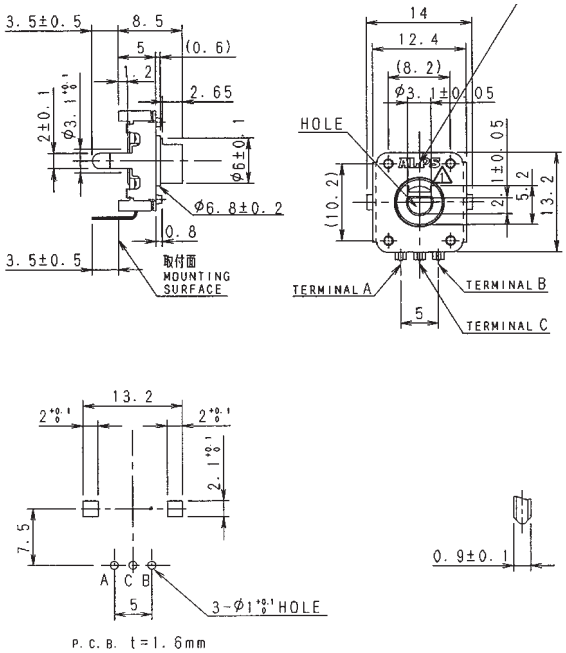
STEC12E04

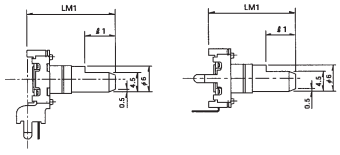
STEC12E08



Unit: (mm)

STEC12E09



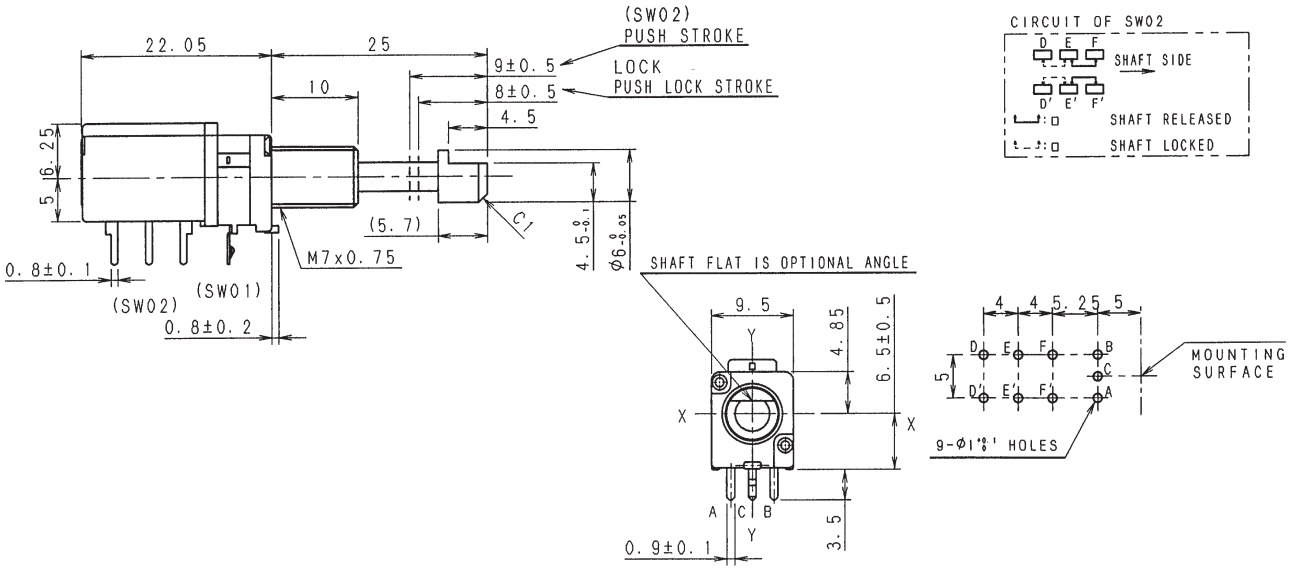


LM	ℓ1
17.5	5
20	7
22.5	7
25	12

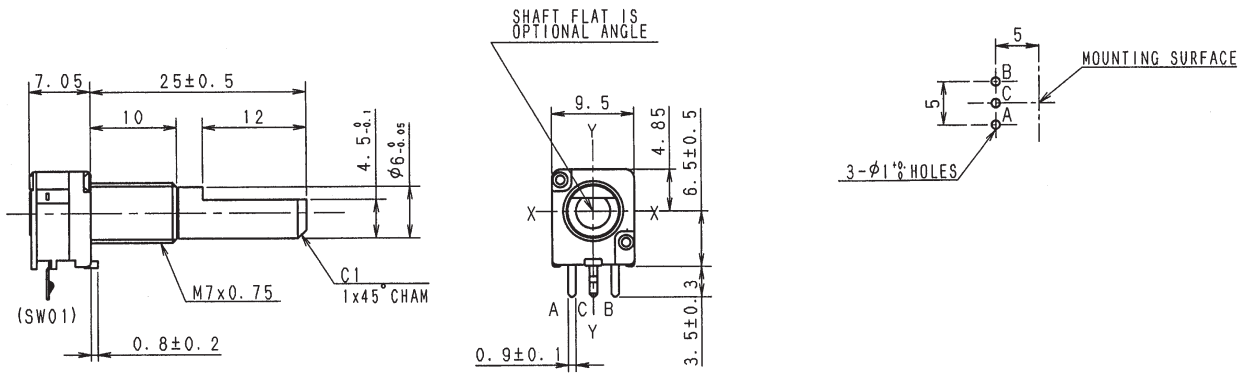
9 mm Size Encoder

Order Number	Size (mm)	Number of Pulses	Detents	Shaft lenght (mm)	Shaft Style	Attachement	Rest of Specification
STRK09EC1	9 mm	15	15	25 mm	Flat	With Push lock function	Standard
						With Push lock switch	
STRK09EC2	9 mm	15	15	25 mm	Flat	No	

STRK09EC1



STRK09EC2



Unit: (mm)

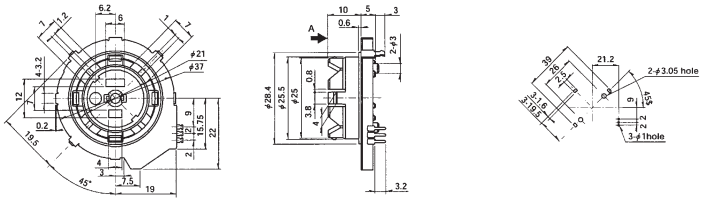
Hollow Shaft Encoder

Order Number	Model	Positions	Size	Life cycles
STSRGP1	24	24	Refer to drawing	100.000 cycles
STSRGP2	20	20	Refer to drawing	50.000 cycles
STSRGPWJ	10	20	Refer to drawing	50.000 cycles
STSRGPSJ1	16	32	Refer to drawing	50.000 cycles

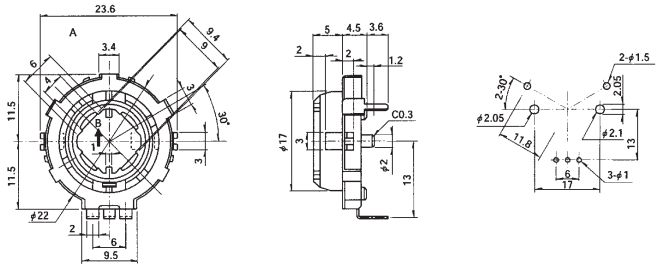
Standard Specifications:

Ratings:	10mA 5 VDC
max. Operating Current:	10mA
Insulation Resistance:	100V DC 10 MΩ min.
Withstand Voltage:	100V AC

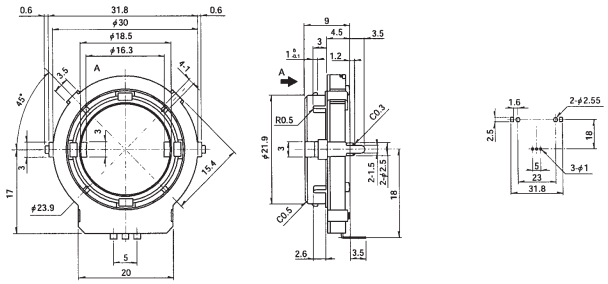
STSRGP1



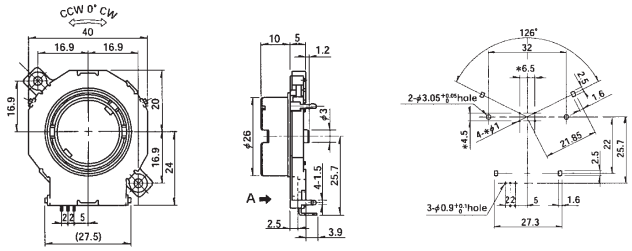
STSRGP2



STSRGPWJ



STSRGPSJ1



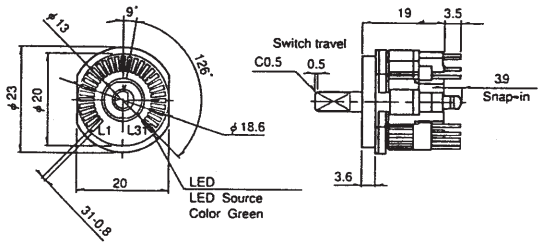
Unit: (mm)

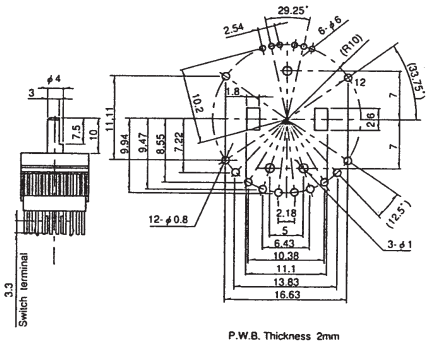
Magnetic Encoder

Order Number	Size (mm)	Number of Pulses	Detents	Details	Shaft lenght (mm)	Shaft Style	Attachement	Rest of Specification
STEM20B41	20	40	40	LED: colour orange	10	Flat	31 LED's with push on	Standard
						4 mm Ø	switch 0,5 mm	
STEM20B42	20	40	40	without LED	16	Flat	push on switch	Standard
						4 mm Ø	0,5 mm	
STEM11B01	11	16	16	Vertical Type	15	Flat	push on switch	Standard
							0,5 mm	

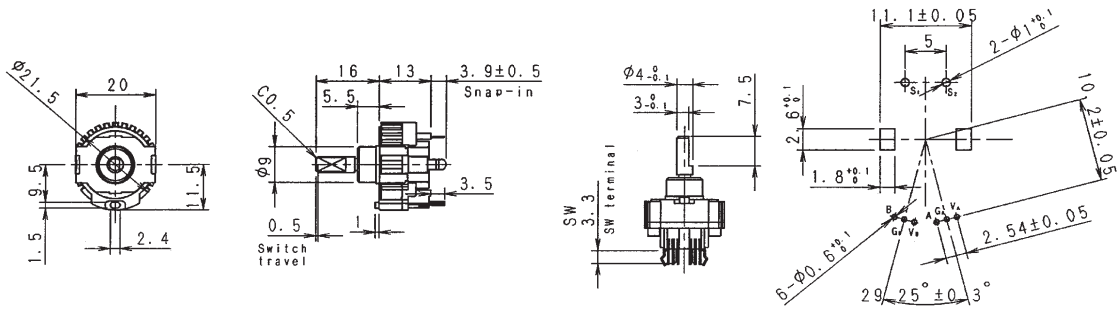
Standard Specifications:
Power Ratings: 5 VDC +/-5
Current consumption: 15mA max
Output Phase: A,B (square wave)
Life cycles: up to 1.000.000 cycles

STEM20B41

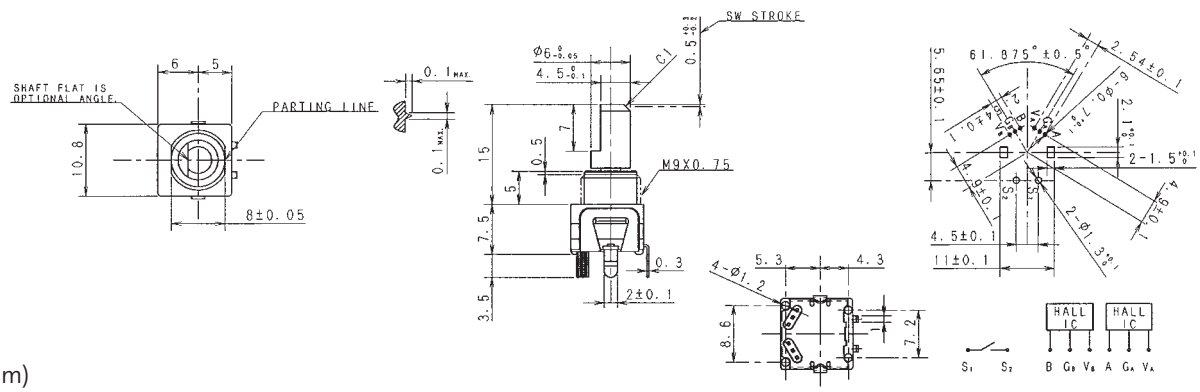




STEM20B42



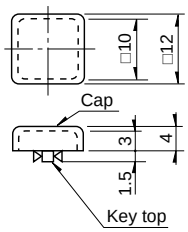
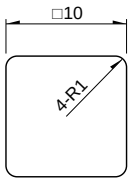
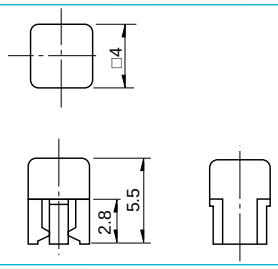
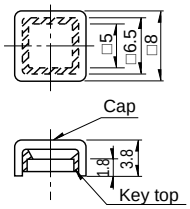
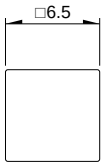
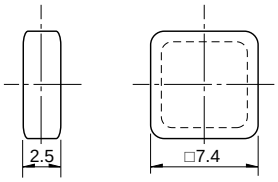
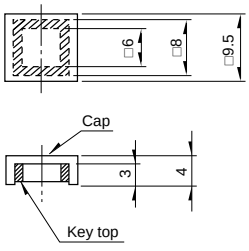
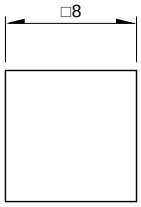
STEM11B01



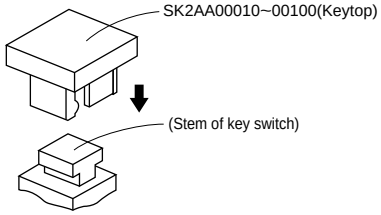
Unit: (mm)

Keytop Product Line

for Tact Swiches

	Models	Unit: mm	Variety Colour	Variety Model	Label Dimension
	SKHC SKQE		**Cap:** Clear **Keytop:** Red Blue Ivory Black Yellow	 SK2AA00510 SK2AA00010 SK2AA00020 SK2AA00030 SK2AA00040 SK2AA00050	 Thickness 0.1
	SKHH		Red Blue Ivory Black Yellow	SK2AA00410 SK2AA00420 SK2AA00430 SK2AA00440 SK2AA00450	
	SKHJ		**Cap:** Clear **Keytop:** Red Blue Ivory Black Yellow	 SK2AA00520 SK2AA00210 SK2AA00220 SK2AA00230 SK2AA00240 SK2AA00250	
	SKHQ		Red Blue Ivory Black Yellow	SK2AA00460 SK2AA00470 SK2AA00480 SK2AA00490 SK2AA00500	
	SKEC		**Cap:** Clear **Keytop:** Red Blue Ivory Black Yellow	 SK2AA00530 SK2AA00110 SK2AA00120 SK2AA00130 SK2AA00140 SK2AA00150	

1. The knob is shipped with the switch, unmounted.
2. The label is not included.



Unit: (mm)

ALPS

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