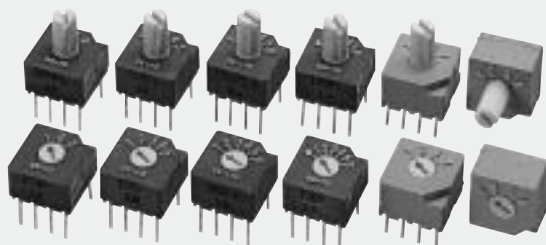


ROTARY SELECTOR SWITCHES

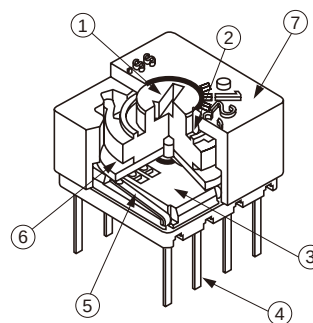
SS-10

RoHS compatible



FEATURES

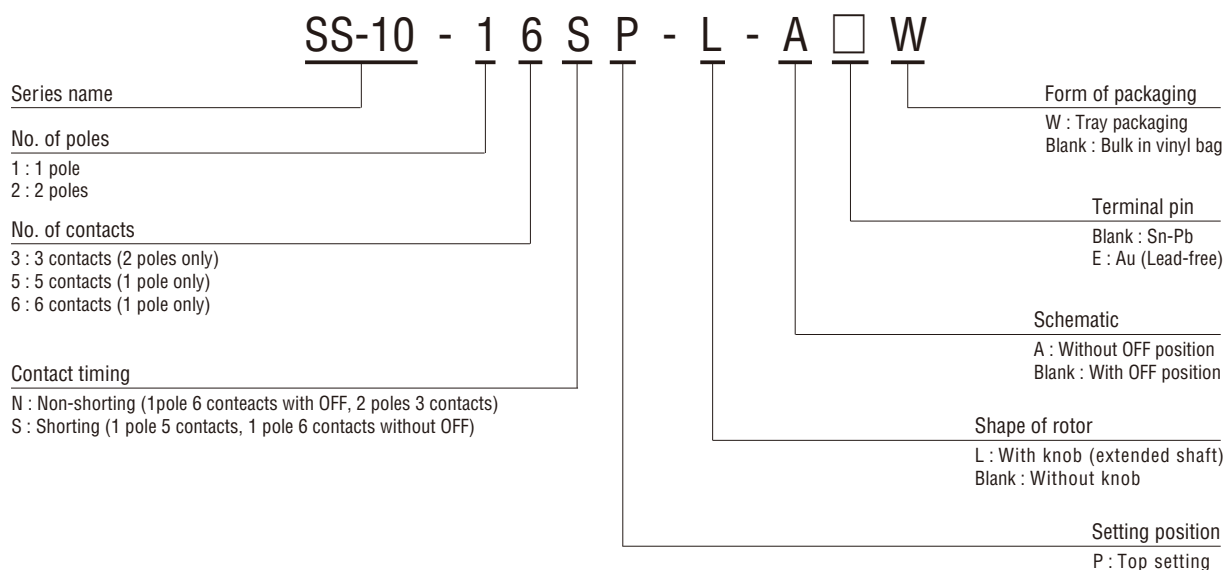
- Lead-free soldering
- Compact-size DIP pin configuration
- Protected against dust and washable after soldering
- Self-cleaning mechanism

INTERNAL STRUCTURE
SS-10 series

Part name		Material	Flammability
①	Rotor	POM (polyoxymethylene)	UL-94HB
②	"O" ring	Silicone rubber	
③	Base	PBT (Polybutyleneterephthalate)	
④	Terminal pin	Sn-Pb	—
		Au	
⑤	Contact	Copper alloy, Gold-plated	
⑥	P.C.B.	Gold-plated epoxy board	
⑦	Housing	PBT (Polybutyleneterephthalate)	UL-94HB

CFCs, Halon, Carbon tetrachloride and designated bromic flame retardant PBBs and PBBs are not used in our products.

PART NUMBER DESIGNATION



✳ Please refer to the LIST OF PART NUMBERS when placing orders.

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ROTARY SELECTOR SWITCHES

LIST OF PART NUMBERS

Circuit type		Shape		Form of packaging	Terminal pin	Contact timing		Pieces in package				
						Non-shorting	Shorting					
1 pole 4 contacts		Top setting	Without knob	Tray packaging	Au	S-2050W		50 pcs./tray				
				Vinyl pack	Au	S-2050		25 pcs./pack				
			With knob	Tray packaging	Au	S-2150W		50 pcs./tray				
				Vinyl pack	Au	S-2150		25 pcs./pack				
		Side setting	Without knob	Tray packaging	Au	S-2051W		50 pcs./tray				
				Vinyl pack	Au	S-2051		25 pcs./pack				
			With knob	Tray packaging	Au	S-2151W		50 pcs./tray				
				Vinyl pack	Au	S-2151		25 pcs./pack				
1 pole 5 contacts		Top setting	Without knob	Tray packaging	Sn-Pb		SS-10-15SPW	50 pcs./tray				
					Au (Lead-free)		SS-10-15SPEW	50 pcs./tray				
				Vinyl pack	Sn-Pb		SS-10-15SP	25 pcs./pack				
					Au (Lead-free)		SS-10-15SPE	25 pcs./pack				
			With knob	Tray packaging	Sn-Pb		SS-10-15SP-LW	50 pcs./tray				
					Au (Lead-free)		SS-10-15SP-LEW	50 pcs./tray				
				Vinyl pack	Sn-Pb		SS-10-15SP-L	25 pcs./pack				
					Au (Lead-free)		SS-10-15SP-LE	25 pcs./pack				
			1 pole 6 contacts		With OFF	Without knob	Tray packaging	Sn-Pb	SS-10-16NPW		50 pcs./tray	
								Au (Lead-free)	SS-10-16NPEW		50 pcs./tray	
							Vinyl pack	Sn-Pb	SS-10-16NP		25 pcs./pack	
								Au (Lead-free)	SS-10-16NPE		25 pcs./pack	
						With knob	Tray packaging	Sn-Pb	SS-10-16NP-LW		50 pcs./tray	
								Au (Lead-free)	SS-10-16NP-LEW		50 pcs./tray	
							Vinyl pack	Sn-Pb	SS-10-16NP-L		25 pcs./pack	
								Au (Lead-free)	SS-10-16NP-LE		25 pcs./pack	
Without OFF						Without knob	Tray packaging	Sn-Pb		SS-10-16SP-AW	50 pcs./tray	
								Au (Lead-free)		SS-10-16SP-AEW	50 pcs./tray	
							Vinyl pack	Sn-Pb		SS-10-16SP-A	25 pcs./pack	
								Au (Lead-free)		SS-10-16SP-AE	25 pcs./pack	
						With knob	Tray packaging	Sn-Pb		SS-10-16SP-L-AW	50 pcs./tray	
								Au (Lead-free)		SS-10-16SP-L-AEW	50 pcs./tray	
							Vinyl pack	Sn-Pb		SS-10-16SP-L-A	25 pcs./pack	
								Au (Lead-free)		SS-10-16SP-L-AE	25 pcs./pack	
			2 poles 3 contacts			Without knob	Tray packaging	Sn-Pb	SS-10-23NPW		50 pcs./tray	
								Au (Lead-free)	SS-10-23NPEW		50 pcs./tray	
							Vinyl pack	Sn-Pb	SS-10-23NP		25 pcs./pack	
								Au (Lead-free)	SS-10-23NPE		25 pcs./pack	
							With knob	Tray packaging	Sn-Pb	SS-10-23NP-LW		50 pcs./tray
									Au (Lead-free)	SS-10-23NP-LEW		50 pcs./tray
								Vinyl pack	Sn-Pb	SS-10-23NP-L		25 pcs./pack
									Au (Lead-free)	SS-10-23NP-LE		25 pcs./pack

☐ : Not manufactured

※ : Verify the above part numbers when placing orders.

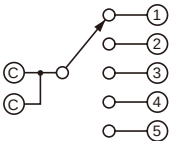
Tray version can be supplied only in tray nuits.

SS-10

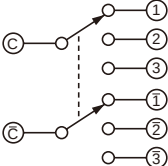
ROTARY SELECTOR SWITCHES

SCHEMATIC DIAGRAMS

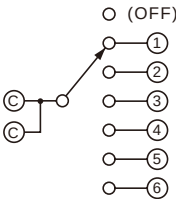
● 1 pole 5 contacts

Series	Switching specifications	Schematic
SS-10-15SP SS-10-15SPE SS-10-15SP-L SS-10-15SP-LE	  ON	

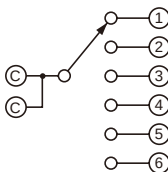
● 2 poles 3 contacts

Series	Switching specifications	Schematic
SS-10-23NP SS-10-23NPE SS-10-23NP-L SS-10-23NP-LE	  ON	

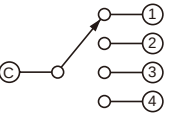
● 1 pole 6 contacts (With OFF)

Series	Switching specifications	Schematic
SS-10-16NP SS-10-16NPE SS-10-16NP-L SS-10-16NP-LE	  ON	

● 1 pole 6 contacts (Without OFF)

Series	Switching specifications	Schematic
SS-10-16SP-A SS-10-16SP-AE SS-10-16SP-L-A SS-10-16SP-L-AE	  ON	

● 1 pole 4 contacts (Note 1)

Series	Switching specifications	Schematic
S-2050 S-2051 S-2150 S-2151	  ON	

Note 1 : Terminal pins of S-2050, S-2051, S-2150 and S-2151 are made from gold-plated.

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ROTARY SELECTOR SWITCHES

■ TERMINAL CONNECTION / P.C.B. THROUGH HOLE DIMENSIONS

(Unit: mm)

	SS-10-15	SS-10-16	SS-10-23	S-2050 S-2150	S-2051 S-2151
Terminal pin layout (Bottom view)					
P.C.B. dimensions (Bottom view)	Dimension is common to SS-10-15, SS-10-16 and SS-10-23 series.				

■ STANDARD SPECIFICATIONS

Circuit type	1 pole 4 contacts 1 pole 5 contacts 1 pole 6 contacts 2 poles 3 contacts
Operating temperature range	-25 ~ 70 °C
Storage temperature range	
Sealing	Washable by "O" ring
Net weight	Approx. 0.84 g (without knob) Approx. 0.94 g (with knob)

■ ELECTRICAL CHARACTERISTICS

Contact rating Non-switching Switching Minimum	DC50 V 100 mA DC5 V 100 mA DC20 mV 1 μA
Contact timing	Shorting Non-shorting
Contact resistance	100 mΩ maximum
Insulation resistance	100 MΩ (DC100 V) minimum
Dielectric strength	AC300 V, 60 s

■ MECHANICAL CHARACTERISTICS

No. of positions	3, 4, 5, 6
Adjustment torque	40 mN·m {408 gf·cm} maximum
Stopper strength	50 mN·m {510 gf·cm} minimum
Stepping angle	36° (1 pole 4 contacts) 30° (2 poles 3 contacts) 30° (1 pole 5 contacts) 22.5° (1 pole 6 contacts, with OFF) 28° (1 pole 6 contacts, without OFF)
Terminal strength	15 N {1.53 kgf} minimum
Solderability	Sn-Pb : 230 ± 5 °C, 3 s Au : 245 ± 3 °C, 2 ~ 3 s
Soldering heat	Sn-Pb : 260 ± 5 °C, 10 s Au Flow soldering 260 ± 3 °C, 5 ~ 6 s, two times maximum Manual soldering 380 ± 10 °C, 3 ~ 4 s

{ } : Reference only

■ ENVIRONMENTAL CHARACTERISTICS

Vibration	Amplitude 1.5 mm Acceleration 98 m/s ² , 10-500-10 Hz, 3 directions for 2 h each
Shock	490 m/s ² , 11 ms 6 directions for 3 times each
Humidity (Steady state)	40 °C, Relative humidity 90 ~ 95 %, 240 h
Load life	500 cycles minimum DC5 V, 100 mA
High temperature exposure	70 °C, 240 h
Low temperature exposure	-25 °C, 96 h
Thermal shock	-25 (0.5 h) ~ 70 °C (0.5 h), 5 cycles

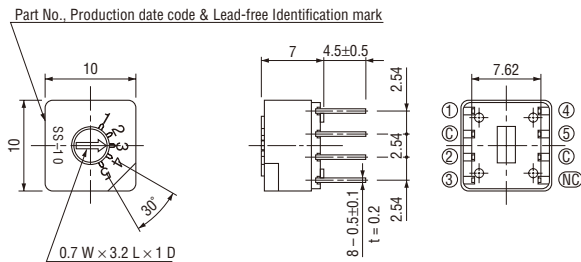
SS-10

ROTARY SELECTOR SWITCHES

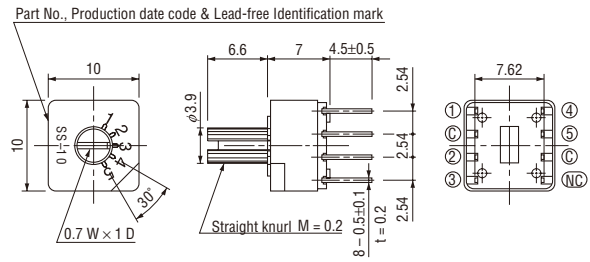
OUTLINE DIMENSIONS

Unless otherwise specified, tolerance: ± 0.3 (Unit: mm)

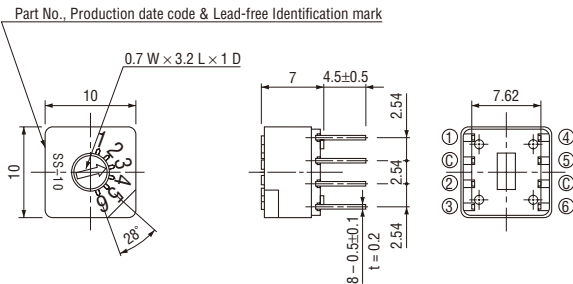
SS-10-15SP, SS-10-15SPE



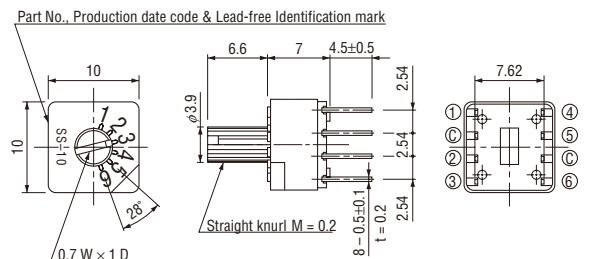
SS-10-15SP-L, SS-10-15SP-LE



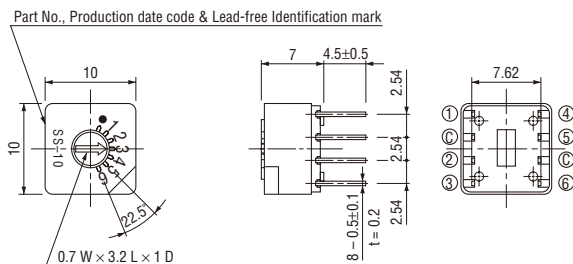
SS-10-16SP-A, SS-10-16SP-AE



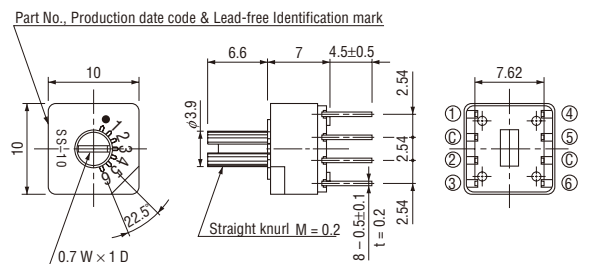
SS-10-16SP-L-A, SS-10-16SP-L-AE



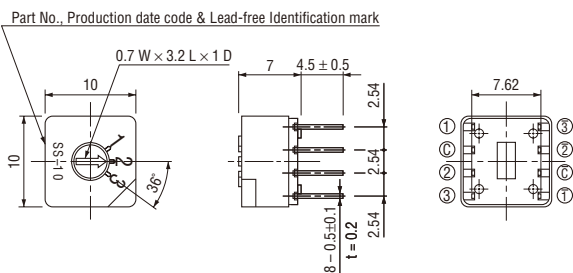
SS-10-16NP, SS-10-16NPE



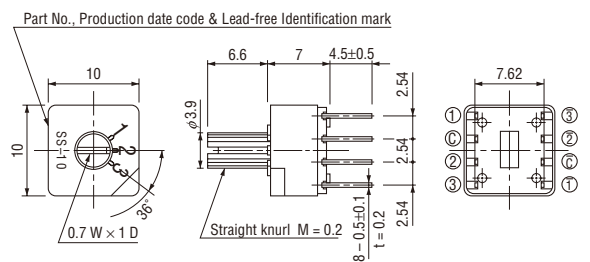
SS-10-16NP-L, SS-10-16NP-LE



SS-10-23NP, SS-10-23NPE



SS-10-23NP-L, SS-10-23NP-LE



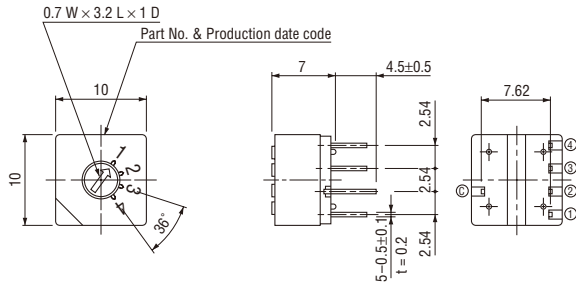
SS-10

ROTARY SELECTOR SWITCHES

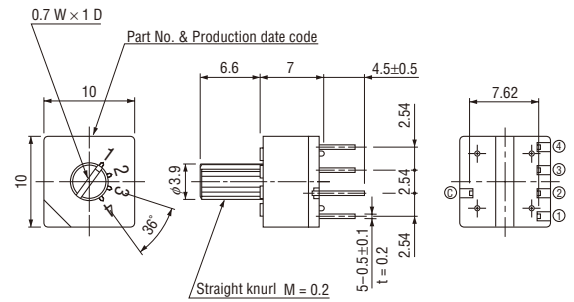
OUTLINE DIMENSIONS

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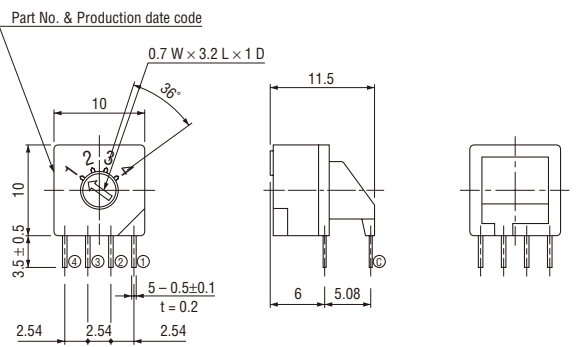
● S-2050



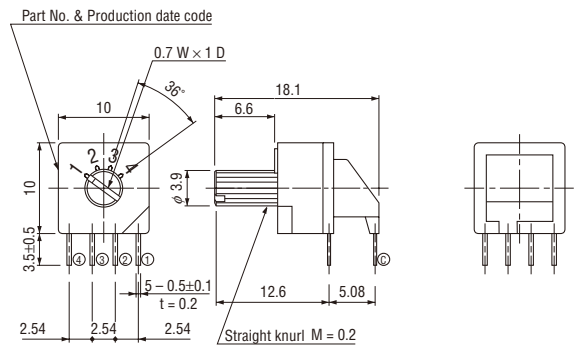
● S-2150



● S-2051



● S-2151

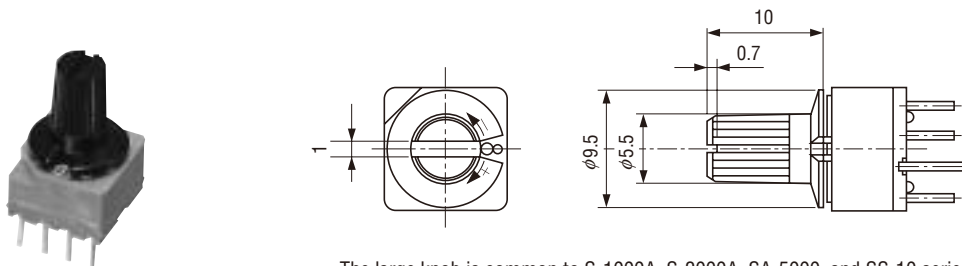


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ROTARY SELECTOR SWITCHES

■ LARGE KNOB 'K1'

(Unit: mm)



The large knob is common to S-1000A, S-2000A, SA-5000, and SS-10 series.

■ PACKAGING SPECIFICATIONS

<Tray packaging specifications>

- Tray version is packaged in 50 pcs. per tray. Orders will be accepted for units of 50 pcs., i. e., 50, 100, 150 pcs. etc.
- Tray version is boxed with 10 trays.

<Vinyl pack specifications>

- The smallest unit of bulk in vinyl bag packaging is 10 pcs. per pack.
Orders will be accepted for unit of minimum 10 pcs., i.e., 10, 20, 30 pcs., etc.
- Boxing of bulk in vinyl bags is performed with 25 pcs. (standard 50 pcs.) per box.

<Note> : The switch with a large knob for manual adjustment is available as a semi-standard item.



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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