



Feature -

- full color LED illuminated available
- long electrical life cycles
- good tactile feeling

Application -

audio / video products
instrumentation
communication equipments

► SPECIFICATIONS

SWITCH SPECIFICATIONS	
POLE - POSITION	Momentary Type , SPST with LED
CONTACT RATING	MAX. : 1mA , 20VDC or 5mA , 5VDC MIN. : 1mA , 5VDC
CONTACT RESISTANCE	200 Ω max. 5 V DC ; 1 mA , by Method of Voltage DROP
INSULATION RESISTANCE	100 M Ω min . 100 V DC for 1 minute
DIELECTRIC STRENGTH	Breakdown Is not Allowable ; 250 V AC for 1 Minute
OPERATING FORCE	125 $\pm$ 35 gf
OPERATING LIFE	300,000 cycles
OPERATING TEMPERATURE RANGE	-20°C ~ 70°C
TOTAL TRAVEL	1.3 $\pm$ 0.3mm

LED SPECIFICATIONS						
 ATTENTION LEDs are Electrostatic Sensitive devices		Unit	Value / LED Color			
			Blue	Green	Red	Yellow
FORWARD CURRENT	If	mA	20	20	20	20
REVERSE VOLTAGE	Vr	V	5.0	5.0	5.0	5.0
REVERSE CURRENT	Ir	μA	10	10	10	10
FORWARD VOLTAGE@20mA	Vf	V	3.3-4.0	2.1-2.5	2.0-2.5	2.0-2.5
LUMINOUS INTENSITY@20mA	Iv	mod	1300	700	900	700

■ Physical and electrical information of LED will be provided upon customer's request on switches.

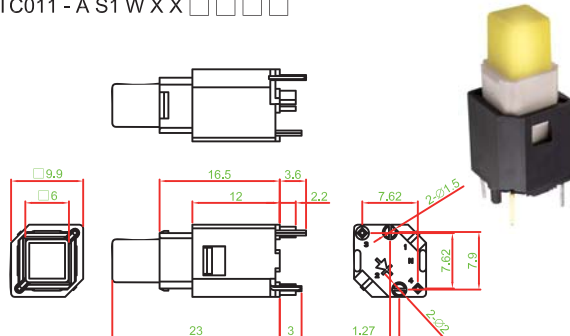
► HOW TO ORDER

TC011	-	A	S1	W	X	X	-	RGB	X	X																																																												
			<table><tr><td colspan="2">CAP</td></tr><tr><td>S1</td><td>6.0mm sq</td></tr><tr><td>S2</td><td>8.6mm sq</td></tr><tr><td>S2A</td><td>8.6mm sq</td></tr><tr><td>S3</td><td>11.0mm sq</td></tr><tr><td>S4</td><td>11.0mm sq</td></tr></table>	CAP		S1	6.0mm sq	S2	8.6mm sq	S2A	8.6mm sq	S3	11.0mm sq	S4	11.0mm sq		<table><tr><td colspan="2">CAP SURFACE</td></tr><tr><td>A</td><td>SILVER INK</td></tr><tr><td>K</td><td>BLACK INK</td></tr><tr><td>W</td><td>WHITE INK</td></tr><tr><td>X</td><td>WITHOUT</td></tr></table>	CAP SURFACE		A	SILVER INK	K	BLACK INK	W	WHITE INK	X	WITHOUT		<table><tr><td colspan="2">LEFT LED BRIGHTNESS</td></tr><tr><td>U</td><td>ULTRA (std.)</td></tr><tr><td>X</td><td>WITHOUT</td></tr><tr><td>-</td><td>FULL COLOR</td></tr></table>	LEFT LED BRIGHTNESS		U	ULTRA (std.)	X	WITHOUT	-	FULL COLOR		<table><tr><td colspan="2">RIGHT LED BRIGHTNESS</td></tr><tr><td>U</td><td>ULTRA (std.)</td></tr><tr><td>X</td><td>WITHOUT</td></tr><tr><td>☐</td><td>WHEN RGB</td></tr></table>	RIGHT LED BRIGHTNESS		U	ULTRA (std.)	X	WITHOUT	☐	WHEN RGB																							
CAP																																																																						
S1	6.0mm sq																																																																					
S2	8.6mm sq																																																																					
S2A	8.6mm sq																																																																					
S3	11.0mm sq																																																																					
S4	11.0mm sq																																																																					
CAP SURFACE																																																																						
A	SILVER INK																																																																					
K	BLACK INK																																																																					
W	WHITE INK																																																																					
X	WITHOUT																																																																					
LEFT LED BRIGHTNESS																																																																						
U	ULTRA (std.)																																																																					
X	WITHOUT																																																																					
-	FULL COLOR																																																																					
RIGHT LED BRIGHTNESS																																																																						
U	ULTRA (std.)																																																																					
X	WITHOUT																																																																					
☐	WHEN RGB																																																																					
		<table><tr><td colspan="2">ACTUATOR</td></tr><tr><td>A</td><td>A TYPE</td></tr></table>	ACTUATOR		A	A TYPE	<table><tr><td colspan="2">CAP COLOR</td></tr><tr><td>W</td><td>WHITE</td></tr><tr><td>R</td><td>RED</td></tr><tr><td>B</td><td>BLUE</td></tr><tr><td>N</td><td>GREEN</td></tr><tr><td>Y</td><td>YELLOW</td></tr><tr><td>T</td><td>TRANSPARENT</td></tr></table>	CAP COLOR		W	WHITE	R	RED	B	BLUE	N	GREEN	Y	YELLOW	T	TRANSPARENT	<table><tr><td colspan="2">CAP SYMBOL</td></tr><tr><td colspan="2">Please refer to appendix 1(knob)</td></tr><tr><td colspan="2">For example</td></tr><tr><td>O5</td><td> P05:Printing O5:Laser carving</td></tr><tr><td>E1</td><td> PE1:Printing E1:Laser carving</td></tr><tr><td>M9</td><td> PM9:Printing M9:Laser carving</td></tr><tr><td>X</td><td>WITHOUT</td></tr></table>	CAP SYMBOL		Please refer to appendix 1(knob)		For example		O5	 P05:Printing O5:Laser carving	E1	 PE1:Printing E1:Laser carving	M9	 PM9:Printing M9:Laser carving	X	WITHOUT	<table><tr><td colspan="2">LED COLOR</td></tr><tr><td>B</td><td>BLUE</td></tr><tr><td>G</td><td>GREEN</td></tr><tr><td>R</td><td>RED</td></tr><tr><td>W</td><td>WHITE</td></tr><tr><td>Y</td><td>YELLOW</td></tr><tr><td>X</td><td>WITHOUT</td></tr><tr><td>RGB</td><td>FULL COLOR</td></tr></table>	LED COLOR		B	BLUE	G	GREEN	R	RED	W	WHITE	Y	YELLOW	X	WITHOUT	RGB	FULL COLOR	<table><tr><td colspan="2">LED COLOR</td></tr><tr><td>B</td><td>BLUE</td></tr><tr><td>G</td><td>GREEN</td></tr><tr><td>R</td><td>RED</td></tr><tr><td>W</td><td>WHITE</td></tr><tr><td>Y</td><td>YELLOW</td></tr><tr><td>X</td><td>WITHOUT</td></tr><tr><td>☐</td><td>WHEN RGB</td></tr></table>	LED COLOR		B	BLUE	G	GREEN	R	RED	W	WHITE	Y	YELLOW	X	WITHOUT	☐	WHEN RGB
ACTUATOR																																																																						
A	A TYPE																																																																					
CAP COLOR																																																																						
W	WHITE																																																																					
R	RED																																																																					
B	BLUE																																																																					
N	GREEN																																																																					
Y	YELLOW																																																																					
T	TRANSPARENT																																																																					
CAP SYMBOL																																																																						
Please refer to appendix 1(knob)																																																																						
For example																																																																						
O5	 P05:Printing O5:Laser carving																																																																					
E1	 PE1:Printing E1:Laser carving																																																																					
M9	 PM9:Printing M9:Laser carving																																																																					
X	WITHOUT																																																																					
LED COLOR																																																																						
B	BLUE																																																																					
G	GREEN																																																																					
R	RED																																																																					
W	WHITE																																																																					
Y	YELLOW																																																																					
X	WITHOUT																																																																					
RGB	FULL COLOR																																																																					
LED COLOR																																																																						
B	BLUE																																																																					
G	GREEN																																																																					
R	RED																																																																					
W	WHITE																																																																					
Y	YELLOW																																																																					
X	WITHOUT																																																																					
☐	WHEN RGB																																																																					

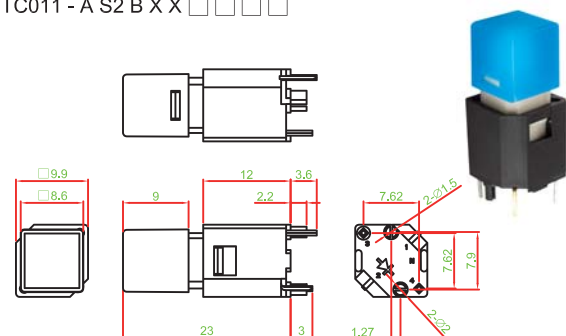


▶ FRAME TYPE OPTION

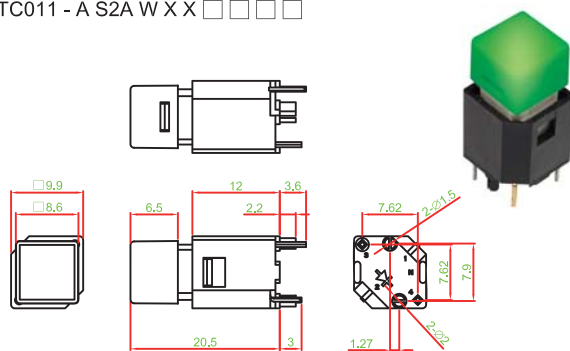
TC011 - A S1 W X X □ □ □ □



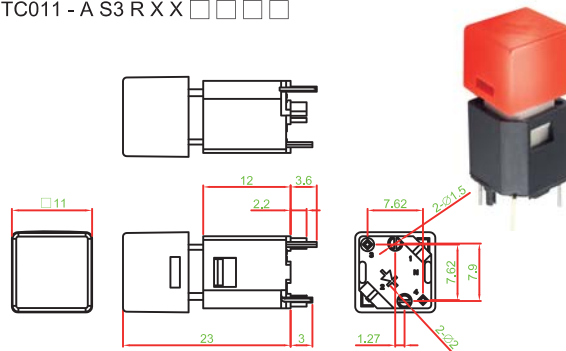
TC011 - A S2 B X X □ □ □ □



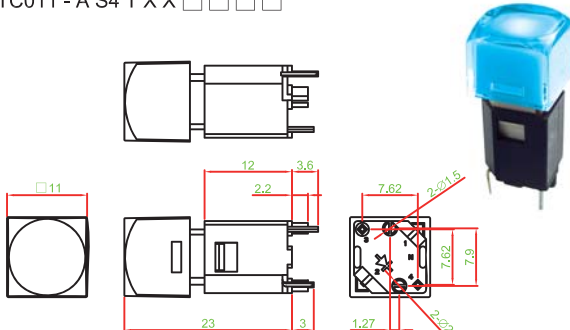
TC011 - A S2A W X X □ □ □ □



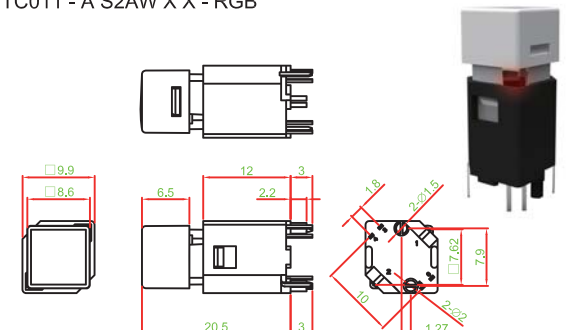
TC011 - A S3 R X X □ □ □ □



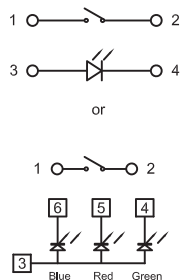
TC011 - A S4 T X X □ □ □ □



TC011 - A S2AW X X - RGB

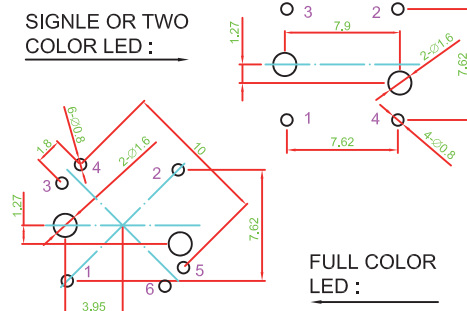


▶ CIRCUIT



▶ P.C.B LAYOUT

SIGNLE OR TWO
COLOR LED :



FULL COLOR
LED :

▶ MATERIAL

- CAP : PC
- ACTUATOR : PA + GF
- BASE FRAME : PA + GF
- TERMINAL : BRASS
GOLD PLATING

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
A	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
B	A	B	C	D	E	F	G	H	I	J	CH5	CH6	DSK	PIP	C-KEY	CUT	TAKE	REC	ENG	PROD
C	K	L	M	N	O	P	Q	R	S	T	REPLAY	RET1	RET2	KEY ON	AUTO TAKE					
D	U	V	W	X	Y	Z	POWER	ON OFF	ON	OFF		USER A	USER B	USER C	USER D	USER E	USER F	USER G	USER H	USER I
E	OK		Auto	Enter	Start	STOP	OPEN	CLOSE	Exit	Move	USER J									
F	SET	Reset	Light	Alarm	Menu	Next	Back	Delete	Motor	Save										
G	Up	Down	Right	Left	Test	End	Insert	Lock	Print	+/-										
H	ESC	BC	HOME	Health	D-LED 2	OC GENIE	VIDEO INPUT	clr CMOS	Green Power	Save OK										
I	B/R	Undo Cancel	T/L	F1	F2	F3	F4	F5	F6	F7										
J	F8	F9	F10	F11	F12	F13	F14	IN 1	IN 2	IN 3										
K	IN 4	IN 5	IN 6																	
L	+	-	x	÷	=	↑	→	▲	▶	▶										
M																				
N	↑	→	▲	◀	▶	◀	▶	◀	▶	◀										
O																				
P																				
Q	ME3	ME4	BGND 3D DVE1	BGND 3D DVE2	BUS COLOR	ME BUTTON LINK	*	INSERT	WIPE											
R	⏮	ALL		VP		COPY		RECORD MODE	↑											
S			MUTE																	
T																				
U																				
V																				
W	BORE-SIGHT	CANT	LEAD	RANGE	MRS	ZERO	TEST	UD	LR											
X	ID	Disp		GALL		BAND	SETUP	MODE	LINK	FUNC										
Y	SHIFT					DEL														
Z				RUN	2D	3D	CH1	CH2	CH3	CH4										