

TS004 SERIES
LED TOUCH SENSOR SWITCH



Feature -

- panel mount
- moisture and dust proof
- metal style
- full color LED illuminated available

Application -

- indoor lighting
- ambient light monitoring
- CCTV security equipments
- detection of ambient light to control some devices

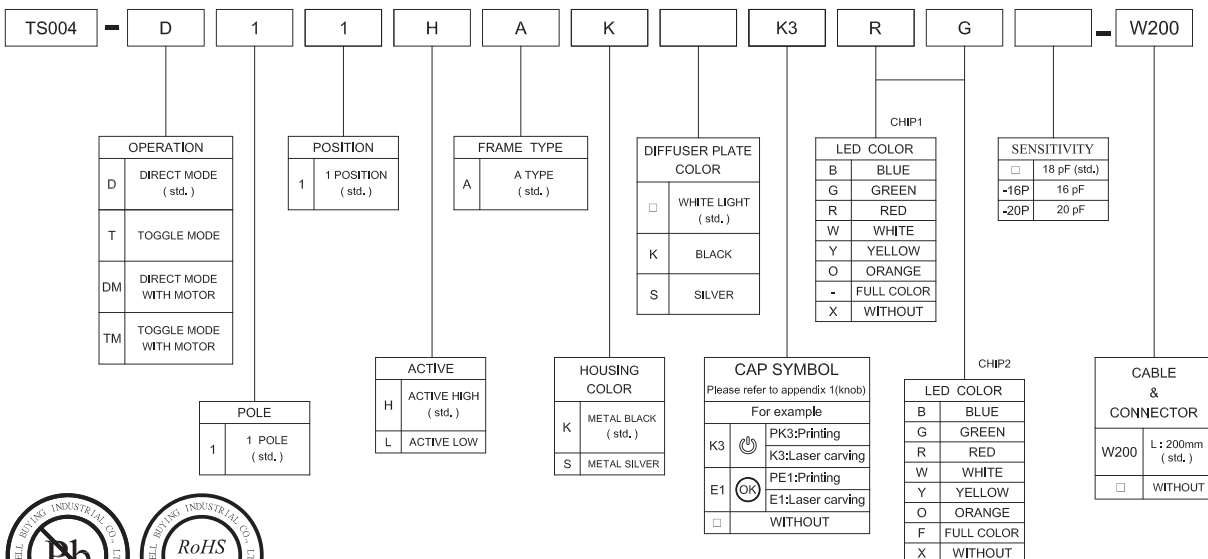
► SPECIFICATIONS

SWITCH SPECIFICATIONS						
POLE - POSITION		One-Chanel				
CIRCUIT FEATURE		Capacitive analog signal				
OPERATING TEMPERATURE RANGE		-20°C ~ 70°C				
ELECTRICAL CHARACTERISTICS						
Symbol	Parameter	Conditions	MIN.	TYP.	MAX.	Units
V _{CC}	Operating voltage		2.0	3.0	5.5	V
F	System oscillator	V _{CC} = 3V		16		KHz
F _{SEN}	Sensor oscillator	V _{CC} =3V, Output no load		1M		Hz
I _{OP}	Input ports	V _{CC} =3V, Output no load		1.5	3.0	uA
V _{IL}	Input ports	Input low voltage	0		0.2	V
I _H	Operating current	Input high voltage	0.8		1.0	V
I _{OL}	Output port sink current	V _{CC} =3V, VOL=0.6V		8		mA
I _{OH}	Output port source current	V _{CC} =3V, VOH=2.4V		-4		mA
T _R	Output response time	V _{CC} =3V			220	mS
R _{PH}	Input pin pull-high resistor	V _{CC} =3V		35K		Ω
R _{PL}	Input pin pull-low resistor	V _{CC} =3V		28K		Ω

LED SPECIFICATIONS						
ATTENTION	(+)-○-○-(-)	LEDs are Electrostatic Sensitive devices	Unit	Value / LED Color		
				Ultra Green	Ultra Yellow	Ultra Red
FORWARD CURRENT	I _f	mA	20	20	20	
REVERSE VOLTAGE	V _r	V	5.0	5.0	5.0	
REVERSE CURRENT	I _r	μA	10	10	10	
FORWARD VOLTAGE@20mA	V _f	V	2.1-2.5	2.0-2.5	2.0-2.5	
LUMINOUS INTENSITY@20mA	I _v	mcd	60	120	150	

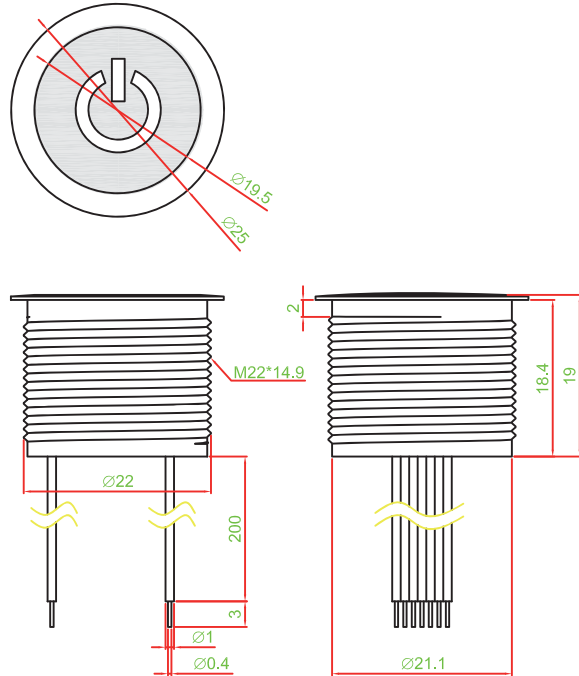
Physical and electrical information of LED will be provided upon customer's request on switches.

► HOW TO ORDER



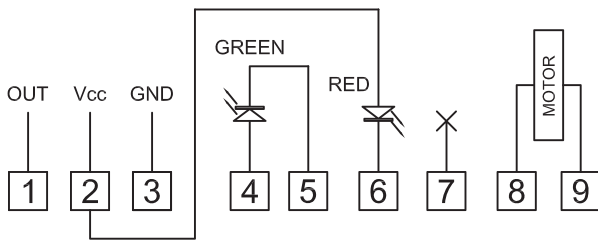
▶ DIMENSION & FRAME TYPE

TS004-DM11HAKKK3□□□□-W200

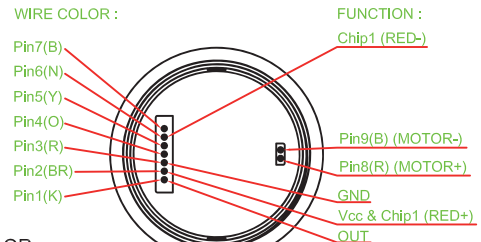


▶ SCHEMATIC

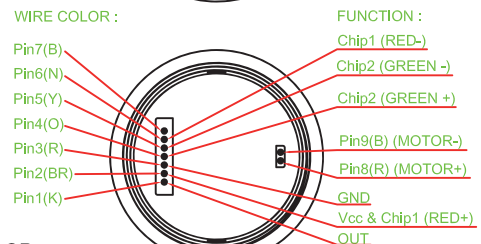
TWO COLOR :



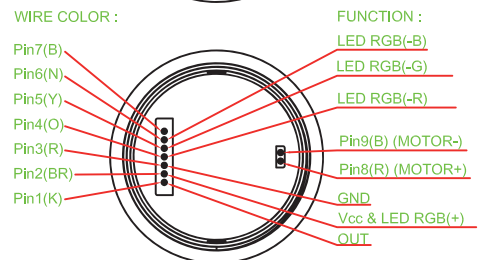
SINGLE COLOR



TWO COLOR



FULL COLOR



▶ MATERIAL

- COVER : PC
- ACTUATOR : POM
- BASE FRAME : PA + GF
- TERMINAL : PHOSPHOR BRONZE SILVER PLATING
- SPRING : PHOSPHOR BRONZE 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	A1	A2	A3	A4	0
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	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	+/-	🔑	⌚	∅	☐	🔧					
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	+	-	×	÷	=	↑	→	▲	▶	⏸										
M	⬆️	⬇️	↺	↻	↻	↻	↑	→	↑	→										
N	↑	→	▲	⏪	▶	⏩	⏪	▶	⏪	▶										
O	■	⏸	⏪	⏩	🔊	🔊	🌐	📺	🌀											
P	☐	🔦	🔦	✕	✓	⓪	Config.	TIME LINE	ME1	ME2										
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	🔗	🔗	OC	🔗	💡	CLEAR	CROSS WIND	AMMO TEMP	BARO PRESS	AIR TEMP										
W	BORE-SIGHT	CANT	LEAD	RANGE	MRS	ZERO	TEST	UD	LR	🔗										
X	ID	Disp	MF	GALL	🔗	BAND	SETUP	MODE	LINK	FUNC.										
Y	SHIFT	🔗	🔗	🔗	🔗	DEL	🔗	💡	🔗	🔗										
Z	🔗	🔗	🔗	RUN	2D	3D	CH1	CH2	CH3	CH4										