

NEW DIP Switches

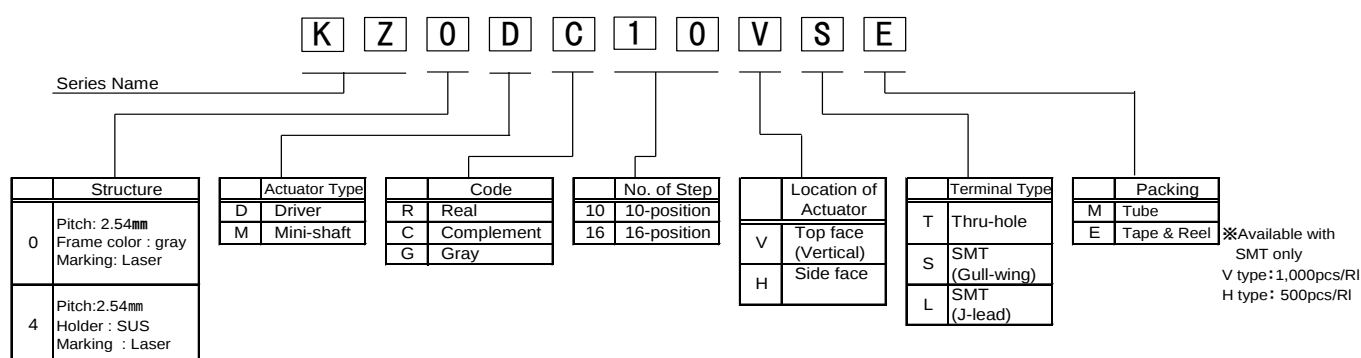
KZ SERIES Miniature Rotary Code Switch

FEATURES

1. Realize space saving of mounting area due to miniature design.
2. 2-point contact structure provides high contact reliability.
3. Better click feeling is by unique structure
4. Applying heat resistant resin.
5. Available automatic mounting by pick and placemachine and reflow soldering.
6. Conforms to RoHS II and REACH
7. Equivalent to IP Code IP65
8. High resistance to EMS and noise with applying plastic body

Rating	0.4VA AC•DC20V MAX.
Contact Resistance	100mΩ MAX.
Withstanding Voltage	250VAC for 1 min.
Insulation Resistance	1000MΩ MIN.
Electrical Duration	10000 Steps
Operating Temp Range	-30~+70°C
Storage Temp Range	-30~+70°C
Operating Force	19.6mN•m MAX
No. of Reflow Available	2 times

ORDERING CODE



MATERIAL

Part Name	Material	Finish
Case	PPS	Color: Black
Frame	PPS	Color: Light brown
Rotor	LCP	Color: White
Plate	SUS	-
F-contact	Cu alloy	Au flash
M-contact	Cu alloy	Au plated
Holder	SUS	Silver

CODE VARIATION

BCD

Code	Position									
	0	1	2	3	4	5	6	7	8	9
1										
2										
4										
8										

Hexadecimal

Code	Position															
	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
1																
2																
4																
8																

BCD Complement

Code	Position									
	0	1	2	3	4	5	6	7	8	9
1										
2										
4										
8										

Hexadecimal Complement

Code	Position															
	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
1																
2																
4																
8																

BCD Gray

Code	Position									
	0	1	2	3	4	5	6	7	8	9
1										
2										
4										
8										

Hexadecimal Gray

Code	Position															
	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
1																
2																
4																
8																

■: Actuator's Position at Delivery

PRODUCT VARIATION

Structure	Actuator Type	Location of Actuator	Terminal Type	Packing Style	BCD 【10】			Hexadecimal 【16】		
					Real Code[R]	Complement Code[C]	Gray Code[G]	Real Code[R]	Complement Code[C]	Gray Code[G]
Terminal pitch: 2.54mm Frame: Light brown Marking: By Laser [0]	Driver [D]	Top (Vertical)	Thru-hole [T]	Tube [M]	KZ0DR10VTM	KZ0DC10VTM	KZ0DG10VTM	KZ0DR16VTM	KZ0DC16VTM	KZ0DG16VTM
			Gull-wing SMT [S]	Tube [M]	KZ0DR10VSM	KZ0DC10VSM	KZ0DG10VSM	KZ0DR16VSM	KZ0DC16VSM	KZ0DG16VSM
			T&R [E]	T&R [E]	KZ0DR10VSE	KZ0DC10VSE	KZ0DG10VSE	KZ0DR16VSE	KZ0DC16VSE	KZ0DG16VSE
			J-lead SMT [L]	Tube [M]	KZ0DR10VLM	KZ0DC10VLM	KZ0DG10VLM	KZ0DR16VLM	KZ0DC16VLM	KZ0DG16VLM
			T&R [E]	T&R [E]	KZ0DR10VLE	KZ0DC10VLE	KZ0DG10VLE	KZ0DR16VLE	KZ0DC16VLE	KZ0DG16VLE
			Thru-hole [T]	Tube [M]	KZ0MR10VTM	KZ0MC10VTM	KZ0MG10VTM	KZ0MR16VTM	KZ0MC16VTM	KZ0MG16VTM
	Mini-shaft [M]	[V]	Gull-wing SMT [S]	Tube [M]	KZ0MR10VSM	KZ0MC10VSM	KZ0MG10VSM	KZ0MR16VSM	KZ0MC16VSM	KZ0MG16VSM
			T&R [E]	T&R [E]	KZ0MR10VSE	KZ0MC10VSE	KZ0MG10VSE	KZ0MR16VSE	KZ0MC16VSE	KZ0MG16VSE
			J-lead SMT [L]	Tube [M]	KZ0MR10VLM	KZ0MC10VLM	KZ0MG10VLM	KZ0MR16VLM	KZ0MC16VLM	KZ0MG16VLM
			T&R [E]	T&R [E]	KZ0MR10VLE	KZ0MC10VLE	KZ0MG10VLE	KZ0MR16VLE	KZ0MC16VLE	KZ0MG16VLE
Terminal pitch: 2.54mm Holder: SUS Marking: By Laser [4]	Driver [D]	Side (Horizontal)	Thru-hole [T]	Tube [M]	KZ4DR10HTM	KZ4DC10HTM	KZ4DG10HTM	KZ4DR16HTM	KZ4DC16HTM	KZ4DG16HTM
			Gull-wing SMT [S]	Tube [M]	KZ4DR10HSM	KZ4DC10HSM	KZ4DG10HSM	KZ4DR16HSM	KZ4DC16HSM	KZ4DG16HSM
			T&R [E]	T&R [E]	KZ4DR10HSE	KZ4DC10HSE	KZ4DG10HSE	KZ4DR16HSE	KZ4DC16HSE	KZ4DG16HSE
			Thru-hole [T]	Tube [M]	KZ4MR10HTM	KZ4MC10HTM	KZ4MG10HTM	KZ4MR16HTM	KZ4MC16HTM	KZ4MG16HTM
	Mini-shaft [M]	[H]	Gull-wing SMT [S]	Tube [M]	KZ4MR10HSM	KZ4MC10HSM	KZ4MG10HSM	KZ4MR16HSM	KZ4MC16HSM	KZ4MG16HSM
			T&R [E]	T&R [E]	KZ4MR10HSE	KZ4MC10HSE	KZ4MG10HSE	KZ4MR16HSE	KZ4MC16HSE	KZ4MG16HSE
			Thru-hole [T]	Tube [M]	KZ4MR10VTM	KZ4MC10VTM	KZ4MG10VTM	KZ4MR16VTM	KZ4MC16VTM	KZ4MG16VTM
			Gull-wing SMT [S]	Tube [M]	KZ4MR10VSM	KZ4MC10VSM	KZ4MG10VSM	KZ4MR16VSM	KZ4MC16VSM	KZ4MG16VSM

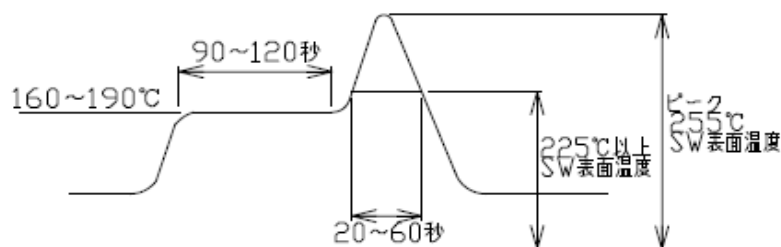
*Products will be released sequentially

SOLDERING CONDITIONS

●Soldering Conditions

Manual Soldering	Temperature of the tip of soldering iron: 320°C MAX. for 4±1 sec
Flow Soldering	Preheat 100~105°C 30±5 sec Solder Temp 265°C±3°C 8±2 sec
Reflow Soldering (SMT)	Preheat 160~190°C for 90~120 sec Reflow Temp 225°C (Switch surface) for 20~60 sec

●Reflow Temperature Profile



HANDLING PRECAUTIONS

1. Actuator's Position No. at Delivery

- 1. Real Code: Position "0" (BCD, Hexadecimal)
- 2. Complement Code: Position "7" (BCD)
:Position "F" (Hexadecimal)
- 3. Gray Code: Position "0" (BCD, Hexadecimal)

Please do not change set position of actuator during mounting, soldering and cleaning

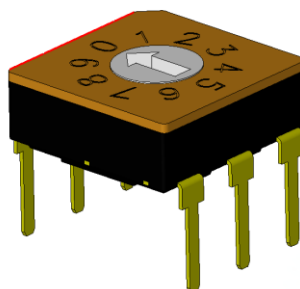
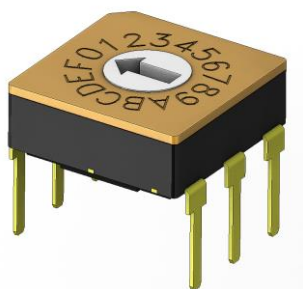
2. Alcohol, petroleum, ketone and chlorinated solvent can be used for cleaning.

However, when terpene solvent is used, please use it after confirming that there is no problem to use it in advance.

PACKING QTY - TUBE

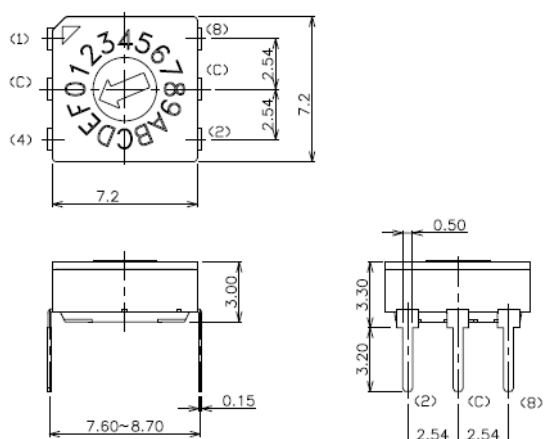
Qty/Tube	Qty/Inner Carton
60pcs	(60 tubes)3,600pcs

VERTICAL TYPE - THROUGH-HOLE

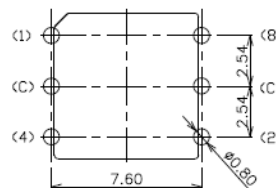


OUTER DIMENSIONS

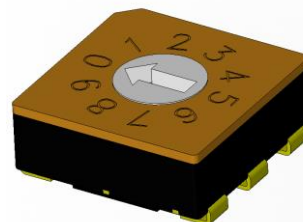
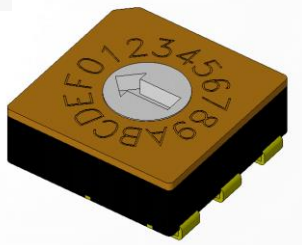
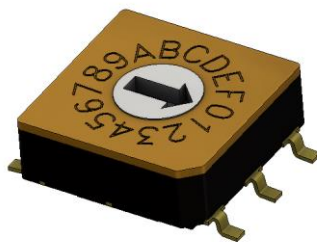
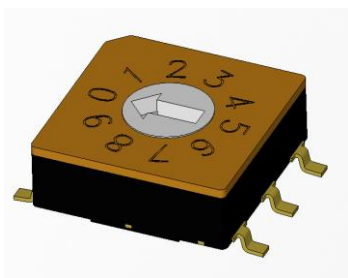
KZ*D□**VTM



RECOMMENDED PCB HOLE PATTERN (TOP VIEW)

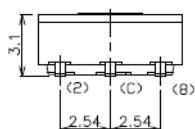
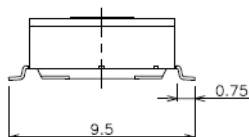
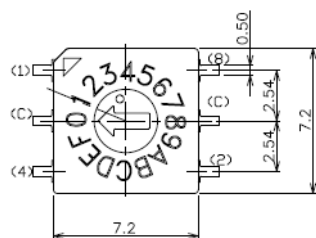


VERTICAL TYPE - SMT

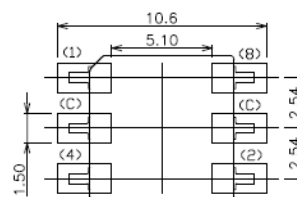


OUTER DIMENSIONS

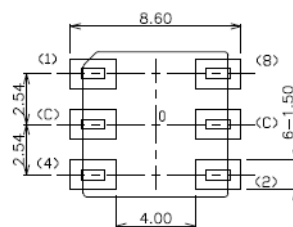
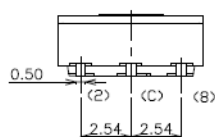
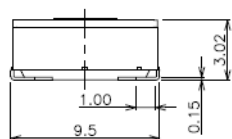
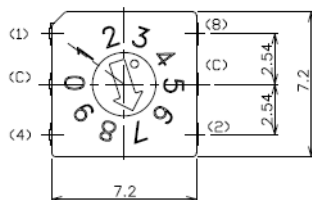
Gull-wing SMT: KZ*D□**VS□



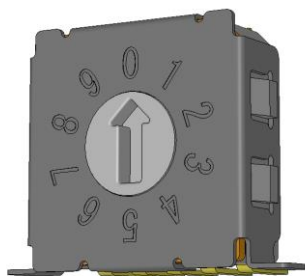
RECOMMENDED PCB LAYOUT (TOP VIEW)



J-lead SMT: KZ*D□**LS□

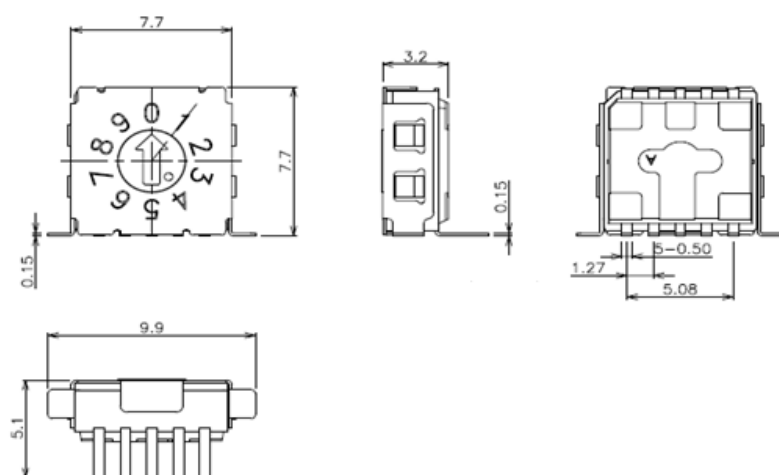


HORIZONTAL TYPE - SMT



OUTER DIMENSIONS

Gull-wing SMT: KZ4D□**HS□



RECOMMANDE PCB LAYOUT (TOP)

