

**TACTILE**

Page No.

Surface Mount	
3.5 x 6mm . . . . .	562
6 x 6mm . . . . .	564
6 x 6mm washable. . . . .	566
12 x 12mm . . . . .	568
Through Hole	
3.5 x 6mm . . . . .	563
6 x 6mm . . . . .	565
6 x 6mm washable. . . . .	566
6 x 6mm radial taped. . . . .	567
12 x 12mm . . . . .	569
Switch Caps . . . . .	570

**DUAL IN-LINE**

Surface Mount	
Top slide actuator, low profile IC package .	571
Piano key actuator, low profile . . . . .	571
Through Hole	
Top slide actuator, low profile IC package .	572
Piano key actuator, low profile . . . . .	572
Top slide actuator . . . . .	573
Piano key actuator. . . . .	573

**ROTARY, ENCODED**

Surface Mount	
BCD, 8 & 10 position . . . . .	574
Hexadecimal . . . . .	574
Through Hole	
BCD, 8 & 10 position,	
Screwdriver & finger adjust . . . . .	575
Hexadecimal,	
Screwdriver & finger adjust . . . . .	575

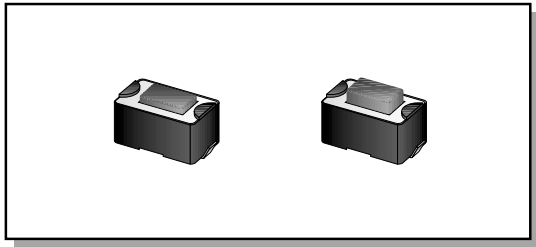
**MICROSWITCHES**

Microminiature . . . . .	576
Sub-miniature, Solder & PCB Terminals. . . . .	576

**DIPTRONICS type DTSM-3**



A range of miniature 3.5 x 6mm size surface mount tactile switches offering a choice of button length, together with an option of packaging method.



- ◆ Miniature **3.5 x 6mm** size
- ◆ **Surface mount**
- ◆ Positive 'click' action and tactile feedback
- ◆ Choice of button length
- ◆ SPNO momentary contacts
- ◆ 2 terminal mounting
- ◆ Supplied in sticks or taped & reeled

**Specification**

Contact arrangement ..... single pole, single throw 2 terminal normally open, momentary action  
 Contact rating..... 50mA, 12Vdc  
 Contact resistance..... 100mΩ max.  
 Operating force ..... 160 ±50gf (brown button)

Travel..... 0.25mm  
 Insulation resistance ..... 100MΩ min. at 500Vdc  
 Dielectric strength ..... 250Vac for 1 minute  
 Operating temp. range ..... -25°C to +70°C  
 Life expectancy ..... 50,000 cycles min. (electrical)

Choice of button length and packaging method.

**STICK**

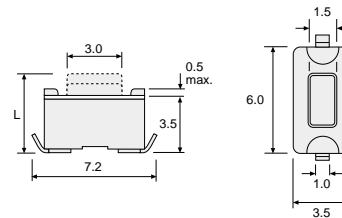
Manf. Part No.	Button Length (L)	Anglia Order Code
DTSM-31N-B	4.3	ST031
DTSM-32N-B	5.0	ST032

**TAPE & REEL**

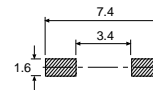
Manf. Part No.	Button Length (L)	Anglia Order Code
DTSM-31N-T/R	4.3	ST031R
DTSM-32N-T/R	5.0	ST032R

*N.B. These switches are not suitable for PCB washing.*

**Dimensions (mm)**



**Pad Pattern**



**Circuit Diagram**



**Packaging**

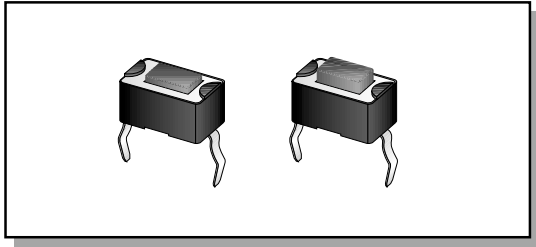
TAPE : 16mm wide, 8mm pitch REEL : 330mm dia.





## DIPTRONICS type DTS-3

A range of miniature 3.5 x 6mm size pcb mounting tactile switches offering a choice of button length.



- ◆ Miniature 3.5 x 6mm size
- ◆ Positive 'click' action and tactile feedback
- ◆ Choice of button length
- ◆ SPNO momentary contacts
- ◆ 2 terminal mounting

### Specification

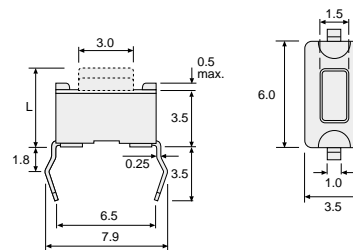
Contact arrangement..... single pole, single throw 2 terminal  
normally open, momentary action  
Contact rating ..... 50mA, 12Vdc  
Contact resistance..... 100mΩ max.  
Operating force..... 160 ±50gf (brown button)

Travel ..... 0.25mm  
Insulation resistance..... 100MΩ min. at 500Vdc  
Dielectric strength..... 250Vac for 1 minute  
Operating temp. range ..... -25°C to +70°C  
Life expectancy..... 50,000 cycles min. (electrical)

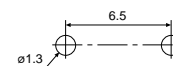
Choice of button length. Supplied in tubes.

Manf. Part No.	Button Length (L)	Anglia Order Code
DTS-31N-B	4.3	448031
DTS-32N-B	5.0	448032

### Dimensions (mm)



### Footprint



N.B. These switches are not suitable for PCB washing.

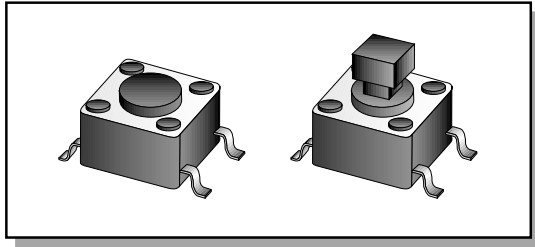
### Circuit diagram





**DIPTRONICS type DTSM-6**

A range of 6 x 6mm size surface mount tactile switches offering a choice of button style and/or length and operating force, together with an option of packaging method. High reliability with up to 500,000 cycle electrical life expectancy.



- ◆ 6 x 6mm size
- ◆ Surface mount
- ◆ Positive 'click' action and tactile feedback
- ◆ Choice of button style, length and operating force
- ◆ SPNO momentary contacts
- ◆ 4 terminal mounting
- ◆ High reliability, longer life
- ◆ Supplied in sticks or taped & reeled

**Specification**

Contact arrangement ..... single pole, single throw 4 terminal normally open, momentary action  
 Contact rating ..... 50mA, 12Vdc  
 Contact resistance ..... 100mΩ max.  
 Operating force ..... 100 ±50gf (black button)  
 160 ±50gf (brown button)  
 260 ±50gf (red button)

Travel ..... 0.25mm  
 Insulation resistance ..... 100MΩ min. at 500Vdc  
 Dielectric strength ..... 250Vac for 1 minute  
 Operating temp. range ..... -25°C to +70°C  
 Life expectancy ..... 100 & 160gf = 500,000 cycles min. (electrical)  
 260gf = 50,000 cycles min. (electrical)

Choice of button style, length, operating force and packaging method.

**STICK**

Manf. Part No.	Button Style	Button Length	Operating Force (gf)
DTSM-61K-B	Round	4.3(L)	100
DTSM-61N-B	Round	4.3(L)	160
DTSM-61R-B	Round	4.3(L)	260
DTSM-62K-B	Round	5.0(L)	100
DTSM-62N-B	Round	5.0(L)	160
DTSM-62R-B	Round	5.0(L)	260
DTSM-63K-B	Round	7.0(L)	100
DTSM-63N-B	Round	7.0(L)	160
DTSM-63R-B	Round	7.0(L)	260
DTSM-644K-B	Square	7.3(L1)	100
DTSM-644N-B	Square	7.3(L1)	160
DTSM-644R-B	Square	7.3(L1)	260



**Anglia**  
Order Code  
**ST062**  
**ST062B**  
**ST062C**  
**ST063**  
**ST063B**  
**ST063C**  
**ST064**  
**ST064B**  
**ST064C**  
**ST061**  
**ST061B**  
**ST061C**

**TAPE & REEL**

Manf. Part No.	Button Style	Button Length	Operating Force (gf)
DTSM-61K-T/R	Round	4.3(L)	100
DTSM-61N-T/R	Round	4.3(L)	160
DTSM-61R-T/R	Round	4.3(L)	260
DTSM-62K-T/R	Round	5.0(L)	100
DTSM-62N-T/R	Round	5.0(L)	160
DTSM-62R-T/R	Round	5.0(L)	260

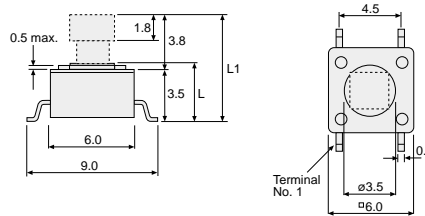


**Anglia**  
Order Code  
**ST062R**  
**ST062BR**  
**ST062CR**  
**ST063R**  
**ST063BR**  
**ST063CR**

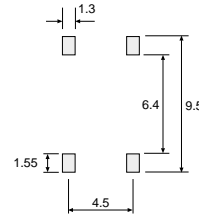
N.B. These switches are not suitable for PCB washing, see page 566 for washable types.

**TACTILE SWITCH CAPS**  
 Round or Square  
 suitable for square button switches  
 see page 570

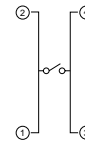
**Dimensions (mm)**



**Pad Pattern**



**Circuit Diagram**



**Packaging**

TAPE : 16mm wide, 12mm pitch REEL : 330mm dia.





**DIPTRONICS type DTS-6/DTSA-6**

A range of 6 x 6mm size pcb mounting tactile switches offering a choice of button style, length and operating force, together with an option of mounting position. High reliability with up to 500,000 cycle electrical life expectancy.

**Specification**

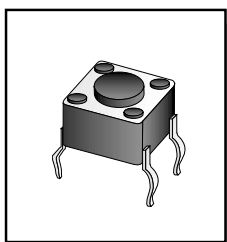
Contact arrangement.....	single pole, single throw 4 terminal normally open, momentary action	Travel .....	0.25mm
Contact rating .....	50mA, 12Vdc	Insulation resistance.....	100MΩ min. at 500Vdc
Contact resistance.....	100mΩ max.	Dielectric strength.....	250Vac for 1 minute
Operating force.....	70 ±50gf (blue button) 100 ±50gf (black button) 160 ±50gf (brown button) 260 ±50gf (red button)	Operating temp. range.....	-25°C to +70°C
		Life expectancy.....	70 to 160gf = 500,000 cycles min. (electrical) 260gf = 50,000 cycles min. (electrical)

- ◆ 6 x 6mm size
- ◆ Positive 'click' action and tactile feedback
- ◆ Choice of button style, length and operating force.
- ◆ SPNO momentary contacts
- ◆ 4 terminal mounting
- ◆ Established footprint
- ◆ Mounting position option
- ◆ High reliability, longer life

**ROUND BUTTON - type DTS-6/DTSA-6**

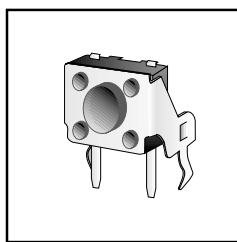
Choice of button length, operating force and mounting position.

**VERTICAL**



Manf. Part No.	Button Length (L)	Operating Force (gf)	Anglia Order Code
DTS-61K	4.3	100	448062
DTS-61N	4.3	160	448062B
DTS-61R	4.3	260	448062C
DTS-62K	5.0	100	448063
DTS-62N	5.0	160	448063B
DTS-62R	5.0	260	448063C
DTS-63K	7.0	100	448064
DTS-63N	7.0	160	448064B
DTS-63R	7.0	260	448064C
DTS-65K	9.5	100	448065
DTS-65N	9.5	160	448065B
DTS-65R	9.5	260	448065C
DTS-66K	13	100	448067
DTS-66N	13	160	448067B
DTS-66R	13	260	448067C

**RIGHT ANGLE**

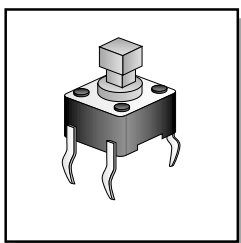


Manf. Part No.	Button Length (L)	Operating Force (gf)	Anglia Order Code
DTSA-62K	3.85	100	448071
DTSA-63K	5.85	100	448073
DTSA-65K	8.35	100	448072

**SQUARE BUTTON - type DTS-64/DTSA-64**

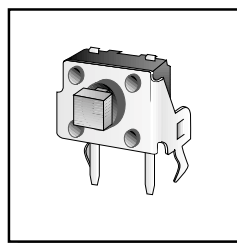
Choice of operating force and mounting position. Button 'shoulder' designed to accommodate actuator springs for tamper switch applications.

**VERTICAL**



Manf. Part No.	Operating Force (gf)	Anglia Order Code
DTS-644U	70	448061
DTS-644K	100	448061A

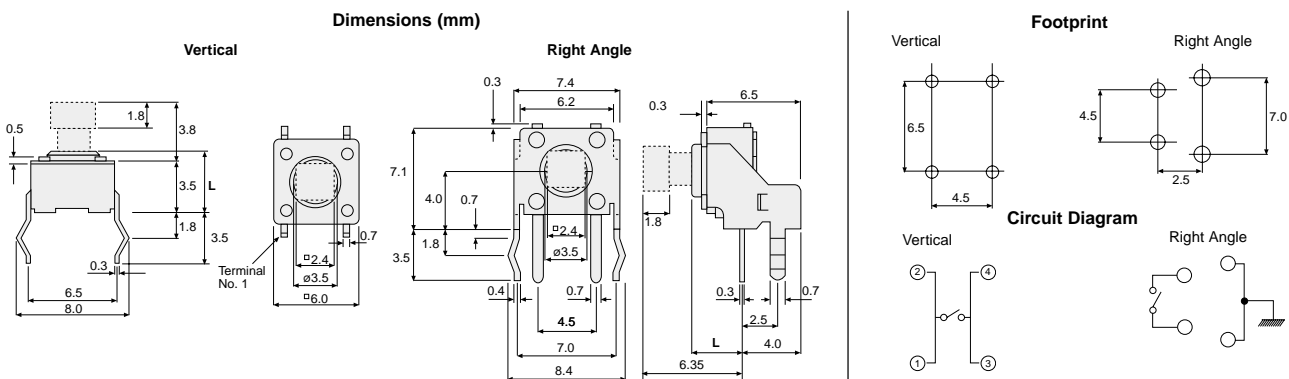
**RIGHT ANGLE**



Manf. Part No.	Operating Force (gf)	Anglia Order Code
DTSA-644U	70	448070
DTSA-644K	100	448070A

**TACTILE SWITCH CAPS**  
Round or Square  
suitable for square button switches  
see page 570

N.B. These switches are not suitable for PCB washing, see page 566 for washable types.



**DIPTRONICS type DTSJW, DTSMW, DTSHW-6**



A range of surface mount and through hole washable tactile switches with a round button. Choice of button length and operating force. Lead form and packaging option on surface mount parts. Designed to meet the increasing demand for sealed tactile switches to withstand pcb washing.

**Specification**

Contact arrangement..... single pole, single throw 4 terminal normally open, momentary action  
 Contact rating..... 50mA, 12Vdc  
 Contact resistance..... 100mΩ max.  
 Operating force..... 160gf ±50gf (silver button, L = 2.3) (brown button, L = 3.1) 180gf ±50gf (brown button, L = 3.8) 260gf ±50gf (red button)

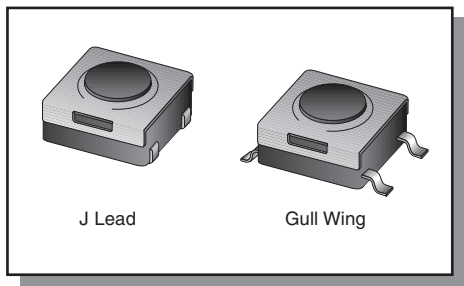
Travel..... 0.25mm  
 Insulation resistance..... 100MΩ min. at 500Vdc  
 Dielectric strength..... 250Vac for 1 minute  
 Operating temp. range..... -25°C to +70°C  
 Life expectancy..... 100,000 cycles min. (electrical) for DTS\*W - 66N, 68S 500,000 cycles min. (electrical) for DTS\*W - 69N, 69R

- ◆ 6 x 6mm size
- ◆ Sealed construction suitable for pcb washing
- ◆ SMD or through hole
- ◆ Positive 'click' action and tactile feedback
- ◆ Choice of button length and operating force
- ◆ SPNO momentary contacts
- ◆ 4 terminal mounting

**SURFACE MOUNT type DTSJW & DTSMW**



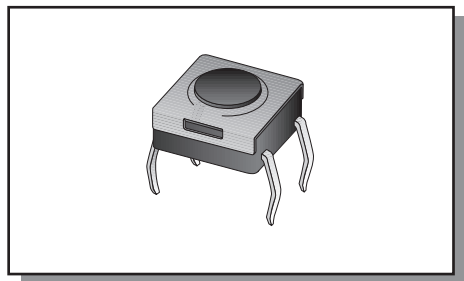
Choice of button length, operating force, lead form and packaging method.



Button Length (L)	Operating Force (gf)	Manf. Part No.	STICK		TAPE & REEL	
			Anglia Order Code	Manf. Part No.	Anglia Order Code	
<b>J Lead</b>						
2.3(flush)	160	DTSJW-68S-B	<b>ST068JW</b>	DTSJW-68S-T/R	<b>ST068JWR</b>	
3.1	160	DTSJW-66N-B	<b>ST066JW</b>	DTSJW-66N-T/R	<b>ST066JWR</b>	
3.8	180	DTSJW-69N-B	<b>ST069JW</b>	DTSJW-69N-T/R	<b>ST069JWR</b>	
3.8	260	DTSJW-69R-B	<b>ST069CJW</b>	DTSJW-69R-T/R	<b>ST069CJWR</b>	
<b>Gull Wing</b>						
2.3(flush)	160	DTSMW-68S-B	<b>ST068W</b>	DTSMW-68S-T/R	<b>ST068WR</b>	
3.1	160	DTSMW-66N-B	<b>ST066W</b>	DTSMW-66N-T/R	<b>ST066WR</b>	
3.8	180	DTSMW-69N-B	<b>ST069W</b>	DTSMW-69N-T/R	<b>ST069WR</b>	
3.8	260	DTSMW-69R-B	<b>ST069CW</b>	DTSMW-69R-T/R	<b>ST069CWR</b>	

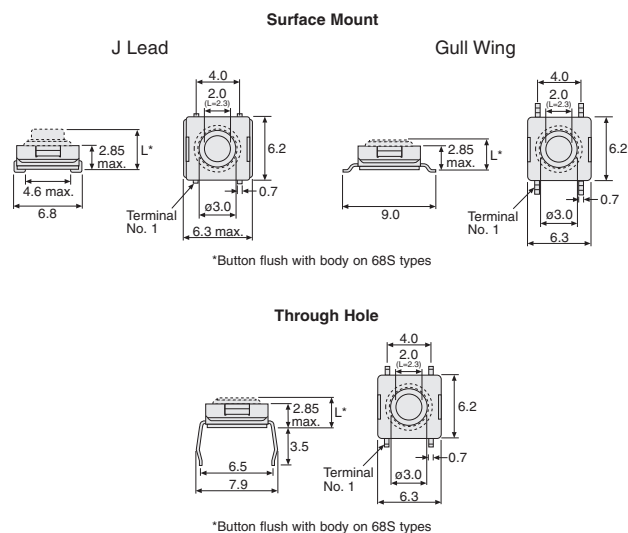
**THROUGH HOLE type DTSHW**

Choice of button length and operating force. Supplied in tubes.

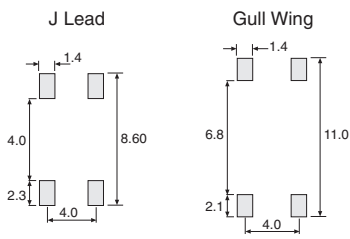


Button Length (L)	Operating Force (gf)	Manf. Part No.	Anglia Order Code
2.3(flush)	160	DTSHW-68S-B	<b>448068W</b>
3.1	160	DTSHW-66N-B	<b>448066W</b>
3.8	180	DTSHW-69N-B	<b>448069W</b>
3.8	260	DTSHW-69R-B	<b>448069CW</b>

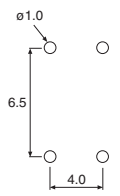
**Dimensions (mm)**



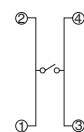
**Pad Pattern (surface mount)**



**Footprint (through hole)**



**Circuit Diagram (all types)**



**Packaging (surface mount)**

TAPE : 16mm wide, 8mm pitch

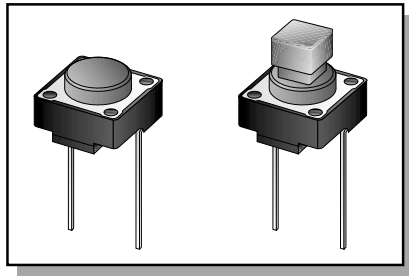
REEL : 330mm dia.





**DIPTRONICS type DTST-6**

A range of 6 x 6mm size tactile switches supplied in a radial taped package and offering a choice of button style. The switches feature high reliability with 500,000 cycle electrical life expectancy.



- ◆ 6 x 6mm size
- ◆ Radial taped
- ◆ Positive 'click' action and tactile feedback
- ◆ Choice of button style
- ◆ SPNO momentary contacts
- ◆ 2 terminal mounting
- ◆ High reliability, longer life
- ◆ Supplied taped & boxed

**Specification**

Contact arrangement .....	single pole, single throw 2 terminal normally open, momentary action	Travel.....	0.25mm
Contact rating.....	50mA, 12Vdc	Insulation resistance .....	100MΩ min. at 500Vdc
Contact resistance.....	100mΩ max.	Dielectric strength.....	250Vac for 1 minute
Operating force .....	100 ±50gf (black button)	Operating temp. range .....	-25°C to +70°C
		Life expectancy .....	500,000 cycles min. (electrical)

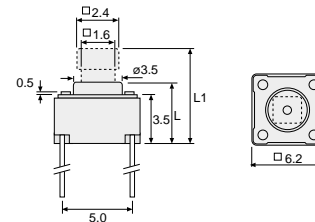
Choice of button style.

**TAPE & BOX**

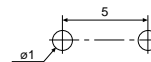
Manf. Part No.	Button Style	Button Length	Anglia OrderCode
DTST-61K	Round	4.3 (L)	<b>448062T</b>
DTST-644K	Square	7.3 (L1)	<b>448061AT</b>

**TACTILE SWITCH CAPS**  
 Round or Square  
 suitable for square button switches  
 see page 570

**Dimensions (mm)**



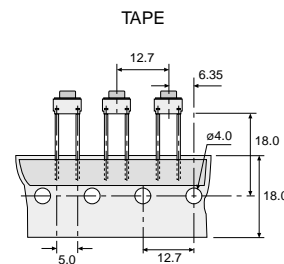
**Footprint**



**Circuit Diagram**



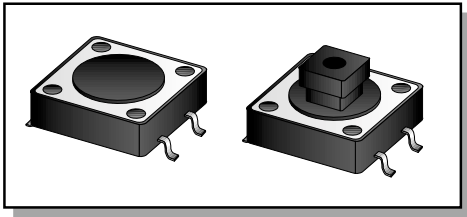
**Packaging**



**DIPTRONICS type DTSM-2**



A range of 12 x 12mm size surface mount tactile switches offering a choice of button style and packaging method.  
 High reliability with 500,000 cycle electrical life expectancy.



- ◆ 12 x 12mm size
- ◆ Surface mount
- ◆ Positive 'click' action and tactile feedback
- ◆ Choice of button style
- ◆ SPNO momentary contacts
- ◆ 4 terminal mounting
- ◆ High reliability, longer life
- ◆ Supplied in sticks or taped & reeled

**Specification**

Contact arrangement ..... single pole, single throw 4 terminal normally open, momentary action  
 Contact rating ..... 50mA, 12Vdc  
 Contact resistance ..... 100mΩ max.  
 Operating force ..... 160 ±50gf (brown button)

Travel ..... 0.35mm  
 Insulation resistance ..... 100MΩ min. at 500Vdc  
 Dielectric strength ..... 250Vac for 1 minute  
 Operating temp. range ..... -25°C to +70°C  
 Life expectancy ..... 500,000 cycles min. (electrical)

Choice of button style and packaging method.

**STICK**

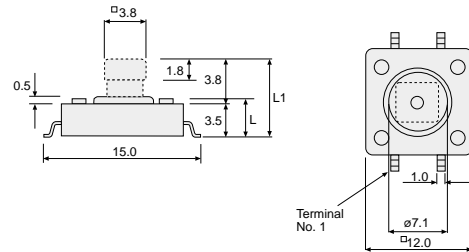
Manf. Part No.	Button Style	Button Length	Anglia Order Code
DTSM-21N-B	Round	4.3 (L)	ST122
DTSM-24N-B	Square	7.3 (L1)	ST121

**TAPE & REEL**

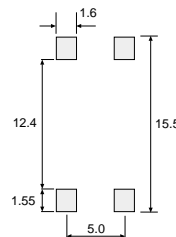
Manf. Part No.	Button Style	Button Length	Anglia Order Code
DTSM-21N-T/R	Round	4.3 (L)	ST122R
DTSM-24N-T/R	Square	7.3 (L1)	ST121R

**TACTILE SWITCH CAPS**  
 Round or Square  
 suitable for square button switches  
 see page 570

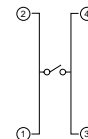
**Dimensions (mm)**



**Pad pattern**



**Circuit Diagram**



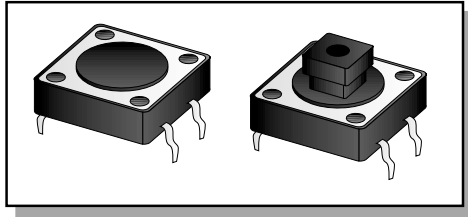
**Packaging**

TAPE : 24mm wide, 16mm pitch REEL : 330mm dia.



## DIPTRONICS type DTS-2

A range of 12 x 12mm size pcb mounting tactile switches offering a choice of button style and operating force.  
High reliability with up to 500,000 cycle life expectancy.



- ◆ 12 x 12mm size
- ◆ Positive 'click' action and tactile feedback
- ◆ Choice of button style and operating force
- ◆ SPNO momentary contacts
- ◆ 4 terminal mounting
- ◆ **High reliability, longer life**
- ◆ Established footprint

### Specification

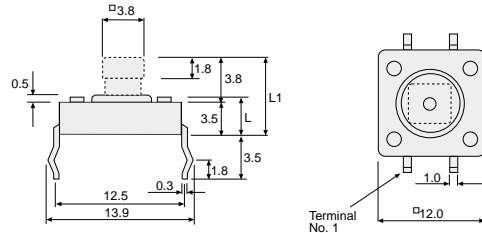
Contact arrangement..... single pole, single throw 4 terminal normally open, momentary action  
 Contact rating ..... 50mA, 12Vdc  
 Contact resistance..... 100mΩ max.  
 Operating force..... 160 ±50gf (brown button)  
 260 ±50gf (red button)

Travel ..... 0.35mm  
 Insulation resistance..... 100MΩ min. at 500Vdc  
 Dielectric strength..... 250Vac for 1 minute  
 Operating temp. range..... -25°C to +70°C  
 Life expectancy..... 160gf = 500,000 cycles min. (electrical)  
 260gf = 50,000 cycles min. (electrical)

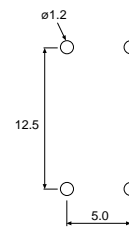
Choice of button style and operating force.

Manf. Part No.	Button Length	Operating Force	Anglia Order Code
<b>ROUND BUTTON</b>			
DTS-21N	4.3 (L)	160gf	<b>448122</b>
DTS-21R	4.3 (L)	260gf	<b>448122B</b>
<b>SQUARE BUTTON</b>			
DTS-24N	7.3 (L1)	160gf	<b>448121</b>
DTS-24R	7.3 (L1)	260gf	<b>448121B</b>

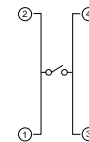
### Dimensions (mm)



### Footprint



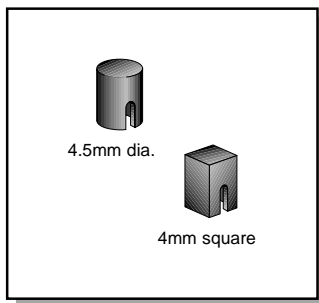
### Circuit Diagram



**TACTILE SWITCH CAPS**  
 Round or Square  
 suitable for square button switches  
 see page 570

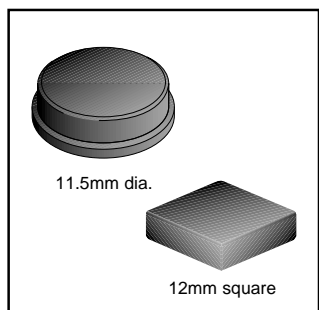
A range of moulded caps for use with 6 x 6mm & 12 x 12mm **square button** tactile switches. Available in round or square style, each with a choice of 6 different colours.

**CAPS for 6 x 6mm tactile switches**



Style	Round - 4.5mm dia.		Square - 4 x 4mm	
Designed to fit	6 x 6mm square button tactile switches			
Suitable switches*	448061/A, 448061AT, 448070/A & ST061/B/C			
Colour	Manf. Part No.	Anglia Order Code	Manf. Part No.	Anglia Order Code
Black	KTSC-62K	448820	KTSC-61K	448810
Red	KTSC-62R	448822	KTSC-61R	448812
Yellow	KTSC-62Y	448824	KTSC-61Y	448814
Blue	KTSC-62B	448825	KTSC-61B	448815
Green	KTSC-62G	448826	KTSC-61G	448816
Ivory	KTSC-62I	448829	KTSC-61I	448819
Dimensions (mm)	Dia. 4.5 H. 5.5		W. 4, D. 4 H. 5.5	

**CAPS for 12 x 12mm tactile switches**



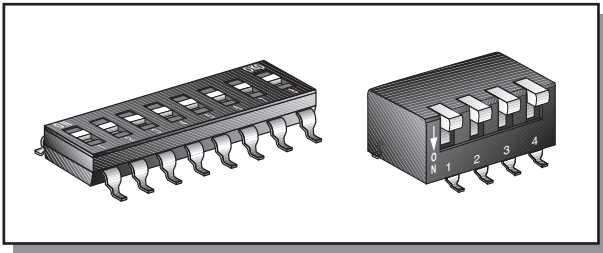
Style	Round - 11.5mm dia.		Square - 12 x 12mm	
Designed to fit	12 x 12mm square button tactile switches			
Suitable switches*	448121, 448121B, ST121 & ST121R			
Colour	Manf. Part No.	Anglia Order Code	Manf. Part No.	Anglia Order Code
Black	KTSC-22K	448920	KTSC-21K	448910
Red	KTSC-22R	448922	KTSC-21R	448912
Yellow	KTSC-22Y	448924	KTSC-21Y	448914
Blue	KTSC-22B	448925	KTSC-21B	448915
Green	KTSC-22G	448926	KTSC-21G	448916
Ivory	KTSC-22I	448929	KTSC-21I	448919
Dimensions (mm)	Dia. 11.5 (13 at base) H. 5.7 inc.1.5 for base		W. 12, D.12 H. 4.0	

\* Suitable tactile switches appear on the following pages :  
 448061/A & 448070/A - page 565  
 448061AT - page 567  
 448121 & 448121B - page 569  
 ST061/B/C - page 564  
 ST121 & ST121R - page 568

PRE-ASSEMBLED DIPTRONICS TACTILE SWITCHES & CAPS AVAILABLE TO SPECIAL ORDER

## OKO type KSW1S, KSW2S

A range of low profile, surface mount DIL switches offering a choice of poles in two styles. Gold plated SPST contacts are designed to ensure stable operation and are housed in black moulded bodies, flame retardant to UL94V-0. KSW1S series are tape sealed to withstand wave soldering and pcb washing. Supplied in sticks, with the option of reels on the top slide switch.



- ◆ Surface mount
- ◆ Choice of **two styles**
- ◆ High stability gold plated **SPST** wiping contacts
- ◆ **Low profile**, flame retardant Nylon bodies
- ◆ Tape sealed (KSW1S)
- ◆ Tinned terminations
- ◆ Body colour **Black**



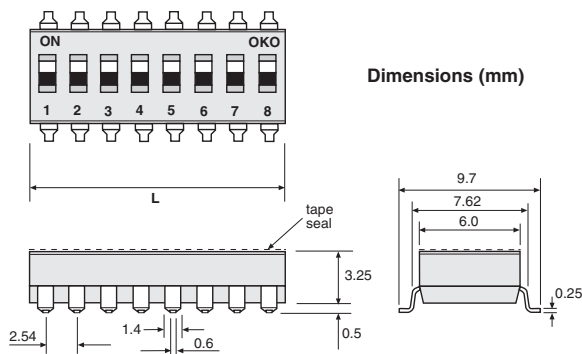
### Specification

Contact rating	
non-switching.....	100mA, 50Vdc
switching.....	25mA, 24Vdc
Contact resistance	
initial .....	50mΩ max.
after life test .....	100mΩ max.
Operating force .....	1000g max.
Insulation resistance .....	1000MΩ at 100Vdc
Dielectric strength .....	500Vdc for 1 minute

Operating temperature range .....	-30°C to +85°C
Life expectancy	
mechanical .....	3,000 operations per pole
electrical .....	2,000 operations per pole
Performance tests	
terminal solderability .....	3 sec max. at 230°C
vibration.....	to MIL-STD-202F method 204D
Initial switch position.....	All positions 'on' (top slide) 'off' (piano key)

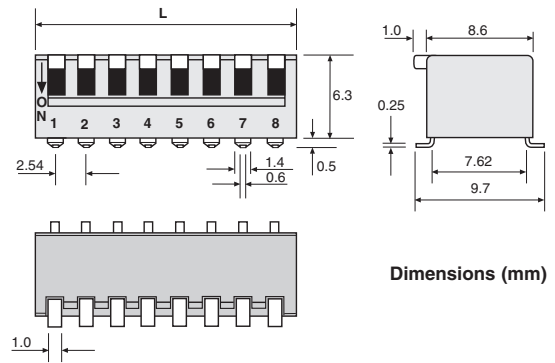
### TOP SLIDE ACTUATOR - type KSW1S

Low profile "IC package" body with flush actuators. Top tape sealed. Choice of packaging method.



### PIANO KEY ACTUATOR - type KSW2S

Low profile body with extended piano key actuators. Supplied in sticks.



Type	Length (L) (mm)	STICK	
		Manf. Part No. & Anglia Order Code	Manf. Part No. & Anglia Order Code
2 Pole on-off	5.08	<b>KSW1S02T</b>	<b>KSW1S02TT</b>
3 Pole on-off	7.62	<b>KSW1S03T</b>	<b>KSW1S03TT</b>
4 Pole on-off	10.90	<b>KSW1S04T</b>	<b>KSW1S04TT</b>
5 Pole on-off	13.44	<b>KSW1S05T</b>	<b>KSW1S05TT</b>
6 Pole on-off	15.98	<b>KSW1S06T</b>	<b>KSW1S06TT</b>
7 Pole on-off	18.52	<b>KSW1S07T</b>	<b>KSW1S07TT</b>
8 Pole on-off	21.06	<b>KSW1S08T</b>	<b>KSW1S08TT</b>
9 Pole on-off	23.60	<b>KSW1S09T</b>	<b>KSW1S09TT</b>
10 Pole on-off	26.14	<b>KSW1S10T</b>	<b>KSW1S10TT</b>
12 Pole on-off	31.22	<b>KSW1S12T</b>	<b>KSW1S12TT</b>

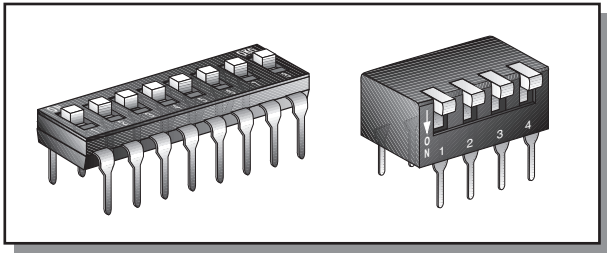
Type	Length (L) (mm)	STICK	
		Manf. Part No. & Anglia Order Code	Manf. Part No. & Anglia Order Code
2 Pole on-off	6.08	<b>KSW2S02R</b>	<b>KSW2S02R</b>
3 Pole on-off	8.62	<b>KSW2S03R</b>	<b>KSW2S03R</b>
4 Pole on-off	11.90	<b>KSW2S04R</b>	<b>KSW2S04R</b>
5 Pole on-off	14.44	<b>KSW2S05R</b>	<b>KSW2S05R</b>
6 Pole on-off	16.98	<b>KSW2S06R</b>	<b>KSW2S06R</b>
7 Pole on-off	19.52	<b>KSW2S07R</b>	<b>KSW2S07R</b>
8 Pole on-off	22.06	<b>KSW2S08R</b>	<b>KSW2S08R</b>
9 Pole on-off	24.60	<b>KSW2S09R</b>	<b>KSW2S09R</b>
10 Pole on-off	27.14	<b>KSW2S10R</b>	<b>KSW2S10R</b>

● RAISED ACTUATORS available to special order

Through Hole DIL Switches shown overleaf > > >

**OKO type KSW1H, KSW2H**

A range of high quality, yet cost effective, low profile DIL switches offering a choice of poles in two styles. Gold plated SPST contacts are designed to ensure stable operation and are housed in black moulded bodies, flame retardant to UL94V-0. Bases are sealed to prevent flux contamination. Ideal for applications such as data processing, communications, remote controls and burglar alarm systems. Supplied in tubes.



- ◆ Through hole terminals
- ◆ Choice of **two styles**
- ◆ High stability gold plated **SPST** wiping contacts
- ◆ **Low profile**, flame retardant Nylon bodies
- ◆ Sealed bases
- ◆ Gold plated terminations
- ◆ Body colour **Black**



**Specification**

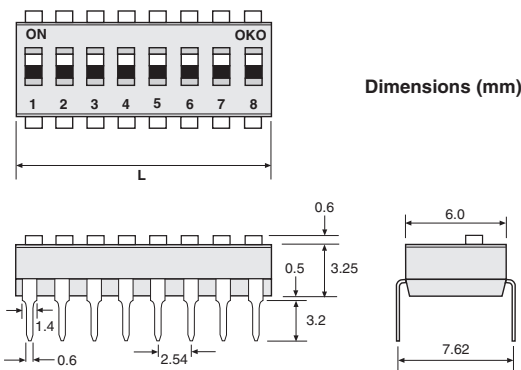
Contact rating	
non-switching.....	100mA, 50Vdc
switching.....	25mA, 24Vdc
Contact resistance	
initial .....	50mΩ max.
after life test .....	100mΩ max.
Operating force.....	1000g max.
Insulation resistance .....	1000MΩ at 100Vdc
Dielectric strength .....	500Vdc for 1 minute

Operating temperature range.....	-30°C to +85°C
Life expectancy	
mechanical .....	3,000 operations per pole
electrical .....	2,000 operations per pole
Performance tests	
terminal solderability .....	5 sec max. at 260°C
vibration.....	to MIL-STD-202F method 204D
Initial switch position.....	All positions 'on' (top slide) 'off' (piano key)

● **AUTO-INSERTABLE SPLAYED TERMINALS** available to special order

**TOP SLIDE ACTUATOR - type KSW1H**

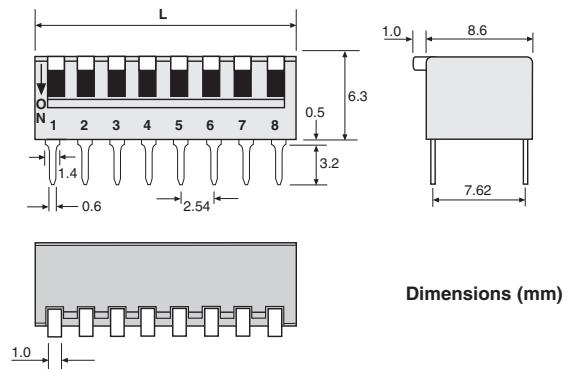
Low profile "IC package" body with raised actuators.



Type	Length (L) (mm)	Manf. Part No. & Anglia Order Code
2 Pole on-off	5.08	<b>KSW1H02R</b>
3 Pole on-off	7.62	<b>KSW1H03R</b>
4 Pole on-off	10.90	<b>KSW1H04R</b>
5 Pole on-off	13.44	<b>KSW1H05R</b>
6 Pole on-off	15.98	<b>KSW1H06R</b>
7 Pole on-off	18.52	<b>KSW1H07R</b>
8 Pole on-off	21.06	<b>KSW1H08R</b>
9 Pole on-off	23.60	<b>KSW1H09R</b>
10 Pole on-off	26.14	<b>KSW1H10R</b>
12 Pole on-off	31.22	<b>KSW1H12R</b>

**PIANO KEY ACTUATOR - type KSW2H**

Low profile body with extended piano key actuators.

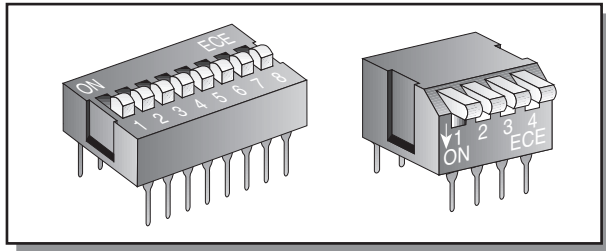


Type	Length (L) (mm)	Manf. Part No. & Anglia Order Code
2 Pole on-off	6.08	<b>KSW2H02R</b>
3 Pole on-off	8.72	<b>KSW2H03R</b>
4 Pole on-off	11.90	<b>KSW2H04R</b>
5 Pole on-off	14.44	<b>KSW2H05R</b>
6 Pole on-off	16.98	<b>KSW2H06R</b>
7 Pole on-off	19.52	<b>KSW2H07R</b>
8 Pole on-off	22.06	<b>KSW2H08R</b>
9 Pole on-off	24.60	<b>KSW2H09R</b>
10 Pole on-off	27.14	<b>KSW2H10R</b>

● **FLUSH ACTUATORS, WITH OR WITHOUT TAPE SEALING** available to special order

### EXCEL type EDG, EPG

A range of good quality, yet highly cost effective DIL switches offering a choice of poles in two styles. Gold plated SPST wiping contacts are housed in blue moulded bodies, flame retardant to UL94V-0, with epoxy sealed bases to prevent flux contamination. Ideal for applications such as data processing, communications, remote controls and burglar alarm systems. Supplied in tubes.



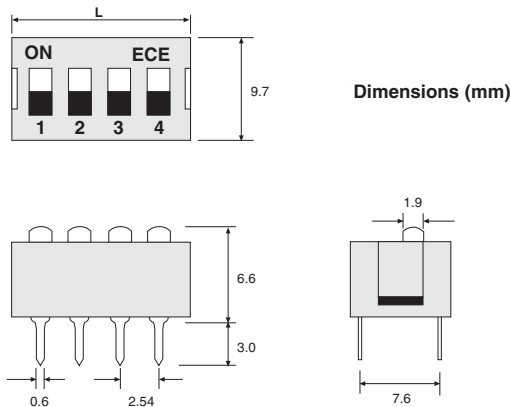
- ◆ Through hole terminals
- ◆ Cost effective
- ◆ Choice of **two styles**
- ◆ Gold plated **SPST** wiping contacts
- ◆ Flame retardant bodies
- ◆ Sealed bases
- ◆ Body colour **Blue**

**Specification**

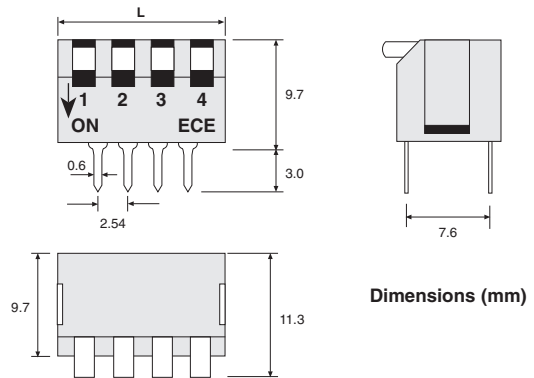
Contact rating..... Non-switching, 100mA, 50Vdc  
 Switching, 25mA, 24Vdc  
 Contact resistance ..... 50mΩ max. (initial)  
 100mΩ max. (after life test)  
 Operating force ..... 800g max.  
 Insulation resistance ..... 1000MΩ min. at 100Vdc  
 Dielectric strength ..... 500Vdc for 1 minute

Operating temperature range ..... -25°C to +70°C  
 Life expectancy..... 3,000 operations per pole  
 Performance tests:  
 Terminal solderability..... 95% cover after 5 sec at 230°C  
 Terminal heat shock ..... 260°C for 5 sec  
 Vibration ..... to MIL-STD-202F method 204D  
 Initial switch position..... All positions 'on' (top slide)  
 'off' (piano key)

**TOP SLIDE ACTUATOR - type EDG**



**PIANO KEY ACTUATOR - type EPG**



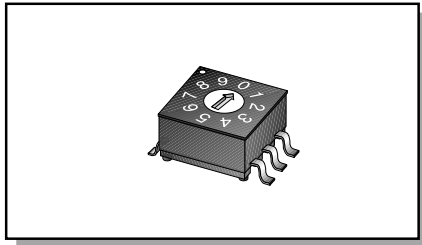
Type	Length (mm)	Manf. Part No.	Anglia Order Code
1 Pole on-off	3.9	EDG101S	447001A
2 Pole on-off	6.7	EDG102S	447002A
3 Pole on-off	9.2	EDG103S	447003A
4 Pole on-off	11.7	EDG104S	447004A
5 Pole on-off	14.2	EDG105S	447005A
6 Pole on-off	16.7	EDG106S	447006A
7 Pole on-off	19.2	EDG107S	447007A
8 Pole on-off	21.7	EDG108S	447008A
9 Pole on-off	24.2	EDG109S	447009A
10 Pole on-off	26.7	EDG110S	447010A
12 Pole on-off	31.8	EDG112S	447012A

Type	Length (mm)	Manf. Part No.	Anglia Order Code
2 Pole on-off	6.7	EPG102A	447102A
3 Pole on-off	9.2	EPG103A	447103A
4 Pole on-off	11.7	EPG104A	447104A
5 Pole on-off	14.2	EPG105A	447105A
6 Pole on-off	16.7	EPG106A	447106A
7 Pole on-off	19.2	EPG107A	447107A
8 Pole on-off	21.7	EPG108A	447108A
9 Pole on-off	24.2	EPG109A	447109A
10 Pole on-off	26.7	EPG110A	447110A
12 Pole on-off	31.8	EPG112A	447112A

TAPE SEALED SWITCHES available to special order

**EXCEL type ERD**

A range of miniature, surface mount, rotary switches with BCD or hexadecimal encoding. Screwdriver adjustment with gold plated contacts housed in black moulded bodies, flame retardant to UL94V-0. Fully sealed construction. Choice of stick or tape and reel packaging.



- ◆ **Surface mount**
- ◆ **BCD or Hexadecimal real codes**
- ◆ Option of 8 or 10 position BCD
- ◆ Screwdriver adjust
- ◆ Flame retardant bodies
- ◆ **Fully sealed**
- ◆ Supplied in sticks or taped & reeled
- ◆ Body colour **Black**

**Specification**

Contact rating..... Non-switching, 100mA, 50Vdc  
 Switching, 25mA, 24Vdc  
 Contact resistance..... 100mΩ max. at 5Vdc, 10mA  
 Operating force ..... 500g max.  
 Insulation resistance ..... 100MΩ min. at 100Vdc  
 Dielectric strength ..... 250Vac for 1 minute

Operating temp. range ..... -25°C to +70°C  
 Life expectancy ..... 10,000 cycles min.  
**Performance tests**  
 Terminal solderability ..... 95% cover after 5 sec at 230°C  
 Terminal heat shock..... 260°C for 10 sec, 280°C for 2 sec  
 (resistant to IR reflow soldering heat)  
 Vibration..... to MIL-STD-202F method 204D

Choice of packaging method.

**STICK**

Type	Positions	Anglia Order Code
BCD	8	<b>SR008</b>
BCD	10	<b>SR010</b>
Hexadecimal	16	<b>SR016</b>



**TAPE & REEL**

Type	Positions	Anglia Order Code
BCD	8	<b>SR008TR</b>
BCD	10	<b>SR010TR</b>
Hexadecimal	16	<b>SR016TR</b>

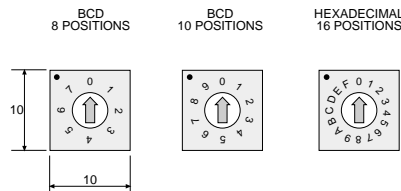
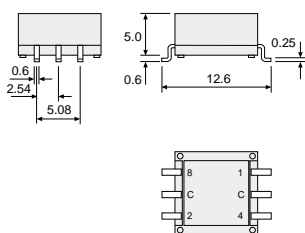


**CODING TABLE**

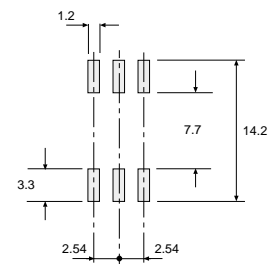
Position \ Pins	8	4	2	1
0	0	0	0	0
1	0	0	0	1
2	0	0	1	0
3	0	0	1	1
4	0	1	0	0
5	0	1	0	1
6	0	1	1	0
7	0	1	1	1
8 pos.				
8	1	0	0	0
9	1	0	0	1
10 pos.				
A	1	0	1	0
B	1	0	1	1
C	1	1	0	0
D	1	1	0	1
E	1	1	1	0
F	1	1	1	1
16 pos.				

COMPLEMENTARY code types are available to special order

**Dimensions (mm) & Connections**

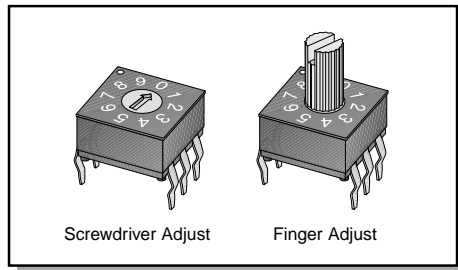


**Pad Pattern**



### EXCEL type ERD

A range of miniature, through hole, rotary switches with BCD or hexadecimal encoding. Gold plated contacts are housed in blue moulded bodies, flame retardant to UL94V-0. Fully sealed construction. Choice of screwdriver or finger adjustment with optional spindle cover available (coloured white) to aid position identification. Switches supplied in tubes.



- ◆ Through hole terminals
- ◆ BCD or Hexadecimal real codes
- ◆ Option of 8 or 10 position BCD
- ◆ Screwdriver or finger adjust
- ◆ Optional spindle cover aids position identification
- ◆ Flame retardant bodies
- ◆ Fully sealed
- ◆ Body colour Blue

**Specification**

Contact rating..... Non-switching, 100mA, 50Vdc  
 Switching, 25mA, 24Vdc  
 Contact resistance..... 100mΩ max. at 5Vdc, 10mA  
 Operating force ..... 500g max.  
 Insulation resistance ..... 100MΩ min. at 100Vdc  
 Dielectric strength ..... 250Vac for 1 minute

Operating temp. range ..... -25°C to +70°C  
 Life expectancy ..... 10,000 cycles min.  
 Performance tests  
 Terminal solderability ..... 95% cover after 5 sec at 230°C  
 Terminal heat shock ..... 260°C for 10 sec, 280°C for 2 sec  
 (resistant to IR reflow soldering heat)  
 Vibration ..... to MIL-STD-202F method 204D

Choice of adjustment method.

**SCREWDRIVER ADJUST**

Type	Positions	Anglia Order Code
BCD	8	447501A
BCD	10	447505A
Hexadecimal	16	447509A

**FINGER ADJUST**

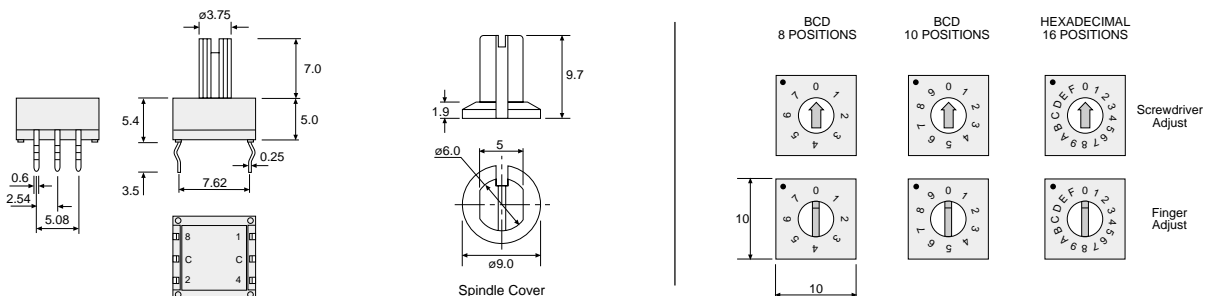
Type	Positions	Anglia Order Code
BCD	8	447515A
BCD	10	447519A
Hexadecimal	16	447525A
Spindle Cover		447500A

**CODING TABLE**

Position \ Pins	8	4	2	1
0	0	0	0	0
1	0	0	0	1
2	0	0	1	0
3	0	0	1	1
4	0	1	0	0
5	0	1	0	1
6	0	1	1	0
7	0	1	1	1
8 pos.				
8	1	0	0	0
9	1	0	0	1
10 pos.				
A	1	0	1	0
B	1	0	1	1
C	1	1	0	0
D	1	1	0	1
E	1	1	1	0
F	1	1	1	1
16 pos.				

COMPLEMENTARY code types are available to special order

**Dimensions (mm) & Connections**

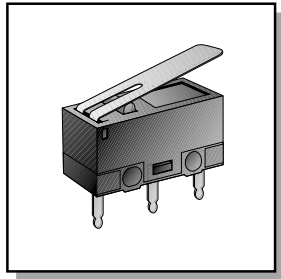


**YOKUDO type M series**

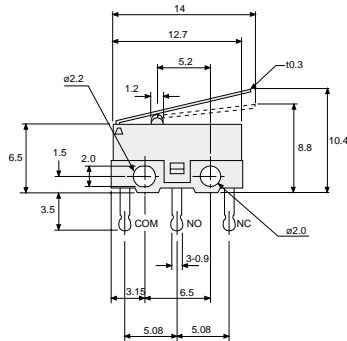
Two well established styles of lever operated microswitches offering a choice of size.

**MICRO-MINIATURE - type M5**

Very small switches with solder/pcb terminals. Rated 3A at 125Vac. Lever length 14mm.  
 N.B. Other lever lengths available to special order.



Dimensions (mm)



**Specification**

Contact arrangement ..... single pole changeover  
 Contact material ..... silver  
 Contact rating ..... 3A, 125Vac/2A, 30Vdc  
 Contact resistance ..... 30mΩ max.  
 Operating force ..... 40gf max.  
 Insulation resistance ..... 100MΩ min. at 500Vdc  
 Dielectric strength ..... 500Vac for 1 minute  
 Operating temp. range ..... -25°C to +65°C  
 Life expectancy ..... 1,000,000 operations (mechanical)  
 30,000 operations (electrical)

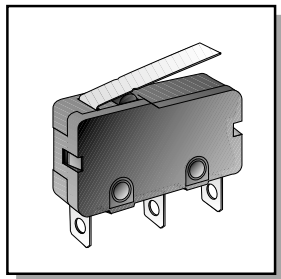
Type	Manf. Part No.	Anglia Order Code
14mm lever	M5L14	449501

**SUB-MINIATURE (V4) - type M4**

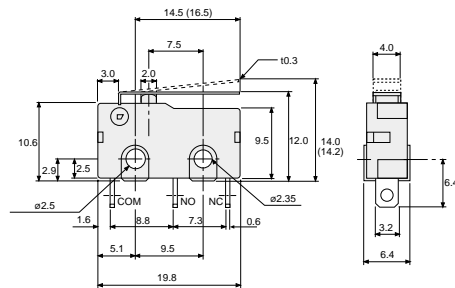
Small V4 style switches with option of solder or pcb terminals. Rated 5A at 125Vac.  
 N.B. Other lever lengths and roller lever operation available to special order.

**SOLDER TERMINALS**

Choice of 14.5mm or 16.5mm lever length.



Dimensions (mm)



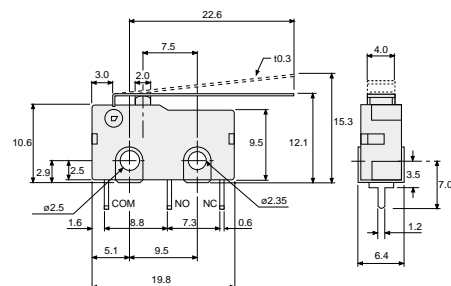
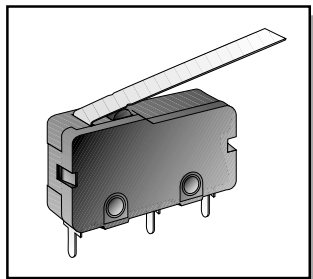
**Specification**

Contact arrangement ..... single pole changeover  
 Contact material ..... silver  
 Contact rating ..... 5A, 125Vac/2A, 250Vac  
 3A, 14Vdc/2A, 30Vdc  
 Contact resistance ..... 50mΩ max.  
 Operating force ..... 25gf max.  
 Insulation resistance ..... 100MΩ min at 500Vdc  
 Dielectric strength ..... 1000Vac for 1 minute  
 Operating temp. range ..... -25°C to +80°C  
 Life expectancy ..... 1,000,000 operations (mechanical)  
 200,000 operations (electrical)

Type	Manf. Part No.	Anglia Order Code
14.5mm lever (as illus.)	M4L14	449401
16.5mm lever	M4L16	449403

**PCB TERMINALS**

Lever length 25mm.



Type	Manf. Part No.	Anglia Order Code
25mm lever	M4L25B	449402