



Стр. 1 из 9 02.04.2024, 12:40

# SWITRONIC INDUSTRIAL CORP.

MODEL NO: T70XXD SERIES V2.1 V.DATE : 2017/04/24

### 1. Style

This specification describes "Snap-Acting Pushbutton Switches", mainly used as signal switch of electric devices, with the general requirements of mechanical and electrical characteristic.

Operating Temperature Range : -30°C~+85°C.

#### 2. Contact Rating:

## 2.1 Silver Plating Standard:

Plating		Rating
Q=Silver	Fixed Terminal: Silver plated over copperalloy.  Movable contact: Silver plated over copper alloy.	
C=Gold over silver	Fixed Terminal: Copper alloy with silver plated over gold plate.  Movable contact: Copper alloy with silver plated over gold plate.	3A @120VAC
S=Silver, pure-tin	Fixed Terminal: Copper alloy with silver plated, pure-tin.  Movable contact: Silver plated over copper alloy.	or 28VDC. 1A @250VAC.
K=Gold over silver pure-tin	Fixed Terminal: Copper alloy with silver plated over gold plate, pure-tin.  Movable contact: Copper alloy with silver plated over gold plate.	

Стр. 2 из 9 02.04.2024, 12:40

# 2.2 Gold Plating Standard:

Plating		Rating
R=Gold	Fixed Terminal: Copper alloy with gold plate over nickel plate.  Movable contact: Copper alloy with gold plate over nickel plate.	0.4 VA Max.
G=Gold, pure-tin	Fixed Terminal: Copper alloy with gold plated over nickel plate, pure-tin.  Movable contact: Copper alloy with gold plated over nickel plate.	@20VAC or DC Max.

3. Type of Actuation: Snap-Acting Pushbutton Switches.

# 4. Test Sequence:

	ITEM	DESCRIPTION	TEST CONDITIONS	REQUIREMENTS
	1	Visual Examination	By Visual Examination check without and out pressure & testing.	There shall be no defects that affect the serviceability of the product.
ELECTRIC	2	Contact Resistance	@2-4VDC 100mA. For both silver and gold plated contacts.	20mΩ Max.
PERFORMANCE	3	Insulation Resistance	Measurements shall be made following application of 1000 V/DC 100mA potential across terminals and cover for 1 minute.	1000MΩ min.
	4	Dielectric Withstanding Voltage	1000 VAC(50Hz or 60Hz)0.5mA shall be applied across terminals and cover for 1 minute.	POZNOSTALISTO. TENERA SUCIONOS NASTOS INSTITU

Стр. 3 из 9

	ITEM	DESCRIPTION	TEST CONDITIONS	REQUIREMENTS
MECHANICAL PERFPRMANCE	5	Solder Heat Resistance	OManual Soldering: Soldering Temperature: Max. 350°C Continuous Soldering Time: Max. 3 seconds.  OWAVE Soldering: Soldering Temperature: 250°C. Duration of Solder Immersion: 3 seconds.  Temperature Profile  (°C) 200 150 100 50 Prequency of Soldering Process 1 times max. (PCB is 1.6mm in thickness)  Precautions in Handling Care should be exercised so that flux from the upper part of the printed circuit board does not adhere to the switch.	①Shall be free from pronounced backlash and falling-off or breakage terminals. ②As shown in item 2~4
	6	Vibration	Shall be vibrated in accordance with Method 201A of MIL-STD-202F  ①Frequency: 10-55-10Hz in 1-min/cycle.  ②Direction: 3 vertical directions including the directions of operation  ③Test time: 2 hours each direction.	As shown in item 2~4.

Стр. 4 из 9

	ITEM	DESCRIPTION	TEST CONDITIONS	REQUIREMENTS
MECHANICAL PERFPRMANCE	7	Shock	Shall be shocked in accordance with Method 213B condition A of MIL-STD-202F ①Acceleration; 50g ②Action time: 11±1m seconds. ③Testing Direction: 6 sides. ④Test Cycle: 3 times in each direction	As shown in item 2~4.
RFPRMANCE	8	Actuation Force	©MODEL-1305N MECHANICAL TEST 500gram × 1000gram × 2000gram. ©TRAVEL: 1.0±0.2mm.	At for test the force ①Force: 350±100grams. ②TRAVEL: 1.0±0.2mm
OPERATING LIFE	9		Measurements shall be made following the test forth below:  ①1A@250VAC resistive load—silver plated.  3A@120VAC resistive load—silver plated.  0.4VA max@ 20VAC max resistive load—gold plated.  ②Rate of Operation: 6-8operation cycles per minute.  ③Electronics Life Test: 6,000 cycles.	Strength: 1000V.
			Machanical Life Test: 50,000 cycles	Contact Resistance: 20mΩ Max.
HUMIDITY RESISTANCE	10	Resistance Low Temperature	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for 1 hour before the measurements are made:  ①Temperature:-30±3°C  ②Time:96 hours.	As shown in item 2~4

Стр. 5 из 9

	ITEM	DESCRIPTION	TEST CONDITIONS	REQUIREMENTS
HUMIDI	11	Resistance High Temperature	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before the measurements are made:  ①Temperature:85±2°C ②Time:96 hours.	① As shown in item 3~4. ② Insulation Resistance: 1000MΩ.
	12	Resistance Humidity	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before the measurements are made:  ①Temperature:40±2°C ②Relative Humidity:90~95% ③Time:96 hours.	①Contact Resistance 20mΩ Max. ②Insulation Resistance: 1000MΩ min.
	13	The Salt Testing	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before the measurements are made:  ①Temperature:35±2°C  ②The ratio of salt-water:5%  ③The spray amout of salt- water: 1~2 ml/h.  ④Time:48 hours.	The testing standard based on bubble, crack, And magnifying glass with gauge.

Стр. 6 из 9