

SH	Technical Standards	Date	10/31/2012
SH-SPEC-18	ES40-T SPECIFICATION	Edition	D
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1. Style:

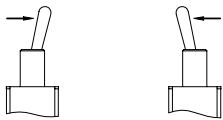
This specification describes sub-mini toggle switch and rocker switch mainly used as small current and signal switch of electric device with the general required of mechanical and characteristics.

Operating temperature range : -30 +85

2. Rating : 1.5A , 250VAC

3. type of Actuation : Actuated by toggle.

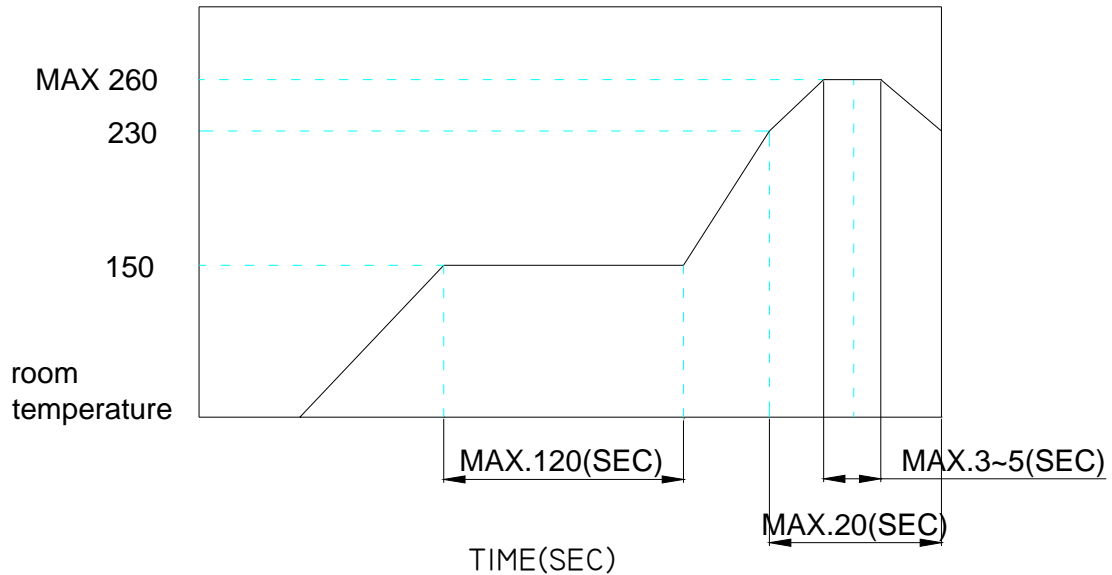
4. Programer of test :

peculiarity	ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENTS
ELECTRIC CHARACTERISTICS	1	Visual Examination	By visual examination check without any pressure and testing	There shall be no defect that affect the function of the product
	2	Contact Resistance	①To be measured between the two terminals associated with each switch pole. ②Measurements shall be made with a 1kHz shall current contact resistance meter.	20mΩ MAX(initial)
	3	Insulation Resistance	500VDC,1min±5sec	1000MΩ MIN
	4	Dielectric withstanding voltage	1500VAC (50Hz or 60 Hz) shall be applied between all the adjacent terminals and between the terminal and the frame for 1 minute.	There shall be no breakdown or flashover
MECHANICAL CHARACTERISTICS	5	Operating Force	Applied in direction operation 	10N max

MECHANICAL CHARACTERISTICS	6	Soldering Heat Resistance	<input type="checkbox"/> through hole type (1) Soldering Temperature:260±5°C (2) Duration of Solder Immersion : 5±1 sec (3) Frequency of Soldering Process,2 times Max (PCB is 1.6mm in thickness)	As show in item2~6
	DURABILITY	7	Operation Life	Measurements shall be made following the test set forth below: ①1.5A,250VAC resistive load ②Rate of Operation : 6~8 cycles/minute ③Cycle of Operation : 30000cycles
WEATHER-PROFF	8	Resistance Low Temperature	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before measurements are made ①Temperature : -30±3°C ②Time : 48 hours	As show in item 2~6
	9	Resistance high Temperature	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before measurements are made ①Temperature : 85±3°C ②Time : 48 hours	As show in item 2~6
	10	Resistance Humidity	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before measurements are made ①Temperature : 40±2°C ②Relative Humidity : 90-95% ③Time : 48 hours	As show in item 4~6

5. Soldering Condition

Condition for soldering



Manual soldering :

Soldering Temperature	MAX 350
Continuous Soldering Time	MAX.5 seconds

Precautions in Handling :

1. Care should be exercised so that flux from the upper part of the printed circuit board does not adhere to the switch.
2. Don't wash switch body.

6. Materials:

6.1 Case & Bushing: Nylon.

6.2 Actuator : Copper alloy, chrome plated, internal O-ring seal standard with all actuators

The anti-static actuator : Nylon 4/6, black standard (UL 94V-0)

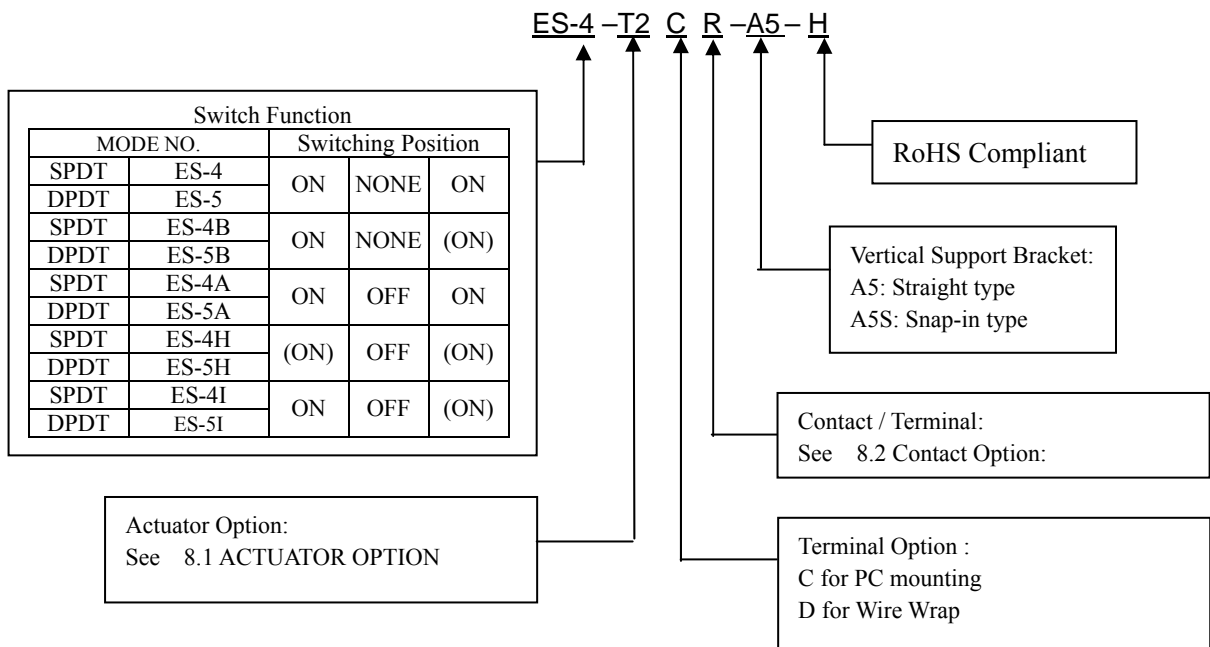
6.3 Contact and Terminal: Copper alloy, silver or gold plated

6.4 Switch Support: Copper alloy, tin plated

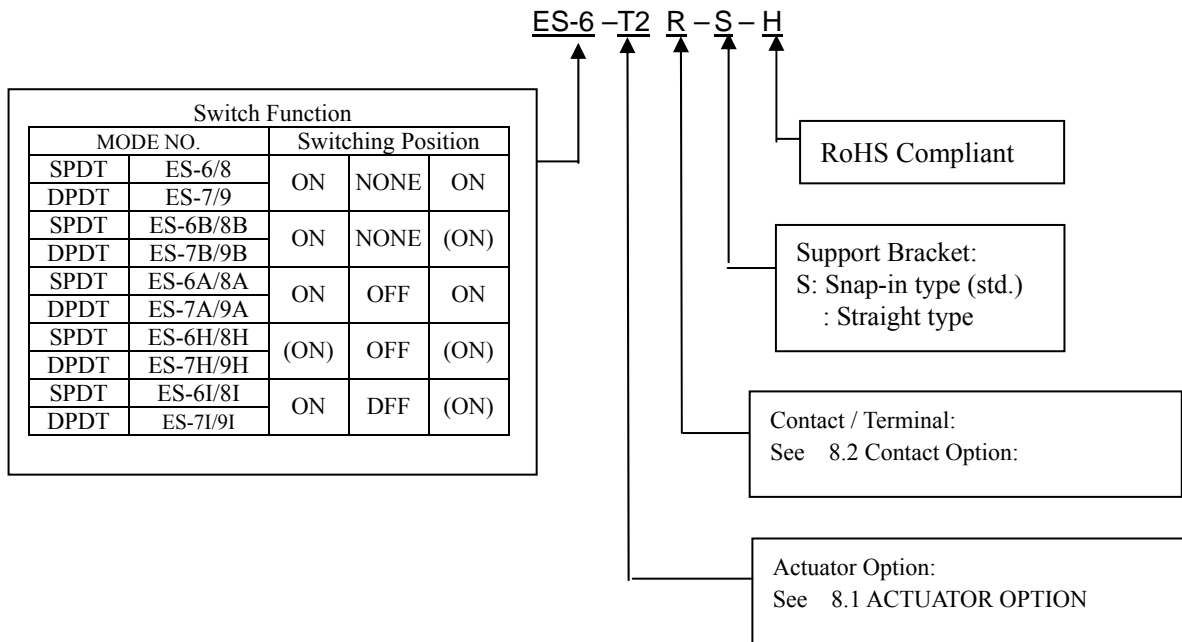
6.5 Terminal Seal: Epoxy

7. PART NUMBERING OPTION:

7.1



7.2



8. OPTION :

8.1 Actuator Option:

Actuator code	T1	T2	T3	T4	T5	P1	P11	P2	P21
Height	10.16	6.10	8.13	13.97	3.5	10.16(black)	10.16(white)	6.10(std-black)	6.10(white)

8.2 Contact Option:

OPTION CODE	CONTACT PLATING	TERMINAL PLATING	RATING
Q	SILVER	SILVER	3A,120VAC or 28 VDC 1.5A, 250VAC
R	GOLD	GOLD	0.4 VA MAX @20 V AC OR DC
G	GOLD OVER SILVER	GOLD	3A,120VAC or 28 VDC 1.5A, 250VAC 0.4 VA MAX @20 V AC OR DC
K	GOLD	TIN	0.4 VA MAX @20 V AC OR DC