

S-1000A/2000A

ROTARY CODED SWITCHES

型式一覧表 LIST OF PART NUMBERS

形状 Shape		包装形態 Form of packaging	2進化10進 Binary coded decimal		2進化16進 Binary coded hexadecimal		包装数量 Pieces in package
			リアルコード Real code	コンプリメンタリコード Complementary code	リアルコード Real code	コンプリメンタリコード Complementary code	
上部 設定 Top setting	つまみ無し Without knob	トレイ Tray packaging	S-2010AW	S-2030AW	S-1010AW	S-1030AW	50 pcs./tray
		ポリ袋 Plastic bag	S-2010A	S-2030A	S-1010A	S-1030A	25 pcs./pack
	つまみ付き With knob	トレイ Tray packaging	S-2110AW	S-2130AW	S-1110AW	S-1130AW	50 pcs./tray
		ポリ袋 Plastic bag	S-2110A	S-2130A	S-1110A	S-1130A	25 pcs./pack
側部 設定 Side setting	平ノブ付き Translucent knob with flange	トレイ Tray packaging	S-2210AW	S-2230AW	S-1210AW	S-1230AW	50 pcs./tray
		ポリ袋 Plastic bag	S-2210A	S-2230A	S-1210A	S-1230A	25 pcs./pack
	つまみ無し Without knob	トレイ Tray packaging	S-2011AW	S-2031AW	S-1011AW	S-1031AW	50 pcs./tray
		ポリ袋 Plastic bag	S-2011A	S-2031A	S-1011A	S-1031A	25 pcs./pack
	つまみ付き With knob	トレイ Tray packaging	S-2111AW	S-2131AW	S-1111AW	S-1131AW	50 pcs./tray
		ポリ袋 Plastic bag	S-2111A	S-2131A	S-1111A	S-1131A	25 pcs./pack
	平ノブ付き Translucent knob with flange	トレイ Tray packaging	S-2211AW	S-2231AW	S-1211AW	S-1231AW	50 pcs./tray
		ポリ袋 Plastic bag	S-2211A	S-2231A	S-1211A	S-1231A	25 pcs./pack

※ご注文に際しては、上記型式をご確認ください。

トレイ仕様は、切り売りいたしませんので、トレイ単位で、ご注文をお願いします。

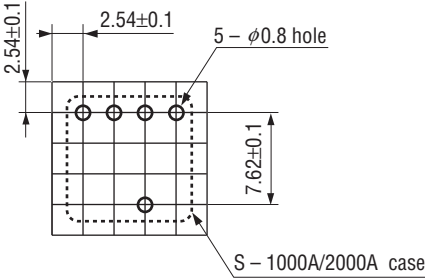
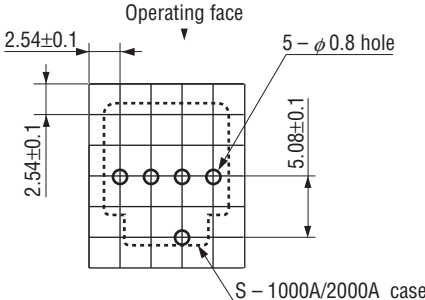
※ Verify the above part numbers when placing orders.

Tray version can be supplied only in tray units.

端子接続 / プリント基板加工寸法

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

(Unit: mm)

	Top setting	Side setting
端子接続図 (裏面図) Terminal pin layout (Bottom view)	Real code  Complementary code 	Operating face of real code  Operating face of complementary code 
プリント基板 加工寸法 (反対面から見た図) P.C.B. dimensions (Bottom view)		

コードフォーマット CODE FORMAT

No. of positions		S-1000A series (16 positions)															
		S-2000A series (10 positions)										A	B	C	D	E	F
Position		0	1	2	3	4	5	6	7	8	9						
Code	Real code	8								●	●	●	●	●	●	●	●
		4				●	●	●	●			●		●	●	●	●
		2			●	●		●	●			●	●			●	●
		1		●		●		●	●		●		●		●		●
	Complementary code	8	●	●	●	●	●	●	●								
		4	●	●	●	●				●	●	●	●				
		2	●	●			●	●		●	●			●	●		
		1	●		●		●		●	●		●		●		●	

● ...Contact closed

S-1000A/2000A

ROTARY CODED SWITCHES

標準仕様

STANDARD SPECIFICATIONS

回路構成 Circuit type	BCD (Real code, complementary code) BCH (Real code, complementary code)
使用温度範囲 Operating temperature range	— 40 ~ 85 °C
保存温度範囲 Storage temperature range	
シール性 Sealing	洗浄可能 Washable by "O" ring ※詳細は 150、151 ページをご覧ください。 ※ Please refer to page 150,151
質量 Net weight	Approx. 0.87 g (S-1010A, S-1030A, S-2010A, S-2030A) Approx. 1.13 g (S-1011A, S-1031A, S-2011A, S-2031A) Approx. 0.97 g (S-1110A, S-1130A, S-2110A, S-2130A) Approx. 1.23 g (S-1111A, S-1131A, S-2111A, S-2131A) Approx. 1.02 g (S-1210A, S-1230A, S-2210A, S-2230A) Approx. 1.28 g (S-1211A, S-1231A, S-2211A, S-2231A)

機械的特性

MECHANICAL CHARACTERISTICS

ポジション数 No. of positions	16 (S-1000A), 10 (S-2000A)
回転トルク Adjustment torque	13 mN·m {133 gf·cm} minimum
ステップ角度 Stepping angle	22.5° (S-1000A), 36° (S-2000A)
端子強度 Terminal strength	15 N {1.53 kgf} minimum
はんだ付け性 Solderability	245 ± 3 °C, 2 ~ 3 s
はんだ耐熱性 Soldering heat	フロー : 260 ± 3 °C の槽内に端子 先端から基板の裏面まで 5 ~ 6 秒間浸漬を 2 回 Flow : 260 ± 3 °C as the temperature in a pot of molten solder, immersion from head of terminal to backside of board, 5 ~ 6 s, two times maximum
	手はんだ Manual soldering : 380 ± 10 °C, 3 ~ 4 s

{ } : 参考値 Reference only

電気的特性

ELECTRICAL CHARACTERISTICS

接点定格 Contact rating	DC50 V 100 mA DC5 V 100 mA DC20 mV 1 μ A
Non-switching	
Switching	
Minimum	
接触抵抗 Contact resistance	100 m Ω maximum
絶縁抵抗 Insulation resistance	1000 M Ω (DC100 V) minimum
耐電圧 Dielectric strength	AC300 V, 60 s

環境特性

ENVIRONMENTAL CHARACTERISTICS

耐振性 Vibration	振幅 (Amplitude) 1.5 mm (全振幅) or 加速度 (Acceleration) 98 m/s ² , 10-500-10 Hz, 3 directions for 2 h each
耐衝撃性 Shock	490 m/s ² , 11 ms 6 directions for 3 times each
耐久性 Load life	10000 steps DC5 V, 100 mA
耐湿性 (定常状態) Humidity (Steady state)	抵抗負荷 Resistance load DC50V 100mA 60 °C, 相対湿度 Relative humidity 90 ~ 95 %, 1000 h
耐熱性 High temperature exposure	85 °C, 1000 h
耐寒性 Low temperature exposure	— 40 °C, 96 h
温度サイクル Thermal shock	— 40 (0.5 h) ~ 85 °C (0.5 h), 5 cycles

S-1000A/2000A

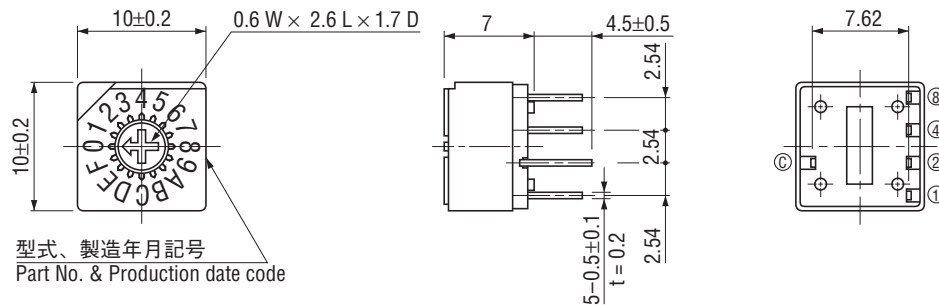
ROTARY CODED SWITCHES

■外形寸法図 OUTLINE DIMENSIONS

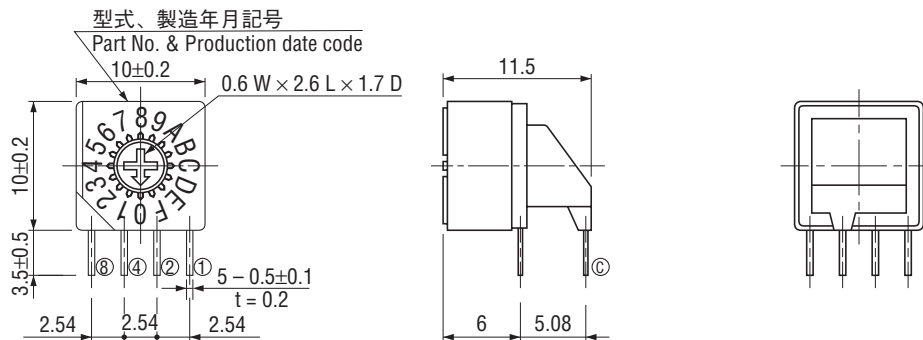
Unless otherwise specified, tolerance: ± 0.3 (Unit: mm)

(S-1000A series)

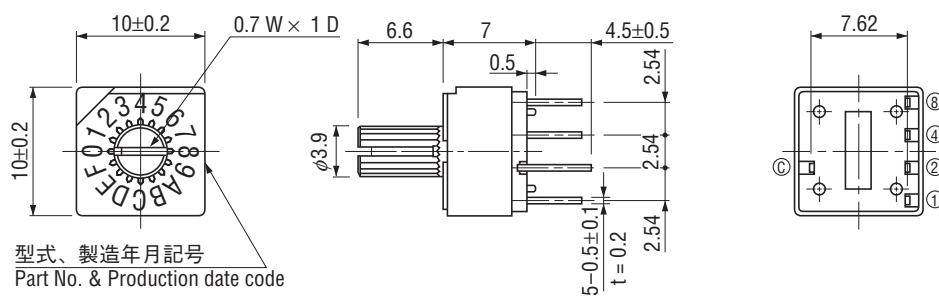
- S-1010A
 - S-1030A
- Top setting



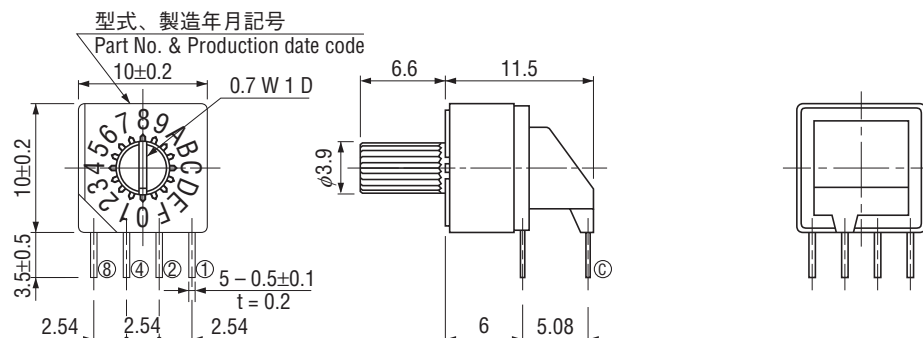
- S-1011A
 - S-1031A
- Side setting



- S-1110A
 - S-1130A
- Top setting



- S-1111A
 - S-1131A
- Side setting



S-1000A/2000A

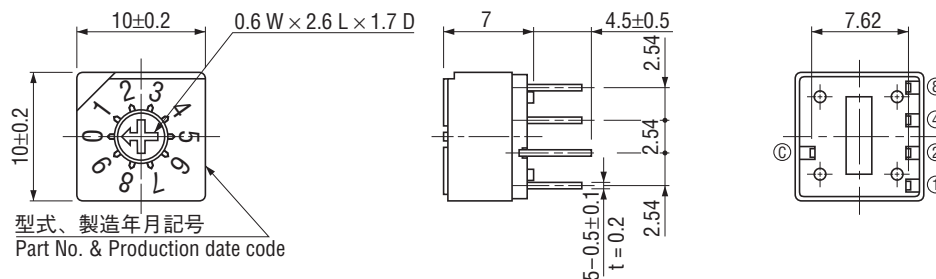
ROTARY CODED SWITCHES

■外形寸法図 OUTLINE DIMENSIONS

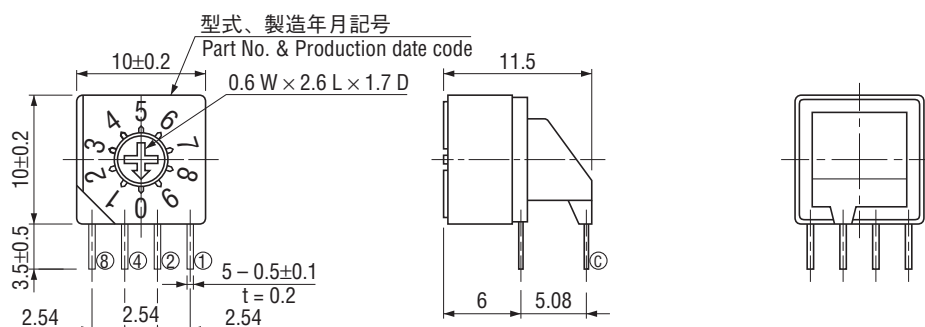
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(S-2000A series)

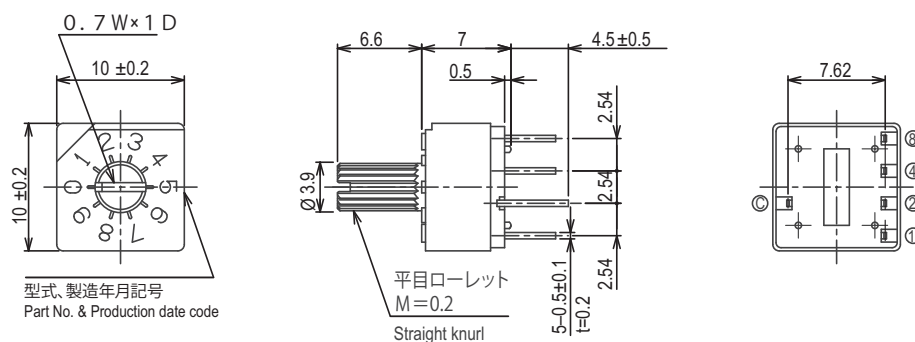
- S-2010A
 - S-2030A
- Top setting



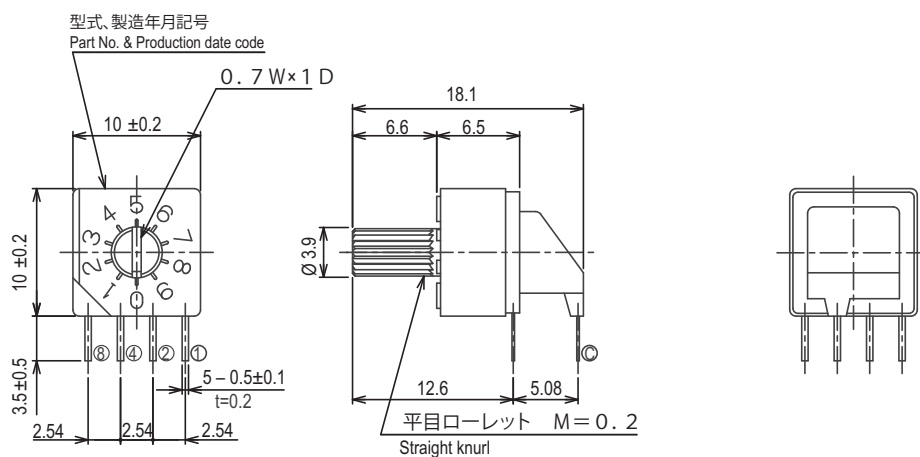
- S-2011A
 - S-2031A
- Side setting



- S-2110A
 - S-2130A
- Top setting



- S-2111A
 - S-2131A
- Side setting



S-1000A/2000A

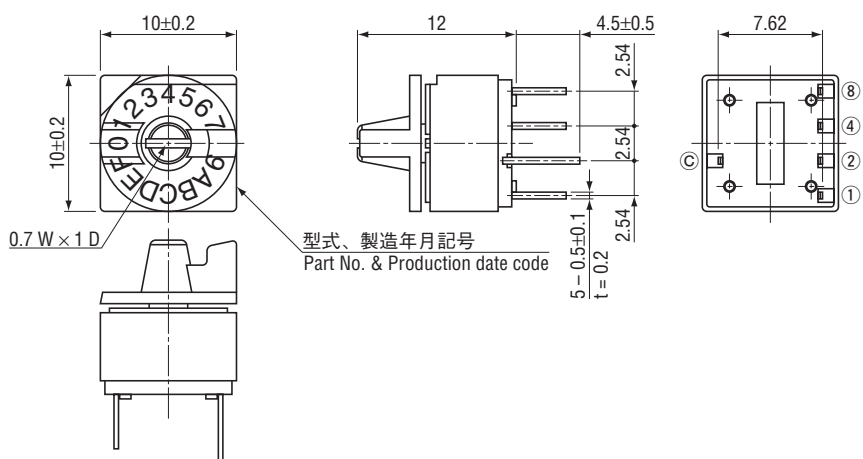
ROTARY CODED SWITCHES

外形寸法図 OUTLINE DIMENSIONS

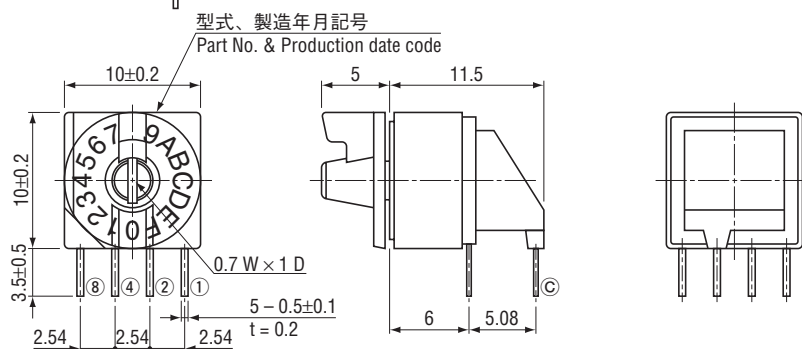
Unless otherwise specified, tolerance: ± 0.3 (Unit: mm)

(S-1200A/2200A series)

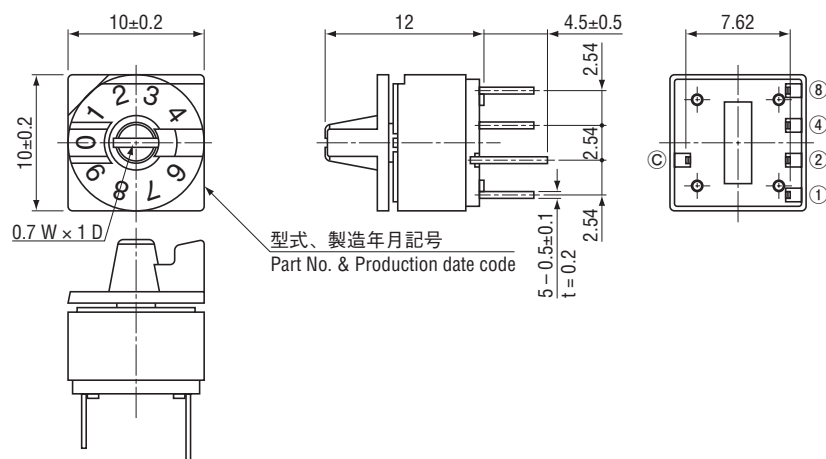
- S-1210A
 - S-1230A
- Top setting



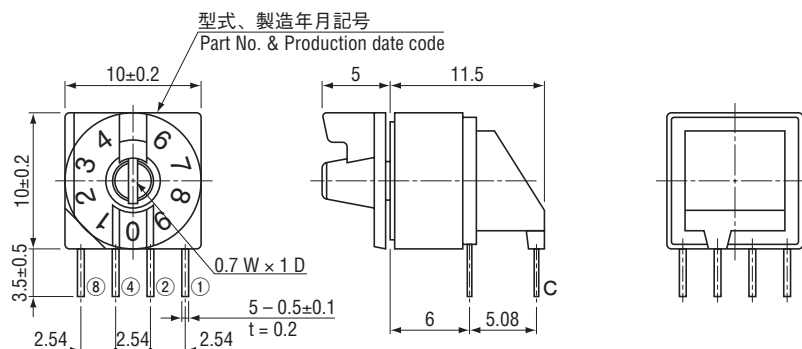
- S-1211A
 - S-1231A
- Side setting



- S-2210A
 - S-2230A
- Top setting



- S-2211A
 - S-2231A
- Side setting



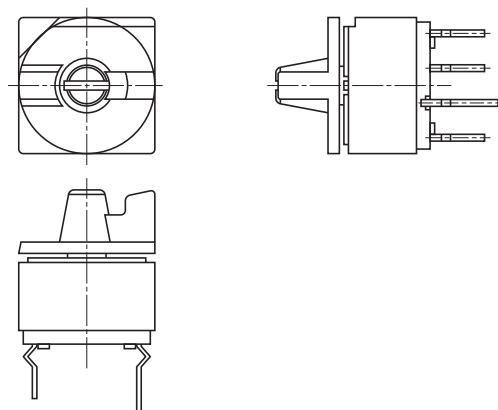
S-1000A/2000A

ROTARY CODED SWITCHES

■平ノブ付キンク加工品（受注生産）

Snap-in terminal pin with translucent knob with flange (Made to order basis)

● S-1200AK and S-2200AK



■包装仕様

〈トレイの包装仕様〉

- トレイでの最小包装は、50 個 / トレイとなりますので、50 個単位 (50 個、100 個、150 個...) でのご注文をお願い致します。
- トレイの箱詰めは、10 トレイごとに製品箱に包装致します。

〈ポリ袋の包装仕様〉

- ポリ袋での最小包装は、10 個 / 袋となりますので、10 個単位 (10 個、20 個、30 個...) でのご注文をお願い致します。
- ポリ袋の箱詰めは、25 個以上 (標準は 50 個) を製品箱に包装致します。

■ PACKAGING SPECIFICATIONS

<Tray packaging specifications>

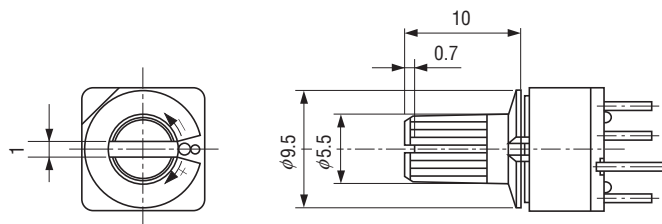
- Tray version is packaged in 50 pcs. per tray. Orders will be accepted for units of 50 pcs., i. e., 50, 100, 150 pcs. etc.
- Tray version is boxed with 10 trays.

<Bulk pack specifications>

- The smallest unit of bulk pack in a plastic bag 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 a plastic bag is performed with 25 pcs. (standard 50 pcs.) per box.

■長軸用ノブ付品 SWITCHES WITH KNOB AS EXTENDED SHAFT

(Unit: mm)



ノブは、S-1000A、S-2000A、SA-5000、SS-10 共用です。
The large knob is common to S-1000A, S-2000A, SA-5000 and SS-10 series.

※ノブは固定されているため、取り外しはできません。ノブ単体での販売はしていません。
※ Knob can't be detached due to being fixed. Simple knob can't be sold.