
**Feature -**

- small size
- bi-color LED illuminated available
- long electrical life cycles

**Application -**

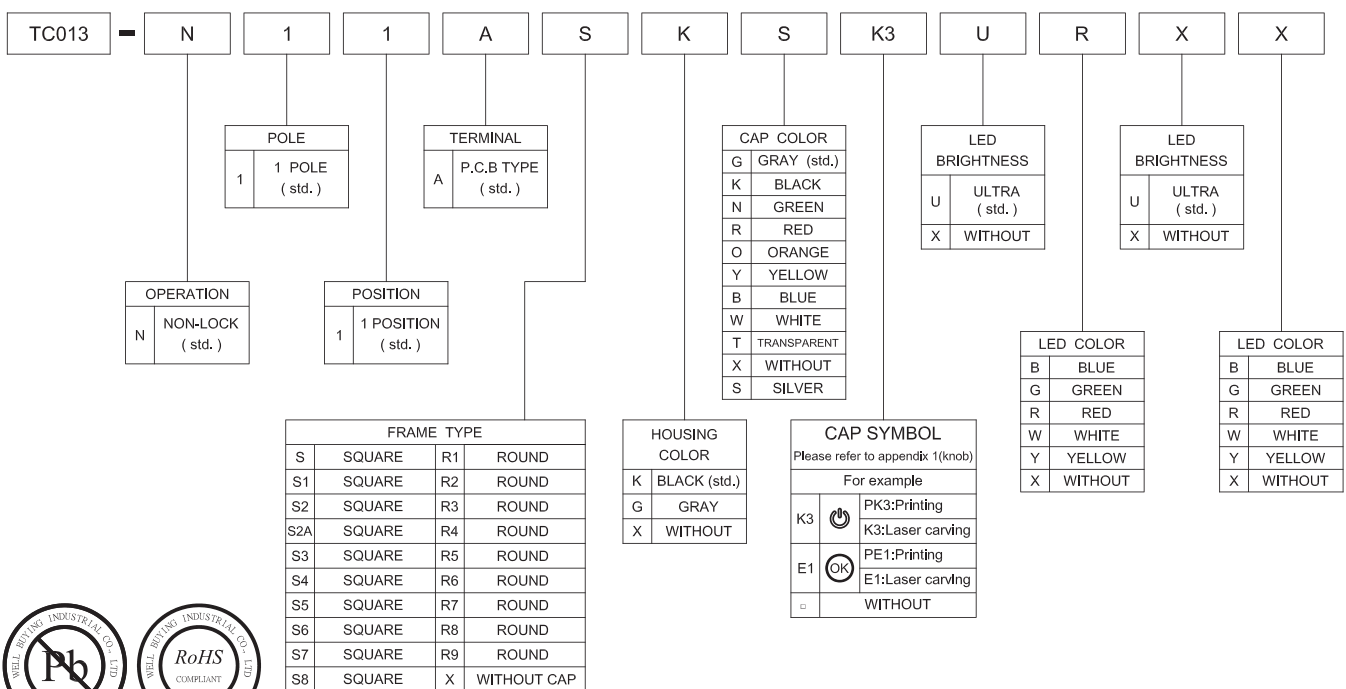
- consumer products
- computer products
- instrumentation
- communication equipments

**► SPECIFICATIONS**

SWITCH SPECIFICATIONS	
POLE - POSITION	1P1T , with LED
CONTACT RATING	12 V DC , 50 mA
CONTACT RESISTANCE	100 mΩ MAX. 1.5 V DC ; 100 mA , by Method of Voltage DROP
INSULATION RESISTANCE	100 MΩ MIN. 500 V DC
DIELECTRIC STRENGTH	Breakdown is not Allowable ; 500 V AC for 1 Minute
OPERATING FORCE	180 ± 50 gf
OPERATING LIFE	500,000 cycles
OPERATING TEMPERATURE RANGE	-20°C ~ 70°C
TOTAL TRAVEL	0.2 ± 0.1 mm

LED SPECIFICATIONS		Unit	Value / LED Color				
ATTENTION LEDs are Electrostatic Sensitive devices	Symbol		Blue	Green	Red	White	Yellow
		FORWARD CURRENT	$I_f$	mA	10	20	20
REVERSE VOLTAGE	$V_r$	V	5.0	5.0	5.0	5.0	5.0
REVERSE CURRENT	$I_r$	μA	10	10	10	10	10
FORWARD VOLTAGE	$V_f$	V	@ 10mA 3.0-4.0	2.1-2.5	2.0-2.5	@ 2mA 2.8-4.0	2.0-2.5
LUMINOUS INTENSITY	$I_v$	mcd	@ 10mA 200	800	1800	@ 2mA 12	1800

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

**► HOW TO ORDER**


**▶ FRAME TYPE OPTION**

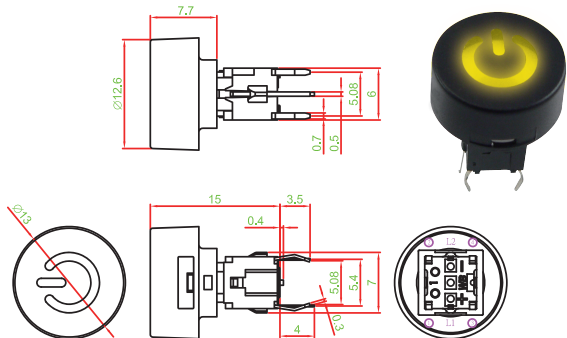
<p style="text-align: center;">TC013-N11AS4XW □□□□</p>	<p style="text-align: center;">TC013-N11AS5XW □□□□</p>										
<p style="text-align: center;">TC013-N11AS6XW □□□□</p>	<p style="text-align: center;">TC013-N11AS7XW □□□□</p>										
<p style="text-align: center;">TC013-N11AS8KW □□□□</p> <table border="1" style="margin-top: 10px;"> <thead> <tr> <th colspan="2">▶ PANEL CUT OUT</th> </tr> <tr> <th>PANEL THICK</th> <th>W</th> </tr> </thead> <tbody> <tr> <td>0.75 ~ 1.25</td> <td>13.2 ~ 13.3</td> </tr> <tr> <td>1.25 ~ 2.0</td> <td>13.3 ~ 13.4</td> </tr> <tr> <td>2.0 ~ 3.0</td> <td>13.4 ~ 13.5</td> </tr> </tbody> </table>	▶ PANEL CUT OUT		PANEL THICK	W	0.75 ~ 1.25	13.2 ~ 13.3	1.25 ~ 2.0	13.3 ~ 13.4	2.0 ~ 3.0	13.4 ~ 13.5	<p style="text-align: center;">TC013-N11AR3KW □□□□</p>
▶ PANEL CUT OUT											
PANEL THICK	W										
0.75 ~ 1.25	13.2 ~ 13.3										
1.25 ~ 2.0	13.3 ~ 13.4										
2.0 ~ 3.0	13.4 ~ 13.5										
<p style="text-align: center;">TC013-N11AR2KW □□□□</p>	<p style="text-align: center;">TC013-N11AR1KW □□□□</p>										

▶ **FRAME TYPE OPTION**

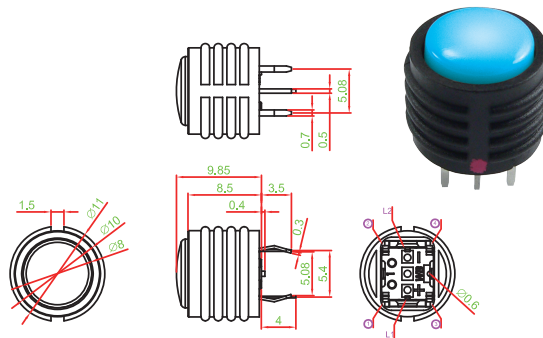
<p>TC013-N11AXXX□□□□</p>	<p>TC013-N11ASXK□□□□</p>
<p>TC013-N11ASKK□□□□</p>	<p>TC013-N11AS1XX□□□□</p>
<p>TC013-N11AS1KT□□□□</p>	<p>TC013-N11AS2KW□□□□</p>
<p>TC013-N11AS2AKW□□□□</p>	<p>TC013-N11AS3XW□□□□</p>

▶ **FRAME TYPE OPTION**

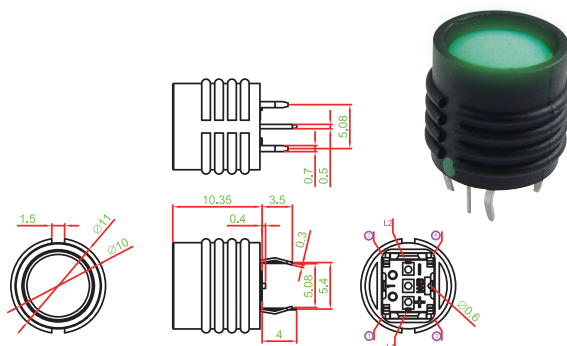
TC013-N11AR4XKK3 □ □ □ □



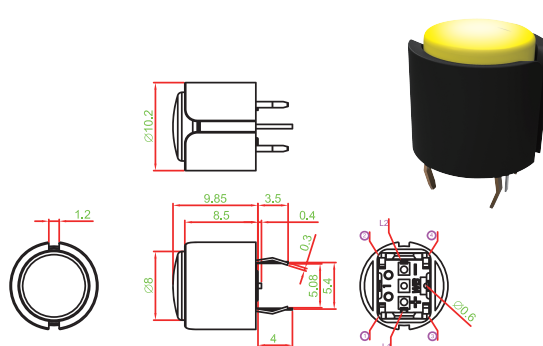
TC013-N11AR5KW □ □ □ □



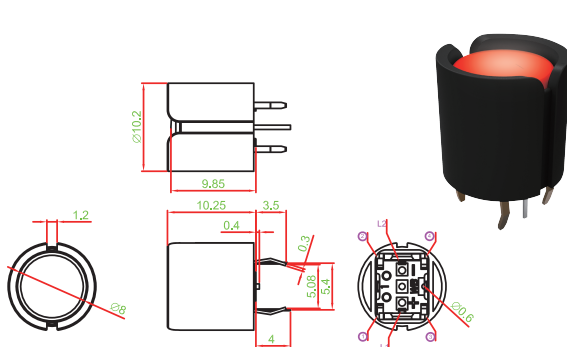
TC013-N11AR6KW □ □ □ □



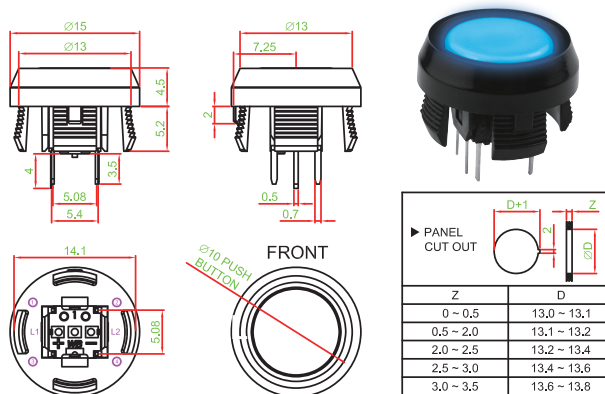
TC013-N11AR7KW □ □ □ □ (ODM)



TC013-N11AR8KW □ □ □ □ (ODM)

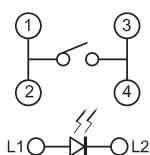


TC013-N11AR9KW □ □ □ □

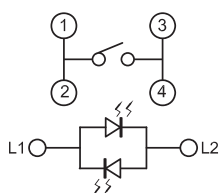


▶ **CIRCUIT**

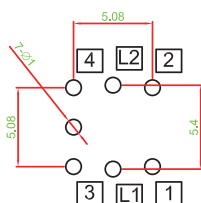
LED :  
SINGLE COLOR



LED :  
TWO COLOR



▶ **P.C.B LAYOUT**



▶ **MATERIA**

- COVER : PA
- ACTUATOR : PA + GF
- BASE FRAME : PA + GF
- TERMINAL : BRASS SILVER 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									M-1	
F	SET	Reset	Light	Alarm	Menu	Next	Back	Delete	Motor	Save						✓1	✓2				
G	Up	Down	Right	Left	Test	End	Insert	Lock	Print	+/-							IN PORT	SOS		TC	
H	ESC	BC.	HOME	Health	D-LED 2	OC GENE	VIDEO INPUT	clr CMOS	Green Power	Save OK	P1	P2	P3	P4	P5	DC	AC			TURBO	
I				F1	F2	F3	F4	F5	F6	F7	SEEK	TRACK	RNA	AS/RPT	Select		SET	ON	OFF	UP	
J	F8	F9	F10	F11	F12	F13	F14	IN 1	IN 2	IN 3						ON AIR		D.	M.		
K	IN 4	IN 5	IN 6																		
L	+	-	×	÷	=	↑	→	▲	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
M											FILL	LO RANGE	MID RANGE	MID	HI RANGE	GPD	EFF LEVEL				
N	↑	→	▲	▶	▶	▶	▶	▶	▶	▶											
O																					
P											Config.	TIME LINE	ME1	ME2							
Q	ME3	ME4	BOND 3D DVE1	BOND 3D DVE2	BUS COLOR	ME BUTTON LINK	*	INSERT	WIPE												
R	⏮	ALL		VP		COPY		RECORD MODE	↑												
S			MUTE																		
T		hold	group	m1	m2	m3	m4	m5	t1	t2											
U	s1	s2	chair	undo	redo	touch	store	recall	e1	e2											
V	e3	e4	OC			CLEAR	CROSS WIND	AMMO TEMP	BARO PERSS	AIR TEMP											
W	BORE-SIGHT	CANT	LEAD	RANGE	MRS	ZERO	TEST	UD	LR												
X	ID	Disp	M/F	CALL	.	BAND	SETUP	MODE	LINK	FUNC.											
Y	SHIFT					DEL															
Z			T	RUN	2D	3D	CH1	CH2	CH3	CH4											