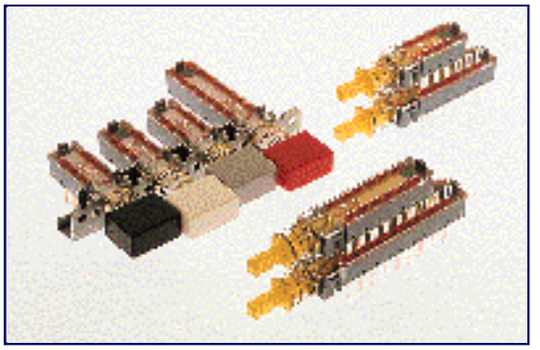


TA/LT Series push button switches offer an "ultra-lite" alternative to design engineers working in a variety of applications. Available features include:

- Spring loaded, wiping contacts for smooth, silent actuation stroke and excellent reliability
- Up to 16 poles per module
- Mounting chassis available.
- Interlocked assemblies up to 20 stations
- Optional terminal length
- Snap-on buttons
- Solder lugs on top for hand wiring; PC at bottom for flow soldering
- Switch plunger with sliding contacts can be removed from the front without disturbing electrical connections.
- Fixed terminals are epoxied and "staked" in position, providing an extra seal to help prevent wicking of solder or flux.

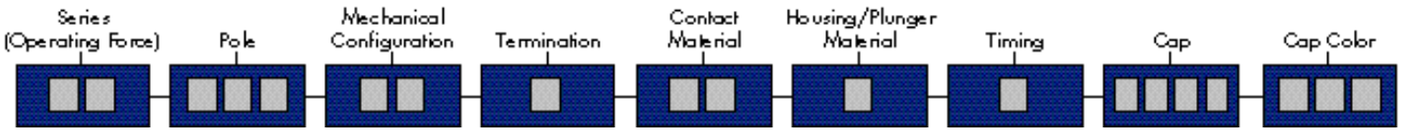
## SPECIFICATIONS

**RATING:** 0.5 A@ 100 VAC, 0.2A@ 250 VAC, 1A@ 25 V D C
**CONTACT RESISTANCE:** 20 mΩ typical
**INSULATION RESISTANCE:** Adjacent Contacts — 2 x $10^{12}$ Ω min. (Dry Condition)
**DIELECTRIC STRENGTH:** 1,500 V RMS min.
**LIFE CYCLE:** 100,000 cycles min.
**OPERATING TEMPERATURE RANGE:** -20° to + 70°C
**FUNCTIONS AVAILABLE:**
GR = Interlocking
O A= Momentary
EE = Latching
TA= Standard Operating Force (See Next Page)
LT = Light Touch Operating Force (See Next Page)
S = Shorting (MBB)
N= Non-Shorting (BBM)

## MATERIALS

**HOUSING:** Polycarbonate (UL94-HB) Std.
Valox (UL94-VO)
**PLUNGER:** Duracon (UL94-HB) Std.
Valox (UL94-VO)
**TERMINAL BOARD:** Polycarbonate (UL94-HB) Std.
**MOVING CONTACTS:** Silver plated copper alloy
Gold plate over nickel plated copper alloy
**FIXED CONTACTS:** Copper alloy with silver plate over nickel plate
**TERMINAL SEAL:** High strength bonding red resin
**RELEASE BAR:** Steel / zinc plated
**CHASSIS:** Steel / Nickel plated or steel/zinc plated

## HOW TO ORDER INDIVIDUAL MODULES




| Series (Operating Force) | Pole | Mechanical Configuration | Termination | Contact Material | Housing/Plunger Material | Timing | Cap | Cap Color |
|---|---|---|---|---|---|---|---|---|
| TA<br>LT | 2U<br>4U<br>6U<br>8U<br>10U<br>16U | EE= Latching<br>OA= Momentary | A<br>B<br>C<br>E<br>F<br>*Retentive (Snap In) pins available; please contact E-Switch for Specifications. | AG= Silver<br>AU= Gold | P= UL94HB<br>V= UL94VO | N= BBM<br>S= MBB | TAA[1]<br>TAB[2]<br>TAC[1]<br>TAD[1]<br>TAE[1]<br>TAG[2]<br>TAK[3]<br>TAL[3]<br>TAM[4]<br>TA12<br>TA2800[5]<br>.08<br>.09<br>.094 | Blk<br>Wht<br>Gry<br>Red<br>Blu<br>Chr<br>Blk<br>Gry<br>Yel<br>Blu<br>Red<br>Grn<br>Wht |

[1]Blk, Gry, Wht, Red Only
[2]Blk, Gry, Wht, Red, Chr Only
[3]Blk & Gry Only
[4]Blk, Gry, Wht Only
[5]Blk & Red Only

**Example:**

TA → 10U → OA → E → AU → P → S → TA12 → Blu

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.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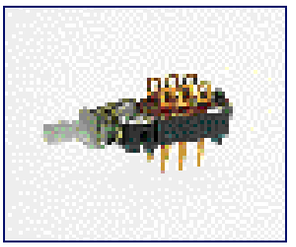
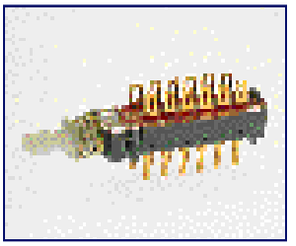
## TA2UEE A

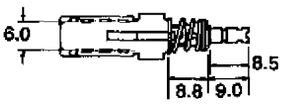


## TA4UEE A

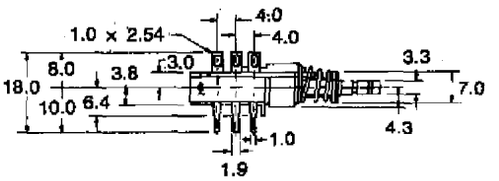


## MODULE SCHEMATICS

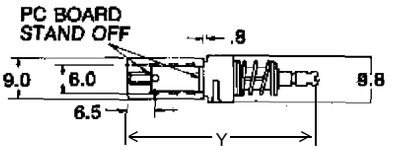
TOP




SIDE




BOTTOM




## CIRCUIT OPTIONS

| | |
|---|---|
| 2U = DPDT | 8U = 8PDT |
| 4U = 4PDT | 10U = 10PDT |
| 6U = 6PDT | 16U = 16PDT |

| | |
|---|---|
| TRAVEL | 4.8 |
| TRAVEL TO LOCK | 3.3 |
| TOLERANCE | ±0.2MM |

POLE DIMENSIONS

| | Y |
|---|---|
| 2PDT | 42.15 |
| 4PDT | 54.15 |
| 6PDT | 66.15 |
| 8PDT | 78.15 |
| 10PDT | 90.15 |
| 16PDT | 126.15 |

## OPERATING FORCE OPTIONS

### (TA) STANDARD OPERATING FORCE

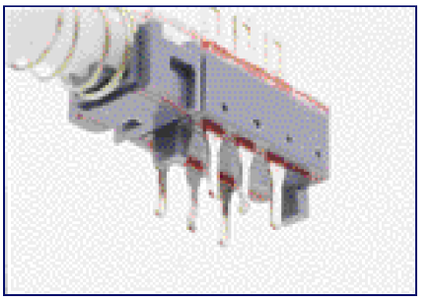
2PDT≤700 grams
4PDT≤700 grams
6PDT≤1000 grams
8PDT≤1000 grams
10PDT≤1200 grams
16PDT≤1200 grams

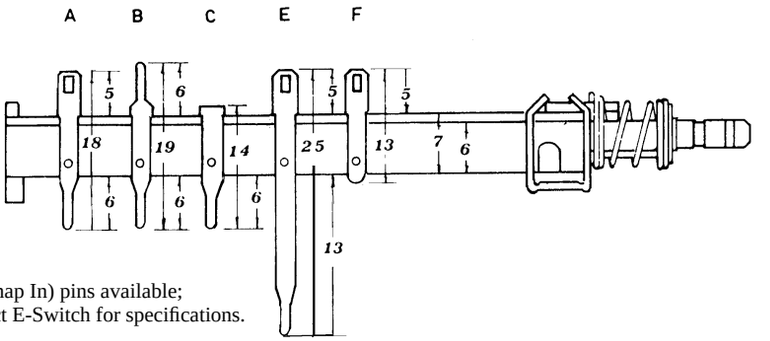
### (LT) LIGHT TOUCH OPERATING FORCE

2PDT≤250 grams
4PDT≤400 grams
6PDT≤650 grams

## TERMINATION OPTIONS

### RETENTIVE PIN OPTION






*Retentive (Snap In) pins available;
please contact E-Switch for specifications.

## PLATING, MATERIAL & TIMING OPTIONS

### PLATING

AG = Silver
AU = Gold

### MATERIAL

P = Polycarbonate UL94HB
V = Valox UL94VO

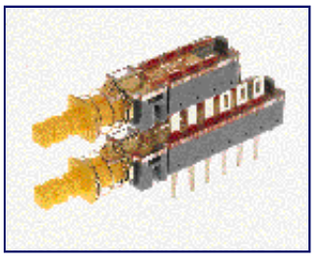
### TIMING

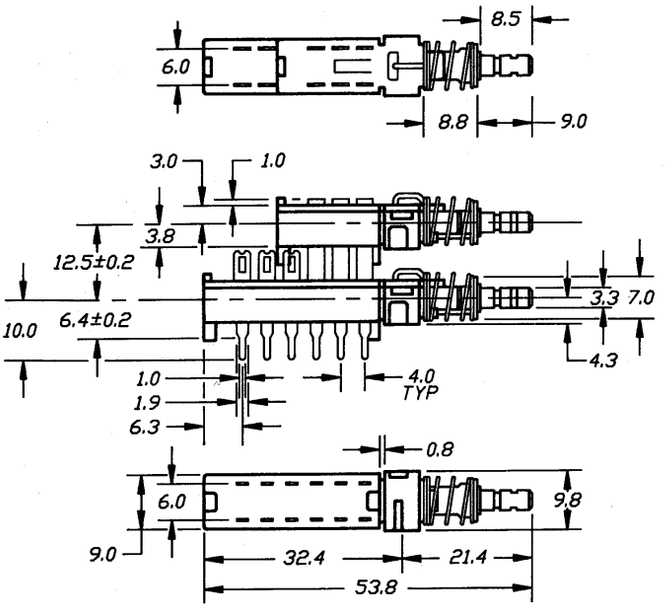
N = (BBM) Non-Shorting
S = (MBB) Shorting

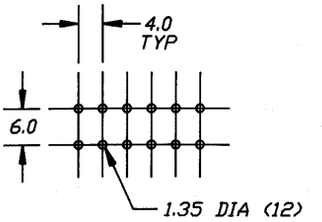
SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

## LIGHT TOUCH PIGGYBACK

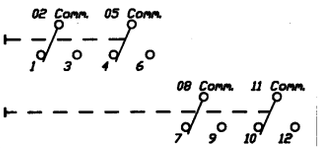
### A020901





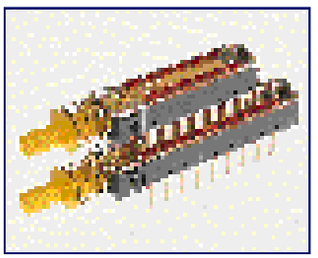



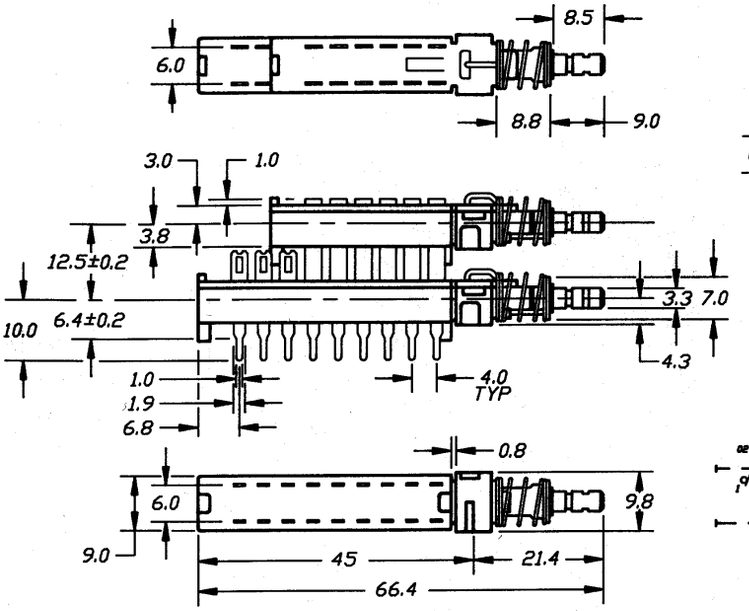

P.C.B. MOUNTING HOLES

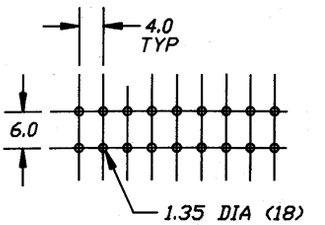



CONTACT CONFIGURATION

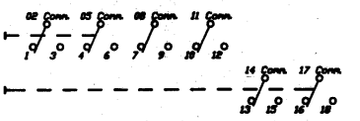
### A020903






P.C.B. MOUNTING HOLES




CONTACT CONFIGURATION

The light touch piggyback is often used where space is a premium or where 2 vertical push buttons are required. The top switch mechanism controls the front terminals. The bottom switch mechanism controls the back terminals.

## HOW TO ORDER
## LIGHT TOUCH PIGGYBACK MODULES

To order, simply give model number:

MODEL NUMBER:
A020901
A020903

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.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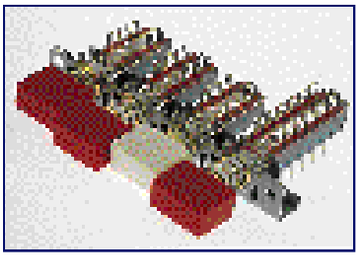
## CHASSIS & ASSEMBLY

### ASSEMBLY CHASSIS



**THE ABOVE EXAMPLE SHOWS:**

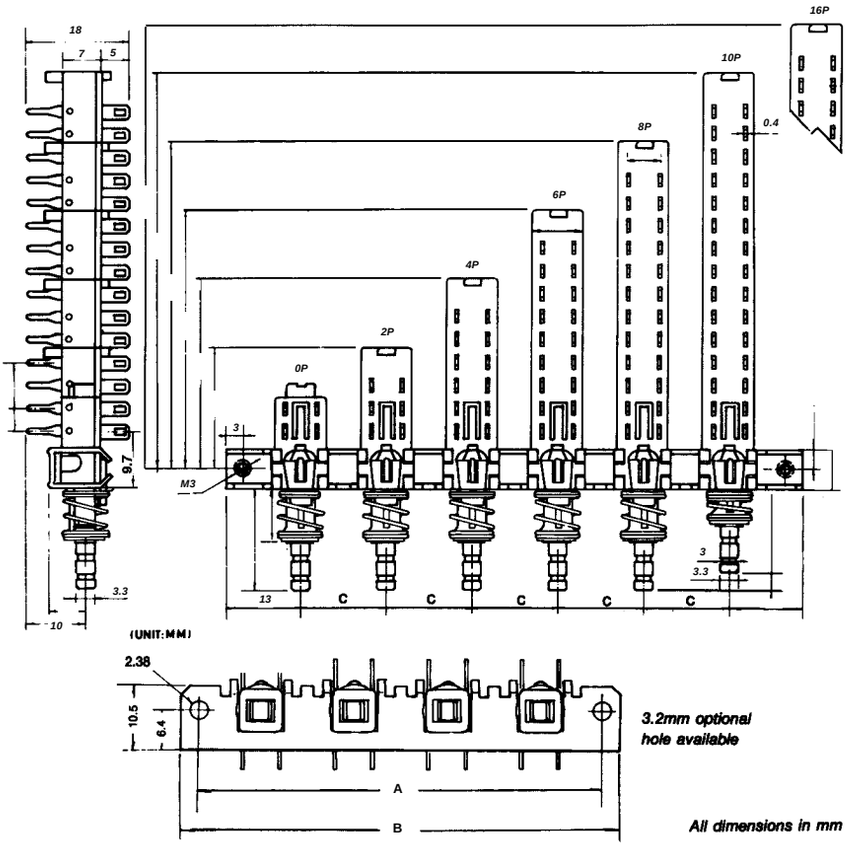
- A 4 station TAs w i t c h
- 15mm spacing
- All buttons TAB/RED except station 3 which is TA B / W H T
- First 3 stations are 2 pole switches, interlocked
- Station 4 is 4 pole momentary switch
- All switches have standard terminal type A

**WHEN ORDERING A S S E M B LY:**

(See Next Page For Ordering Procedure)

1. When applicable, state whether buttons are to be mounted horizontally or vertically.
2. Please state if buttons are to be shipped bulk.
3. State requirement for cut mounting tabs on chassis in exception area.
4. Inquire about non-standard mounting holes on chassis ends.

### REFERENCE DIAGRAMS




**Tolerance ± .2m m**

## STANDARD CHASSIS DIMENSIONS (refer to above schematics)

| Number of Stations | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 'C'Dim. 10mm | 'A'Dim. | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 | 130 | 140 | 150 | 160 | 170 | 180 | 190 | 200 | 210 |
| | 'B'Dim. | 36 | 46 | 56 | 66 | 76 | 86 | 96 | 106 | 116 | 126 | 136 | 146 | 156 | 166 | 176 | 186 | 196 | 206 | 216 |
| 'C'Dim. 12.5mm | 'A'Dim. | 32.5 | 45 | 57.5 | 70 | 82.5 | 95 | 107.5 | 120 | 132.5 | 145 | 157.5 | 170 | 182.5 | 195 | 207.5 | 220 | 232.5 | 245 | 257.5 |
| | 'B'Dim. | 38.5 | 51 | 63.5 | 76 | 88.5 | 101 | 113.5 | 126 | 138.5 | 151 | 163.5 | 176 | 188.5 | 201 | 213.5 | 226 | 238.5 | 251 | 263.5 |
| 'C'Dim. 15mm | 'A'Dim. | 35 | 50 | 65 | 80 | 95 | 110 | 125 | 140 | 155 | 170 | 185 | 200 | 215 | 230 | 245 | 260 | 275 | 290 | 305 |
| | 'B'Dim. | 41 | 56 | 71 | 86 | 101 | 116 | 131 | 146 | 161 | 176 | 191 | 206 | 221 | 236 | 251 | 266 | 281 | 296 | 311 |
| 'C'Dim. 17.5mm | 'A'Dim. | 37.5 | 55 | 72.5 | 90 | 107.5 | 125 | 142.5 | 160 | 177.5 | 195 | 212.5 | 230 | 247.5 | 265 | 282.5 | 300 | 317.5 | 335 | 352.5 |
| | 'B'Dim. | 43.5 | 61 | 78.5 | 96 | 113.5 | 131 | 148.5 | 166 | 183.5 | 201 | 218.5 | 236 | 253.5 | 271 | 288.5 | 306 | 323.5 | 341 | 358.5 |
| 'C'Dim. 20mm | 'A'Dim. | 40 | 60 | 80 | 100 | 120 | 140 | 160 | 180 | 200 | 220 | 240 | 260 | 280 | 300 | 320 | 340 | 360 | 380 | 400 |
| | 'B'Dim. | 46 | 66 | 86 | 106 | 126 | 146 | 166 | 186 | 206 | 226 | 246 | 266 | 286 | 306 | 326 | 346 | 366 | 386 | 406 |

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

## HOW TO ORDER SINGLE STATION ASSEMBLIES

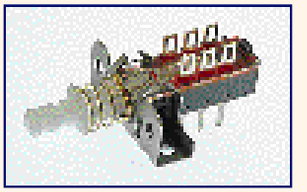
| Number of Switches Per Chassis | Series (Operating Force) | Chassis Spacing | Cap | Cap Color | Pole | Mechanical Configuration | Termination | Contact Material | Housing & Plunger Material | Timing | Exceptions to Part Number By Station |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1* *Single Key Chassis | TA<br>LT | 0003-00<br>0003-02<br>0003-03 | TAA[1]<br>TAB[2]<br>TAC[1]<br>TAD[1]<br>TAE[1]<br>TAG[2]<br>TAK[3]<br>TAL[3]<br>TAM[4]<br>TA12<br>TA2800[5] | Blk, Wht<br>Gry, Red<br>Blu, Chr | 2U<br>4U<br>6U<br>8U<br>10U<br>16U | EE= Latching<br>OA= Momentary | A<br>B<br>C<br>E<br>F | AG= Silver<br>AU= Gold | P= Standard<br>V= Valox | N= BBM<br>S= MBB | (None) |
| | | | .08<br>.09<br>.094 | Blk, Gry<br>Yel, Blu<br>Red, Grn<br>Wht | | | | | | | |
| | | | TH100<br>TH120<br>TH201 | Wht, Yel<br>Orn, Grn<br>Blu | | | | | | | |

**Desc. (TA0003-00)**
**ID# A021251**
**Standard**
**2.38 mm holes (.094)**

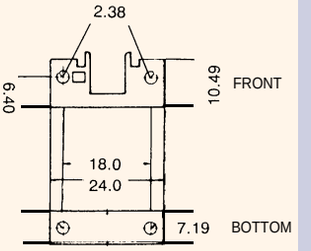
**Desc. (TA0003-02)**
**ID# A021276**
**Tapped For 4-40 screws**

**Desc. (TA0003-03)**
**ID# A021252**
**3.18 mm holes (.125)**

### SINGLE KEY CHASSIS



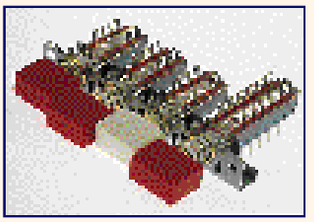
TA0003-00




## HOW TO ORDER MULTISTATION ASSEMBLIES

| | | In mm: | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | TA | 10 (.394") | TAA[1] | Blk, Wht | 2U | EE= Latching | A | AG= Silver | P= Standard | N= BBM | See Below for Procedure |
| 3 | LT | 12.5 (.492") | TAB[2] | Gry, Red | 4U | OA= Momentary | B | AU= Gold | V= Valox | S= MBB | |
| 4 | | 15 (.591") | TAC[1] | Blu, Chr | 6U | GR= Interlocked | C | | | | |
| 5 | | 17.5 (.689") | TAD[1] | | 8U | | E | | | | |
| 6 | | 20 (.787") | TAE[1] | | 10U | | F | | | | |
| 7 | | | TAG[2] | | 16U | | | | | | |
| 8 | | | TAK[3] | | | | | | | | |
| 9 | | | TAL[3] | | | | | | | | |
| 10 | | | TAM[4] | | | | | | | | |
| 11 | | | TA12 | | | | | | | | |
| 12 | | | TA2800[5] | | | | | | | | |
| 13 | | | | Blk, Gry | | | | | | | |
| 14 | | | .08 | Yel, Blu | | | | | | | |
| 15 | | | .09 | Red, Grn | | | | | | | |
| 16 | | | .094 | Wht | | | | | | | |
| 17 | | | | | | | | | | | |
| 18 | | | TH100 | Wht, Yel | | | | | | | |
| 19 | | | TH120 | Orn, Grn | | | | | | | |
| 20 | | | TH201 | Blu | | | | | | | |

### ASSEMBLY CHASSIS



[1]Blk, Gry, Wht, Red Only
[2]Blk, Gry, Wht, Red, Chr Only
[3]Blk & Gry Only
[4]Blk, Gry, Wht Only
[5]Blk & Red Only

**Exceptions to Part Number:**

**List By Chassis Station #**

**examples: Station4=4UOA**
**Station3=TAB/Wht**

**ORIENTATION: PC pins down, plungers forward– station No. 1 on left.**

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

## Example:

**12x → TA → 15 → (TAB/Red) → 2U → EE → A → AG → P → N**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# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

E-Switch:

4XTA15(TAB/BLK)2UGRAAUPN 1XTA003032UEEAAGPN TA4UOAAAUPN 12XLT12.5(TAM/BLK)2UGRAAGPS 12XLT12.5TAMBLK2UGRAAGPN 1XTA000302/4UEEAAG 2XTA15TABBLK2UEEAAUPS 4XLT202UEEAAUPN 4XTA15TAB/BLK2UGRCAUPN+SPECIAL TA2UOAFAGPN LT4UEEAAGPN LT2UEEAAGPN TA2UEECAUPN TA2UEEAAUPN LT10UEEAAUPN LT2UEEAAUPN LT2UEECAUPN LT2UOAAAGPSTAMBLK LT4UEECAUPN LT6UEECAUPN LT6UOACAUPN LT8UEEAAUPN LT8UEECAUPN TA10UEEAAGPN TA10UEEAAGVN TA10UEEAAUPN TA10UOAAG-PN TA16UEEAAGPN TA16UOAAAUPN TA2UEEAAGPN TA2UEEAAGPS TA2UEEEAGPN TA2UOAAAGPN TA2UOAAAGPS TA2UOAAAUPN TA2UOAEAGPN TA4UDAAAU TA4UEEAAGPN TA4UEEAAGPS TA4UEEAAUPN TA4UOAAAGPN TA-6U-EE-A-AG-P-S TA6UEEAAUPN TA8UEEAAUPN TACRED TAGWHT TAGRED TACWHT TAKBLK TAGGRY TAGBLK TACGRY