● TACTRONIC

APPROVAL SPECIFICATIONS

CUSTOMER	CUSTOMER'S P/N	GYE'S P/N	PRODUCT	REVISION
		KAN0651	TACT SWITCH	A

A.Specification & meanings

The name of the tact switch is composed by type and specification, the particular meaning of the type specification and code is as follows.



1. Product height: It is denoted by three figures; For examples, "043" expresses the product which the total height is 4.3mm, as chart 1 shows:

Code	Product height	Code	Product height	Code	Product height
043	4.3	080	8.0		
045	4.5	090	9.0		
050	5.0	095	9.5		
060	6.0				
070	7.0				
075	7.5				

2. Stem color: It is expressed by a figure, as chart 2 shows:

Color	Black
Code	1

3. Operating force: An English letter expresses it, unite: Newton (N),as chart 3 shows:

force	Operating Opec	Press force	Return force
Α	1.0	1.0±0.3	0.2min
B 1.6		1.6±0.5	0.4min
С	2.6	2.6±0.5	0.6min

Examples: "KAN0651-0431B" denotes the tact switch with 6×6 base, the height is 4.3mm,the stem is black , the operating force is 1.6N.

APPROVE BY	杨过 09.10.25	CHECKED BY	关 林 09.10.25	PRPARE BY	曹 盖 09.10.25
	1				

APPROVAL SPECIFICATIONS

CUSTOMER	CUSTOMER'S P/N	GYE'S P/N	PRODUCT	REVISION
		KAN0651	TACT SWITCH	A

1、 概述

GENERAL

1.2 适用范围

APPLICATION

此规格书适用于机械式轻触开关的相关要求

This specification is applied to the requirements for TACTILE SWITCH (MECHANICAL CONTACT)

1.3 工作温度范围

Operating Temperature Range

- -20℃~70℃(在标准大气压、标准湿度条件下)
- -20° C \sim 70 $^{\circ}$ C (Normal humidity, normal air pressure)
- 1.4 贮藏温度范围

Storage Temperature Range

- -30℃~80℃(在标准大气压、标准湿度条件下)
- -30° C \sim 80 $^{\circ}$ C (Normal humidity, normal air pressure)
- 1.5 测试条件

Test Conditions

在没有其它特定的条件下,应该在以下的条件下进行测试和测量:

Unless otherwise specified, tests and measurement shall be made in the following standard conditions:

常温......5℃~35℃

Normal temperature.......5℃~35℃ 标准湿度.....

......相对湿度 25%~85% Normal

humidity.....relative humidity 25%~85% 标准大

气压......86KPa~106Kpa

Normal air pressure......86Kpa~106Kpa

在制造过程中,测试和测量应该在以下的条件下进行:

If any doubt arise from the judgment, tests shall be conducted at the following conditions:

温度......20℃±2℃

 Temperature
 20℃±2℃

 相对湿度
 65%±5%

Relative humidity......65%±5%

环境气压......86KPa~106Kpa

Air pressure......86KPa~106Kpa

APPROVE BY	杨过 09.10.25	CHECKED BY	关 林 09.10.25	PRPARE BY	曹 盖 09.10.25
------------	-------------	------------	--------------	-----------	--------------

APPROVAL SPECIFICATIONS

CUSTOMER	CUSTOMER'S P/N	GYE'S P/N	PRODUCT	REVISION
		KAN0651	TACT SWITCH	А

2、 详细说明

Detailed specification

2.1 外观:应无影响、降低产品性能的缺陷;

Appearance: There should be no defects that affect the serviceability of product.

2.2 结构尺寸和安装尺寸:应符合装配图要求;

Style and dimension: shall conform to the assemble drawings.

2.3 操作形式:有触觉反应的操作

Type of actuating: Tactile feedback.

2.4 开关结构: 单回路单输出(具体的触点结构在装配图中已绘出);

Contact arrangement: 1 pole, 1 throw

(Details of contact arrangement are given in the assembly drawings.)

2.5 开关工作额定值: DC 12V, 50mA (有效值)

Ratings: 12V DC, 50mA (effective value)

3. 电气性能:

ELECTRICAL SPECIFICATION

75						- 4 - 4
项				要求		
ITI	EM		TE	EST CONDITIONS		REQUIREMENTS
1		接触电阻 act Resistance	在以 5V 10mA 的源 的电路中,以一个等于 Applying a static the center of the stem 5V DC 10mA or mo	≪50mΩ		
2	ı	绝缘电阻 nsulation Resistance	之间底座、盖板的电阻	all be made following across terminals,	application of	≥100MΩ
3	介质耐压在端子之间施加 250V AC (50HZ 或 60HZ) /1min3Dielectric250V AC (50HZ or 60HZ) shall be applied across terminals, for one minute.					无击穿、无飞弧 There should be no breakdown and flashover
APPROVE BY 杨过 09.10.2			5 CHECKED BY	关 林 09.10.25	PRPARE B	y 曹 盖 09.10.25



С	USTOMER	CUSTOMER'	S P/N GYE	'S P/N	PR	ODUCT		REVISION
			KAN	KAN0651 TACT SWITCH				Α
	项目 ITEM		 试验 TEST CONI				RE	要求 QUIREMENTS
4	触点抖动Bounce	按照正常使用时在导通和断开 Lightly striking	开关 Switch 10KΩ >	ከ stem at a rat	te encoun bounce s			msec.max Bmsec.max
	械性能: IANICAL SPI ·	ECIFICATION						
1	接力 Operating Force T 关垂直于操作方向放置,在开关驱动件顶端中心逐渐施力,测量开关导通所需的最大力度。 Placing the switch such that the direction of switch operation is vertical and then gradually increasing the load applied to the center of the stem, the maximum load required for the switch to come to a stop shall be measured.					ration is	re	fer to chart 3
程					0.25 ^{+0.2} mm			
APPROVE BY 杨过 09.10.25 CHECKED BY 关 林 09.10.25 PRPARE BY					BY	曹 盖 09.10.25		



С	USTOMER	CUSTOMER'S	P/N GYE	'S P/N	PRO	DUCT		REVISION
			KAN	10651	TACT	SWITCH	I	А
	项目 ITEM		试验 新TEST COND		I		RE	要求 QUIREMENTS
3	回弹力 Return Forc	开关垂直于操作 后,测量顶端向 The sample swi operation is vert to the whole trav	F关垂直于操作方向放置,在开关驱动件顶端中心下降至全行程后,测量顶端向自由位置转换的力度。he sample switch is installed such that the direction of switch peration is vertical and upon depressing the stem in its center of the whole travel distance, the force of the stem to return to its ee position shall be measured.					fer to chart 3
4	停止强度 Stop Streng	荷持续 1min。 th Placing the swit vertical, and the	开关垂直于操作方向放置,从操作方向向驱动件施加 30N 的静负荷持续 1min。 Placing the switch such that the direction of switch operation is vertical, and then a static load of 30N shall be applied in the direction of stem operation for a period of 1 min.				shall be me	和电气损坏 There no sign of damage chanically and electrically.
5	手柄拔出 强度 Stem Strength	的行程范围。 Placing the swit vertical, and the	开关垂直于操作方向放置,反方向实施最大操作力,并测量手柄的行程范围。 Placing the switch such that the direction of switch operation is vertical, and then the maximum force to withstand a pull applied opposite to the direction of stem operation shall be measured.					20N.min.
6	可焊性 Solder temperature : 245±5℃ Solderability (2) 浸入时间:2s±0.5s					90%以上 Except	for the edge, the should cover a	
APPROVE BY 杨过 09.10.25 CHECKED BY 关 林 09.10.25 PRPARE E				E BY	曹 盖 09.10.25			

© TACTRONIC

С	USTOMER		CUSTOMER	'S P/N	GYE'S	S P/N	Р	RODUCT		REVISION
			KAN0651 TACT SWITC					CT SWITCH		А
	项目				试 验	条 件			l	要求
	ITEM				TEST CON	IDITIONS			RE	QUIREMENTS
	限电气性能: RONMENTAL	. SPEC	CIFICATION							
1	低温测试 Resistance low tempera	to ature	标准湿度的 Following to normal tern measurement (1) 温度 Tern (2) 时间	样品应按照以下实验条件进行测试,实验后样品应放在常温及标准湿度的环境中 1 小时后做性能测试: Following the test set forth below the sample shall be left in normal temperature and humidity conditions for 1 h before measurements are made: (1) 温度: -30±2℃ Temperature: -30±2℃ (2) 时间: 96h Time: 96h					Contact ≤200mg 项目 3,	
2	高温测试 Heat resista	nce	标准湿度的 set forth below humidity co (1) 温度 tem (2) 时间	set forth below the sample shall be left in normal temperature and humidity conditions for 1 h before measurements are made: (1) 温度: 80±2℃ temperature:80±2℃					Contact ≤200mg 项目 3,	
#Impo: OGh 根据下面的测试要求进行 5 次循环的温度周期性测试,实验后 样品应放在常温及标准湿度的环境中 1 小时后做性能测试。测试期间样品应保持干燥. After 5 cycles of following conditions, the sample shall be allowed to stand under normal temperature and humidity conditions for 1 h. and measurements shall be made. During the test water drops shall be removed. Agree							Contact ≤200mg 项目 3,			
APP	APPROVE BY 杨过 09.10.25 CHECKED BY 关 林 09.10.25 PRPAF						PRPARI	E BY	曹 盖 09.10.25	

© TACTRONIC

С	USTOMER	CUSTOMER'S P/N	GYE'S	S P/N	PRODUCT		REVISION	
			KANO	KAN0651 TACT SWITCH A				
	项目 ITEM		试 验 ź TEST CONI			F	要求 EQUIREMENTS	
4	湿温测试 Moisture resistance		n 1 小时后做性 mple shall be lens for 1 h before £2℃ re: 60±2℃ 90%∼95% midity:90% to 9	能测试: Foleft in normate measurem	llowing the test I temperature and	I 接触 Cont ≤200 项目		
5	硫化试验 Sulfuration resistance	H ₂ S gas co (2) 时间: 72l Time: 72h (3) 温度: 40±	1 小时后做性 imple shall be lens for 1 h before 浓度: 3ppm±1pncentration: 3	能测试: Foreft in normal el measurem ppm 3ppm±1ppm	llowing the test I temperature and ents are made:	接触 Cont ≤200 项目		
6	盐雾试验 Salt Mist	在以下设定条件下 The switch shall (1)温度: 35℃ temperatur (2)盐溶液浓度	进行测量: be checked aff ±2℃ e: 35℃±2℃ i: 5±1%(质量ī n: 5±1%(solids h hour J后水冲掉	ter following 百分比) s by mass)		corro	件上没有腐蚀斑点 No remarkable sion shall be gnized in metal part.	
APP	ROVE BY	杨过 09.10.25 CH	ECKED BY	关 林 09.	10.25 PRPA	RE BY	曹 盖 09.10.25	

									1110	110		
С	USTOMER	(CUSTOMER'	S P/N	GYE'	S P/N	Р	RODUCT		REVISION		
					KAN	0651	TAC	CT SWITCH	CH A			
	限机械性能: NDURANCE	SPEC	IFICATION				,		,			
	项目				试 验	条件				要求		
	ITEM				TEST CON	IDITIONS			RE	QUIREMENTS		
1	工作寿f Operation		(2) 按对 Rate (3) 按力 Ope	nt shall 2V,50 rating F 1.	be made follmA 带负载 mA resistive 2 次/秒 ration: 2 time 的 1.5 倍 orce: Ope 寿命: Avera	load es/s erating For	ce1.5 dou		resistar 按力: Operati initial va 项目 3,	阻≤200mΩContact nce≤200mΩ : 初值的±30% ng Force: alue±30% 4.1,4.2,4.3 4.1,4.2,4.3		
2	振动 Vibra	ation	Vib. (2)振帆 Am (3)振药 Dire (4)测证	nt shall 力频率范 pration fr 畐(峰一 plitude: 力方向: ection c ection in 式时间:	be made fol 围:10~55 equency rar 峰):1.5m	~10Hz nge: 10 to : m 程方向在内 Three mut direction of s .	55 to 10H 的三个相 tually per	z 互垂直的方 pendicular		4.1,4.2,4.3 4.1,4.2,4.3		
	接条件: ERING CON	וחודוחו	NG.									
7.1	手工焊接 Hand solde		请 (1) (2) Ple (1)	焊锡温 连续焊 ease pra Solderii	在件进行焊接度: ≤350℃ 接时间: ≤3 ctice according temperat lous soldering	3 s ling to belo ure: 350°	C Max.	ons:				
APP	ROVE BY	杨达	<u>†</u> 09.10.25	CHE	CKED BY	关 林 0	9.10.25	PRPARI	E BY	曹 盖 09.10.25		



Cl	JSTOMER	CUSTOMER'S P/N	GYE'S P/N		PRODUCT	REVISION			
			KA	AN0651	TACT SWITCH	А			
	自动浸焊	项目 Items	i		条件 Condition				
	Conditions for	r 助焊剂附着量		不附着于零部	7件贴装面的程度				
	Auto-dip	Flux built-up		Mounting surface should not be coated with flax					
		预热温度 Preheating tempera	ature	印刷电路板焊接面的周围温度 100℃ max. Ambient temperature of the soldered surface of PC 100℃ max.					
7.2		预热温度时间 Preheating tim	ie	60s max.					
		焊接温度 Soldering tem	perature	260°C max.					
		焊接浸渍时间 Continuous dipping	g time						
		焊接次数							
		Number of solde	ering	2times max.					
	阳控识明			•					

焊接说明:

1、开关浸焊后,注意不要用溶剂清洗。

After switches were soldered, please be careful not to clean switches with solvent.

1.1 在使用烙铁的情况下,焊锡温度应在 350℃以下、3 秒以内。

In the case of using solding iron, solding conditions shall be 350°C max and 3 sec.max.

1.2 浸焊后,注意不要在顶部施加负荷。

Right after switches were soidered; please be careful not to load to on the knobs of switches.

- 2、设计中应注意的事项(Design instructions)
- 2.1 印刷基板的安装孔尺寸参见产品图。

Follow recommended P.W.B. piercing plan in outside drawing page.

- 3、注意点(Note):
- 3.1 注意不要施加超负荷的压力或晃动开关。

Please be cautions not to give excessive static load or shock to swiches.

3.2 开关浸焊后,印刷基板注意不要叠放。

Please be careful not to pile up P.W.B.after switches were soldered.

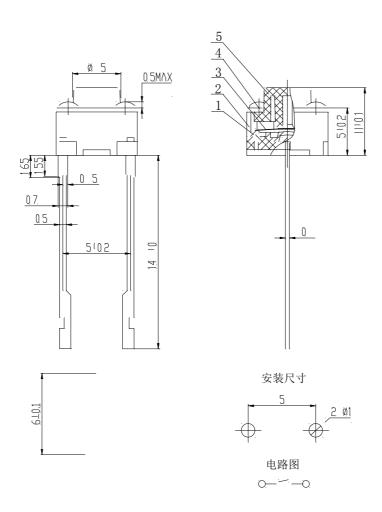
3.3 保管时尤其应注意避开高湿高温和有腐蚀性气体的环境。如需要长时间保存,请不要打开包装箱。

Preservation under high temperature and high high humidity or corrosive gas should be avoided Especially . When you need to preserve for a long period ,do not open the carton.

APPROVE BY 杨过 09.10	5 CHECKED BY	关 林 09.10.25	PRPARE BY	曹 盖 09.10.25
---------------------	--------------	--------------	-----------	--------------



CUSTOMER	CUSTOMER'S P/N	GYE'S P/N	PRODUCT	REVISION
		KAN0651	TACT SWITCH	А



General tolerance: ±0.2mm

	NO.	NAME	MATERIAL	NATIONALITY	QTY.	FINISHING		
	1	TERMINAL	Brass	China	1	Silver	Silver plating	
	2	CASE	PA66	China	1	BI	ack	
	3	CONTACT	Phosphor bronze	Korea	1	Contact side	Contact side silver plating	
	4	COVER	SPCC-SD	China	1	CuSn	CuSn plating	
	5	STEM	PA66	China	1	BI	Black	
APPF	ROVE BY	杨过 09.10.25	CHECKED BY	· 关林 09.1	0.25 լ	PRPARE BY	RPARE BY 曹 盖 09.10.2	

APPROVAL SPECIFICATIONS

CUSTOMER	CUSTOMER'S P/N	GYE'S P/N	PRODUCT	REVISION
		KAN0651	TACT SWITCH	А

8. 生产工场: The country of origin

WENZHOU GANGYUAN ELECTRONICS CO.,LTD NO.392 NING KANG EAST ROAD OF YUE QING CITY, ZHE JIANG

9. 编带包装: Packing

产品规格	包装袋 PAC	KING BAG	内包装箱 INTER BOX		外包装箱 OUT BOX		净重	毛重
KAN0651	规 格(Cm)	数量(pcs)	规 格(Cm)	袋数	规 格(Cm)	盒数	(Kg)	(Kg)
043	19×19.5	1000	$21.6 \times 16.5 \times 4.8$	2	$44.5 \times 35 \times 28$	20	9.6	11.858
045	19×19.5	1000	$21.6 \times 16.5 \times 4.8$	2	$44.5 \times 35 \times 28$	20	9.8	12.058
050	19×19.5	1000	$21.6 \times 16.5 \times 4.8$	2	$44.5 \times 35 \times 28$	20	10	12.258
060	19×21	1000	$21.6 \times 16.5 \times 4.8$	2	$44.5 \times 35 \times 28$	20	10.2	12.498
070	19×21	1000	$21.6 \times 16.5 \times 4.8$	2	$44.5 \times 35 \times 28$	20	10.7	12.998
075	19×21	1000	$21.6 \times 16.5 \times 4.8$	2	$44.5 \times 35 \times 28$	20	10.8	13.098
080	19×21	1000	$21.6 \times 16.5 \times 4.8$	2	$44.5 \times 35 \times 28$	20	11.2	13.498
090	19×21	1000	$21.6 \times 16.5 \times 4.8$	2	$44.5 \times 35 \times 28$	20	11.7	13.998
095	19×21	1000	$21.6 \times 16.5 \times 4.8$	2	$44.5 \times 35 \times 28$	20	12.0	14.298

APPROVE BY 杨过 09.10.15 CHECKED BY 关林 09.10.15 PRPARE BY 曹 盖 09.10
