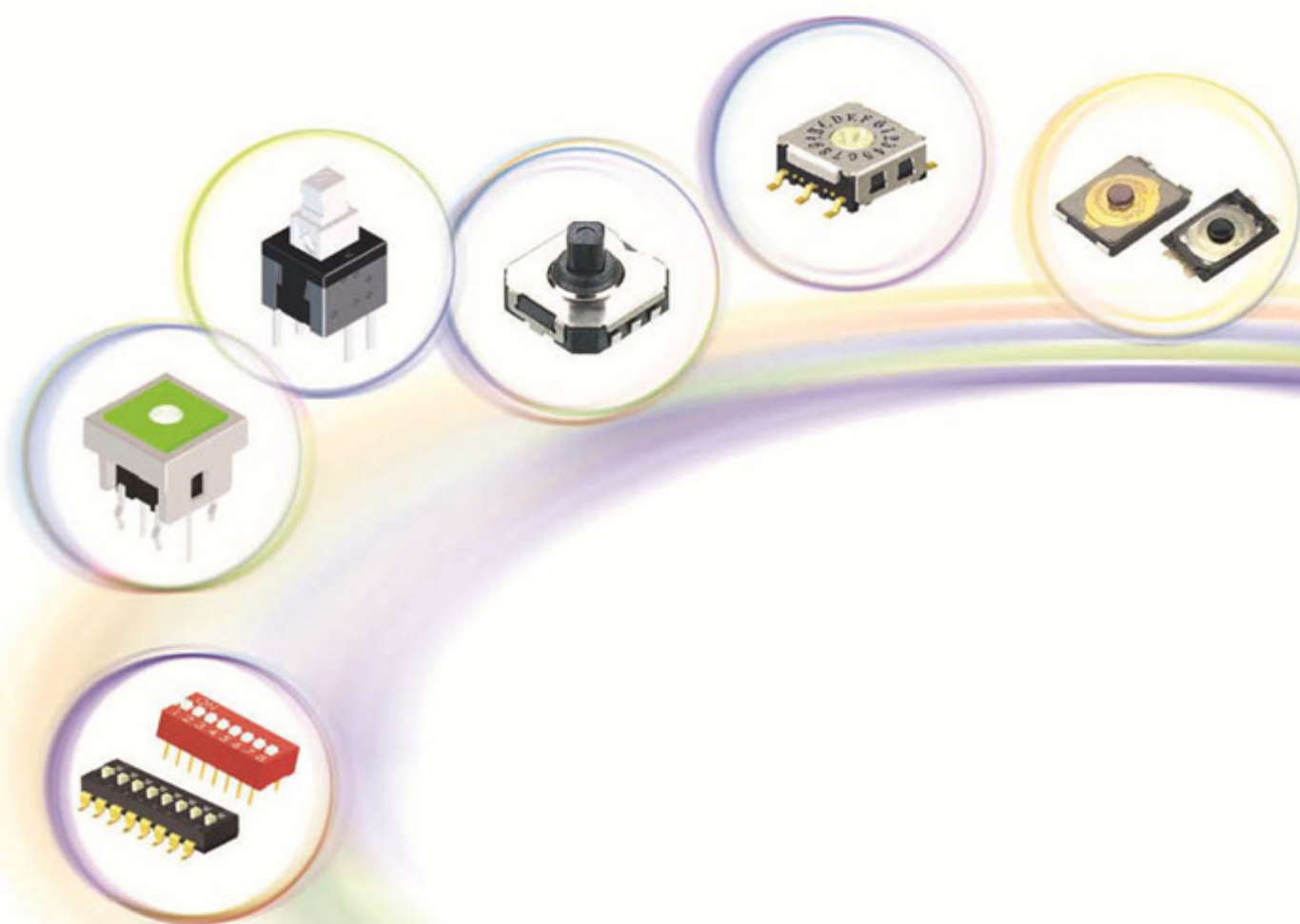




科舰电子
KEJIAN ELECTRONICS



VERSION 1.0



科舰电子
KEJIAN ELECTRONICS

Introduction

公司简介



乐清市科舰电子有限公司创建于2007年是一家年轻而充满活力的企业，致力于为客户提供轻触开关整体解决方案的专业轻触开关服务商，公司专业研发制造各种轻触开关的同时，更逐渐延伸到其它紧密周边开关产品，如，微动开关、拨动开关、DIP开关等，主要服务的领域有：消费性电子产品、白色家电、通讯产品、车用电子产品、医疗器材产品等。

科舰电子经过多年的制程改良与技术革新，不断引进和学习国内外先进的生产工艺和管理理念，核心产品全部实现了自动化生产，配备了设备齐全的试验室，保证了产品的稳定性，公司可独立开发新产品，现已拥有多项专利技术。

科舰电子立足于国内市场的同时，为了架构全球服务体系，公司在德国、英国、巴西等相续成立据点，用我们最专业的知识为国际市场提供全面快速服务，现主要客户有：Panasonic、GoerTek、TCL等国内外知名企业。

公司正处于高速发展时期，为实现争创行业领先的宏伟目标，诚邀社会各界经销、运营商一起共同奋斗，共赢天下！

Yueqing Kejian Electronics Co.,Ltd ,a young and dynamic enterprise,was established in 2007,which is a professional manufacturer dedicated to providing the whole solutions for Tact switch.While developing and producing various tact switches, we also expand to other relate switch products.Such as Micro switch,Slide switch,DIP switch,etc.Our main service areas:Home appliances,Communication products,Automotive electronics and Medical equipments,etc.

After many years of process improvement and technology innovation,Kejian Electronics constantly introduces and learns advanced production technology and management idea from domestic and overseas.Our core products have completely realized automation production and been equipped with full sets of laboratories,ensuring the stability of products. We can also develop new products independently,and have owned many patent technique now.

Meanwhile,in order to structure a global service system,Kejian Electronics has built in Germany,England and Brazil, using our most professional knowledge to provide Comprehensive and fast service for international market.And,we has closely cooperated with the domestic and international well-known enterprise,such as Panasonic,GoerTek,TCL etc.

Now,Kejian Electronics is in a rapid-development period, in order to achieve the goal of become the industry leader,we sincerely invites all social distributers to work hard together to win the world.

企业精神 SPIRIT

快速、创新、协作!

Rapidness, innovation and cooperation!

企业责任 RESPONSIBILITY

为客户创造更多价值，帮助员工实现梦想，为社会做出应有的贡献!

To create more values for clients, to help employees to realize their dreams, to make due contribution for the society!

质量目标 QUALITY OBJECTIVE

向客户提供OPPM缺陷的产品!

To provide OP-PPM-defected products for clients!

企业作风 STYLE OF WORK

坚守承诺，说到做到，绝不找借口!

Stick to commitment, walk the talk, never make excuses!



高速冲压



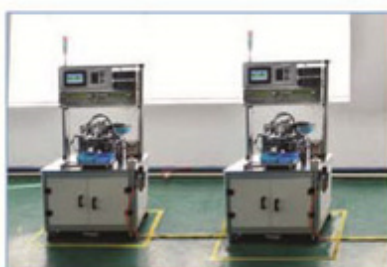
连带电镀



连带注塑



自动组装



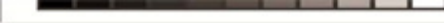
自动检测



出货检验



成品包装



科舰电子
KEJIAN ELECTRONICS

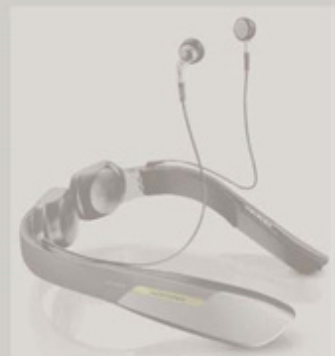


01

◆ TACT SWITCH SERIES

Features:

- Microminiature,light operating;
- Good feeling and long life;
- Snap-in type,can be mounted directly on P.C. Board and good for electrostatic discharge;
- It has a lot of choices for button shape and height and it is easily to install all kind of product.



Applications:

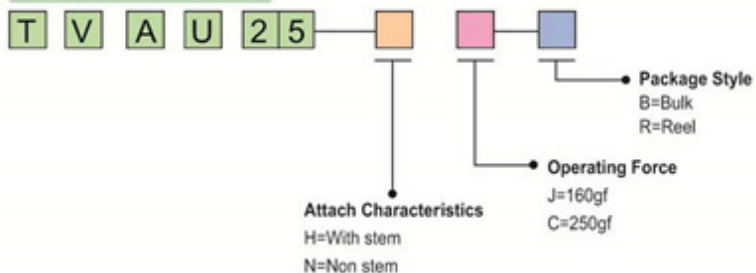
They can operate all types of electronic equipment such as the telephone , PDA,DVD,digital camera,audio equipment,instrument and meter equipment, autoimmunization equipments control etc.

MINI SERIES

2.0x3.0 Miniature Type Vertical Push Tact Switch



HOW TO ORDER



TACT SWITCH

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	20mA, 15V DC
	Insulation resistance	50MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	500mΩ max.
Durability	Lifetime	J:100,000 Cycles C:50,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.15 ± 0.05mm

Diagram

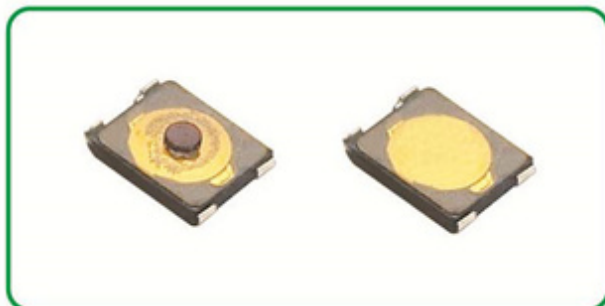
No.	Dimensions	Circuit Diagram
		Pad Layout
1	<p>● TVAU25</p>	

MINI SERIES

2.7x3.0 Miniature Type Vertical Push Tact Switch



TACT SWITCH



HOW TO ORDER

T V A U 1 9



Attach Characteristics
H=With stem
N=Non stem



Operating Force
J=160gf
C=250gf

Package Style
B=Bulk
R=Reel

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	20mA, 12V DC
	Insulation resistance	50MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	J:100,000 Cycles C:50,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.15 ± 0.05mm

Diagram

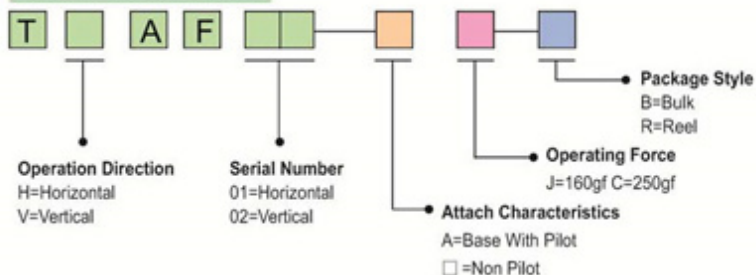
No.	Dimensions	Circuit Diagram Pad Layout
1	<p>● TVAU19-H</p>	
2	<p>● TVAU19-N</p>	

MINI SERIES

3.0x3.5 Miniature Type Horizontal Push & Vertical Push Tact Switch



HOW TO ORDER



Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	100,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.13 ± 0.05mm

Diagram

No.	Dimensions	Circuit Diagram Pad Layout
1	<p>● THAF01</p>	
2	<p>● TVAF02</p>	

MINI SERIES

3.3x3.3 Miniature Type Tact Switch

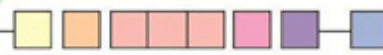


TACT SWITCH



HOW TO ORDER

T V A F 0 3



Switch Height
015=1.5mm
020=2.0mm

Auxiliary Type

□ =Black Base
W=White Base

Attach Characteristics

E=With EarthTerminal
N=Non EarthTerminal

Operating Force

A=90gf J=160gf
C=250gf

Stem Color

B=Black
L=Lcp White
Y=Yellow

Package Style

B=Bulk
R=Reel

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	100,000 Cycles
Mechanical performance	Operating force	A:90gf J:160gf C:250gf
	Travel	0.20 ± 0.1mm

Diagram

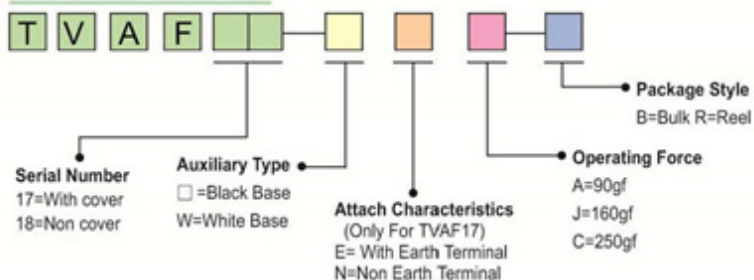
No.	Dimensions	Circuit Diagram	
		Pad Layout	
1	<p>● TVAF03</p>		

MINI SERIES

3.3x3.3 Miniature Type Tact Switch



HOW TO ORDER



TACT SWITCH

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	100,000 Cycles
Mechanical performance	Operating force	A:90gf J:160gf C:250gf
	Travel	0.20 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram
		Pad Layout
1	<p>● TVAF17</p>	
2	<p>● TVAF18</p>	

MINI SERIES

2.3x4.6 Miniature Type Tact Switch



TACT SWITCH



HOW TO ORDER

T H A M

Serial Number
04=Cover Without Pilot
05=Cover With Pilot

Attach Characteristics
(Only For THAM04)
A=Base With Pilot
□ =Non Pilot

Package Style
B=Bulk
R=Reel

Stem Color
B=Black
L=Lcp White

Operating Force
J=160gf C=250gf
E=140gf

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	A:J:E:50,000 Cycles C:30,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf E:140gf
	Travel	0.15 ± 0.05mm

Diagram

No.	Dimensions	Circuit Diagram Pad Layout
1	<p>● THAM04</p>	
2	<p>● THAM05</p>	

MINI SERIES

2.3x4.6 Miniature Type Tact Switch



HOW TO ORDER

T H A M

Serial Number
15=Thickening of the base
21=Dust-proof type

Attach Characteristics
(Only For THAM15)
A=Cover With Pilot
□=Non Pilot

Package Style
B=Bulk
R=Reel

Stem Color
B=Black
L=Lcp White

Operating Force
J=160gf C=250gf
E=140gf

TACT SWITCH

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	E:J:50,000 Cycles C:30,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf E:140gf
	Travel	0.15 ± 0.05mm

Diagram

No.	Dimensions	Circuit Diagram Pad Layout
1	<p>● THAM15</p>	
2	<p>● THAM21</p>	

MINI SERIES

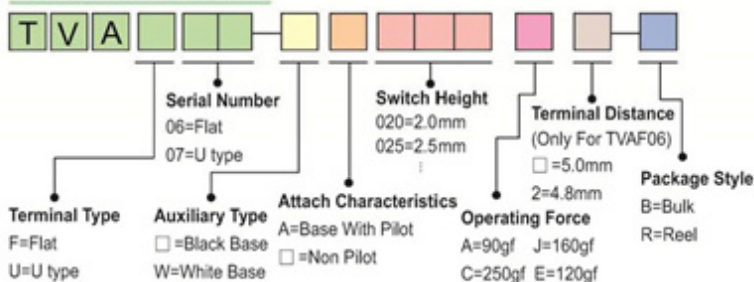
2.9x3.9 Miniature Type Vertical Push Tact Switch



TACT SWITCH



HOW TO ORDER



Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	100,000 Cycles
Mechanical performance	Operating force	A:90gf J:160gf C:250gf E:120gf
	Travel	0.13 ± 0.05mm

Diagram

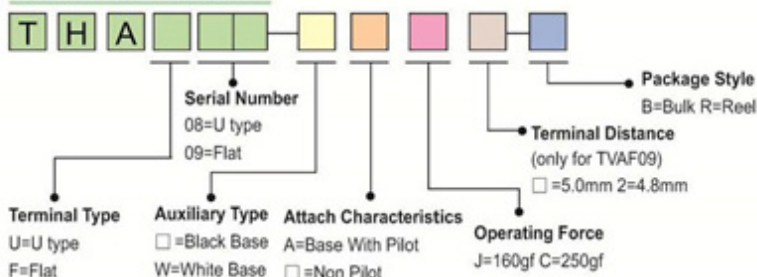
No.	Dimensions	Circuit Diagram Pad Layout
1	<p>● TVAF06</p>	
2	<p>● TVAU07</p>	

MINI SERIES

2.9x3.9 Miniature Type Horizontal Push Tact Switch



HOW TO ORDER



TACT SWITCH

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	100,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.20 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram Pad Layout
1	<p>● THAU08</p>	
2	<p>● THAF09</p>	

TACT SWITCH

 LEAD FREE

The diagram shows a 10-pin header with the following specifications:

- Terminal Type:** U=U type, F=Flat
- Serial Number:** 10=U type, 11=Flat
- Switch Height:** 025=2.5mm
- Operating Force:** J=160gf, C=250gf, H=400gf
- Package Style:** B=Bulk, R=Reel
- Stem Color:** L=Lcp White, F=PPA White

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	500mΩ max.
Durability	Lifetime	100,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf H:400gf
	Travel	0.20 ± 0.1mm

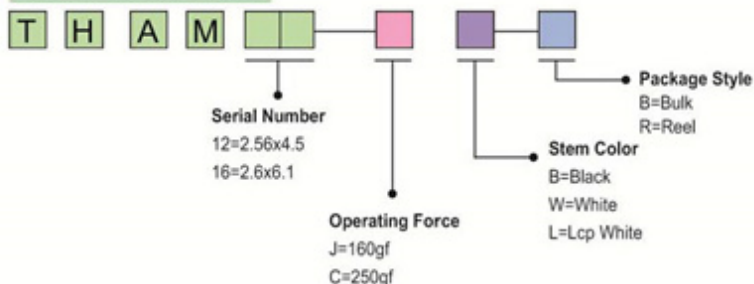
No.	Dimensions	Circuit Diagram
		Pad Layout
1	<p>● TVAU10</p> <p>Top view dimensions: 4.6 (total width), 4.2 (inner width), 3 (width between pins), 3.2 (total height), 2.7 (inner height), 2.2 (height between pins), 1.6 (height of mounting pads). Pin numbers 1, 2, 3, 4 are indicated.</p> <p>Side view dimensions: 2.5 (total height), 1.8 (height of mounting pads), 1.6 (height of package body).</p> <p>Bottom view dimensions: 3 (width between pins), 1.1 (height of mounting pads).</p>	<p>The circuit diagram shows a common-emitter configuration with input at pin 1, output at pin 2, and pins 3 and 4 connected together. The pad layout shows a square package with pins 1, 2, 3, and 4 at the corners. Dimensions for the pad layout are: 3.1 (width between pins 1 and 2), 5.2 (total width), 1.5 (height of mounting pads), and 2.8 (total height).</p>
2	<p>● TVAF11</p> <p>Top view dimensions: 5.1 (total width), 4.2 (inner width), 3 (width between pins), 3.2 (total height), 2.2 (inner height), 0.55 (height of mounting pads), 2.7 (height of package body). Pin numbers 1, 2, 3, 4 are indicated.</p> <p>Side view dimensions: 2.5 (total height), 1.8 (height of mounting pads), 1.6 (height of package body).</p> <p>Bottom view dimensions: 3 (width between pins), 1.1 (height of mounting pads).</p>	<p>The circuit diagram is identical to the one for TVAU10, showing a common-emitter configuration. The pad layout is also identical, showing a square package with pins 1, 2, 3, and 4 at the corners. Dimensions for the pad layout are: 3.1 (width between pins 1 and 2), 5.5 (total width), 1.5 (height of mounting pads), and 2.8 (total height).</p>

MINI SERIES

2.56x4.5 Miniature Type Horizontal Push Tact Switch



HOW TO ORDER



TACT SWITCH

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	500mΩ max.
Durability	Lifetime	100,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.20 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram
		Pad Layout
1	<p>● THAM12</p>	
2	<p>● THAM16</p>	

MINI SERIES

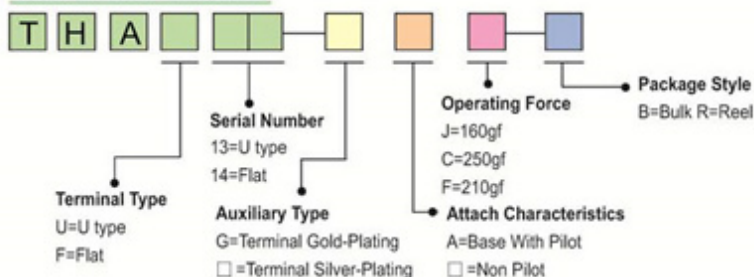
3.5x4.7 Horizontal Push Tact Switch



TACT SWITCH



HOW TO ORDER



Specification

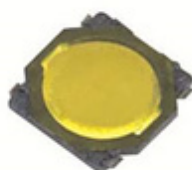
Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	100,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf F:210gf
	Travel	0.20 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram Pad Layout
1	<p>● THAU13</p>	
2	<p>● THAF14</p>	

MINI SERIES

3.7x3.7 Miniature Type Tact Switch



New

HOW TO ORDER

T V A U 2 2



Package Style
B=Bulk
R=Reel

Operating Force
J=160gf
C=250gf
E=130gf

TACT SWITCH

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	100,000 Cycles.
Mechanical performance	Operating force	J:180gf C:250gf E:130gf
	Travel	0.15 ± 0.05

Diagram

No.	Dimensions	Circuit Diagram
		Pad Layout
1	<p>● TVAU22</p> <p>Top view dimensions: 3.7±0.1, 2.75±0.1, 3.1±0.1, 3.7±0.1, 4.0±0.05, 3.4±0.1, 0.25, 0.05, 0.35.</p>	<p>Circuit diagram shows a switch between terminals 1, 2, 3, and 4. Pad layout dimensions: 0.6, 2.75±0.05, 2.0±0.1, 3.8±0.1.</p>

MINI SERIES

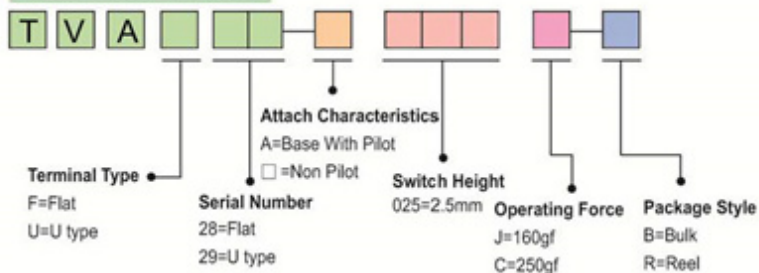
3.5x4.7 Vertical Push Tact Switch



TACT SWITCH



HOW TO ORDER



Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	50,000 Cycles.
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.20 ± 0.1mm

Diagram

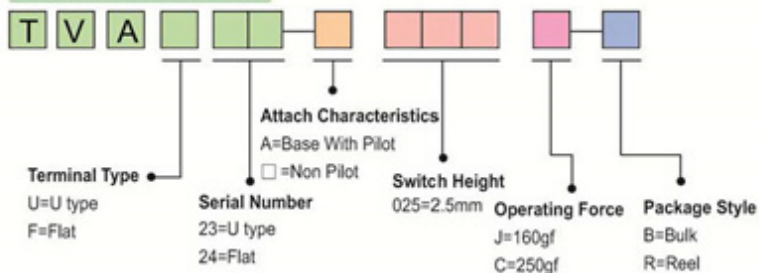
No.	Dimensions	Circuit Diagram Pad Layout
1	<p>● TVAF28</p>	
2	<p>● TVAU29</p>	

MINI SERIES

3.5x4.7 Vertical Push Tact Switch



HOW TO ORDER



TACT SWITCH

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	100,000 Cycles.
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.20 ± 0.1mm

Diagram

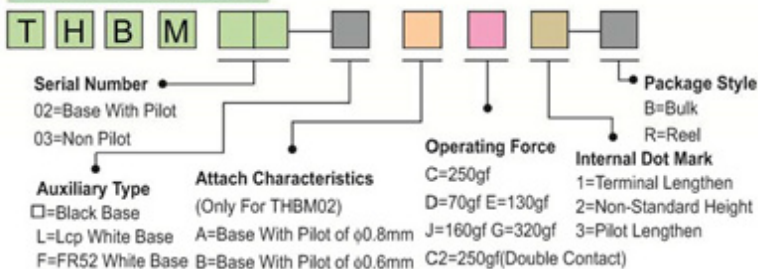
No.	Dimensions	Circuit Diagram Pad Layout
1	<p>● TVAU23</p>	
2	<p>● TVAF24</p>	

3x6 SERIES

2.5x7.0 SMT & Right Angle Tact Switch



HOW TO ORDER



Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100M Ω min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100m Ω max.
Durability	Lifetime	J:D:E:50,000Cycles C:G:30,000 Cycles
Mechanical performance	Operating force	C:250gf D:70gf E:130gf J:160gf G:320gf
	Travel	0.25 \pm 0.1mm

Diagram

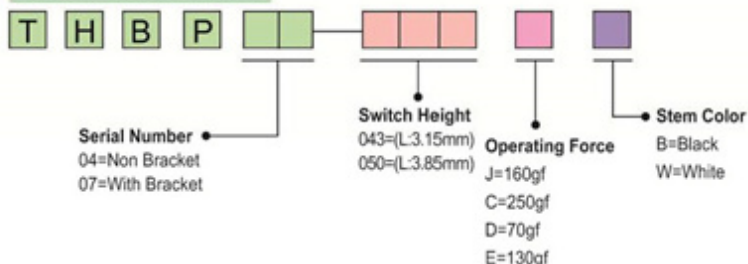
No.	Dimensions	Circuit Diagram Pad Layout
1	<p>● THBM02</p> <p>A $\phi 0.6$ $\phi 0.8$</p>	
2	<p>● THBM03</p>	

3x6 SERIES

3.5x6.0 Horizontal Push & Bracket Shape Tact Switch



HOW TO ORDER



TACT SWITCH

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	D:E:J:50,000Cycles C:30,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf D:70gf E:130gf
	Travel	0.25 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram Pad Layout
1	<p>● THBP04</p> <p>L 3.15 3.85</p>	
2	<p>● THBP07</p> <p>L 3.15 3.85</p>	

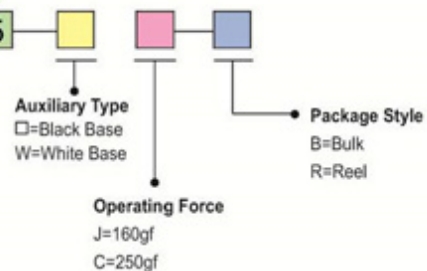
3x6 SERIES

4.0x6.1 Horizontal Push Tact Switch



HOW TO ORDER

T H B M 0 5



Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	50,000 Cycles.
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.30 ± 0.1mm

Diagram

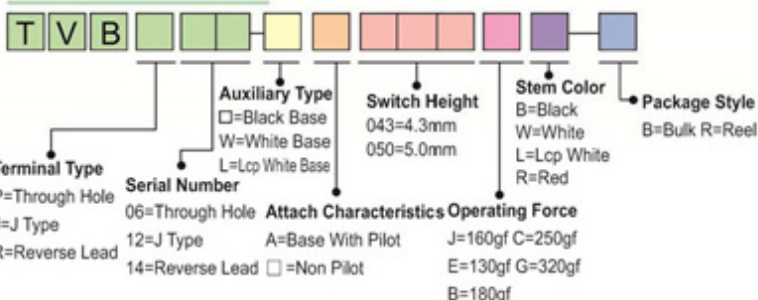
No.	Dimensions	Circuit Diagram
		Pad Layout
1	<p>● THBM05</p>	

3x6 SERIES

3.5x6.0 Vertical Push Tact Switch



HOW TO ORDER



TACT SWITCH

Specification

Items		Standard
Operating temperature range		-20℃ to +70℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	D:E:J:50,000Cycles C:30,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf D:70gf E:130gf B=180gf
	Travel	0.25 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram Pad Layout			
1	<p>● TVBP06</p> <table><tr><td>H</td></tr><tr><td>4.3</td></tr><tr><td>5.0</td></tr></table>	H	4.3	5.0	
H					
4.3					
5.0					
2	<p>● TVBJ12</p> <table><tr><td>H</td></tr><tr><td>4.3</td></tr><tr><td>5.0</td></tr></table>	H	4.3	5.0	
H					
4.3					
5.0					
3	<p>● TVBR14</p> <table><tr><td>H</td></tr><tr><td>4.3</td></tr><tr><td>5.0</td></tr></table>	H	4.3	5.0	
H					
4.3					
5.0					

3x6 SERIES

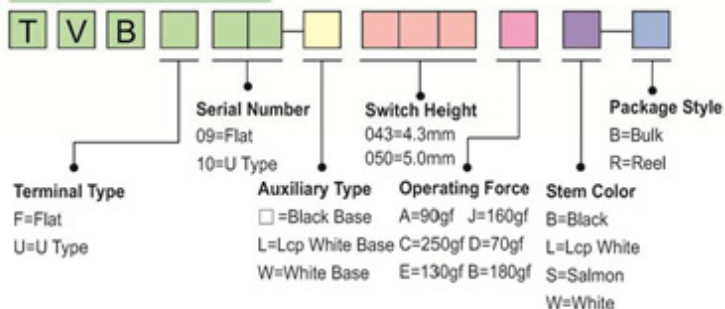
3.5x6.0 Vertical Push Tact Switch



TACT SWITCH



HOW TO ORDER



Specification

Items		Standard
Operating temperature range		-20℃ to +70℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	A:D:E:J:50,000Cycles C:30,000 Cycles
Mechanical performance	Operating force	A:90gf J:160gf C:250gf D:70gf E:130gf B=180gf
	Travel	0.25 ± 0.1mm

Diagram

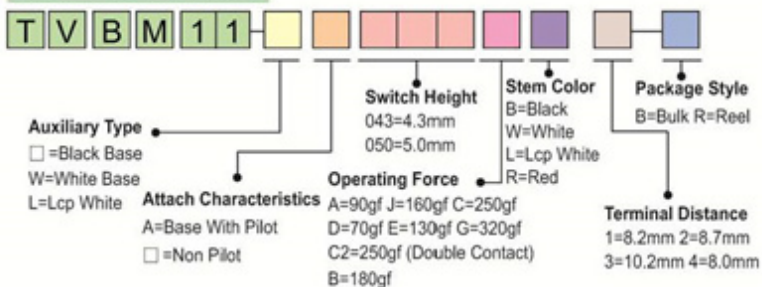
No.	Dimensions		Circuit Diagram Pad Layout		
1	<p>● TVBF09</p> <table><tr><td>H</td></tr><tr><td>4.3</td></tr><tr><td>5.0</td></tr></table>	H	4.3	5.0	
H					
4.3					
5.0					
2	<p>● TVBU10</p> <table><tr><td>H</td></tr><tr><td>4.3</td></tr><tr><td>5.0</td></tr></table>	H	4.3	5.0	
H					
4.3					
5.0					

3x6 SERIES

3.5x6.0 SMT Type Tact Switch



HOW TO ORDER

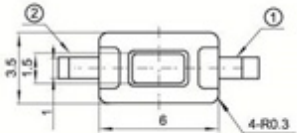
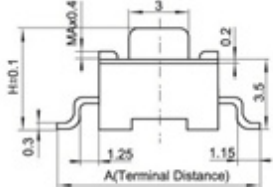




TACT SWITCH

Specification

Items		Standard
Operating temperature range		-20℃ to +70℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	A:D:E:J:50,000Cycles C:G:30,000 Cycles C2:100,000 Cycles
Mechanical performance	Operating force	A:90gf J:160gf C:250gf D:70gf E:130gf G:320gf B=180gf
	Travel	0.25 ± 0.1mm

Diagram

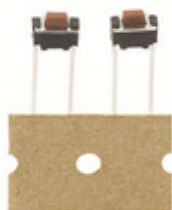
No.	Dimensions	Circuit Diagram Pad Layout									
1	<div>● TVBM11</div> <div></div> <div></div>	<table><tr><th>H</th><th>A</th></tr><tr><td>4.3</td><td>8.2</td></tr><tr><td>5.0</td><td>8.7</td></tr><tr><td></td><td>10.2</td></tr></table>	H	A	4.3	8.2	5.0	8.7		10.2	<div></div> <div></div>
		H	A								
		4.3	8.2								
		5.0	8.7								
			10.2								

3x6 SERIES

3.5x6.0 Taping Type Tact Switch

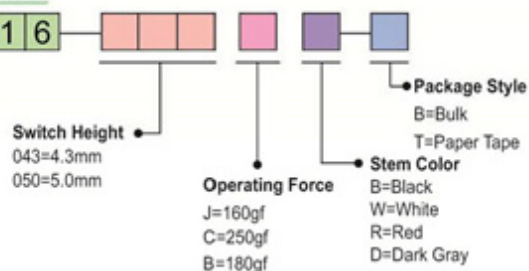


TACT SWITCH



HOW TO ORDER

T V B T 1 6



Specification

Items		Standard
Operating temperature range		-20℃ to +70℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	J:50,000Cycles C:30,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf B=180gf
	Travel	0.25 ± 0.1mm

Diagram

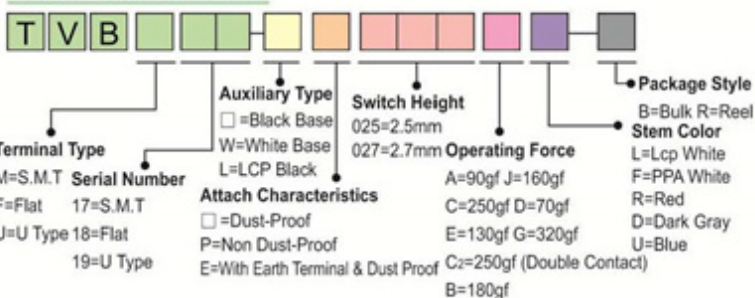
No.	Dimensions	Circuit Diagram
		Pad Layout
1	<p>● TVBT16</p> <p> H 4.3 5.0 </p>	

3x6 SERIES

3.7x6.1 SMT Type Tact Switch



HOW TO ORDER



Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	A:D:E:J:50,000Cycles C:G:30,000 Cycles Cz:100,000 Cycles
Mechanical performance	Operating force	A:90gf J:160gf C:250gf D:70gf E:130gf G:320gf B=180gf
	Travel	0.25 ± 0.1mm

Diagram

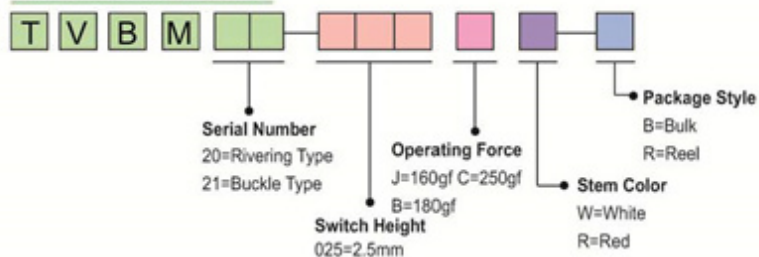
No.	Dimensions	Circuit Diagram
		Pad Layout
1	<p>● TVBM17</p>	
2	<p>● TVBF18</p>	
3	<p>● TVBU19</p>	

3x6 SERIES

3.5x6.1 Through Hole & SMT Type Tact Switch



HOW TO ORDER



Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	J:50,000Cycles C:30,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf B=180gf
	Travel	0.25 ± 0.1mm

Diagram

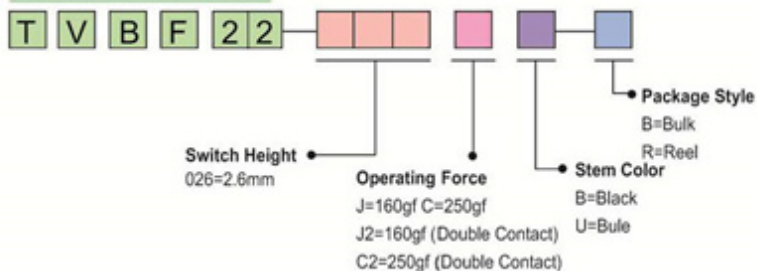
No.	Dimensions	Circuit Diagram Pad Layout
1	<p>● TVBM20</p>	
2	<p>● TVBP21</p>	

3x6 SERIES

3.8x6.0 Normal Closed Type Tact Switch



HOW TO ORDER



TACT SWITCH

Specification

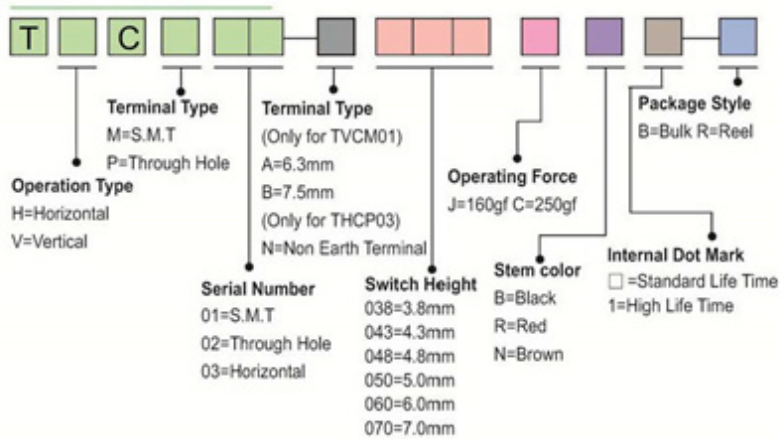
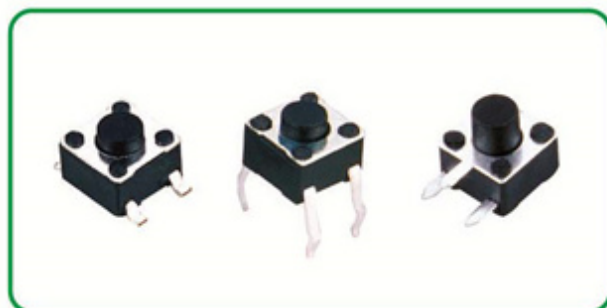
Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	J:50,000 Cycles C:30,000 Cycles J2:C2:100,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.25 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram Pad Layout
1	• TVBF22 	

4.5x4.5 SERIES

4.5x4.5 Through Hole & SMT Type Tact Switch



Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	J:100,000 Cycles C:50,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.25 ± 0.1mm

Diagram

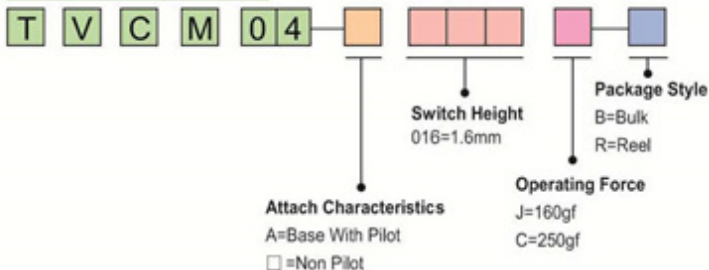
No.	Dimensions	Circuit Diagram Pad Layout
1	<p>● TVCM01</p>	
2	<p>● TVCP02</p>	
3	<p>● THCP03</p>	

4.5x4.5 SERIES

4.3x4.5 SMT Type Tact Switch



HOW TO ORDER



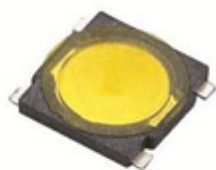
Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	J:300,000 Cycles C:100,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.15 ± 0.05mm

Diagram

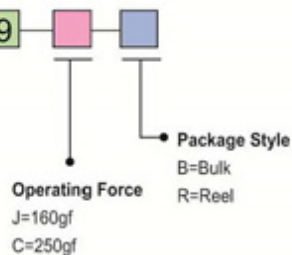
No.	Dimensions	Circuit Diagram Pad Layout
1	<p>● TVCM04-A</p>	
2	<p>● TVCM04-N</p>	

4.5x4.5 Low-profile SMT Tact Switch



T V C M

0	9
---	---



Items		Standard
Operating temperature range		-20℃ to +70℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min, 100V DC
	Dielectric strength	100V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	J:500,000 Cycles C:200,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.15 ± 0.1mm

No.	Dimensions	Circuit Diagram
		Pad Layout
1	<p>● TVCM09</p> <p>The mechanical drawing shows the TVCM09 component. The top view is a square with a central circular feature. Dimensions include a total width of 4.5, a central circular diameter of 0.5, and a distance of 3.5 from the center to the bottom edge. The side view shows a thickness of 0.55. Four mounting points are labeled 1, 2, 3, and 4.</p>	<p>The circuit diagram shows a single switch symbol connected between terminals 1 and 2, and terminals 3 and 4. The pad layout shows a square arrangement of four pads. Dimensions include a total width of 5.15, a distance of 4.75 between the inner pads, a distance of 3.75 between the outer pads, and a total height of 4.6. The distance from the center to the bottom edge is 2.4, and the distance from the center to the left edge is 2.8.</p>

5.2x5.2 SERIES

5.2mm Square Low-Profile Type



HOW TO ORDER

T V C U



Serial Number
11=With Cover
12=Non Cover

Operating Force
A=90gf J=160gf
C=250gf D=70gf
E=130gf G=320gf

Package Style
B=Bulk R=Reel

Specification

Items		Standard
Operating temperature range		-20℃ to +70℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min, 100V DC
	Dielectric strength	100V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	A:J:D:E:F:200,000 Cycles C:G:100,000 Cycles
Mechanical performance	Operating force	A:90gf J:160gf C:250gf D:70gf E:130gf G:320gf
	Travel	0.25 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram Pad Layout
1	<p>● TVCU11</p>	
2	<p>● TVCU12</p>	

5.2x5.2 SERIES

4.8x4.8 Low-profile SMT Tact Switch



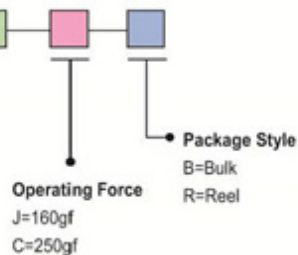
TACT SWITCH



HOW TO ORDER

T V C U

1 3



Specification

Items		Standard
Operating temperature range		-20℃ to +70℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	100V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	J:500,000 Cycles C:200,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.20 ± 0.05mm

Diagram

No.	Dimensions	Circuit Diagram
		Pad Layout
1	<p>● TVCU13</p>	

5.2x5.2 SERIES

5.2x5.2 SMT Tact Switch



HOW TO ORDER

T V C M 1 5

Auxiliary Type

□ = Black Base
W = White Base
L = LCP Black Base

Switch Height
010 = 1.0mm (With Cover)
008 = 0.8mm (Non Cover)

Operating Force
A = 90gf J = 160gf
C = 250gf D = 70gf
E = 130gf G = 320gf

Package Style

B = Bulk
R = Reel

TACT SWITCH

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	E: J: 200,000 Cycles C: 100,000 Cycles
Mechanical performance	Operating force	A: 90gf J: 160gf C: 250gf D: 70gf E: 130gf G: 320gf
	Travel	0.25 ± 0.1mm

Diagram

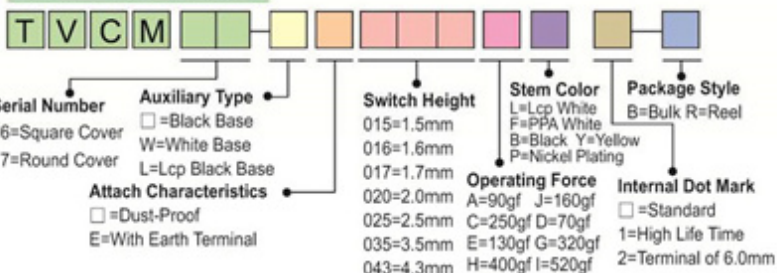
No.	Dimensions	Circuit Diagram Pad Layout
1	<p>● TVCM15-010</p>	
2	<p>● TVCM15-008</p>	

5.2x5.2 SERIES

5.2x5.2 SMT Tact Switch



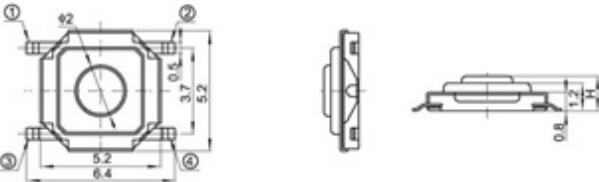
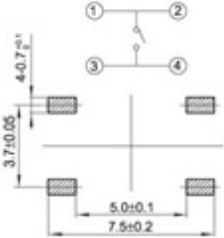
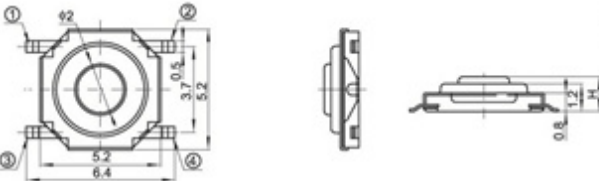
HOW TO ORDER



Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	A::J:D:E:200,000 Cycles C::G:H:I:100,000 Cycles
Mechanical performance	Operating force	A:90gf J:160gf C:250gf D:70gf E:130gf G:320gf H:400gf I:520gf
	Travel	0.25 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram Pad Layout	
1	<p>● TVCM16</p> 	H	
		1.5	
		1.7	
		2.0	
		...	
2	<p>● TVCM17</p> 	H	
		1.5	
		1.7	
		2.0	
		...	

6.0x6.0 Through Hole Type Tact Switch



HOW TO ORDER



Serial Number

01=Standard
02=With Earth Terminal

02=With Earth Terminal

Switch Height

043=4.3mm	Operating Force
050=5.0mm	A=90gf B=180gf
055=5.5mm	C=250gf D=70gf
060=6.0mm	E=130gf J=160gf
065=6.5mm	F=210gf G=320gf
070=7.0mm	H=400gf I=520gf
G73=7.3mm	

Operating Force
A=90gf B=180gf
C=250gf D=70gf
E=130gf J=160gf
F=210gf G=320gf
H=400gf I=520gf

Stem Color
B=Black
W=White
R=Red
N=Brown
S=Salmon

Internal Dot Mark

- ☐ =Standard Life time
- 1=High Lifetime
- 2=Brass Cover
- 3=High Lifetime & Brass Cover
- 4=PET Cover
- 5=High Lifetime & PET Cover
- 6=Plastic Fits UL 94V-0
- 7=High Lifetime & Plastic Fits UL 94V-0
- 8=Non-rotating Stem
- 9=Push No Sound

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	A:D:300,000 Cycles J:E:J:F:C:100,000 Cycles G:H:50,000 Cycles
Mechanical performance	Operating force	A:90gf D:70gf J:160gf E:130gf J:160gf F:210gf G:320gf H:400gf C:250gf
	Travel	0.25 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram Pad Layout															
1	<p>● TVDP01</p>	<table> <tr> <th>H</th><th>A</th></tr> <tr><td>4.3</td><td>3.5</td></tr> <tr><td>5</td><td>3.5</td></tr> <tr><td>7</td><td>3.3</td></tr> <tr><td>9.5</td><td>3</td></tr> <tr><td>13</td><td>3</td></tr> <tr><td>17</td><td>3</td></tr> </table>	H	A	4.3	3.5	5	3.5	7	3.3	9.5	3	13	3	17	3	
H	A																
4.3	3.5																
5	3.5																
7	3.3																
9.5	3																
13	3																
17	3																
2	<p>● TVDP02</p>	<table> <tr> <th>H</th><th>A</th></tr> <tr><td>4.3</td><td>3.5</td></tr> <tr><td>5</td><td>3.5</td></tr> <tr><td>7</td><td>3.3</td></tr> <tr><td>9.5</td><td>3</td></tr> </table>	H	A	4.3	3.5	5	3.5	7	3.3	9.5	3					
H	A																
4.3	3.5																
5	3.5																
7	3.3																
9.5	3																
3	<p>● TVDP01-G73</p>	<table> <tr> <th>H</th><th>A</th></tr> <tr><td>4.3</td><td>3.5</td></tr> <tr><td>5</td><td>3.5</td></tr> <tr><td>7</td><td>3.3</td></tr> <tr><td>9.5</td><td>3</td></tr> </table>	H	A	4.3	3.5	5	3.5	7	3.3	9.5	3					
H	A																
4.3	3.5																
5	3.5																
7	3.3																
9.5	3																

6x6 SERIES

6.0x6.0 Bracket Shape Type Tact Switch



HOW TO ORDER

T H D M 0 3

Switch Height
044=(H:4.4mm)

Operating Force
C=250gf G=320gf
H=400gf

Stem Color
B=Black
W=White
R=Red

Package Style
B=Bulk
R=Reel

TACT SWITCH

Specification

Items		Standard
Operating temperature range		-20℃ to +70℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	C:50,000 Cycles G:H:30,000 Cycles
Mechanical performance	Operating force	C:250gf G:320gf H:400gf
	Travel	0.30 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram
		Pad Layout
1	<p>● THDM03</p>	

6x6 SERIES

6.0x6.0 Surface Mounting Tact Switch



TACT SWITCH



HOW TO ORDER

T V D M [Color Box] [Color Box] [Color Box] [Color Box] [Color Box]

Terminal Type
 A=8.2mm
 B=9.2mm
 C=10.2mm
 D=8.6mm
 E=8.0mm
 F=9.0mm
 G=10.0mm

Switch Height
 043=4.3mm
 050=5.0mm
 055=5.5mm
 060=6.0mm
 065=6.5mm
 070=7.0mm
 G73=7.3mm

Operating Force
 A=90gf B=180gf
 C=250gf D=70gf
 E=130gf J=160gf
 G=320gf H=400gf
 I=520gf

Stem Color
 B=Black
 W=White
 R=Red
 D=Dark Gray
 N=Brown
 S=Salmon

Internal Dot Mark
 □=Standard Lifetime
 1=High Lifetime
 2=Brass Cover
 3=High Lifetime & Brass Cover
 4=PET Cover
 5=High Lifetime & PET Cover
 6=Plastic Fits UL94V-0
 7=High Lifetime&Plastic Fits UL94V-0
 8=Non-Rotating stem
 9=Push No Sound

Package Style
 B=Bulk R=Reel

Serial Number
 04=standard
 25=With Earth Terminal

Specification

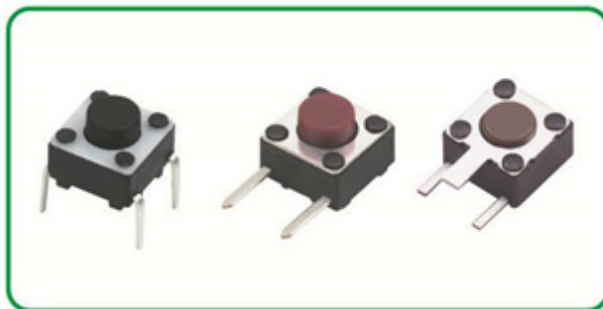
Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	A:D:300,000 Cycles E:J:C:100,000 Cycles G:H:50,000 Cycles
Mechanical performance	Operating force	A:90gf J:160gf C:250gf D:70gf E:130gf G:320gf H:400gf I:520gf
	Travel	0.25 ± 0.1mm

Diagram

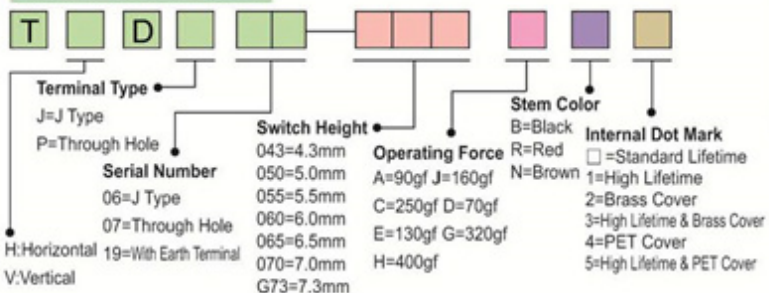
No.	Dimensions	Circuit Diagram Pad Layout
1	<p>● TVDM04</p>	
2	<p>● TVDM04-G73</p>	
3	<p>● TVDM25</p>	

6x6 SERIES

6.0x6.0 Other Terminal Shape Tact Switch



HOW TO ORDER



TACT SWITCH

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	A:D:300,000 Cycles J:E:F:C:100,000 Cycles G:H:50,000 Cycles
Mechanical performance	Operating force	A:90gf D:70gf J:160gf E:130gf C:250gf G:320gf H:400gf
	Travel	0.25 ± 0.1mm

Diagram

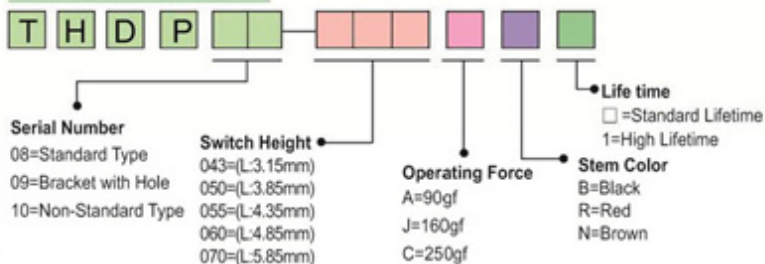
No.	Dimensions	Circuit Diagram														
		Pad Layout														
1	<div><div>● TVDJ06</div><div><table><thead><tr><th>H</th><th>A</th></tr></thead><tbody><tr><td>4.3</td><td>φ3.5</td></tr><tr><td>5.0</td><td>φ3.4</td></tr><tr><td>5.5</td><td>φ3.4</td></tr><tr><td>6.0</td><td>φ3.3</td></tr><tr><td>6.5</td><td>φ3.3</td></tr><tr><td>7.0</td><td>φ3.3</td></tr></tbody></table></div></div>	H	A	4.3	φ3.5	5.0	φ3.4	5.5	φ3.4	6.0	φ3.3	6.5	φ3.3	7.0	φ3.3	
H	A															
4.3	φ3.5															
5.0	φ3.4															
5.5	φ3.4															
6.0	φ3.3															
6.5	φ3.3															
7.0	φ3.3															

6x6 SERIES

6.0x6.0 Bracket Shape Type Tact Switch



HOW TO ORDER



Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	A:300,000 Cycles J: C:100,000 Cycles
Mechanical performance	Operating force	A:90gf J:160gf C:250gf
	Travel	0.25 ± 0.1mm

Diagram

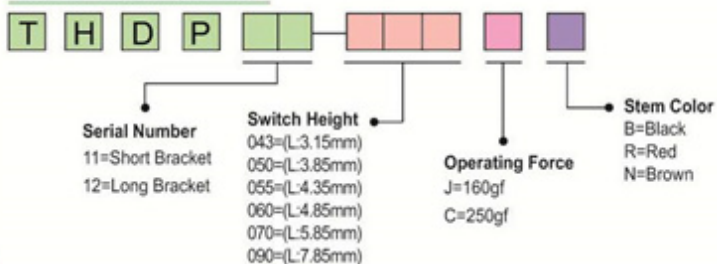
No.	Dimensions		Circuit Diagram Pad Layout											
1	<p>● THDP08</p> <table><tr><th>L</th><th>A</th></tr><tr><td>3.15</td><td>3.5</td></tr><tr><td>3.85</td><td>3.5</td></tr><tr><td>5.85</td><td>3.3</td></tr><tr><td>8.35</td><td>3</td></tr><tr><td>15.85</td><td>3</td></tr></table>	L	A	3.15	3.5	3.85	3.5	5.85	3.3	8.35	3	15.85	3	
L	A													
3.15	3.5													
3.85	3.5													
5.85	3.3													
8.35	3													
15.85	3													
2	<p>● THDP09</p> <table><tr><th>L</th><th>A</th></tr><tr><td>3.15</td><td>3.5</td></tr><tr><td>3.85</td><td>3.5</td></tr><tr><td>5.85</td><td>3.3</td></tr><tr><td>8.35</td><td>3</td></tr><tr><td>15.85</td><td>3</td></tr></table>	L	A	3.15	3.5	3.85	3.5	5.85	3.3	8.35	3	15.85	3	
L	A													
3.15	3.5													
3.85	3.5													
5.85	3.3													
8.35	3													
15.85	3													
3	<p>● THDP10</p> <table><tr><th>L</th><th>A</th></tr><tr><td>3.15</td><td>3.5</td></tr><tr><td>3.85</td><td>3.5</td></tr><tr><td>5.85</td><td>3.3</td></tr><tr><td>8.35</td><td>3</td></tr><tr><td>15.85</td><td>3</td></tr></table>	L	A	3.15	3.5	3.85	3.5	5.85	3.3	8.35	3	15.85	3	
L	A													
3.15	3.5													
3.85	3.5													
5.85	3.3													
8.35	3													
15.85	3													

6x6 SERIES

6.0x6.0 Other Bracket Shape Type Tact Switch



HOW TO ORDER



Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	J:C:100,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.25 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram Pad Layout													
1	<div><div>● THDP11</div><div></div></div>	<table><tr><th>L</th><th>A</th></tr><tr><td>3.15</td><td>3.5</td></tr><tr><td>3.85</td><td>3.5</td></tr><tr><td>5.85</td><td>3.3</td></tr><tr><td>8.35</td><td>3</td></tr><tr><td>15.85</td><td>3</td></tr></table>	L	A	3.15	3.5	3.85	3.5	5.85	3.3	8.35	3	15.85	3	<div></div>
	L	A													
3.15	3.5														
3.85	3.5														
5.85	3.3														
8.35	3														
15.85	3														
2	<div><div>● THDP12</div><div></div></div>	<table><tr><th>L</th><th>A</th></tr><tr><td>3.15</td><td>3.5</td></tr><tr><td>3.85</td><td>3.5</td></tr><tr><td>5.85</td><td>3.3</td></tr><tr><td>8.35</td><td>3</td></tr><tr><td>15.85</td><td>3</td></tr></table>	L	A	3.15	3.5	3.85	3.5	5.85	3.3	8.35	3	15.85	3	<div></div>
	L	A													
3.15	3.5														
3.85	3.5														
5.85	3.3														
8.35	3														
15.85	3														

6x6 SERIES

6.0x6.0 SMT & Bracket Shape Type Tact Switch



HOW TO ORDER

T H D M 1 3

Attach Characteristics

A: Cover with pilot of 3.0mm
B: Cover with pilot of 1.3mm

Switch Height

043=(L:3.15mm)
050=(L:3.85mm)
055=(L:4.35mm)
060=(L:4.85mm)
065=(L:5.35mm)
070=(L:5.85mm)

Operating Force

A=90gf
J=160gf
C=250gf

Stem Color

B=Black
R=Red
D=Dark Gray

Internal Dot Mark

□ = Standard

Package Style

B=Bulk R=Reel

Specification

Items		Standard
Operating temperature range		-30 °C to +85 °C
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	A:300,000 Cycles J:C:100,000 Cycles
Mechanical performance	Operating force	A:90gf J:160gf C:250gf
	Travel	0.25 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram Pad Layout																						
1	<div>● THDM13</div> <div></div>	<table><tr><th>L</th><th>A</th><th>B</th></tr><tr><td>3.15</td><td>3.5</td><td>1.3</td></tr><tr><td>3.85</td><td>3.5</td><td>3.0</td></tr><tr><td>4.35</td><td>3.3</td><td></td></tr><tr><td>4.85</td><td>3.3</td><td></td></tr><tr><td>5.35</td><td>3.3</td><td></td></tr><tr><td>5.85</td><td>3.3</td><td></td></tr></table>	L	A	B	3.15	3.5	1.3	3.85	3.5	3.0	4.35	3.3		4.85	3.3		5.35	3.3		5.85	3.3		<div></div> <div>CIRCUIT DIAGRAM</div> <div></div> <div>P.C.B LAND DIMENSION</div>
		L	A	B																				
		3.15	3.5	1.3																				
		3.85	3.5	3.0																				
		4.35	3.3																					
		4.85	3.3																					
		5.35	3.3																					
5.85	3.3																							

6x6 SERIES

6.0x6.0 Radial Taping Type Tact Switch



HOW TO ORDER



Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min, 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	A:300,000 Cycles J:C:100,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.25 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram
		Pad Layout
1	<p>● THDT14</p>	
2	<p>● THDP15</p>	
3	<p>● THDP16</p>	

6x6 SERIES

6.0x6.0 Radial Taping Type Tact Switch



HOW TO ORDER

TVDT17

Terminal Length
☐ =Standard Terminal
 A=3.5mm
 B=4.5mm
 C=5.5mm
 D=4.0mm

Switch Height
 043=4.3mm
 050=5.0mm
 055=5.5mm
 060=6.0mm
 065=6.5mm
 070=7.0mm

Operating Force
 A=90gf
 B=160gf
 C=250gf
 E=130gf

Stem Color
 B=Black
 W=White
 R=Red
 N=Brown

Package Style
 B=Bulk T=Paper Tape

Internal Dot Mark
☐ =Standard Life time
 1=High Lifetime
 2=Brass Cover
 3=High Lifetime & Brass Cover
 4=PET Cover
 5=High Lifetime & PET Cover

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	A:300,000 Cycles E:J:C:100,000 Cycles
Mechanical performance	Operating force	A:90gf J:160gf C:250gf E=130gf
	Travel	0.25 ± 0.1mm

Diagram

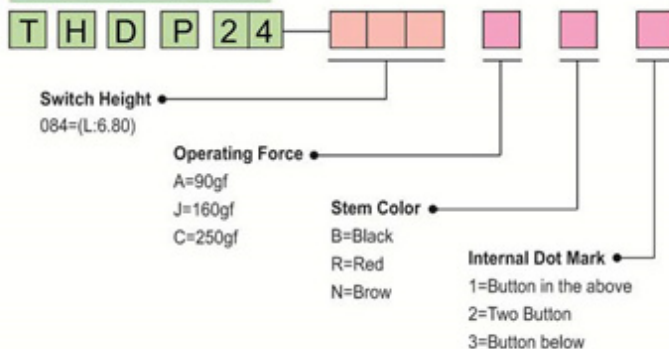
No.	Dimensions	Circuit Diagram Pad Layout													
1	● TVDT17	<table><tr><th>H</th><th>A</th></tr><tr><td>4.3</td><td>3.5</td></tr><tr><td>5.0</td><td>3.5</td></tr><tr><td>7.0</td><td>3.3</td></tr><tr><td>7.3</td><td>3.3</td></tr><tr><td>9.5</td><td>3.0</td></tr></table>	H	A	4.3	3.5	5.0	3.5	7.0	3.3	7.3	3.3	9.5	3.0	
			H	A											
			4.3	3.5											
			5.0	3.5											
			7.0	3.3											
			7.3	3.3											
9.5	3.0														

6x6 SERIES

9.1x7.3 Multiple Type Tact Switch



HOW TO ORDER



Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	100,000 Cycles min
Mechanical performance	Operating force	A:90gf J:160gf C:250gf
	Travel	0.20 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram Pad Layout
1	<p>● THDP24</p>	

6x6 SERIES

6.0x6.0 Long Travel Tact Switch



New

HOW TO ORDER

T V D U 21

0 5 0



Switch Height
050=5.0mm

Operating Force
C=250gf
J=160gf

Package Style
B=Bulk
R=Reel

TACT SWITCH

Specification

Items		Standard
Operating temperature range		-40℃ to +85℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	J:C:100,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	1.30 ± 0.1mm

Diagram

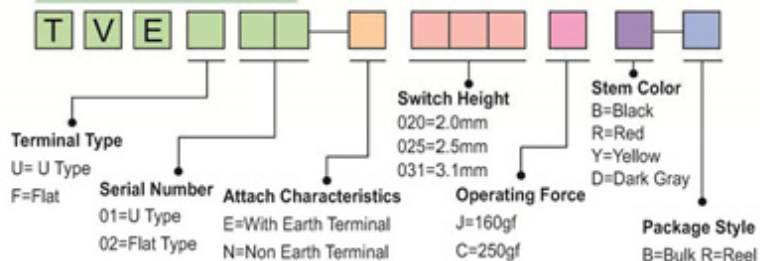
No.	Dimensions	Circuit Diagram
		Pad Layout
1	<p>● TVDU21</p>	

6.2x6.2 SERIES

6.2x6.2 Flat & U-Type Terminals Type Tact Switch



HOW TO ORDER



Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	J:500,000 Cycles C:300,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.25 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram Pad Layout
1	<p>● TVEU01</p> <p>H 3.1 2.5 2.0</p>	
2	<p>● TVEF02</p> <p>H 3.1 2.5 2.0</p>	

6.2x6.2 SERIES

6.2x6.2 Dust-Proof Type Tact Switch



HOW TO ORDER

T V E M 04

Attach Characteristics

E=With Earth Terminal
N=Non Earth Terminal

Switch Height
031=3.1mm
050=5.0mm

Operating Force
J=160gf
C=250gf

Stem Color
B=Black
R=Red
G=Green
U=Blue

Package Style
B=Bulk R=Reel

TACT SWITCH

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	J:500,000 Cycles C:300,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.25 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram	
		Pad Layout	
1	<p>● TVEM04</p>		

6.2x6.2 SERIES

6.2x6.2 SMT Terminals Type Tact Switch



HOW TO ORDER

T V E M 0 5

Attach Characteristics
E=With Earth Terminal
N=Non Earth Terminal

Switch Height
025=2.5mm
031=3.1mm
034=3.4mm

Operating Force
A=90gf J=160gf
C=250gf D=70gf

Stem Color
B=Black
R=Red

Package Style
B=Bulk
R=Reel

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	A:J:C:D:100,000 Cycles
Mechanical performance	Operating force	A:90gf J:160gf C:250gf D:70gf
	Travel	0.25 ± 0.1mm

Diagram

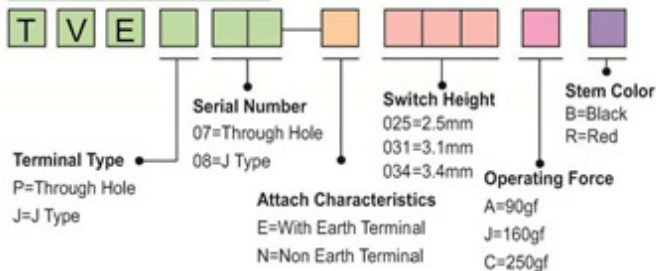
No.	Dimensions	Circuit Diagram Pad Layout
1	<p>● TVEM05-N</p> <p>H 3.4 3.1 2.5</p>	
2	<p>● TVEM05-E</p> <p>H 3.4 3.1 2.5</p>	

6.2x6.2 SERIES

6.2x6.2 Through Hole Terminals Type Tact Switch



HOW TO ORDER



Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	A:J:C=100,000 Cycles
Mechanical performance	Operating force	A:90gf J:160gf C:250gf
	Travel	0.25 ± 0.1mm

Diagram

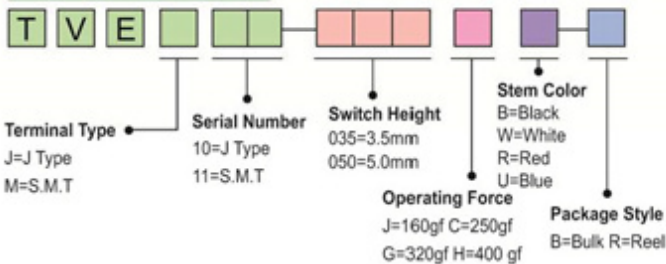
No.	Dimensions	Circuit Diagram	
		Pad Layout	
1	<p>● TVEP07</p>	<p>H</p> <p>3.4</p> <p>3.1</p> <p>2.5</p>	
2	<p>● TVEJ08</p>	<p>H</p> <p>3.4</p> <p>3.1</p> <p>2.5</p>	

6.2x6.2 SERIES

6.2x6.2 With Middle-travel (SMT) Type Tact Switch



HOW TO ORDER



Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	J:C:200,000 Cycles G:H:100,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf G:320gf H:400gf
	Travel	0.35 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram Pad Layout
1	<p>● TVEJ10</p>	
2	<p>● TVEM11</p>	

6.2x6.2 SERIES

6.2x6.2 (J SMT) Series With Washable Type Tact Switch



HOW TO ORDER

T V E J 1 2

Attach Characteristics

E=With Earth Terminal
N=Non Earth Terminal

Switch Height

023=2.3mm
031=3.1mm
035=3.5mm
038=3.8mm
045=4.5mm
052=5.2mm

Operating Force

J=160gf
C=250gf

Stem Color

B=Black
R=Red
G=Green
U=Blue
N=Brown

Package Style

B=Bulk R=Reel

TACT SWITCH

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	J:200,000 Cycles C:100,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.25 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram Pad Layout
1	<p>● TVEJ12-□ 031</p>	
2	<p>● TVEJ12-□ 052</p>	
3	<p>● TVEJ12-□ 023</p>	

12x12 SERIES

12.0x12.0 Flat Stem With Stable Operation Feeling Tact Switch



TACT SWITCH

HOW TO ORDER

TVGP01

Attach Characteristics

A=Base With Pilot

□=Non Pilot

Switch Height

043=4.3mm

050=5.0mm

060=6.0mm

070=7.0mm

G73=7.3mm(Square)

Operating Force

J=160gf

C=250gf

Stem Color

B=Black

R=Red

Y=Yellow

N=Brown

Internal Dot Mark

□=Standard Lifetime

1=High Lifetime

2=Brass cover

3=High Lifetime&Brass

Cover

4=PET Cover

5=High Lifetime &

PET Cover

6=Base Without Slot

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	J:200,000 Cycles C:100,000 Cycles
	Operating force	J:160gf C:250gf
Mechanical performance	Travel	0.35 ± 0.1mm

Diagram

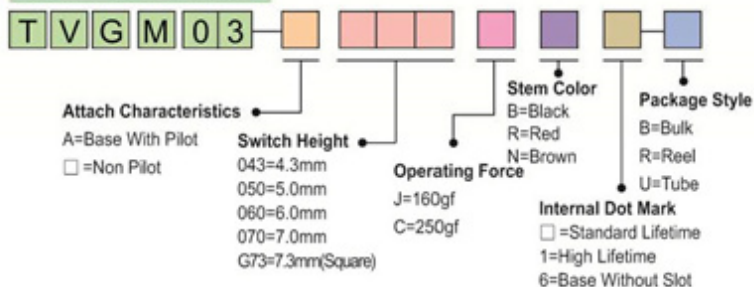
No.	Dimensions	Circuit Diagram	
		Pad Layout	
1	<p>● TVGP01</p>		
2	<p>● TVGP01-□ G73</p>		
3	<p>● TVGP01-A</p>		

12x12 SERIES

12.0x12.0 Flat Stem With Stable Operation Feeling Tact Switch



HOW TO ORDER



TACT SWITCH

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA. 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	J:200,000 Cycles C:100,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.35 ± 0.1mm

Diagram

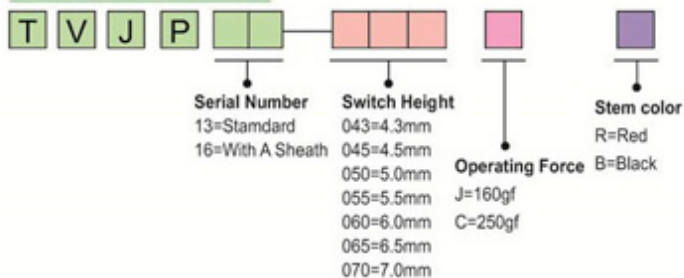
No.	Dimensions	Circuit Diagram Pad Layout	
1	<p>● TVGM03</p>		

WASHABLE SERIES

6.0x6.0 Washable Tact Switch



HOW TO ORDER



Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	J:C:100,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.25 ± 0.1mm

Diagram

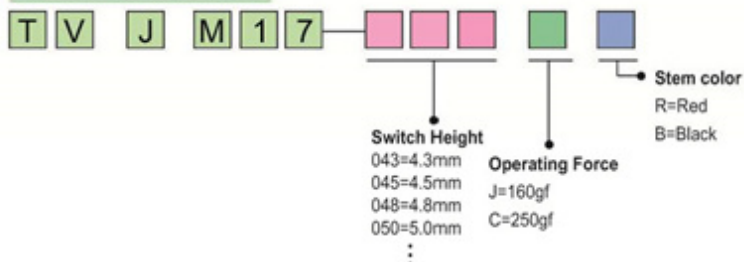
No.	Dimensions	Circuit Diagram Pad Layout
1	<p>● TVJP13</p>	
2	<p>● TVJP16</p>	

WATERPROOF SERIES

6.0x6.0 Washable Tact Switch



HOW TO ORDER



TACT SWITCH

Specification

Items		Standard
Operating temperature range		-25℃ to +85℃
Electrical performance	Rating	100mA, 30V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	AC500V(50Hz) for 1 min.
	Contact resistance	50mΩ max.
Durability	Lifetime	J:C:100,000 Cycles
Mechanical performance	Operating force	J:160gf C:250g
	Travel	0.25 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram Pad Layout	
1	<p>● TVJM17</p>		

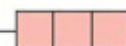
WASHABLE SERIES

8.0x8.0 Washable Tact Switch



HOW TO ORDER

T V J P 1 4



Switch Height

065=6.5mm

070=7.0mm

075=7.5mm

080=8.0mm

085=8.5mm



Operating Force

J=160gf

C=250gf

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	J:C:100,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.25 ± 0.1mm

Diagram

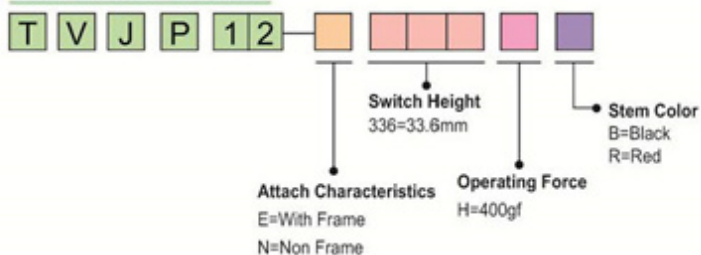
No.	Dimensions	Circuit Diagram Pad Layout	
1	<p>● TVJP14</p>		

WASHABLE SERIES

10.0x10.0 Washable Tact Switch



HOW TO ORDER



Specification

Items		Standard	Items		Standard
Operating temperature range		-20℃ to +70℃	Durability	Lifetime	100,000 Cycles Min
Electrical performance	Rating	50mA, 12V DC	Mechanical performance	Operating force	H:400gf ± 70gf
	Insulation resistance	100MΩ min. 100V DC		Travel	0.40 ± 0.2mm
	Dielectric strength	250V AC for 1 min.			
	Contact resistance	100mΩ max.			

Water Resisting Performance

Items	Model	Vertical type	Horizontal type
Temperature of water		60℃	60℃
Depth of water		10cm	10cm
Immersion duration		240h	1h

Diagram

No.	Dimensions	Circuit Diagram
		Pad Layout
1	<p>● TVJP12-N</p>	
2	<p>● TVJP12-E</p>	

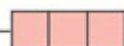
WASHABLE SERIES

10.0x10.0 Washable Tact Switch



HOW TO ORDER

T V J P 1 1



Switch Height
130=13.0mm
150=15.0mm
232=23.2mm



Stem Color
B=Black
R=Red

Operating Force
J=160gf
C=250gf

TACT SWITCH

Specification

Items		Standard
Operating temperature range		-40℃ to +90℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	500mΩ max.
Durability	Lifetime	100,000 Cycles Min
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.30 ± 0.1mm

Water Resisting Performance

Temperature of water	60℃
Depth of water	10cm
Immersion duration	240h

Diagram

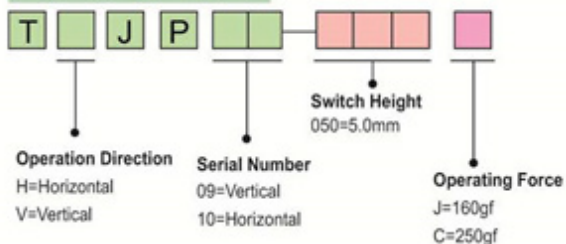
No.	Dimensions	Circuit Diagram Pad Layout										
1	● TVJP11	<table><tr><th>H</th><th>A</th></tr><tr><td>13</td><td>3.8</td></tr><tr><td>15</td><td>3.5</td></tr><tr><td>23.2</td><td>3.5</td></tr></table>	H	A	13	3.8	15	3.5	23.2	3.5		
			H	A								
			13	3.8								
			15	3.5								
23.2	3.5											

WASHABLE SERIES

10.0x10.0 Washable Tact Switch



HOW TO ORDER



Specification

Items		Standard	Items		Standard
Operating temperature range		-40℃ to +90℃	Durability	Lifetime	100,000 Cycles Min
Electrical performance	Rating	50mA, 12V DC	Mechanical performance	Operating force	J:160gf C:250gf
	Insulation resistance	100MΩ min. 100V DC		Travel	0.30 ± 0.1mm
	Dielectric strength	250V AC for 1 min.			
	Contact resistance	500mΩ max.			

Water Resisting Performance

Items	Model	Vertical type	Horizontal type
Temperature of water		60℃	60℃
Depth of water		10cm	10cm
Immersion duration		240h	1h

Diagram

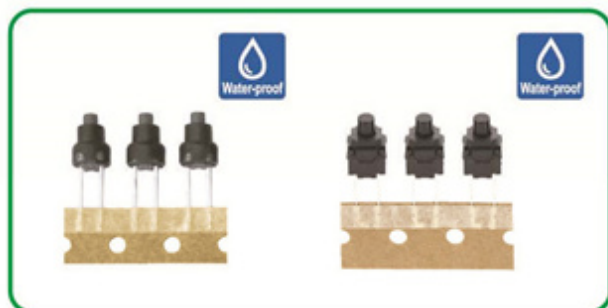
No.	Dimensions	Circuit Diagram
		Pad Layout
1	<p>● TVJP09</p>	

WASHABLE SERIES

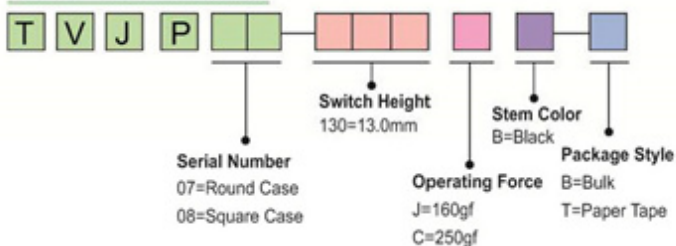
8.0x8.0 Washable Tact Switch



TACT SWITCH



HOW TO ORDER



Specification

Items		Standard
Operating temperature range		-40℃ to +90℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.

Items		Standard
Durability	Lifetime	100,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.25 ± 0.1mm

Water Resisting Performance

Temperature of water	60℃
Depth of water	10cm
Immersion duration	240h

Diagram

No.	Dimensions	Circuit Diagram
		Pad Layout
1	<p>● TVJP07</p>	
2	<p>● TVJP08</p>	

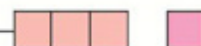
WASHABLE SERIES

12x12 Washable Tact Switch



HOW TO ORDER

T V J P 1 5



Switch Height

065=6.5mm

070=7.0mm

075=7.5mm

080=8.0mm

085=8.5mm

Operating Force

J=160gf

C=250gf

TACT SWITCH

Specification

Items		Standard
Operating temperature range		-30℃ to +85℃
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	J:C:100,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.25 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram Pad Layout	
1	<div>● TVJP15</div> <div></div> <div></div> <div></div>	H	
		6.5	
		7.0	
		7.5	
		8.0	
		8.5	
		9.0	
		9.5	
		10.0	
		11.0	
12.0			



ISO 14001 ISO 9001

工厂地址：浙江省乐清市虹桥镇下沿工业区

Factory Add: Xiayan Industrial Zone, Hongqiao Town, Yueqing City, Zhejiang

电话/Tel: +86-577-62338899

传真/Fax: +86-577-62337988

E-mail: kejian@kjele.com

Http: //www.kjele.com

宁波办事处(Ningbo Office)

地址：宁波市海曙区马园路 262 号马园大厦 906 室

Add: Room 906, Mayuan Building, No.262, Mayuan Road, Haishu District, Ningbo

电话/Tel: +86-574-87680185

传真/Fax: +86-574-87680183

台湾办事处(Taiwan Office)

地址：242 新北市新庄区新北大道三段 5 号 13 楼之 5

Add: 13F.-5, No.5, Sec. 3, New Taipei Blvd, Xinzhuang Dist, New Taipei City 242, Taiwan

电话/Tel: +886 2 7716-1199

传真/Fax: +886 2 7716-2333

