

Toggle Switches, Tiny, Part Number Matrix

MATERIAL SPECIFICATIONS:

Contacts.....Gold over nickel or silver plate
 Case Material.....Thermoplastic 94V-0
 Terminals/Fixed Contacts.....Tin lead plate
 Terminal Seal.....Epoxy on single pole, optional
 on double pole
 Process Seal.....ES version only (see page C16 - C17)

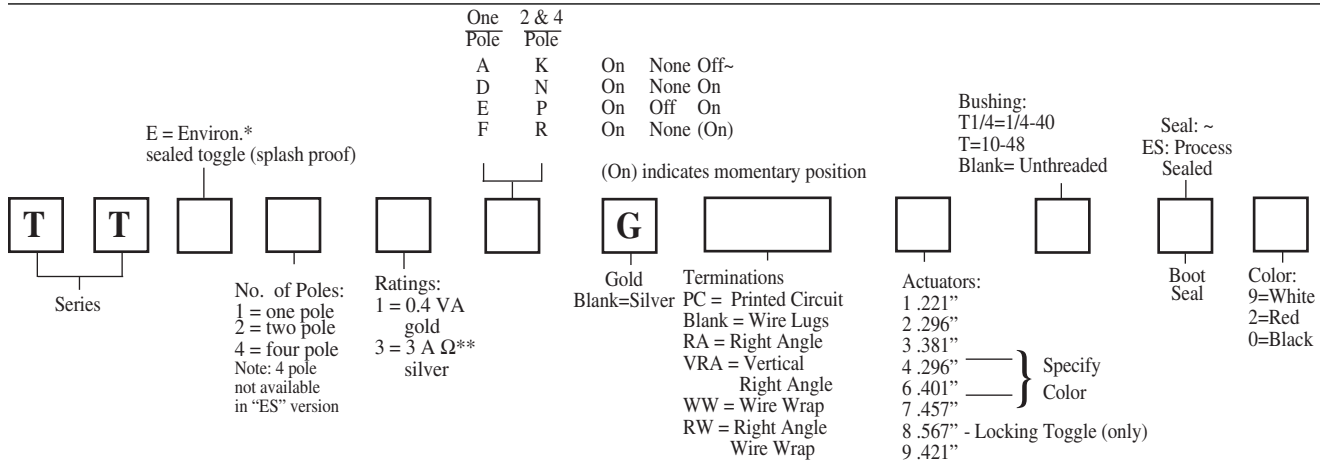
ENVIRONMENTAL SPECIFICATIONS

Operating Temperature.....-22°F to +185°F (-30°C to +85°C)
 Storage Temperature.....-67°F to +185°F (-55°C to +85°C)
 Solder Heat Resistance.....See page M3-4
 U.L. (File E-46765).....Silver only

TYPICAL PERFORMANCE CHARACTERISTICS:

Contact Rating..... Gold: 0.4 VA max. @ 20 VDC or peak AC
 Silver (2 pos.): 3 A @ 125 VAC or 28 VDC
 Silver (3 pos.): 2 A @ 125 VAC or 28 VDC
 Initial Contact Resistance..... 20 Milliohms max.
 Contact Timing..... Break before Make
 Insulation Resistance..... 1,000 Megohms 500 VDC min.
 Dielectric Strength..... 1,000 Volts RMS @ sea level
 Plunger/Actuator Travel..... 26°
 High Torque Bushing Shoulder..... Yes
 Life Expectancy..... See chart below
 Note: Hardware included with switch

TT Series



| One Pole | 0.4VA | 80,000 (2 Pos.) | 60,000 (3 Pos.) |
|------------|-------|-----------------|-----------------|
| Two Pole | 0.4VA | 80,000 (2 Pos.) | 60,000 (3 Pos.) |
| Three Pole | 3 Amp | 20,000 (2 Pos.) | 10,000 (3 Pos.) |
| Four Pole | 0.4VA | 80,000 (2 Pos.) | 60,000 (3 Pos.) |
| Five Pole | 3 Amp | 20,000 (2 Pos.) | 10,000 (3 Pos.) |

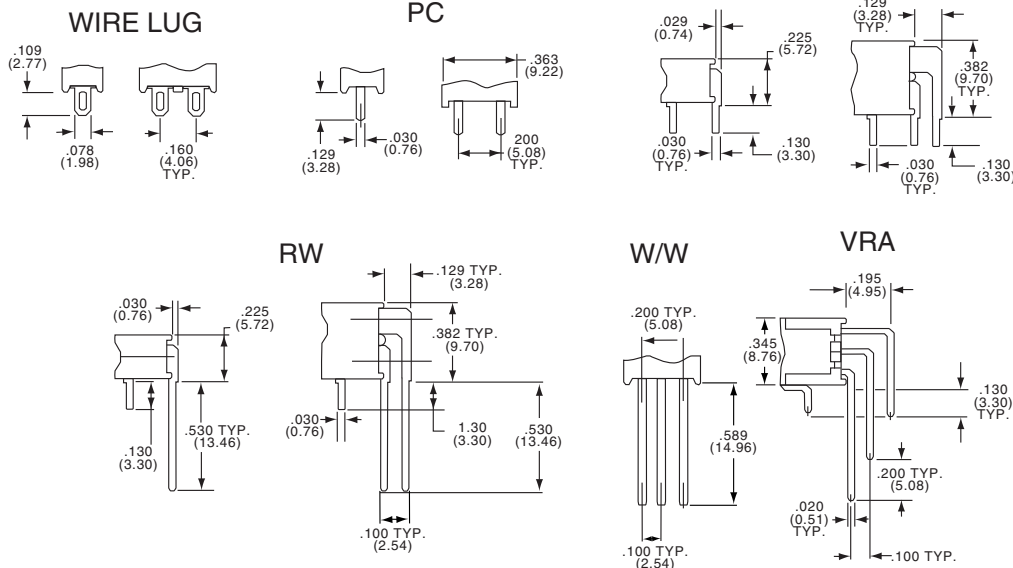
APPLICATION NOTE:

For surface mount termination, use the "TST" series on page C5.
 For 3 pole refer to the MT Series on page C43

| Actuator Dimensions shown with | |
|--------------------------------|----------------|
| 1,2,3,4,6 | 10-48 bushing |
| 7,8,9 | 1/4-40 bushing |

| |
|--|
| * Not available on 7 actuator or with VRA. |
| ** Not available in RA. |
| Ω Available in PC & WL only. |
| ~ Available in WL & PC only. |

TERMINATIONS

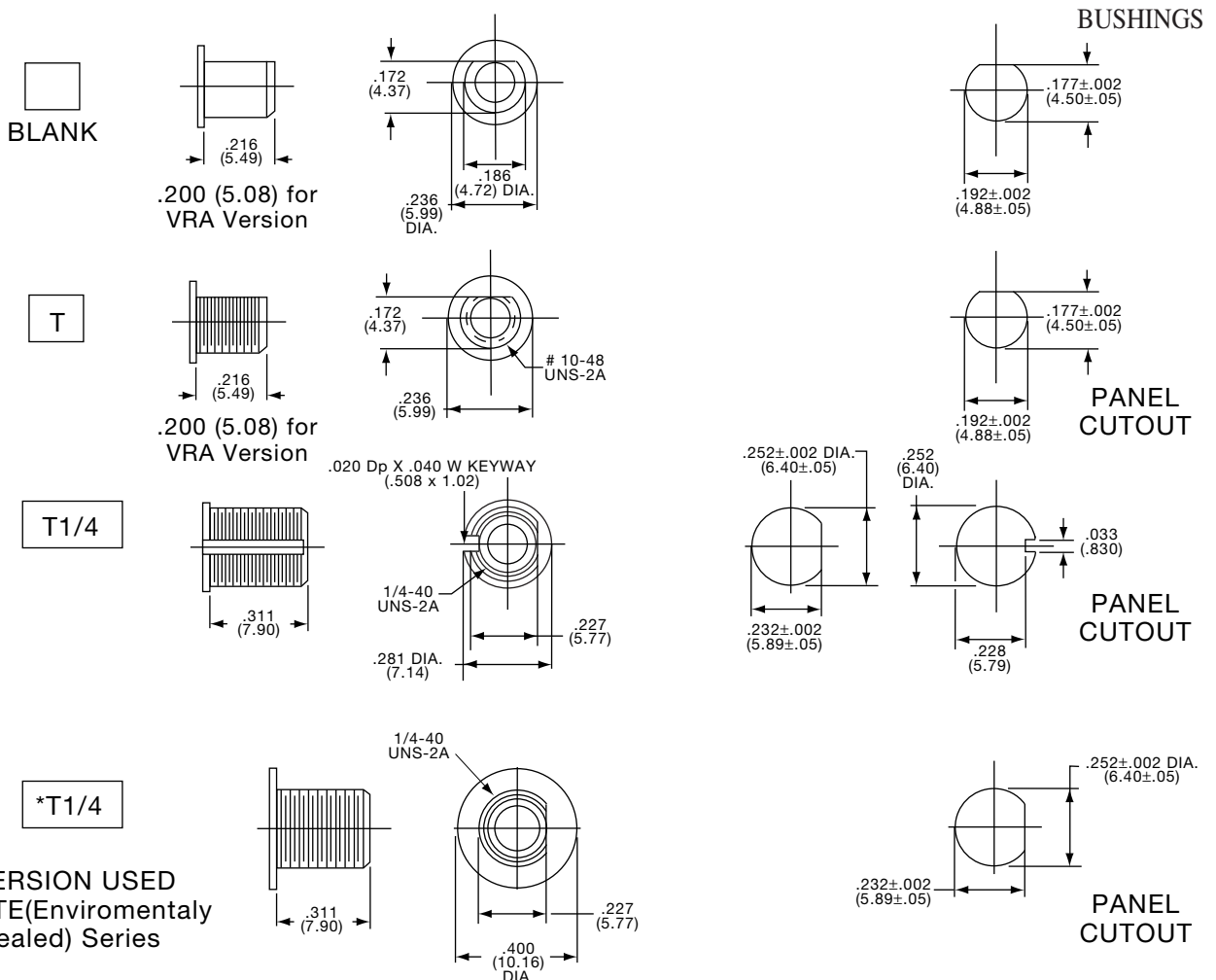


Toggle Switches, Tiny, Actuator and Bushing Options

Toggle Cap
Series C-11*
Available

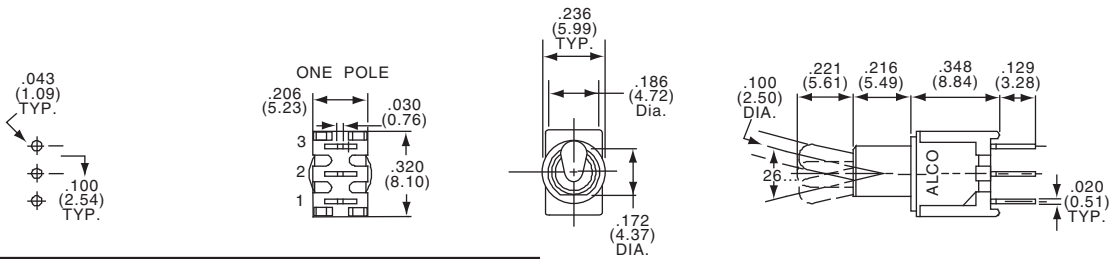


TT Series



*VERSION USED
ON TTE(Enviromental
Sealed) Series

Toggle Switches, Tiny, Vertical, PC Mount



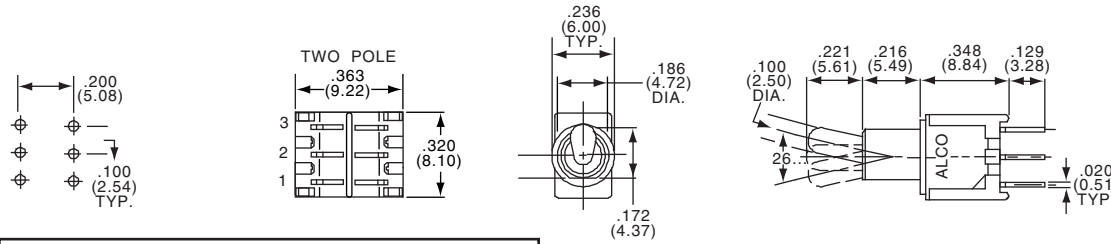
1 POLE
For Terminal Connections refer to Code Chart (see page M5-6)



TT11DGPC1

| Tyco Electronics | Alcoswitch | Type | Act. Code | P. | M5 | ↘ | ↓ | ↙ |
|------------------|------------|------|-----------|----|------|-----|---|---|
| 2-1437561-3 | TT11AGPC1 | SPST | A | On | None | Off | | |
| 2-1437561-6 | TT11DGPC1 | SPDT | D | On | None | On | | |
| 5-1437561-1 | TT11EGPC1 | SPDT | E | On | Off | On | | |

Note: No center terminal on "A" switches



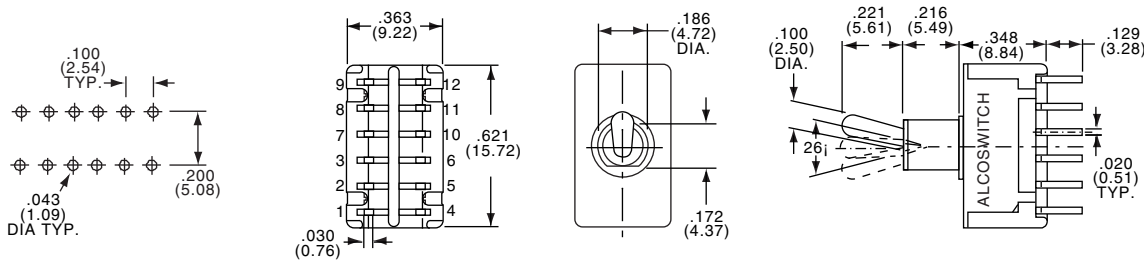
2 POLE
For Terminal Connections refer to Code Chart (see page M5-6)



TT21NGPC1

| Tyco Electronics | Alcoswitch | Type | Act. Code | P. | M5 | ↘ | ↓ | ↙ |
|------------------|------------|------|-----------|----|------|-----|---|---|
| 9-1437561-9 | TT21KGPC1 | DPST | K | On | None | Off | | |
| 1437562-3 | TT21NGPC1 | DPDT | N | On | None | On | | |
| 3-1437562-4 | TT21PGPC1 | DPDT | P | On | Off | On | | |

Note: No center terminal on "K" switches



4 POLE



TT41NGPC1

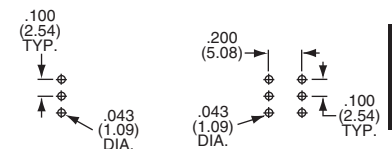
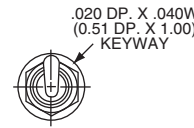
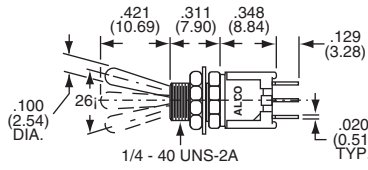
| Tyco Electronics | Alcoswitch | Type | Act. Code | P. | M5 | ↘ | ↓ | ↙ |
|------------------|------------|------|-----------|----|------|----|---|---|
| 6-1437562-6 | TT41NGPC1 | 4PDT | N | On | None | On | | |

Toggle Switches, Tiny, Vertical and Vertical Right Angle, PC Mount

SEE PAGE C8 FOR PRODUCT SPECIFICATIONS

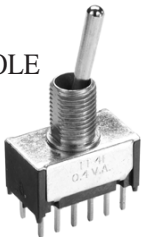
For terminal connections refer to Code Chart on page M5-6

1 & 2 POLE



TT21NGPC9T1/4

4 POLE



TT41NGPC9T1/4

| Tyco Electronics | Alcoswitch | Type | Act. | Code | P. | M5 | Tyco Electronics | Alcoswitch | Type | Act. | Code | P. | M5 |
|------------------|---------------|------|------|------|------|-----|------------------|---------------|------|------|------|------|------|
| 2-1437561-5 | TT11AGPC9T1/4 | SPST | A | On | None | Off | 1-1437562-1 | TT21NGPC9T1/4 | DPDT | N | On | None | On |
| 3-1437561-5 | TT11DGPC9T1/4 | SPDT | D | On | None | On | 3-1437562-8 | TT21PGPC9T1/4 | DPDT | P | On | Off | On |
| 5-1437561-9 | TT11EGPC9T1/4 | SPDT | E | On | Off | On | 4-1437562-6 | TT21RGPC9T1/4 | DPDT | R | On | None | (On) |
| 7-1437561-3 | TT11FGPC9T1/4 | SPDT | F | On | None | On | 6-1437562-8 | TT41NGPC9T1/4 | 4PDT | N | On | None | On |
| 1437562-1 | TT21KGPC9T1/4 | DPST | K | On | None | Off | 7-1437562-5 | TT41PGPC9T1/4 | 4PDT | P | On | Off | On |

Note: No center terminal on "A" or "K" switches.

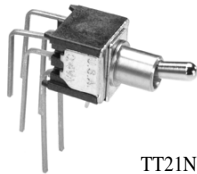
(On) indicates momentary position.

Note: Hardware Included

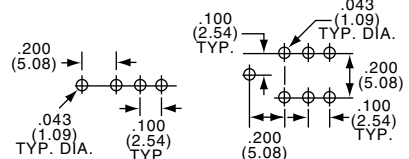
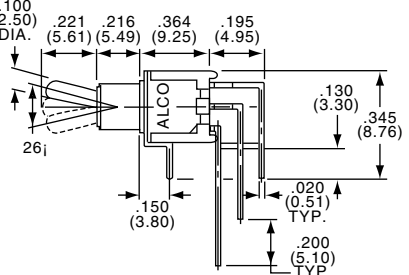
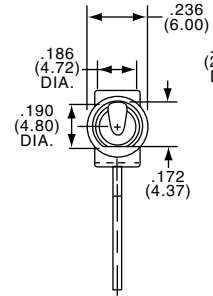
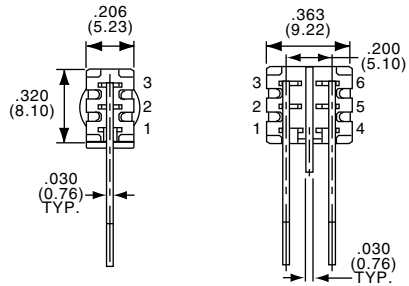
1 & 2 POLE



TT1DGVRA1
Vertical Actuation

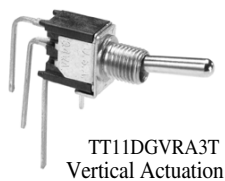


TT21NGVRA1
Vertical Actuation

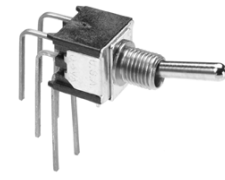


| Tyco Electronics | Alcoswitch | Type | Act. | Code | P. | M5 |
|------------------|------------|------|------|------|------|----|
| 4-1437561-8 | TT11DGVRA1 | SPDT | D | On | None | On |
| 6-1437561-9 | TT11EGVRA1 | SPDT | E | On | Off | On |
| 2-1437562-2 | TT21NGVRA1 | DPDT | N | On | None | On |
| 4-1437562-3 | TT21PGVRA1 | DPDT | P | On | Off | On |

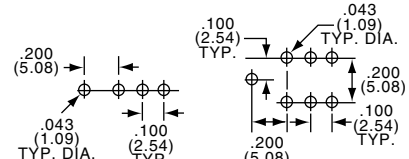
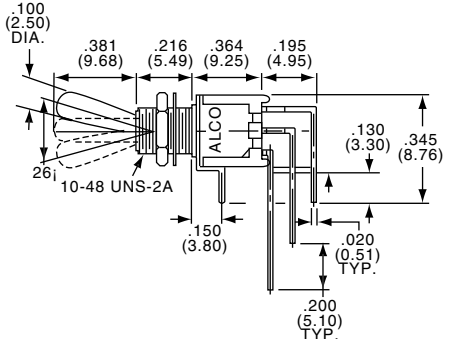
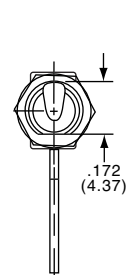
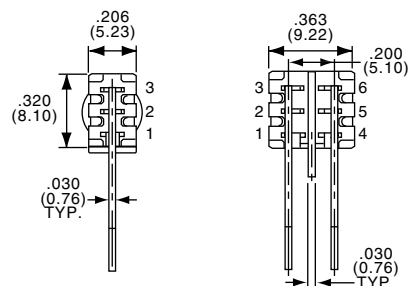
1 & 2 POLE



TT1DGVRA3T
Vertical Actuation



TT21NGVRA3T
Vertical Actuation



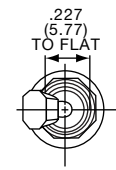
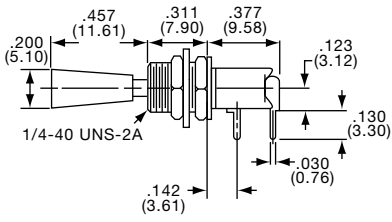
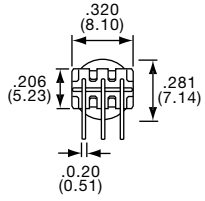
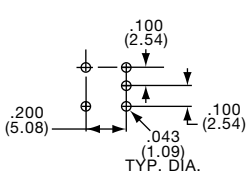
| Tyco Electronics | Alcoswitch | Type | Act. | Code | P. | M5 |
|------------------|-------------|------|------|------|------|----|
| 4-1437561-9 | TT11DGVRA3T | SPDT | D | On | None | On |
| 7-1437561-0 | TT11EGVRA3T | SPDT | E | On | Off | On |
| 2-1437562-3 | TT21NGVRA3T | DPDT | N | On | None | On |

Toggle Switches, Tiny, Right Angle, Flat Actuator

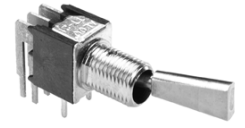
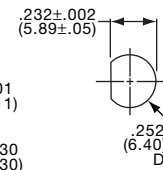
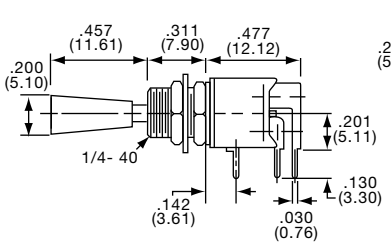
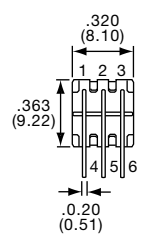
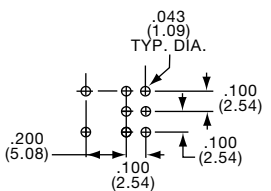
SEE PAGE C8 FOR PRODUCT SPECIFICATIONS

* Refer to Page C8 for Other Options *

1 & 2 POLE FLAT



TT11DGRA7T1/4
Horizontal Actuation



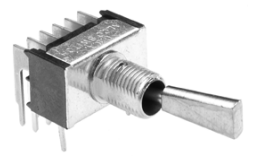
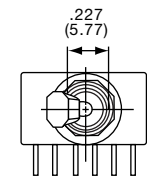
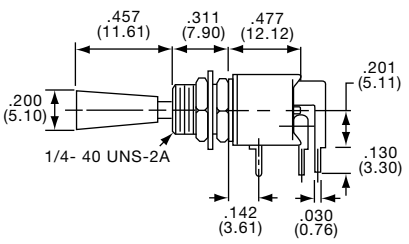
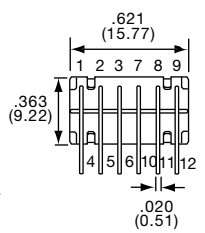
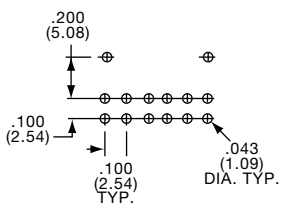
TT21NGRA7T1/4
Horizontal Actuation

| Tyco Electronics | Alcoswitch | Type | Act. Code | P. M5 | On | None | On |
|------------------|---------------|------|-----------|-------|----|------|------|
| 4-1437561-5 | TT11DGRA7T1/4 | SPDT | D | | On | None | On |
| 6-1437561-7 | TT11EGRA7T1/4 | SPDT | E | | On | Off | On |
| 7-1437561-4 | TT11FGRA7T1/4 | SPDT | F | | On | None | (On) |
| 1-1437562-9 | TT21NGRA7T1/4 | DPDT | N | | On | None | On |
| 4-1437562-0 | TT21PGRA7T1/4 | DPDT | P | | On | Off | On |

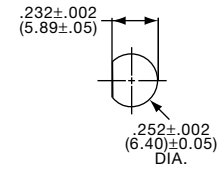
(On) indicates momentary position

Pinned for Anti-Rotation

4 POLE FLAT



TT41NGRA7T14
Horizontal Actuation



| Tyco Electronics | Alcoswitch | Type | Act. Code | P. M5 | On | None | On |
|------------------|---------------|------|-----------|-------|----|------|----|
| 7-1437562-2 | TT41NGRA7T1/4 | 4PDT | N | | On | None | On |

Pinned for Anti-Rotation

Toggle Switches, Tiny, Wire Wrap Termination

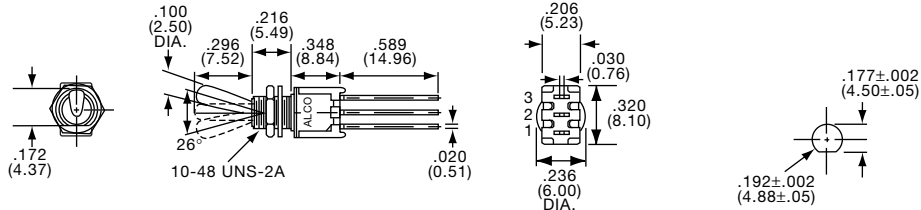
SEE PAGE C8 FOR PRODUCT SPECIFICATIONS

For terminal connections refer to Code Chart on page M5-6

1 POLE



TT11DGWW2T

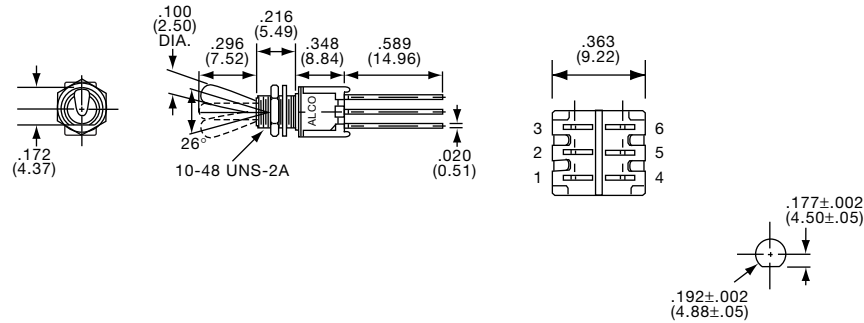


| Tyco Electronics | Alcoswitch | Type | Act. Code P. M5 | |
|------------------|------------|------|-----------------|------------|
| 5-1437561-0 | TT11DGWW2T | SPDT | D | On None On |
| 7-1437561-1 | TT11EGWW2T | SPDT | E | On Off On |

2 POLE

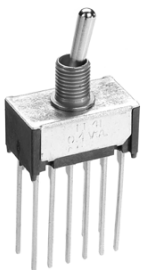


TT21NGWW2T



| Tyco Electronics | Alcoswitch | Type | Act. Code P. M5 | |
|------------------|------------|------|-----------------|------------|
| 2-1437562-4 | TT21NGWW2T | DPDT | N | On None On |
| 4-1437562-4 | TT21PGWW2T | DPDT | P | On Off On |

4 POLE



TT41NGWW2T



| Tyco Electronics | Alcoswitch | Type | Act. Code P. M5 | |
|------------------|------------|------|-----------------|------------|
| 7-1437562-4 | TT41NGWW2T | 4PDT | N | On None On |

Toggle Switches, Tiny, Wire Lug, Round or Flat Actuators

SEE PAGE C8 FOR PRODUCT SPECIFICATIONS

For terminal connections refer to Code Chart on page M5-6

NOTICE: Wire lug terminals accept two No. 20 AWG wires.



1 & 2 POLE

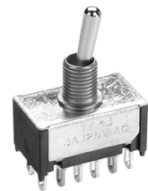


TT13D2T



TT23N2T

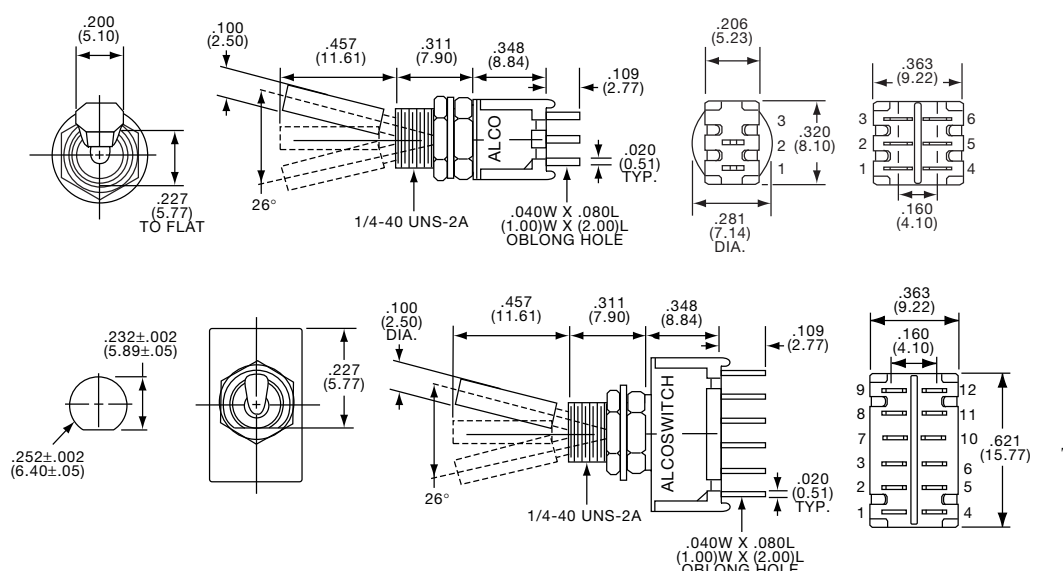
4 POLE



TT43N2T

| Tyco Electronics | Alcoswitch | Type | Act. Code P. M5 | On | None | Off | Tyco Electronics | Alcoswitch | Type | Act. Code P. M5 | On | None | Off |
|------------------|------------|------|-----------------|----|------|-----|------------------|------------|------|-----------------|----|------|-----|
| 7-1437561-8 | TT13A2T | SPST | A | On | None | Off | 5-1437562-1 | TT23N2T | DPDT | N | On | None | On |
| 8-1437561-5 | TT13D2T | SPDT | D | On | None | On | 5-1437562-7 | TT23P2T | DPDT | P | On | Off | On |
| 9-1437561-5 | TT13E2T | SPDT | E | On | Off | On | 7-1437562-6 | TT43N2T | 4PDT | N | On | None | On |
| 4-1437562-7 | TT23K2T | DPST | K | On | None | Off | | | | | | | |

Note: No center terminal "A" or "K" action switches.



1 & 2 POLE



TT13D7T1/4



TT23N7T1/4

4 POLE



TT43N7T1/4

Pinned for Anti-Rotation

| Tyco Electronics | Alcoswitch | Type | Act. Code P. M5 | On | None | Off | Tyco Electronics | Alcoswitch | Type | Act. Code P. M5 | On | None | Off |
|------------------|------------|------|-----------------|----|------|-----|------------------|------------|------|-----------------|----|------|-----|
| 9-1437561-1 | TT13D7T1/4 | SPDT | D | On | None | On | 6-1437562-0 | TT23P7T1/4 | DPDT | P | On | Off | On |
| 9-1437561-7 | TT13E7T1/4 | SPDT | E | On | Off | On | 7-1437562-8 | TT43N7T1/4 | 4PDT | N | On | None | On |
| 5-1437562-5 | TT23N7T1/4 | DPST | N | On | None | On | | | | | | | |

Toggle Switches, Process Sealed, Vertical

MATERIAL SPECIFICATIONS:

ContactsGold over nickel
 Inner Case MaterialHigh temperature polyester
 Outer Case MaterialPolyamide
 Terminals/Fixed ContactsTin lead plate
 Terminal SealEpoxy
 Process SealDisposable boot, epoxied double case

TYPICAL PERFORMANCE CHARACTERISTICS:

Contact Rating0.4VA Max. @ 20 VDC or peak AC
 Initial Contact Resistance.....20 Milliohms max.
 Contact Timing.....Break-before-make
 Insulation Resistance1,000 Megohms min. 500 VDC
 Dielectric Strength1,000 Volts RMS @ sea level
 Plunger/Actuator Travel.....26°
 Life ExpectancySee page C8

ENVIRONMENTAL SPECIFICATIONS

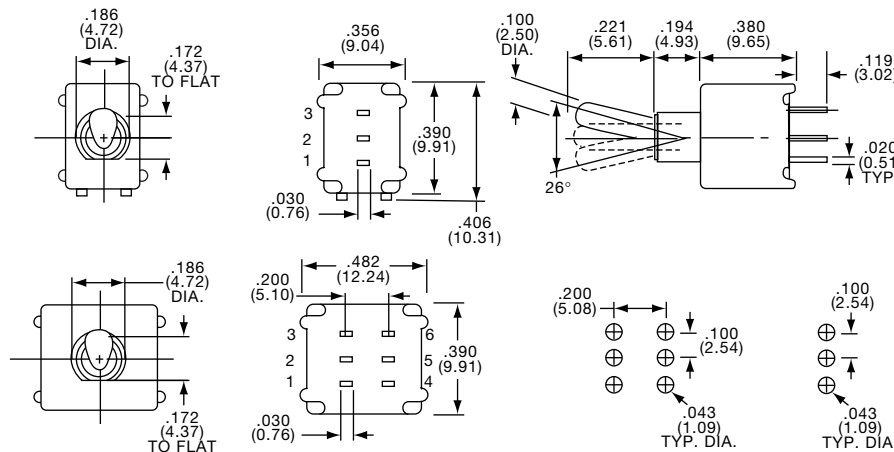
Operating Temperature-22°F to +185°F (-30°C to +85°C)
 Storage Temperature-67°F to +185°F (-55°C to +85°C)
 Solder Heat Resistance.....See page M3-4

APPLICATION NOTE: Each switch is provided with a disposable boot used only during cleaning operation.

*** Refer to Page C8 for Other Options ***

Note: Hardware included with switch

TT-ES Series



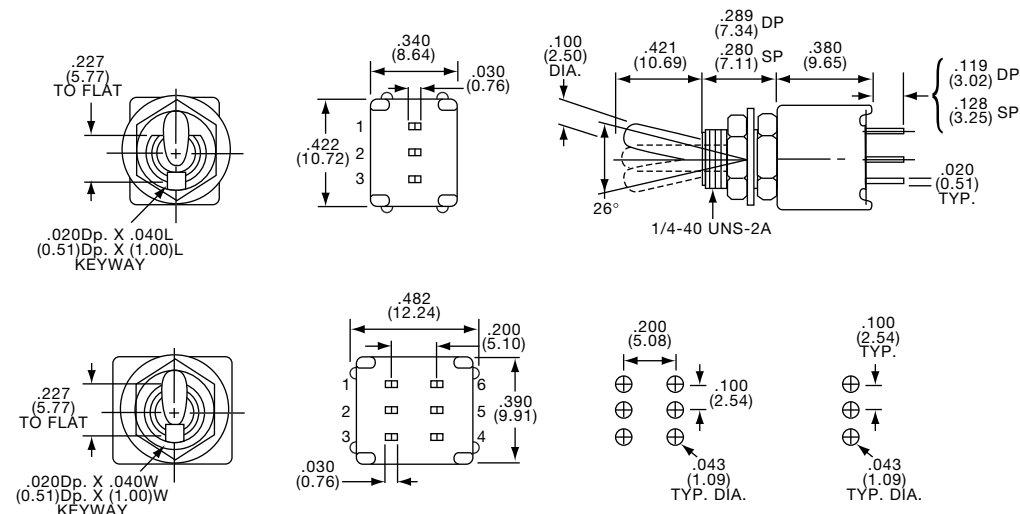
1 & 2 POLE
UNTHREADED BUSHING



TT11DGPC1ES

| Tyco Electronics | Alcoswitch | Type | Act. Code P. M5 | On | None | Off | Tyco Electronics | Alcoswitch | Type | Act. Code P. M5 | On | None | On |
|------------------|-------------|------|-----------------|----|------|-----|------------------|-------------|------|-----------------|----|------|----|
| 2-1437561-4 | TT11AGPC1ES | SPST | A | On | None | Off | 1437562-4 | TT21NGPC1ES | DPDT | N | On | None | On |
| 2-1437561-7 | TT11DGPC1ES | SPDT | D | On | None | On | | | | | | | |

Note: No center terminal "A".



1 & 2 POLE
THREADED BUSHING



TT11DGPC9T1/4ES



TT21NGPC9T1/4ES

| Tyco Electronics | Alcoswitch | Type | Act. Code P. M5 | On | None | Off | Tyco Electronics | Alcoswitch | Type | Act. Code P. M5 | On | None | On |
|------------------|-----------------|------|-----------------|----|------|------|------------------|-----------------|------|-----------------|----|------|----|
| | TT11AGPC9T1/4ES | SPST | A | On | None | Off | 1-1437562-2 | TT21NGPC9T1/4ES | DPDT | N | On | None | On |
| 6-1437830-2 | TT11DGPC9T1/4ES | SPDT | D | On | None | On | | TT21PGPC9T1/4ES | DPDT | P | On | Off | On |
| | TT11EGPC9T1/4ES | SPDT | E | On | Off | (On) | | | | | | | |
| | TT21KGPC9T1/4ES | DPST | K | On | None | Off | | | | | | | |

Note: No center terminal "A" or "K" action switches.
 (On) indicates momentary position.

Toggle Switches, Tiny, Enviromental and Process Sealed

SEE PAGE C16 FOR PRODUCT SPECIFICATIONS

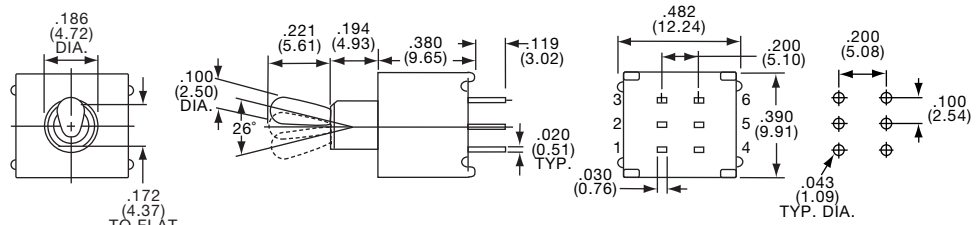
For terminal connections refer to Code Chart on page M5-6

1 POLE-PC VERTICAL MOUNT



| Tyco Electronics | Alcoswitch | Type | Act. Code P. M5 | | | |
|------------------|--------------|------|-----------------|----|------|----|
| 8-1437562-6 | TTE11DGPC1ES | SPDT | D | On | None | On |
| | TTE11EGPC1ES | SPDT | E | On | Off | On |

2 POLE-PC VERTICAL MOUNT

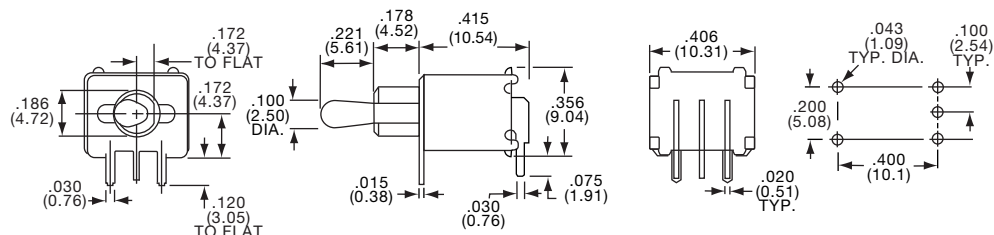


| Tyco Electronics | Alcoswitch | Type | Act. Code P. M5 | | | |
|------------------|--------------|------|-----------------|----|------|----|
| 1437563-1 | TTE21NGPC1ES | DPDT | N | On | None | On |
| | TTE21PGPC1ES | DPDT | P | On | Off | On |

1 POLE-PC RIGHT ANGLE



TTE11DGRA1ES
Horizontal Actuation

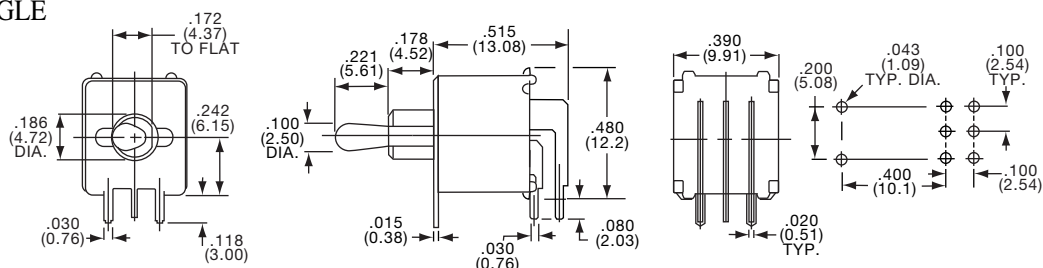


| Tyco Electronics | Alcoswitch | Type | Act. Code P. M5 | | | |
|------------------|--------------|------|-----------------|----|------|----|
| 8-1437562-9 | TTE11DGRA1ES | SPDT | D | On | None | On |
| 9-1437562-2 | TTE11EGRA1ES | SPDT | E | On | Off | On |

2 POLE-PC RIGHT ANGLE



TTE21NGRA1ES
Horizontal Actuation



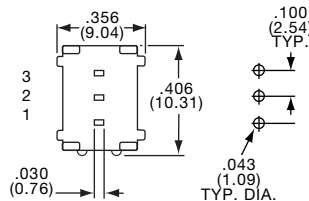
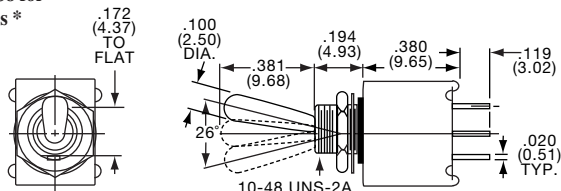
| Tyco Electronics | Alcoswitch | Type | Act. Code P. M5 | | | |
|------------------|--------------|------|-----------------|----|------|----|
| 1437563-4 | TTE21NGRA1ES | DPDT | N | On | None | On |
| | TTE21PGRA1ES | DPDT | P | On | Off | On |

Toggle Switches, Tiny, Enviromental and Process Sealed

For terminal connections refer to Code Chart on page M5-6.

SEE PAGE C16 FOR PRODUCT SPECIFICATIONS

* Refer to Page C8 for Other Options *



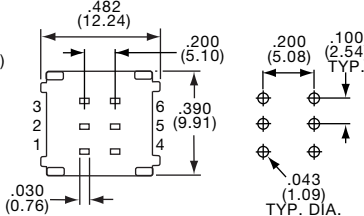
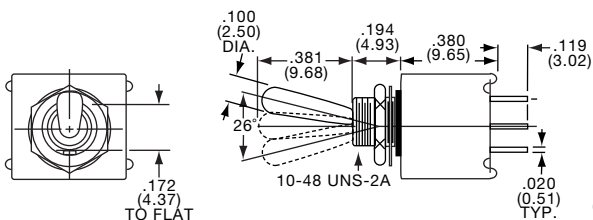
1 POLE



TTE11DGPC3TES

| Tyco Electronics | Alcoswitch | Type | Act. Code | P. M5 | On | None | Off |
|------------------|---------------|------|-----------|-------|----|------|-----|
| 8-1437562-5 | TTE11AGPC3TES | SPST | A | | On | None | Off |
| 8-1437562-7 | TTE11DGPC3TES | SPDT | D | | On | None | On |
| 9-1437562-0 | TTE11EGPC3TES | SPDT | E | | On | Off | On |

Note: No center terminal on "A" action switches.

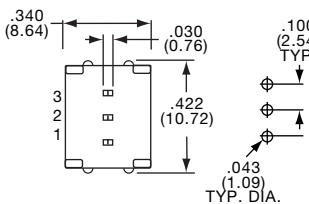
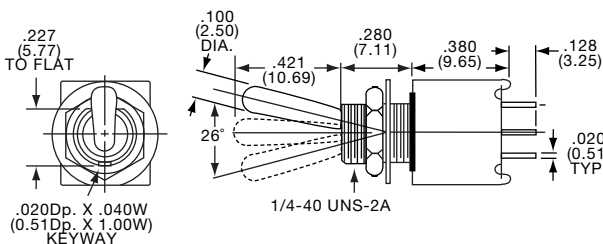


2 POLE



TTE21NGPC3TES

| Tyco Electronics | Alcoswitch | Type | Act. Code | P. M5 | On | None | On |
|------------------|---------------|------|-----------|-------|----|------|----|
| 1437563-2 | TTE21NGPC3TES | DPDT | N | | On | None | On |
| | TTE21PGPC3TES | DPDT | P | | On | Off | On |



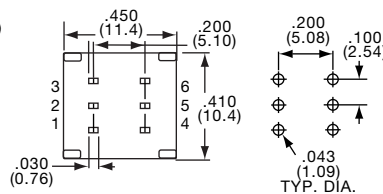
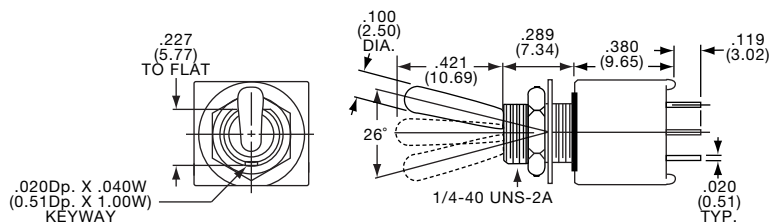
1 POLE



TTE11DGPC9T4ES

| Tyco Electronics | Alcoswitch | Type | Act. Code | P. M5 | On | None | Off |
|------------------|------------------|------|-----------|-------|----|------|-----|
| | TTE11AGPC9T1/4ES | SPST | A | | On | None | Off |
| 8-1437562-8 | TTE11DGPC9T1/4ES | SPDT | D | | On | None | On |
| 9-1437562-1 | TTE11EGPC9T1/4ES | SPDT | E | | On | Off | On |

Note: No center terminal on "A" action switches.



2 POLE



TTE21NGPC9T4ES

| Tyco Electronics | Alcoswitch | Type | Act. Code | P. M5 | On | None | Off |
|------------------|------------------|------|-----------|-------|----|------|-----|
| | TTE21KGPC9T1/4ES | DPST | K | | On | None | Off |
| 1437563-3 | TTE21NGPC9T1/4ES | DPDT | N | | On | None | On |
| | TTE21PGPC9T1/4ES | DPDT | P | | On | Off | On |

Note: No center terminal on "K" action switches.



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

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- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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