



VERSION 1.0

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 OPPM-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



检验



连带电镀



自动组装



连带注塑



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

T V A U 2 5



• Package Style
B=Bulk
R=Reel

• Attach Characteristics
H=With stem
N=Non stem

• Operating Force
J=160gf
C=250gf

TACT SWITCH

Specification

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

Diagram

No.	Dimensions	Circuit Diagram
		Pad Layout
1	<p>• TVAU25</p> <p>Dimensions (mm):</p> <ul style="list-style-type: none"> Top View: 3 ± 0.1 (width), 1.3 (height), 2.1 ± 0.1 (depth) Side View: 0.7 ± 0.1 (height), 0.07 (stem height) Cross-Sectional View: 0.1 ± 0.05 (stem thickness), 0.5 (stem height), 3.5 ± 0.1 (total width) <p>Pad Layout:</p>	

MINI SERIES

2.7x3.0 Miniature Type Vertical Push Tact Switch



HOW TO ORDER

T V A U 1 9



• Package Style
B=Bulk
R=Reel

• Operating Force
J=160gf
C=250gf

• Attach Characteristics
H=With stem
N=Non stem

Specification

Items	Standard
Operating temperature range	-30°C to +85°C
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		
2		

MINI SERIES



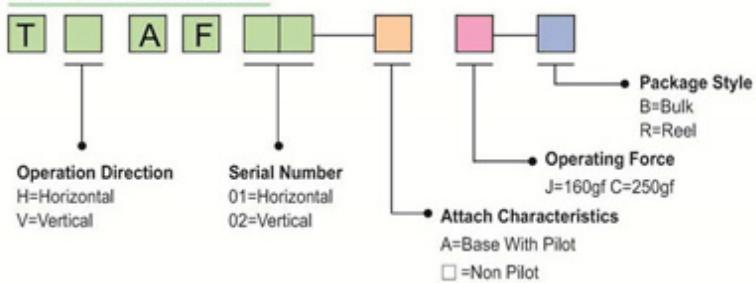
A green circular logo with the text "RoHS Compliant" and a small leaf icon.



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



HOW TO ORDER

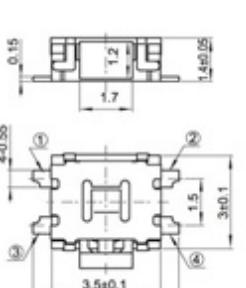
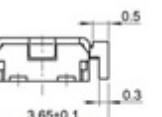
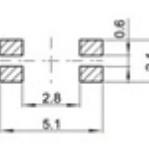
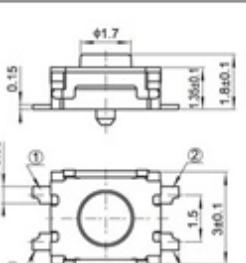
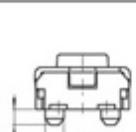
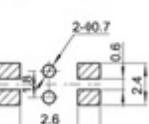


TACT SWITCH

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	100,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.13 ± 0.05mm

Diagram

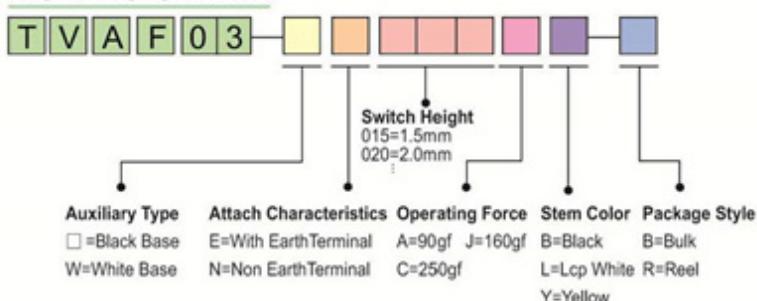
No.	Dimensions	Circuit Diagram Pad Layout	
		Pad Layout	Circuit Diagram
1	<p>● THAF01</p>  	 	
2	<p>● TVAF02</p>  	 	

MINI SERIES

3.3x3.3 Miniature Type Tact Switch



HOW TO ORDER



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	100,000 Cycles
Mechanical performance	Operating force	A:90gf J:160gf C:250gf
	Travel	0.20 ± 0.1mm

Diagram

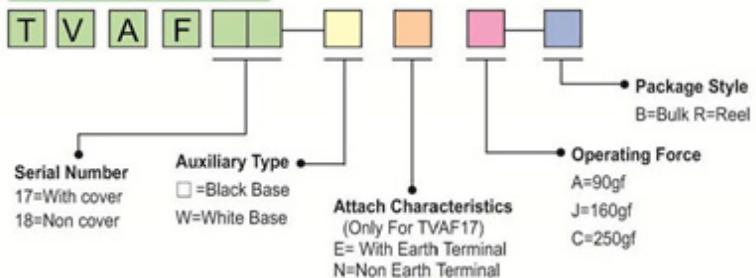
No.	Dimensions	Circuit Diagram
		Pad Layout
1	<p>TVAF03</p> <p>Dimensions (mm):</p> <ul style="list-style-type: none"> Base thickness: 0.15 Base width: 3.95±0.05 Base height: 1.2 Base thickness: 0.05 Switch height: H (1.5 or 2.0) Switch width: 1.8 Switch height: 0.3 Switch thickness: 0.85 <p>Front view dimensions (mm):</p> <ul style="list-style-type: none"> Base width: 3.35±0.1 Base height: 3.1 Base thickness: 3.1 Base thickness: 4.0±0.1 Switch width: 3.1 Switch height: 3.1 Switch thickness: 3.35±0.1 <p>Cross-sectional view dimensions (mm):</p> <ul style="list-style-type: none"> Base thickness: 0.15 Base width: 3.95±0.05 Base height: 1.2 Base thickness: 0.05 Switch height: H (1.5 or 2.0) Switch width: 1.8 Switch height: 0.3 Switch thickness: 0.85 	<p>Circuit Diagram:</p> <p>Pad Layout:</p> <p>Pad layout dimensions (mm):</p> <ul style="list-style-type: none"> Base width: 5 Base height: 3.5 Base thickness: 2.5 Switch width: 2 Switch height: 3 Switch thickness: 0.7 Ground terminal width: 0.7 Ground terminal height: 4.07

MINI SERIES

3.3x3.3 Miniature Type Tact Switch



HOW TO ORDER



TACT SWITCH

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 100,000 Cycles
Mechanical performance	Operating force A:90gf J:160gf C:250gf
	Travel 0.20 ± 0.1mm

Diagram

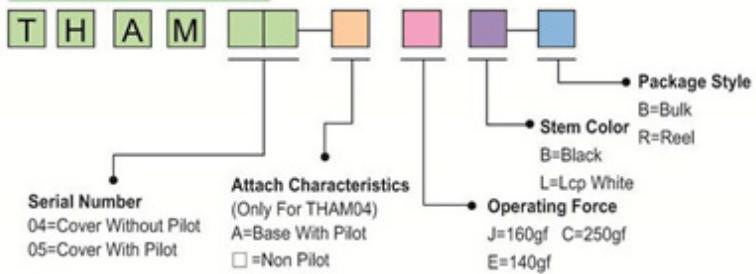
No.	Dimensions	Circuit Diagram
		Pad Layout
1	<p>● TVAF17</p>	
2	<p>● TVAF18</p>	

MINI SERIES

2.3x4.6 Miniature Type Tact Switch



HOW TO ORDER



Specification

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

• Package Style
B=Bulk
R=Reel

• Stem Color

B=Black

L=Lcp White

• Operating Force

J=160gf

C=250gf

E=140gf

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

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

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 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

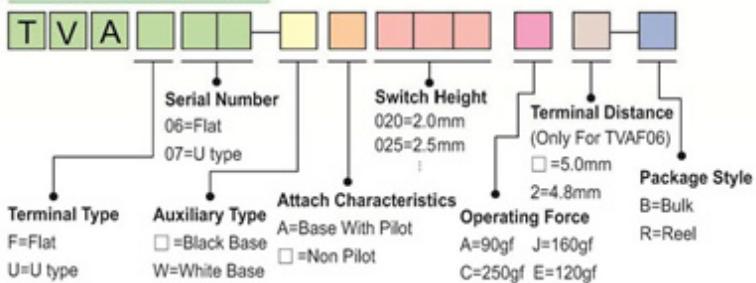
No.	Dimensions	Circuit Diagram Pad Layout
1	<p>● THAM15</p>	
2	<p>● THAM21</p>	

MINI SERIES

2.9x3.9 Miniature Type Vertical Push Tact Switch



HOW TO ORDER



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	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	TVAF06 <table border="1" style="margin-left: 20px;"> <tr><td>H</td><td>1.5</td></tr> <tr><td></td><td>2.0</td></tr> <tr><td></td><td>2.5</td></tr> <tr><td></td><td>3.0</td></tr> </table>	H	1.5		2.0		2.5		3.0		
H	1.5										
	2.0										
	2.5										
	3.0										
2	TVAU07 <table border="1" style="margin-left: 20px;"> <tr><td>H</td><td>1.5</td></tr> <tr><td></td><td>2.0</td></tr> <tr><td></td><td>2.5</td></tr> <tr><td></td><td>3.0</td></tr> </table>	H	1.5		2.0		2.5		3.0		
H	1.5										
	2.0										
	2.5										
	3.0										

MINI SERIES

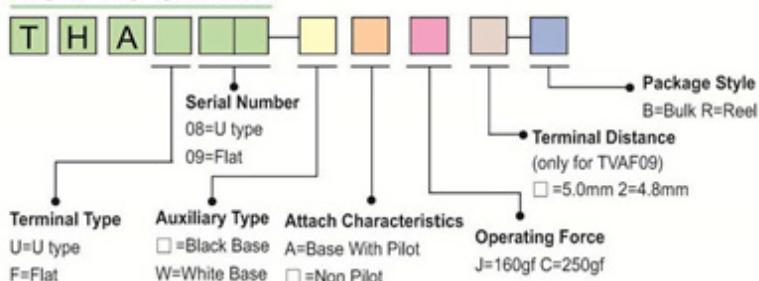
2.9x3.9 Miniature Type Horizontal Push Tact Switch



A green circular logo with the text "RoHS Compliant" and a stylized leaf graphic.



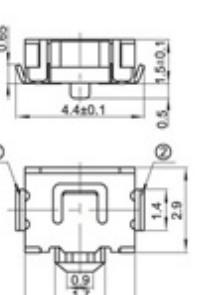
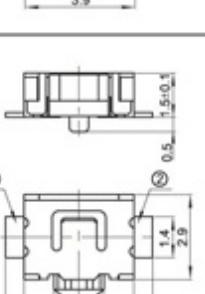
HOW TO ORDER



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	100,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.20 ± 0.1mm

Diagram

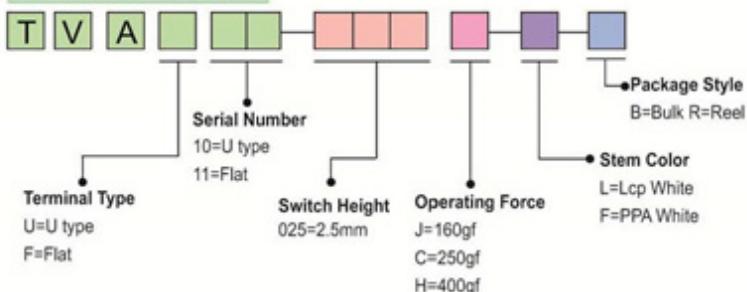
No.	Dimensions	Circuit Diagram
		Pad Layout
1	<p>● THAU08</p> 	
2	<p>● THAF09</p> 	

MINI SERIES

3.2x4.2 Miniature Type Compact High Operating Force Tact Switch



HOW TO ORDER



Specification

Items	Standard
Operating temperature range	-30°C to +85°C
Electrical performance	Rating
	100MΩ min. 100V DC
	Dielectric strength
	500V AC for 1 min.
Durability	Lifetime
Mechanical performance	Operating force
	Travel

Diagram

No.	Dimensions	Circuit Diagram	
		Pad Layout	
1	<p>• TVAU10</p>		
2	<p>• TVAF11</p>		

MINI SERIES

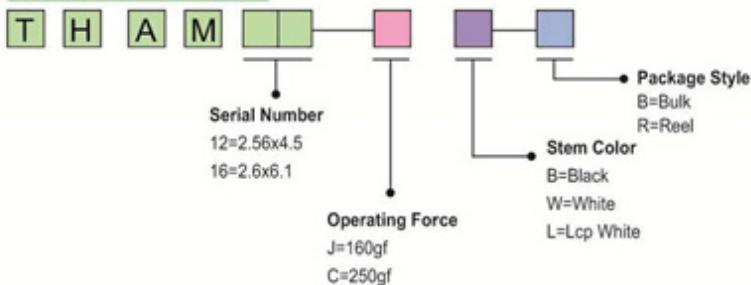
2.56x4.5 Miniature Type Horizontal Push Tact Switch



A green circular logo with the text "RoHS Compliant" and a small leaf icon.



HOW TO ORDER



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	500mΩ max.
Durability	Lifetime	100,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.20 ± 0.1mm

Diagram

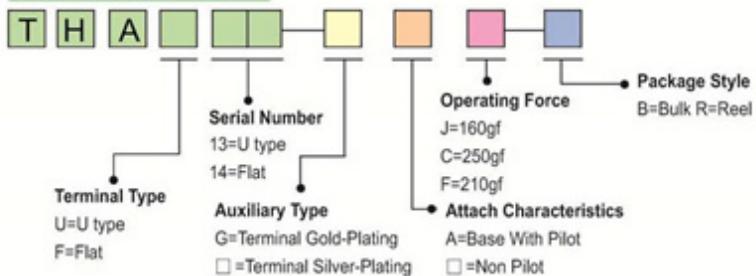
No.	Dimensions	Circuit Diagram Pad Layout
1	<p>● THAM12</p>	
2	<p>● THAM16</p>	

MINI SERIES

3.5x4.7 Horizontal Push Tact Switch



HOW TO ORDER



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	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



HOW TO ORDER

T V A U 22



- Package Style
B=Bulk
R=Reel
- Operating Force
J=160gf
C=250gf
E=130gf

TACT SWITCH

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	100,000 Cycles.
Mechanical performance	Operating force	J:180gf C:250gf E:130gf
	Travel	0.15 ± 0.05

Diagram

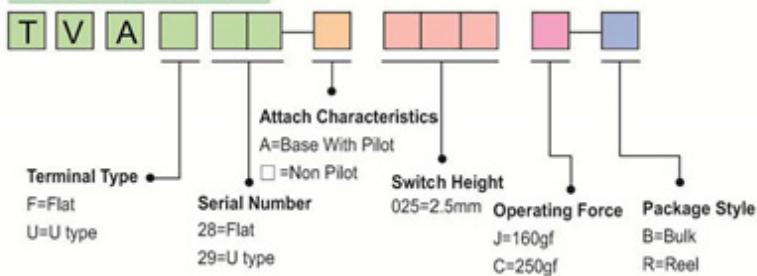
No.	Dimensions	Circuit Diagram
		Pad Layout
1	<p>• TVAU22</p>	

MINI SERIES

3.5x4.7 Vertical Push Tact Switch



HOW TO ORDER



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 50,000 Cycles.
Mechanical performance	Operating force J:160gf C:250gf
	Travel 0.20 ± 0.1mm

Diagram

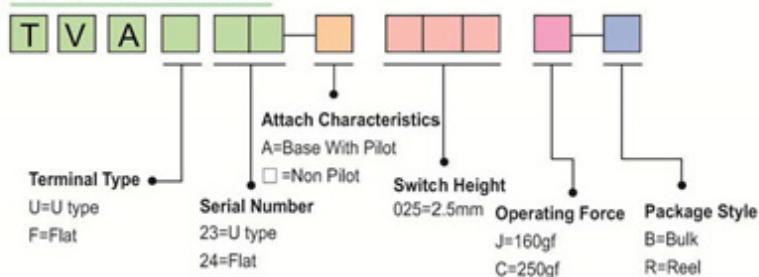
No.	Dimensions	Circuit Diagram
		Pad Layout
1		
2		

MINI SERIES

3.5x4.7 Vertical Push Tact Switch



HOW TO ORDER



TACT SWITCH

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 100,000 Cycles.
Mechanical performance	Operating force J:160gf C:250gf
	Travel 0.20 ± 0.1mm

Diagram

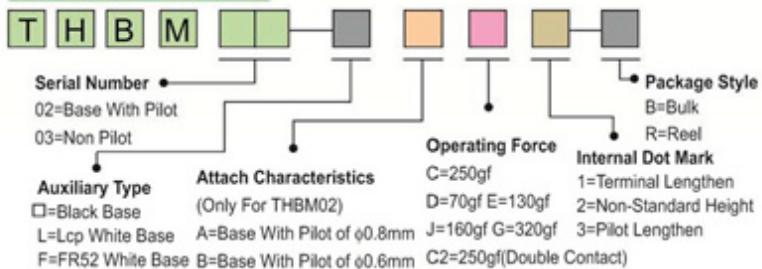
No.	Dimensions	Circuit Diagram
		Pad Layout
1	<p>● TVAU23</p>	
2	<p>● TVAF24</p>	

3x6 SERIES

2.5x7.0 SMT & Right Angle Tact Switch



HOW TO ORDER



Specification

Items	Standard
Operating temperature range	-30°C to +85°C
Electrical performance	Rating
	100MΩ min. 100V DC
	Dielectric strength
	250V AC for 1 min.
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 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram
		Pad Layout
1	<p>● THBM02</p>	
2	<p>● THBM03</p>	

3x6 SERIES

3.5x6.0 Horizontal Push & Bracket Shape Tact Switch



HOW TO ORDER

T H B P

Serial Number

04=Non Bracket
07=With Bracket

Switch Height

043=(L:3.15mm)
050=(L:3.85mm)

Operating Force

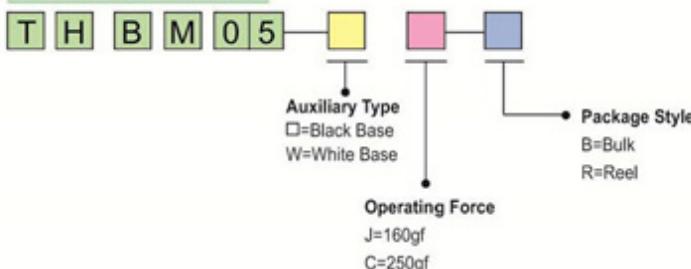
J=160gf
C=250gf
D=70gf
E=130gf

3x6 SERIES

4.0x6.1 Horizontal Push Tact Switch



HOW TO ORDER



Specification

Items	Standard
Operating temperature range	-30°C to +85°C
Electrical performance	Rating
	100MΩ min. 100V DC
	Dielectric strength
	250V AC for 1 min.
Durability	Lifetime
Mechanical performance	Operating force
	Travel

Diagram

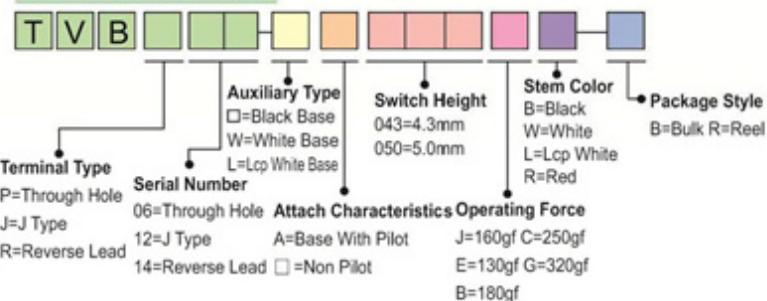
No.	Dimensions	Circuit Diagram
		Pad Layout
1	THBM05 Stem	

3x6 SERIES

3.5x6.0 Vertical Push Tact Switch



HOW TO ORDER



Specification

Items		Standard
Operating temperature range		-20°C to +70°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	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

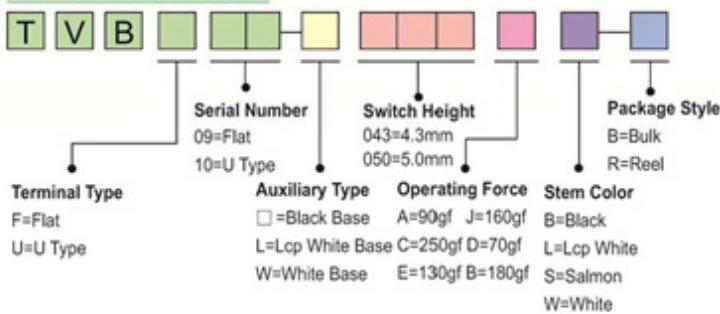
No.	Dimensions	Circuit Diagram Pad Layout	
		Pad Layout	Pad Layout
1	● TVBP06		
2	● TVBJ12		
3	● TVBR14		

3x6 SERIES

3.5x6.0 Vertical Push Tact Switch



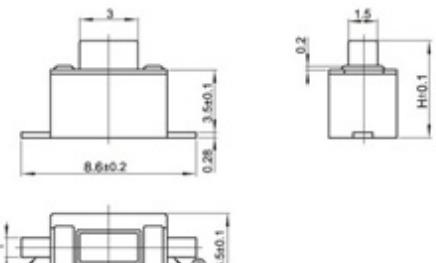
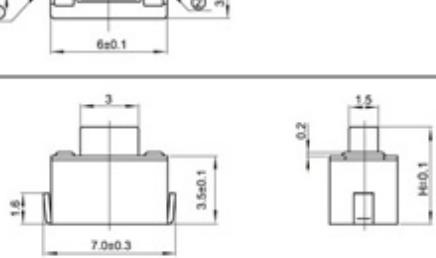
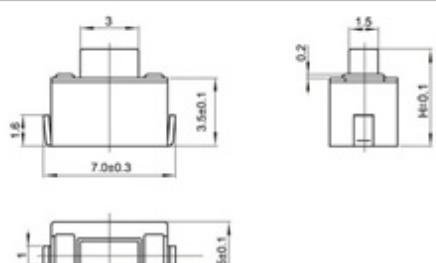
HOW TO ORDER



Specification

Items		Standard
Operating temperature range		-20°C to +70°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: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		
		H	4.3	5.0
1	● TVBF09  	0.2	4.3	5.0
2	● TVBU10  	0.2	4.3	5.0

3x6 SERIES

3.5x6.0 SMT Type Tact Switch

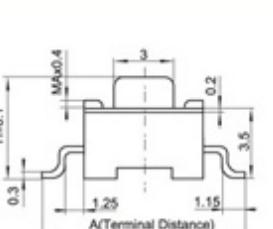


HOW TO ORDER

Specification

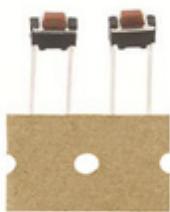
Items		Standard
Operating temperature range		-20°C to +70°C
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	A:D:E:J:50,000 Cycles C:G:30,000 Cycles C2:100,000 Cycles
Mechanical 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													
		H	A												
1	<p>● TVBM11</p>  <p>②</p> <p>①</p> <p>3.5 1.15 1 6 4-R0.3</p> <p>1</p>  <p>H=5.0 Max 0.4 0.1 0.3 0.2 3.5 1.15 1.25 A(Terminal Distance)</p>  	<table border="1"> <tr><td>H</td><td>4.3</td></tr> <tr><td></td><td>5.0</td></tr> <tr><td></td><td>5.0</td></tr> <tr><td>A</td><td>8.2</td></tr> <tr><td></td><td>8.7</td></tr> <tr><td></td><td>10.2</td></tr> </table>	H	4.3		5.0		5.0	A	8.2		8.7		10.2	
H	4.3														
	5.0														
	5.0														
A	8.2														
	8.7														
	10.2														

3x6 SERIES

3.5x6.0 Taping Type Tact Switch



HOW TO ORDER

T

V

B

T

1

6



• Package Style

B=Bulk

T=Paper Tape

• Stem Color

B=Black

W=White

R=Red

D=Dark Gray

Switch Height

043=4.3mm

050=5.0mm

Operating Force

J=160gf

C=250gf

B=180gf

Specification

Items		Standard
Operating temperature range		-20°C to +70°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	J:50,000Cycles C:30,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf B=180gf
	Travel	0.25 ± 0.1mm

Diagram

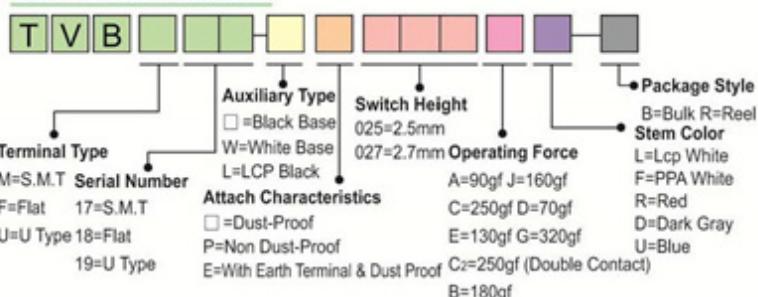
No.	Dimensions	Circuit Diagram
		Pad Layout
1	<p>TVBT16</p>	

3x6 SERIES

3.7x6.1 SMT Type Tact Switch



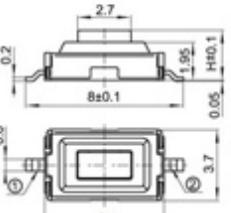
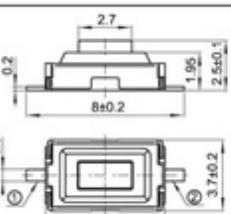
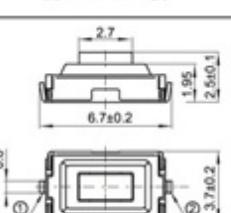
HOW TO ORDER



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:D:E:J:50,000 Cycles 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

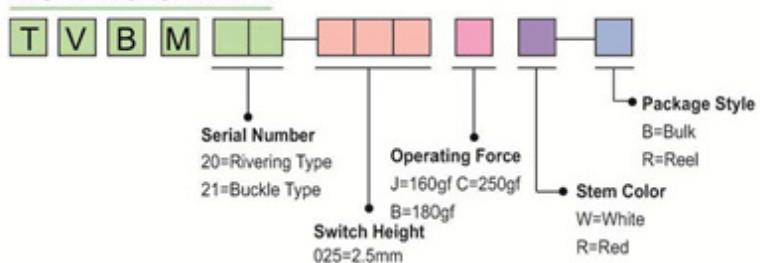
No.	Dimensions	Circuit Diagram Pad Layout		
		Pad Layout	Circuit Diagram	Pad Layout
1	● TVBM17	 		
2	● TVBF18	 		
3	● TVBU19	 		

3x6 SERIES

3.5x6.1 Through Hole & SMT Type Tact Switch



HOW TO ORDER



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	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

T

V

B

F

22



Switch Height
026=2.6mm

Operating Force

J=160gf C=250gf

J2=160gf (Double Contact)

C2=250gf (Double Contact)

• Package Style

B=Bulk

R=Reel

• Stem Color

B=Black

U=Blue

TACT SWITCH

Specification

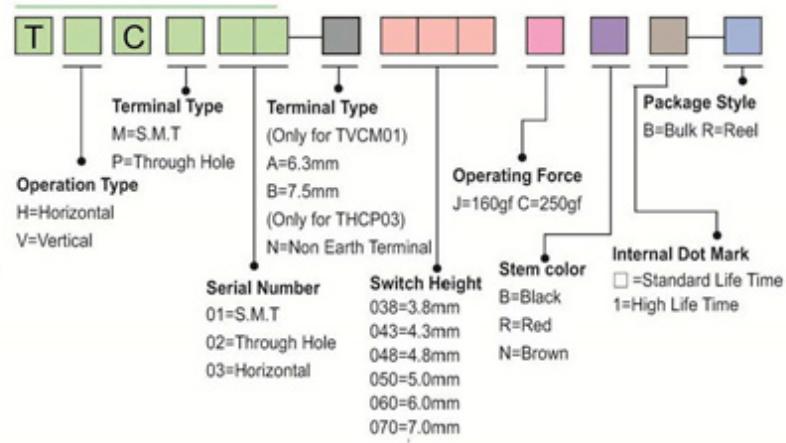
Items		Standard
Operating temperature range		-30°C to +85°C
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	J:50,000 Cycles C:30,000 Cycles J2:C2:100,000 Cycles
Mechanical performance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

Diagram

No.	Dimensions	Circuit Diagram
		Pad Layout
1	<p>TVBF22</p>	

4.5x4.5 SERIES

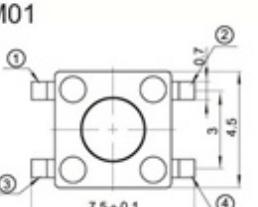
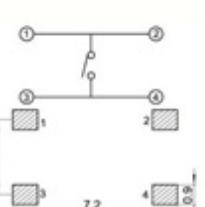
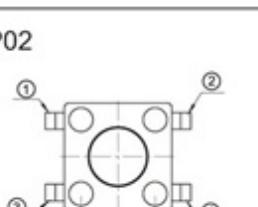
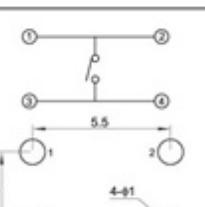
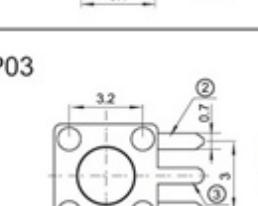
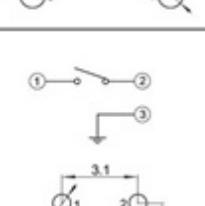
4.5x4.5 Through Hole & SMT Type Tact Switch



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	J:100,000 Cycles C:50,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.25 ± 0.1mm

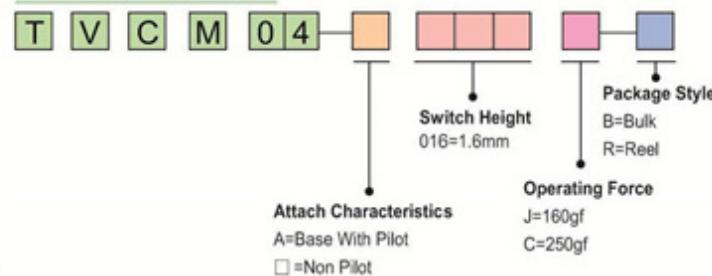
Diagram

No.	Dimensions	Circuit Diagram Pad Layout	
		H	
1	 <p>TVCM01</p> <p>Dimensions:</p> <ul style="list-style-type: none"> Top View: 7.5 ± 0.1 mm width, 4.5 mm height, 3 mm thickness, 0.7 mm lead thickness, 3.0 mm lead spacing. Side View: 4.5 mm width, 4.25 mm height, 0.1 mm height difference, 2.9 mm height from base. Front View: 2.9 mm height, 0.7 mm lead thickness, 0.25 mm lead spacing. 	3.8 4.3 4.8 5.0 6.0 7.0	
2	 <p>TVCP02</p> <p>Dimensions:</p> <ul style="list-style-type: none"> Top View: 3.1 mm width, 4.5 mm height, 3.0 mm thickness, 0.7 mm lead thickness, 0.25 mm lead spacing. Side View: 4.5 mm width, 4.25 mm height, 0.1 mm height difference, 2.9 mm height from base. Front View: 5.5 mm width, 4.5 mm height, 0.25 mm height difference, 0.7 mm lead thickness. 	3.8 4.3 4.8 5.0 6.0 7.0	
3	 <p>THCP03</p> <p>Dimensions:</p> <ul style="list-style-type: none"> Top View: 3.2 mm width, 4.5 mm height, 3.0 mm thickness, 0.7 mm lead thickness, 0.25 mm lead spacing. Side View: 4.5 mm width, 4.25 mm height, 0.1 mm height difference, 1.85 mm height from base. Front View: 2.8 mm height, 4.5 mm width, 0.25 mm height difference. 	L 6.5 7.0 7.5 5.0 6.0 7.0	

4.5x4.5 SERIES



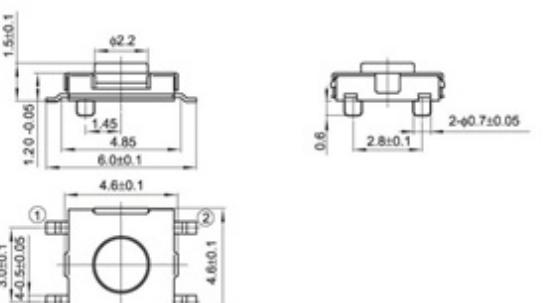
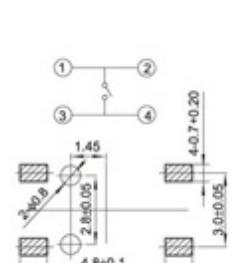
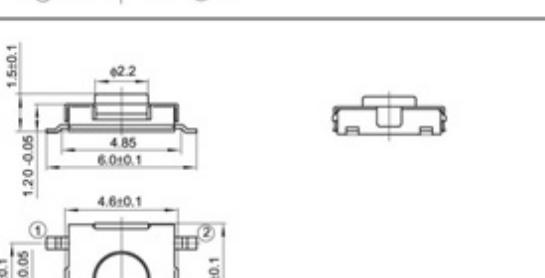
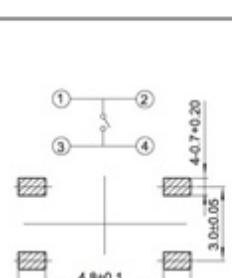
HOW TO ORDER



Specification

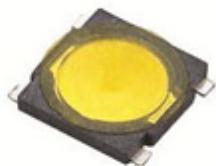
Items		Standard
Operating temperature range		-30°C to +85°C
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min, 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	J:300,000 Cycles C:100,000 Cycles
Mechanical performance	Operating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

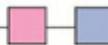
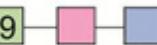
4.5x4.5 SERIES

4.5x4.5 Low-profile SMT Tact Switch



HOW TO ORDER

T V C M 0 9



Operating Force

J=160gf

C=250gf

• Package Style

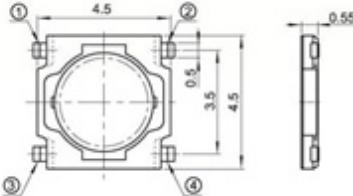
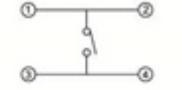
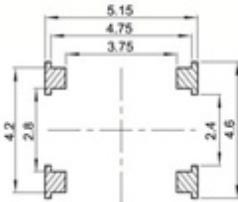
B=Bulk

R=Reel

Specification

Items		Standard
Operating temperature range		-20°C to +70°C
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

Diagram

No.	Dimensions	Circuit Diagram Pad Layout
		Pad Layout
1	• TVCM09 	 

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

TACT SWITCH

Specification

Items	Standard
Operating temperature range	-20°C to +70°C
Electrical performance	Rating
	100MΩ min. 100V DC
	Dielectric strength
	100V AC for 1 min.
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

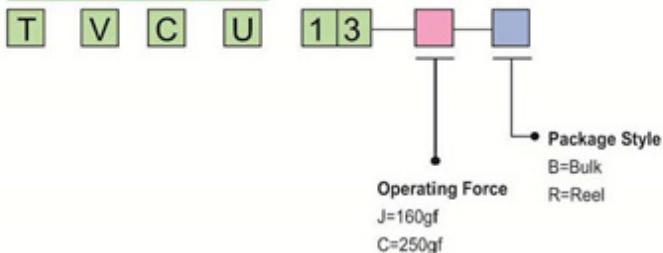
No.	Dimensions	Circuit Diagram
		Pad Layout
1	<p>• TVCU11</p>	
2	<p>• TVCU12</p>	

5.2x5.2 SERIES

4.8x4.8 Low-profile SMT Tact Switch



HOW TO ORDER



Specification

Items		Standard
Operating temperature range		-20°C to +70°C
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	• TVCU13 	

5.2x5.2 SERIES

5.2x5.2 SMT Tact Switch



HOW TO ORDER

T

V

C

M

1

5

0

1

0

8

0

0

0

TACT SWITCH

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

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	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

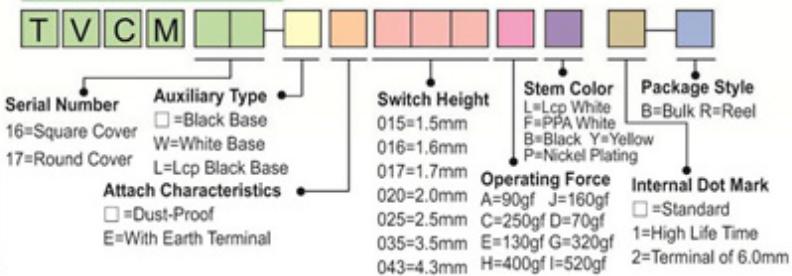
Diagram

No.	Dimensions	Circuit Diagram
		Pad Layout
1	● TVCM15-010	
2	● TVCM15-008	

5.2x5.2 SERIES



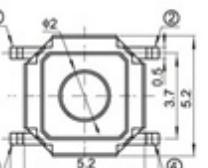
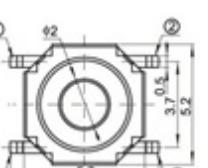
HOW TO ORDER



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: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									
		H									
1	● TVCM16	  	<table border="1"> <tr><td>H</td><td>1.5</td></tr> <tr><td></td><td>1.7</td></tr> <tr><td></td><td>2.0</td></tr> <tr><td>...</td><td></td></tr> </table>	H	1.5		1.7		2.0	...	
H	1.5										
	1.7										
	2.0										
...											
2	● TVCM17	  	<table border="1"> <tr><td>H</td><td>1.5</td></tr> <tr><td></td><td>1.7</td></tr> <tr><td></td><td>2.0</td></tr> <tr><td>...</td><td></td></tr> </table>	H	1.5		1.7		2.0	...	
H	1.5										
	1.7										
	2.0										
...											

5.2x5.2 SERIES

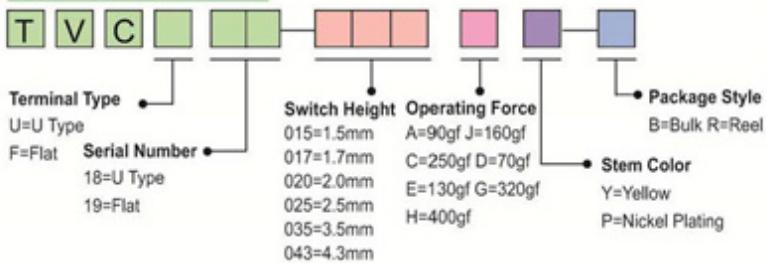
5.2x5.2 With Ground Terminal Tact Switch



A green circular logo with a white leaf icon and the text "RoHS Compliant".



HOW TO ORDER



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:J:D:E:200,000 Cycles C:G:H:100,000 Cycles
Mechanical performance	Operating force	A:90gf J:160gf C:250gf D:70gf E:130gf G:320gf H:400gf
	Travel	0.25 ± 0.1mm

Diagram

6x6 SERIES

6.0x6.0 Through Hole Type Tact Switch



HOW TO ORDER

T V D P [Color] [Color] [Color] [Color] [Color] [Color]

Serial Number	Switch Height	Operating Force	Stem Color	Internal Dot Mark
01=Standard	043=4.3mm	A=90gf	B=180gf	□=Standard Lifetime
02=With Earth Terminal	050=5.0mm	C=250gf	D=70gf	1=High Lifetime
	055=5.5mm	E=130gf	J=160gf	2=Brass Cover
	060=6.0mm	F=210gf	G=320gf	3=High Lifetime & Brass Cover
	065=6.5mm	H=400gf	I=520gf	4=PET Cover
	070=7.0mm			5=High Lifetime & PET Cover
	G73=7.3mm			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°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:D:300,000 Cycles J:E:J:F:C:100,000 G:H:50,000 Cycles
Mechanical performance	Operating force	A:90gf D:70gf J:160gf E:130gf F:210gf G:320gf H:400gf C:250gf
	Travel	0.25 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram Pad Layout													
		H	A												
1	● TVDP01	<table border="1"> <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>	4.3	3.5	5	3.5	7	3.3	9.5	3	13	3	17	3	
4.3	3.5														
5	3.5														
7	3.3														
9.5	3														
13	3														
17	3														
2	● TVDP02	<table border="1"> <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>	4.3	3.5	5	3.5	7	3.3	9.5	3					
4.3	3.5														
5	3.5														
7	3.3														
9.5	3														
3	● TVDP01-G73														

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

Package Style
B=Bulk
R=Reel

Stem Color
B=Black
W=White
R=Red

TACT SWITCH

Specification

Items		Standard
Operating temperature range		-20°C to +70°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	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

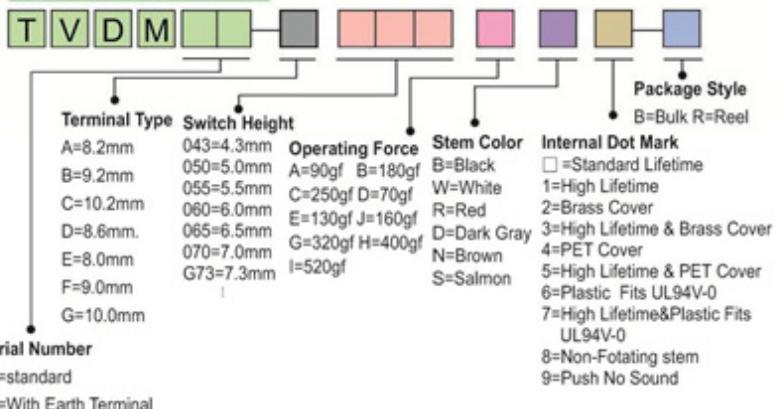
No.	Dimensions	Circuit Diagram Pad Layout
1	<p>● THDM03</p>	

6x6 SERIES

6.0x6.0 Surface Mounting Tact Switch



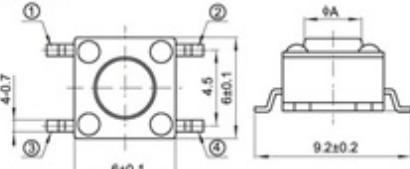
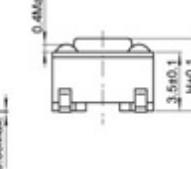
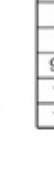
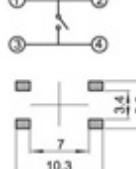
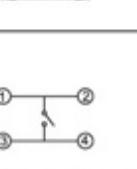
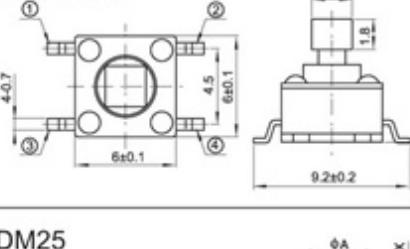
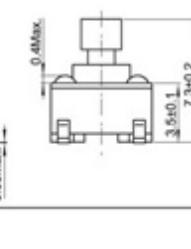
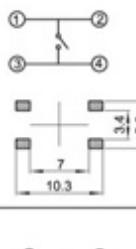
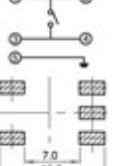
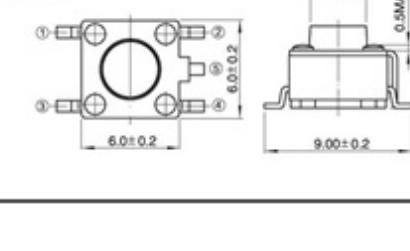
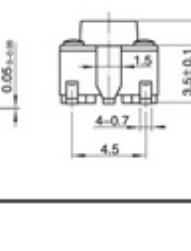
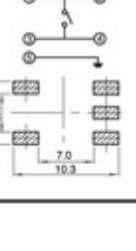
HOW TO ORDER



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: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

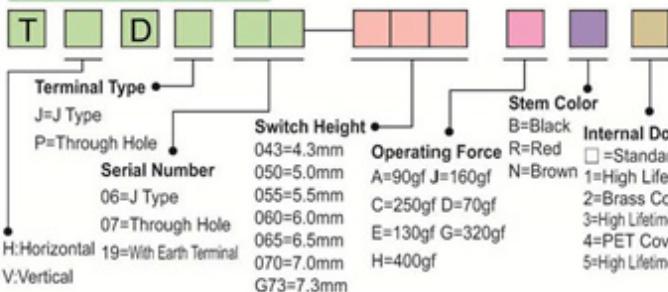
No.	Dimensions	Circuit Diagram Pad Layout													
		H	A												
1	<p>● TVDM04</p>   	<table border="1"> <tr><td>4.3</td><td>3.5</td></tr> <tr><td>5</td><td>3.5</td></tr> <tr><td>7</td><td>3.3</td></tr> <tr><td>9.5</td><td>3</td></tr> <tr><td>13</td><td>3</td></tr> <tr><td>17</td><td>3</td></tr> </table>	4.3	3.5	5	3.5	7	3.3	9.5	3	13	3	17	3	 
4.3	3.5														
5	3.5														
7	3.3														
9.5	3														
13	3														
17	3														
2	<p>● TVDM04-G73</p>   	<table border="1"> <tr><td>1.8</td><td>2.4</td></tr> <tr><td>3.5 ± 0.1</td><td>7.3 ± 0.2</td></tr> </table>	1.8	2.4	3.5 ± 0.1	7.3 ± 0.2	 								
1.8	2.4														
3.5 ± 0.1	7.3 ± 0.2														
3	<p>● TVDM25</p>   	<table border="1"> <tr><td>1.5</td><td>4.07</td></tr> <tr><td>3.5 ± 0.1</td><td>4.5</td></tr> <tr><td>4.5</td><td>6.0 ± 0.2</td></tr> </table>	1.5	4.07	3.5 ± 0.1	4.5	4.5	6.0 ± 0.2	 						
1.5	4.07														
3.5 ± 0.1	4.5														
4.5	6.0 ± 0.2														

6x6 SERIES

6.0x6.0 Other Terminal Shape Tact Switch



HOW TO ORDER



Specification

Items	Standard
Operating temperature range	-30°C to +85°C
Electrical performance	Rating
	100mA, 12V DC
	Insulation resistance
	100MΩ min. 100V DC
Durability	Dielectric strength
	250V AC for 1 min.
Mechanical performance	Contact resistance
	100mΩ max.
Durability	A:D:300,000 Cycles J:E:F:C:100,000 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													
		H	A												
1	<table border="1"> <tr><td>4.3</td><td>0.35</td></tr> <tr><td>5.0</td><td>0.34</td></tr> <tr><td>5.5</td><td>0.34</td></tr> <tr><td>6.0</td><td>0.33</td></tr> <tr><td>6.5</td><td>0.33</td></tr> <tr><td>7.0</td><td>0.33</td></tr> </table>	4.3	0.35	5.0	0.34	5.5	0.34	6.0	0.33	6.5	0.33	7.0	0.33		
4.3	0.35														
5.0	0.34														
5.5	0.34														
6.0	0.33														
6.5	0.33														
7.0	0.33														
2	<table border="1"> <tr><td>4.3</td><td>0.35</td></tr> <tr><td>5.0</td><td>0.34</td></tr> <tr><td>5.5</td><td>0.34</td></tr> <tr><td>6.0</td><td>0.33</td></tr> <tr><td>6.5</td><td>0.33</td></tr> <tr><td>7.0</td><td>0.33</td></tr> </table>	4.3	0.35	5.0	0.34	5.5	0.34	6.0	0.33	6.5	0.33	7.0	0.33		
4.3	0.35														
5.0	0.34														
5.5	0.34														
6.0	0.33														
6.5	0.33														
7.0	0.33														
3	<table border="1"> <tr><td>4.3</td><td>0.35</td></tr> <tr><td>5.0</td><td>0.34</td></tr> <tr><td>5.5</td><td>0.34</td></tr> <tr><td>6.0</td><td>0.33</td></tr> <tr><td>6.5</td><td>0.33</td></tr> <tr><td>7.0</td><td>0.33</td></tr> </table>	4.3	0.35	5.0	0.34	5.5	0.34	6.0	0.33	6.5	0.33	7.0	0.33		
4.3	0.35														
5.0	0.34														
5.5	0.34														
6.0	0.33														
6.5	0.33														
7.0	0.33														

6x6 SERIES

6.0x6.0 Bracket Shape Type Tact Switch



HOW TO ORDER

T H D P

Serial Number

08=Standard Type
09=Bracket with Hole
10=Non-Standard Type

Switch Height

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

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

• Life time
□=Standard Lifetime
1=High Lifetime
• Stem Color
B=Black
R=Red
N=Brown

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											
		L	A										
1	<table border="1"> <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>	3.15	3.5	3.85	3.5	5.85	3.3	8.35	3	15.85	3		
3.15	3.5												
3.85	3.5												
5.85	3.3												
8.35	3												
15.85	3												
2	<table border="1"> <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>	3.15	3.5	3.85	3.5	5.85	3.3	8.35	3	15.85	3		
3.15	3.5												
3.85	3.5												
5.85	3.3												
8.35	3												
15.85	3												
3	<table border="1"> <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>	3.15	3.5	3.85	3.5	5.85	3.3	8.35	3	15.85	3		
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

T H D P

 | | | |

Serial Number Switch Height

11=Short Bracket 043=(L:3.15mm)

12=Long Bracket 050=(L:3.85mm)

055=(L:4.35mm)

060=(L:4.85mm)

070=(L:5.85mm)

090=(L:7.85mm)

Operating Force

J=160gf C=250gf

 | | | |

Stem Color
B=Black
R=Red
N=Brown

TACT SWITCH

Specification

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

Diagram

No.	Dimensions	Circuit Diagram Pad Layout											
		L	A										
1		<table border="1"> <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>	3.15	3.5	3.85	3.5	5.85	3.3	8.35	3	15.85	3	
3.15	3.5												
3.85	3.5												
5.85	3.3												
8.35	3												
15.85	3												
2		<table border="1"> <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>	3.15	3.5	3.85	3.5	5.85	3.3	8.35	3	15.85	3	
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

THDM13

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

Package Style

B=Bulk R=Reel

Internal Dot Mark
□=Standard

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

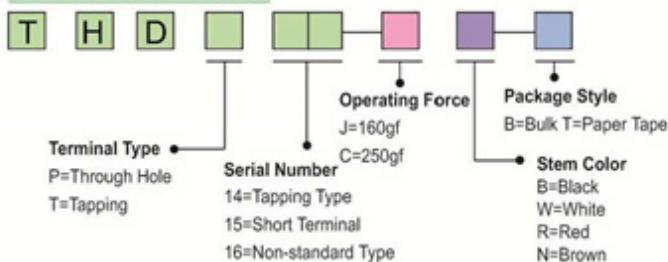
No.	Dimensions	Circuit Diagram																				
		Pad Layout																				
1	<p>THDM13</p> <table border="1"> <thead> <tr> <th>L</th> <th>A</th> <th>B</th> </tr> </thead> <tbody> <tr><td>3.15</td><td>3.5</td><td>1.3</td></tr> <tr><td>3.85</td><td>3.5</td><td>3.0</td></tr> <tr><td>4.35</td><td>3.3</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> </tbody> </table> <p><u>CIRCUIT DIAGRAM</u></p> <p><u>P.C.B LAND DIMENSION</u></p>	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	
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°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	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

Terminal Length •

= Standard Terminal Switch Height •

A=3.5mm 043=4.3mm Operating Force •

B=4.5mm 050=5.0mm A=90gf Stem Color •

C=5.5mm 055=5.5mm B=160gf B=Black •

D=4.0mm 060=6.0mm C=250gf W=White •

 065=6.5mm E=130gf R=Red •

 070=7.0mm 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

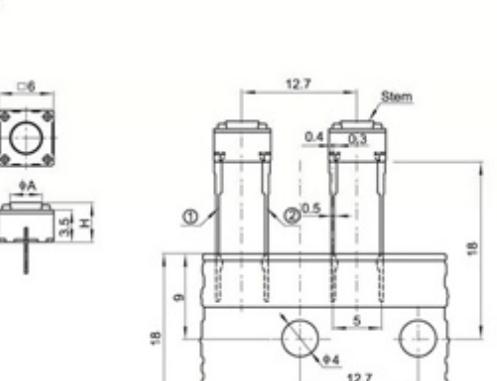
4=PET Cover

5=High Lifetime & PET Cover

Specification

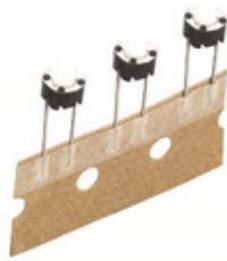
Items		Standard
Operating temperature range		-30°C to +85°C
Electrical performance	Rating	50mA, 12V DC
	Insulation resistance	100MΩ min. 100V DC
	Dielectric strength	250V AC for 1 min.
	Contact resistance	100mΩ max.
Durability	Lifetime	A:300,000 Cycles E:J:C:100,000 Cycles
Mechanical performance	Operating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

Diagram

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

6x6 SERIES

6.0x6.0 Radial Taping Type Tact Switch



HOW TO ORDER

TVDT18

Switch Height
043=4.3mm
050=5.0mm

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

Package Style
B=Bulk
T=Paper Tape

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

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

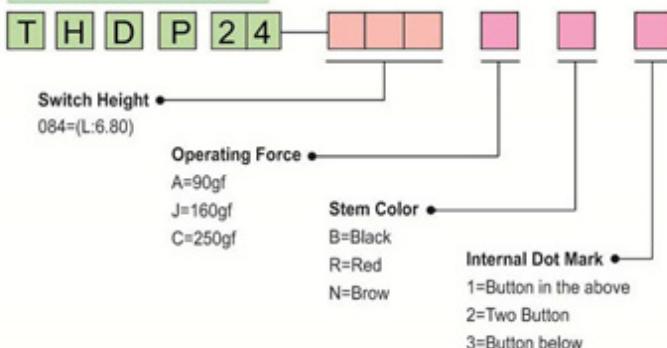
No.	Dimensions	Circuit Diagram						
		Pad Layout						
1	<p>TVDT18</p>	<table border="1"> <tr> <td>H</td> <td>A</td> </tr> <tr> <td>4.3</td> <td>3.5</td> </tr> <tr> <td>5</td> <td>3.5</td> </tr> </table>	H	A	4.3	3.5	5	3.5
H	A							
4.3	3.5							
5	3.5							

6x6 SERIES

9.1x7.3 Multiple Type Tact Switch



HOW TO ORDER



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	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



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°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	J:C:100,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	1.30 ± 0.1mm

Diagram

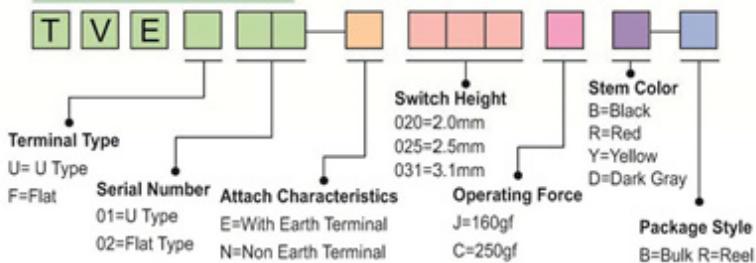
No.	Dimensions	Circuit Diagram
		Pad Layout
1	<p>TVDU21</p>	

6.2x6.2 SERIES

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



HOW TO ORDER



Specification

Items		Standard
Operating temperature range		-30°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	J:500,000 Cycles C:300,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.25 ± 0.1mm

Diagram

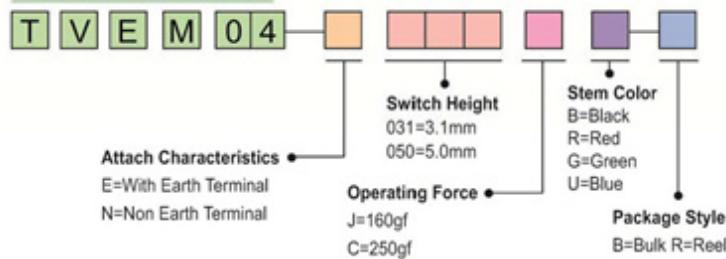
No.	Dimensions	Circuit Diagram				
		Pad Layout				
1	● TVEU01 <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>H</p> <table border="1"> <tr><td>3.1</td></tr> <tr><td>2.5</td></tr> <tr><td>2.0</td></tr> </table> </div> <div style="text-align: center;"> </div> </div>	3.1	2.5	2.0		
3.1						
2.5						
2.0						
2	● TVEF02 <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>H</p> <table border="1"> <tr><td>3.1</td></tr> <tr><td>2.5</td></tr> <tr><td>2.0</td></tr> </table> </div> <div style="text-align: center;"> </div> </div>	3.1	2.5	2.0		
3.1						
2.5						
2.0						

6.2x6.2 SERIES

6.2x6.2 Dust-Proof Type Tact Switch



HOW TO ORDER



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 J:500,000 Cycles C:300,000 Cycles
Mechanical performance	Operating force J:160gf C:250gf
	Travel 0.25 ± 0.1mm

Diagram

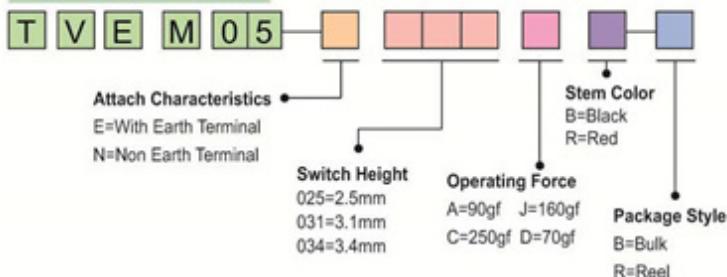
No.	Dimensions	Circuit Diagram
		Pad Layout
1	<p>TVEM04</p> <p>Dimensions (mm):</p> <ul style="list-style-type: none"> Top view: 6.2 ± 0.1 mm (width), 6.8 ± 0.1 mm (height), 0.05 ± 0.05 mm (travel). Side view: 4.4 ± 0.1 mm (width), 4.5 ± 0.1 mm (height), 4.0 ± 0.1 mm (travel). 	<p>Circuit Diagram:</p> <p>Pad Layout:</p> <p>Dimensions (mm):</p> <ul style="list-style-type: none"> Top row: 4.5 ± 0.05 mm (width), 4.1 ± 0.1 mm (height). Bottom row: 6.5 ± 0.1 mm (width), 9.5 ± 0.1 mm (height).

6.2x6.2 SERIES

6.2x6.2 SMT Terminals Type Tact Switch



HOW TO ORDER



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: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	● TVEM05-N		
2	● TVEM05-E		

6.2x6.2 SERIES

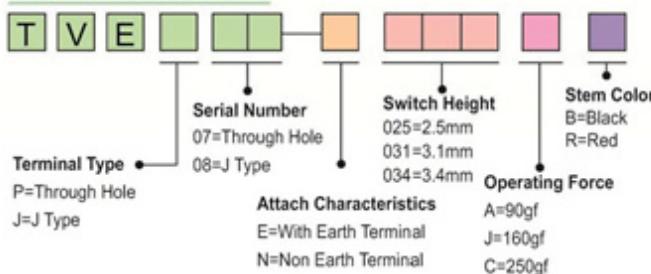
6.2x6.2 Through Hole Terminals Type Tact Switch



A green circular logo with the text "RoHS Compliant" and a small leaf icon.



HOW TO ORDER



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:J:C=100,000 Cycles
Mechanical performance	Operating force	A:90gf J:160gf C:250gf
	Travel	0.25 ± 0.1mm

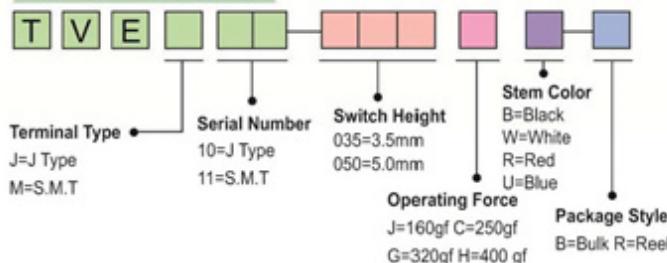
Diagram

6.2x6.2 SERIES

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



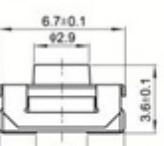
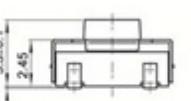
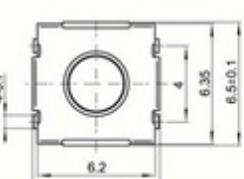
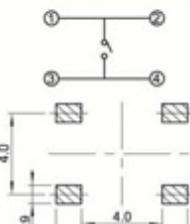
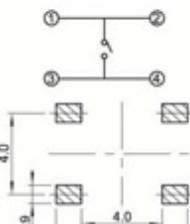
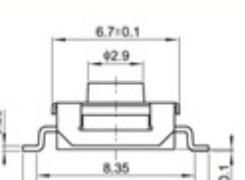
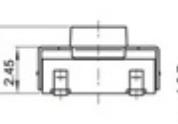
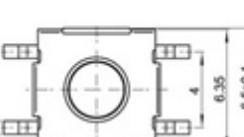
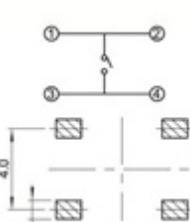
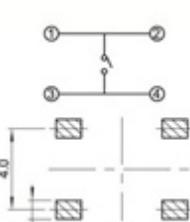
HOW TO ORDER



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	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

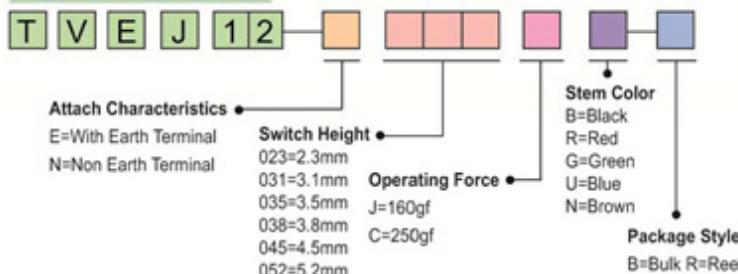
No.	Dimensions	Circuit Diagram Pad Layout	
		Pad Layout	Circuit Diagram
1	<p>● TVEJ10</p>   		
2	<p>● TVEM11</p>   		

6.2x6.2 SERIES

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



HOW TO ORDER



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	J:200,000 Cycles C:100,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.25 ± 0.1mm

Diagram

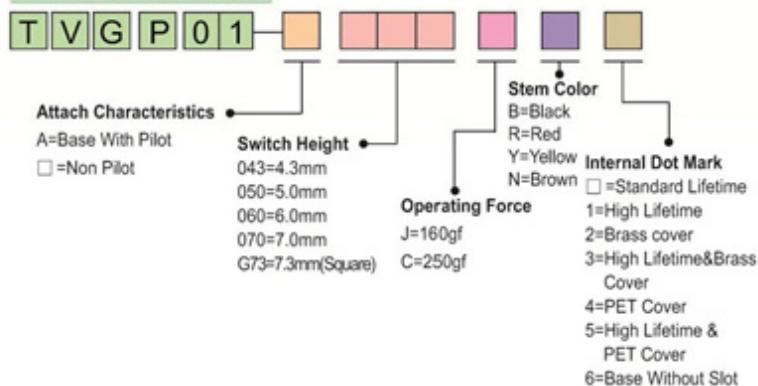
No.	Dimensions	Circuit Diagram Pad Layout	
		Pad Layout	Circuit Diagram
1	● TVEJ12- □ 031 		
2	● TVEJ12- □ 052 		
3	● TVEJ12- □ 023 		

12x12 SERIES

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



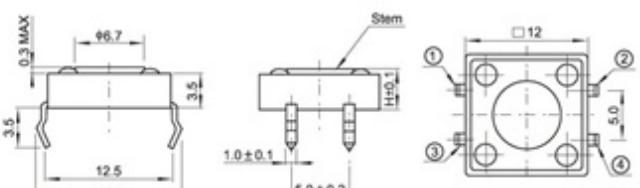
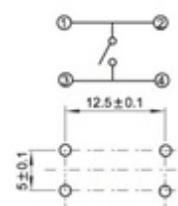
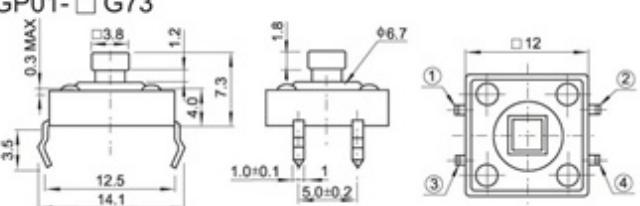
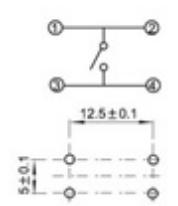
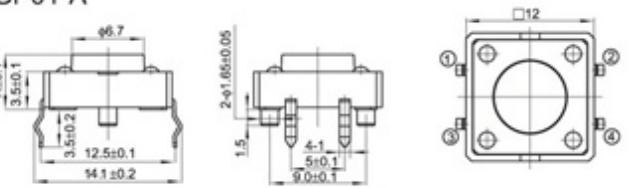
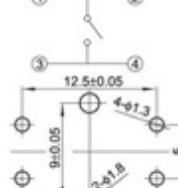
HOW TO ORDER



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	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	
		H	Pad Layout
1	<p>● TVGP01</p> 	<p>H</p> <p>4.3</p> <p>5.0</p> <p>6.0</p> <p>7.0</p> <p>...</p>	
2	<p>● TVGP01-□ G73</p> 	<p>H</p> <p>4.3</p> <p>5.0</p> <p>6.0</p> <p>7.0</p> <p>...</p>	
3	<p>● TVGP01-A</p> 	<p>H</p> <p>4.3</p> <p>5.0</p> <p>6.0</p> <p>7.0</p> <p>...</p>	

12x12 SERIES

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



HOW TO ORDER

TVGM 03

Attach Characteristics

A=Base With Pilot Switch Height

□=Non Pilot 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
N=Brown

Package Style

B=Bulk
R=Reel
U=Tube

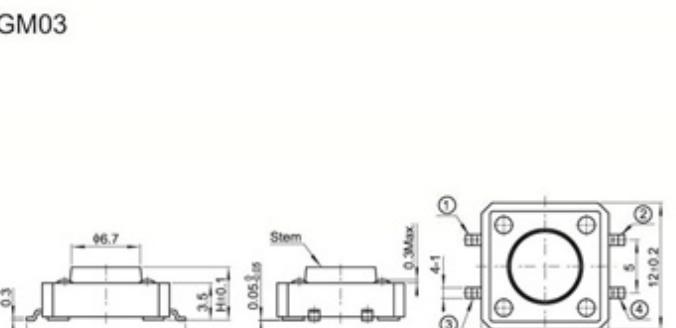
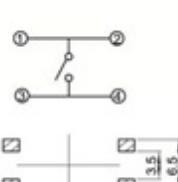
Internal Dot Mark

□=Standard Lifetime
1=High Lifetime
6=Base Without Slot

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	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	
		H	Pad Layout
1	<p>● TVGM03</p>  <p>1</p>	<p>H</p> <p>4.3</p> <p>5.0</p> <p>6.0</p> <p>7.0</p>	

WASHABLE SERIES

6.0x6.0 Washable Tact Switch



HOW TO ORDER

T	V	J	P					
Serial Number	Switch Height	Operating Force	Stem color					
13=Standard	043=4.3mm	J=160gf	R=Red					
16=With A Sheath	045=4.5mm	C=250gf	B=Black					
	050=5.0mm							
	055=5.5mm							
	060=6.0mm							
	065=6.5mm							
	070=7.0mm							

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	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												
		H	Pad Layout											
1	● TVJP13	<table border="1" style="margin-left: 10px;"> <tr><td>4.3</td></tr> <tr><td>5.0</td></tr> <tr><td>5.5</td></tr> <tr><td>6.0</td></tr> <tr><td>6.5</td></tr> <tr><td>7.0</td></tr> <tr><td>7.5</td></tr> <tr><td>8.0</td></tr> <tr><td>8.5</td></tr> <tr><td>9.0</td></tr> <tr><td>9.5</td></tr> </table>	4.3	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	
4.3														
5.0														
5.5														
6.0														
6.5														
7.0														
7.5														
8.0														
8.5														
9.0														
9.5														
2	● TVJP16	<table border="1" style="margin-left: 10px;"> <tr><td>8</td></tr> <tr><td>8.5</td></tr> <tr><td>9</td></tr> <tr><td>9.5</td></tr> <tr><td>...</td></tr> </table>	8	8.5	9	9.5	...							
8														
8.5														
9														
9.5														
...														

WATERPROOF SERIES

6.0x6.0 Washable Tact Switch



HOW TO ORDER

T

V

J

M

1

7



• Stem color

R=Red

B=Black

Switch Height

043=4.3mm

045=4.5mm

048=4.8mm

050=5.0mm

Operating Force

J=160gf

C=250gf

...

TACT SWITCH

Specification

Items	Standard
Operating temperature range	-25°C to +85°C
Electrical performance	Rating
	100mA, 30V DC
	Insulation resistance
	100MΩ min, 100V DC
Dielectric strength	AC500V(50Hz) for 1 min.
	50mΩ max.
Durability	Lifetime
Mechanical performance	J:C:100.000 Cycles
	Operating force
	J:160gf C:250g
	Travel
	0.25 ± 0.1mm

Diagram

No.	Dimensions	Circuit Diagram												
		Pad Layout												
1	<p>TVJM17</p> <p>Dimensions: Top view (H: 3.7, Ø3.4, 0.3, 8.7), Side view (H: 3.7, 4.5, 0.7), Bottom view (Ø6.1, 1.5, 1.5, 4.5, 8.5).</p> <p>Pad Layout:</p>	<p>Dimensions:</p> <table border="1"> <tr><td>H</td><td></td></tr> <tr><td>4.3</td><td></td></tr> <tr><td>4.5</td><td></td></tr> <tr><td>4.8</td><td></td></tr> <tr><td>5</td><td></td></tr> <tr><td>...</td><td></td></tr> </table> <p>Circuit Diagram:</p> <p>Pad Layout:</p>	H		4.3		4.5		4.8		5		...	
H														
4.3														
4.5														
4.8														
5														
...														

WASHABLE SERIES

8.0x8.0 Washable Tact Switch



HOW TO ORDER

T

V

J

P

14



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°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	J:C:100,000 Cycles
Mechanical performance	Operating force	J:160gf C:250gf
	Travel	0.25 ± 0.1mm

Diagram

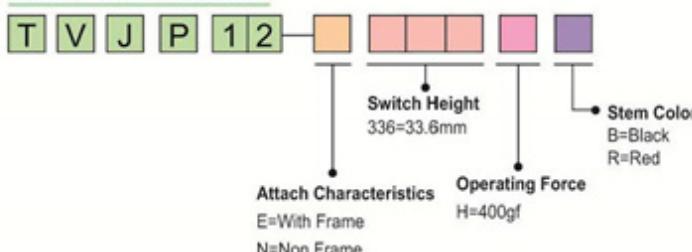
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		H	Pad Layout										
1	<p>TVJP14</p> <table border="1"> <tr><td>6.5</td></tr> <tr><td>7.0</td></tr> <tr><td>7.5</td></tr> <tr><td>8.0</td></tr> <tr><td>8.5</td></tr> <tr><td>9.0</td></tr> <tr><td>9.5</td></tr> <tr><td>11.0</td></tr> <tr><td>12.0</td></tr> <tr><td>13.0</td></tr> </table>	6.5	7.0	7.5	8.0	8.5	9.0	9.5	11.0	12.0	13.0		
6.5													
7.0													
7.5													
8.0													
8.5													
9.0													
9.5													
11.0													
12.0													
13.0													

WASHABLE SERIES

10.0x10.0 Washable Tact Switch



HOW TO ORDER



Specification

Items		Standard
Operating temperature range		-20°C to +70°C
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 Min
Mechanical performance	Operating force	H:400gf ± 70gf
	Travel	0.40 ± 0.2mm

Water Resisting Performance

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

Diagram

No.	Dimensions	Circuit Diagram
		Pad Layout
1	TVJP12-N 	
2	TVJP12-E 	

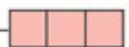
WASHABLE SERIES

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

Specification

Items		Standard
Operating temperature range		-40°C to +90°C
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°C
Depth of water	10cm
Immersion duration	240h

Diagram

No.	Dimensions	Circuit Diagram Pad Layout	
		H	A
1	TVJP11	13	3.8
		15	3.5
		23.2	3.5

WASHABLE SERIES

10.0x10.0 Washable Tact Switch



HOW TO ORDER

T J P

Operation Direction

H=Horizontal
V=Vertical

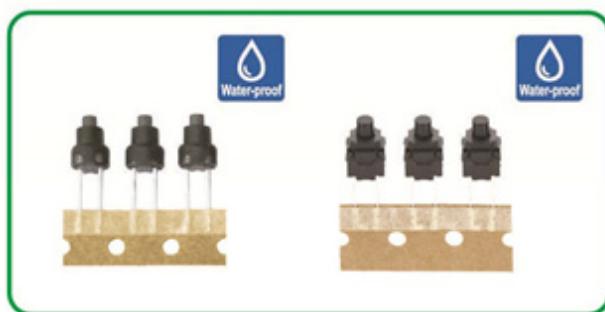
Serial Number

09=Vertical
10=Horizontal

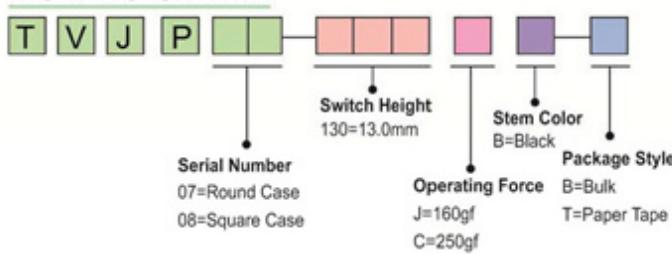
Switch Height
050=5.0mm

WASHABLE SERIES

8.0x8.0 Washable Tact Switch



HOW TO ORDER



Specification

Items	Standard
Operating temperature range	-40°C to +90°C
Electrical performance	Rating
	Insulation resistance
	Dielectric strength
	Contact resistance

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°C
Depth of water	10cm
Immersion duration	240h

Diagram

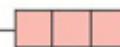
WASHABLE SERIES

12x12 Washable Tact Switch



HOW TO ORDER

T V J P 15



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°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	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>TVJP15</p> <p>H 6.5 7.0 7.5 8.0 8.5 9.0 9.5 10.0 11.0 12.0</p>	



ISO 14001 ISO 9001

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