

## ENVIRONMENTALLY SEALED TOGGLE

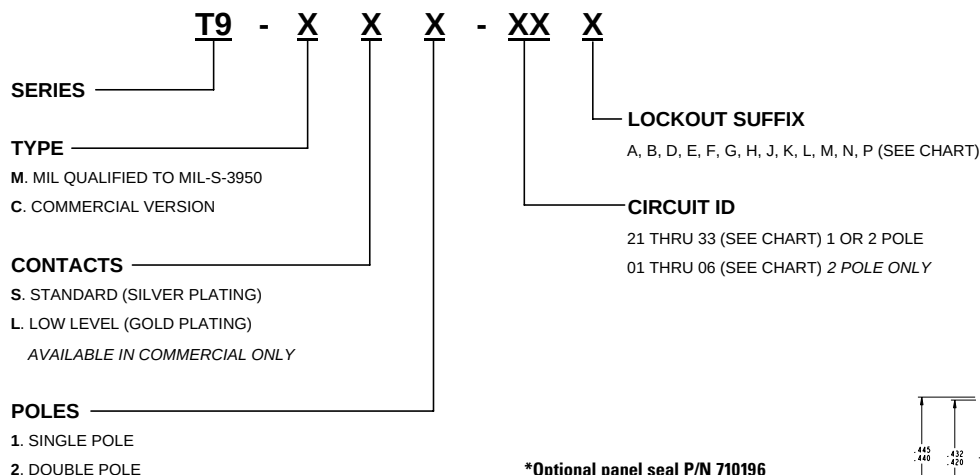
The T9 Toggle Switch is an ideal switch for demanding applications, compliant to MIL-DTL-3950, this high performance switch is a logical choice for use in environments where sealing and resistance to shock and vibration are required. The T9 is particularly suitable for applications in off-highway, aviation, commercial and industrial equipment. This compact, environmentally sealed switch is available in single and double pole configurations with a lever lockout option. Circuitry configurations include two or three positions with many combinations of OFF/ON in momentary and maintained action including ON-ON-ON.



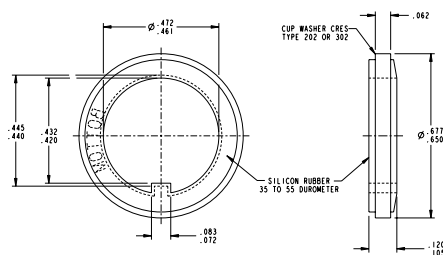
## Quality Features:

- **Compliant to MIL-DTL-3950**
- **Sealed per IP68 or per MIL-DTL-3950**
- **Electrical life 20,000 cycles full load**
- **Mechanical life 40,000 cycles**
- **Lever lockout option available**
- **Temperature range -65°C – +71°C**
- **UL, CSA, and CE approvals (pending)**
- **Maintained and momentary toggle action**
- **Optional panel seal**

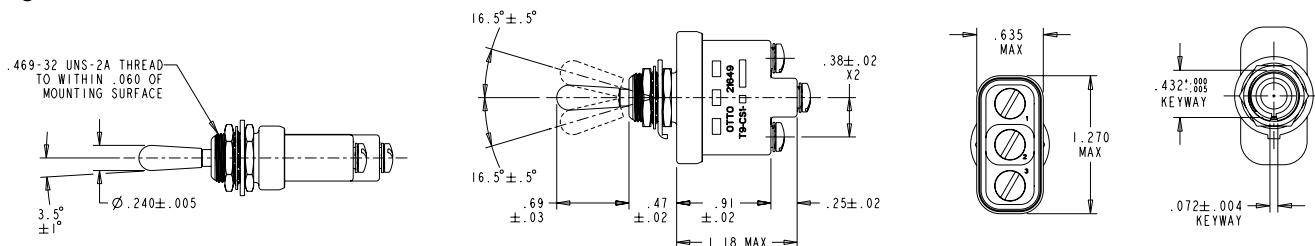
## T9 Part Number Code



**\*Optional panel seal P/N 710196**



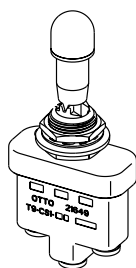
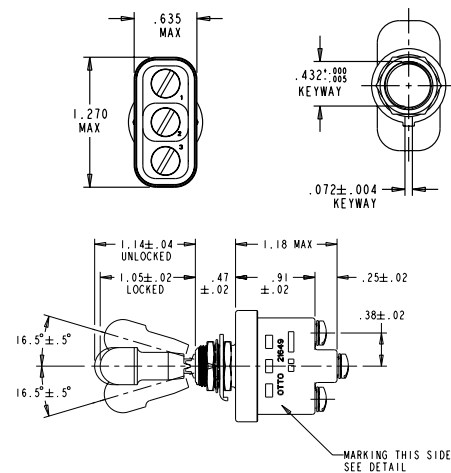
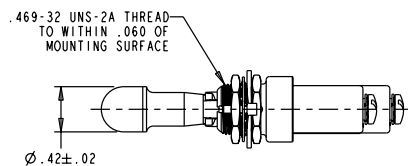
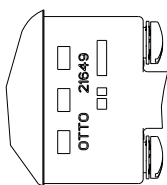
## Single Pole



| OTTO PART NO. | MILITARY NO. | DASH NO. | CIRCUIT BY TOGGLE LEVER POSITION |               |                    | ELECTRICAL RATINGS - SEA LEVEL & 65,000 FT |           |           |         |           |           |
|---------------|--------------|----------|----------------------------------|---------------|--------------------|--------------------------------------------|-----------|-----------|---------|-----------|-----------|
|               |              |          | KEYWAY<br>1-2                    | CENTER        | OPP. KEYWAY<br>2-3 | 28 VDC                                     |           |           | 115 VAC |           |           |
|               |              |          |                                  |               |                    | LAMP                                       | RESISTIVE | INDUCTIVE | LAMP    | RESISTIVE | INDUCTIVE |
| T9-MS1-       | MS24523-     | 21       | ON                               | OFF           | ON                 | 5                                          | 20        | 15        | 3       | 15        | 10        |
|               |              | 22       | OFF                              | NONE          | ON                 |                                            |           |           |         |           |           |
|               |              | 23       | ON                               | NONE          | ON                 |                                            |           |           |         |           |           |
|               |              | 24       | NONE                             | OFF           | ON                 |                                            |           |           |         |           |           |
|               |              | 25       | NONE                             | MOM OFF       | ON                 | 4                                          | 15        | 10        | 2       | 15        | 7         |
|               |              | 26       | MOM ON                           | NONE          | ON                 |                                            |           |           |         |           |           |
|               |              | 27       | MOM ON                           | OFF           | MOM ON             |                                            |           |           |         |           |           |
|               |              | 28       | MOM ON                           | OFF           | NONE               |                                            |           |           |         |           |           |
|               |              | 29       | MOM OFF                          | NONE          | ON                 |                                            |           |           |         |           |           |
|               |              | 30       | MOM ON                           | NONE          | OFF                |                                            |           |           |         |           |           |
|               |              | 31       | MOM ON                           | OFF           | ON                 |                                            |           |           |         |           |           |
| OTTO PART NO. | MILITARY NO. | DASH NO. | KEYWAY                           | CENTER<br>1-2 | OPP. KEYWAY<br>2-3 | 28 VDC                                     |           |           | 115 VAC |           |           |
|               |              |          |                                  |               |                    | LAMP                                       | RESISTIVE | INDUCTIVE | LAMP    | RESISTIVE | INDUCTIVE |
| T9-MS1-       | MS24523-     | 32       | NONE                             | ON            | MOM ON             | 4                                          | 15        | 10        | 2       | 15        | 7         |
|               |              | 33       | NONE                             | ON            | ON                 | 5                                          | 20        | 15        | 3       | 15        | 10        |

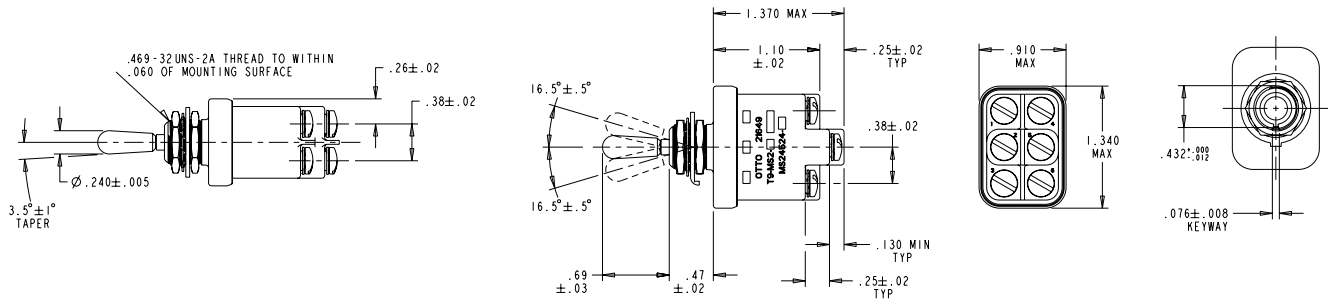
## Lever/Lock Single Pole

| LOCKING CONFIGURATIONS                          |                                             |                                    |                                               |                                        |                                           |                                                                                                                                   |  |
|-------------------------------------------------|---------------------------------------------|------------------------------------|-----------------------------------------------|----------------------------------------|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|--|
| LOCKED IN THREE POSITIONS                       | LOCKED IN CENTER & KEYWAY SIDE POSITION     | LOCKED OUT OF CENTER POSITION      | LOCKED IN CENTER POSITION                     | LOCKED IN OPPOSITE KEYWAY POSITION     | LOCKED IN KEYWAY SIDE POSITION            | LOCKED OUT OF CENTER & KEYWAY SIDE POSITION                                                                                       |  |
| A                                               | B                                           | D                                  | E                                             | F                                      | G                                         | H                                                                                                                                 |  |
| LOCKED OUT OF CENTER & OPPOSITE KEYWAY POSITION | LOCKED IN CENTER & OPPOSITE KEYWAY POSITION | LOCKED OUT OF KEYWAY SIDE POSITION | LOCKED OUT OF & INTO OPPOSITE KEYWAY POSITION | LOCKED OUT OF OPPOSITE KEYWAY POSITION | LOCKED OUT OF & INTO KEYWAY SIDE POSITION | FIGURES A THRU P DO NOT REPRESENT DETAILS OF CONSTRUCTION. THEY SCHEMATICALLY ILLUSTRATE LOCKING CONFIGURATIONS & MOM. POSITIONS. |  |
| J                                               | K                                           | L                                  | M                                             | N                                      | P                                         |                                                                                                                                   |  |

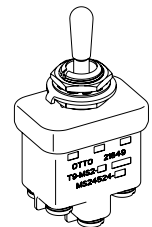


| OTTO BASE<br>PART NO. | MILITARY<br>NO. | DASH<br>NO. | AVAILABLE<br>LOCKOUTS<br>(SEE CHART) | CIRCUIT BY TOGGLE LEVER POSITION |               |                    | ELECTRICAL RATINGS - SEA LEVEL & 65,000 FT |           |           |         |           |           |
|-----------------------|-----------------|-------------|--------------------------------------|----------------------------------|---------------|--------------------|--------------------------------------------|-----------|-----------|---------|-----------|-----------|
|                       |                 |             |                                      | KEYWAY<br>1-2                    | CENTER        | OPP. KEYWAY<br>2-3 | 28 VDC                                     |           |           | 115 VAC |           |           |
|                       |                 |             |                                      |                                  |               |                    | LAMP                                       | RESISTIVE | INDUCTIVE | LAMP    | RESISTIVE | INDUCTIVE |
| T9-MS1-               | MS24658-        | 21          | ALL                                  | ON                               | OFF           | ON                 | 5                                          | 20        | 15        | 3       | 15        | 10        |
|                       |                 | 22          | D F G                                | OFF                              | NONE          | ON                 |                                            |           |           |         |           |           |
|                       |                 | 23          | D F G                                | ON                               | NONE          | ON                 |                                            |           |           |         |           |           |
|                       |                 | 24          | E F K M                              | NONE                             | OFF           | ON                 |                                            |           |           |         |           |           |
|                       |                 | 25          | F                                    | NONE                             | OFF (M)       | ON                 | 4                                          | 15        | 10        | 2       | 15        | 7         |
|                       |                 | 26          | F                                    | MOM ON                           | NONE          | ON                 |                                            |           |           |         |           |           |
|                       |                 | 27          | E L N                                | MOM ON                           | OFF           | MOM ON             |                                            |           |           |         |           |           |
|                       |                 | 28          | E                                    | MOM ON                           | OFF           | NONE               |                                            |           |           |         |           |           |
|                       |                 | 29          | F                                    | MOM OFF                          | NONE          | ON                 |                                            |           |           |         |           |           |
|                       |                 | 30          | F                                    | MOM ON                           | NONE          | OFF                |                                            |           |           |         |           |           |
|                       |                 | 31          | E F K L M N                          | MOM ON                           | OFF           | ON                 |                                            |           |           |         |           |           |
| OTTO<br>BASE NO.      | MILITARY<br>NO. | DASH<br>NO. | AVAILABLE<br>LOCKOUT                 | KEYWAY                           | CENTER<br>1-2 | OPP. KEYWAY<br>2-3 | 28 VDC                                     |           |           | 115 VAC |           |           |
|                       |                 |             |                                      |                                  |               |                    | LAMP                                       | RESISTIVE | INDUCTIVE | LAMP    | RESISTIVE | INDUCTIVE |
| T9-MS1-               | MS24658-        | 32          | E                                    | NONE                             | ON            | MOM ON             | 4                                          | 15        | 10        | 2       | 15        | 7         |
|                       |                 | 33          | E F K M                              | NONE                             | ON            | ON                 | 5                                          | 20        | 15        | 3       | 15        | 10        |

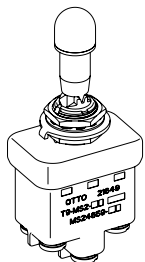
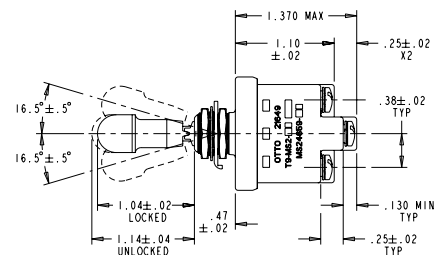
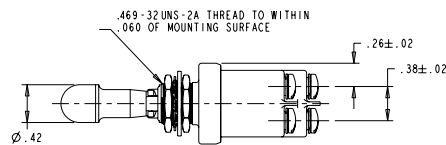
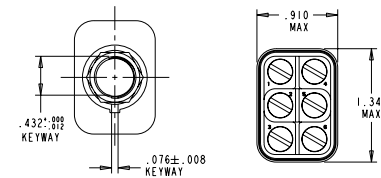
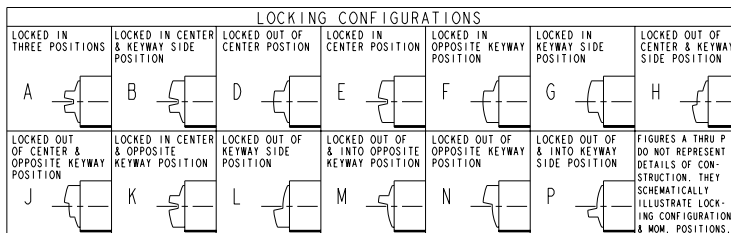
## Double Pole



| OTTO BASE<br>PART NO. | MILITARY<br>STANDARD | DASH<br>NO. | CIRCUIT CONFIGURATION |                     |                          | ELECTRICAL CURRENT RATINGS (AMPS) - SEA LEVEL & 65,000 F |           |           |                       |           |           |
|-----------------------|----------------------|-------------|-----------------------|---------------------|--------------------------|----------------------------------------------------------|-----------|-----------|-----------------------|-----------|-----------|
|                       |                      |             | KEYWAY<br>1-2 / 4-5   | CENTER              | OPP. KEYWAY<br>2-3 / 5-6 | 28 VDC                                                   |           |           | 115 VAC, 60Hz & 400Hz |           |           |
|                       |                      |             |                       |                     |                          | LAMP                                                     | RESISTIVE | INDUCTIVE | LAMP                  | RESISTIVE | INDUCTIVE |
| T9-MS2-               | MS24524-             | 21          | ON                    | OFF                 | ON                       | 7                                                        | 20        | 15        | 4                     | 15        | 10        |
|                       |                      | 22          | OFF                   | NONE                | ON                       |                                                          |           |           |                       |           |           |
|                       |                      | 23          | ON                    | NONE                | ON                       |                                                          |           |           |                       |           |           |
|                       |                      | 24          | NONE                  | OFF                 | ON                       |                                                          |           |           |                       |           |           |
|                       |                      | 25          | NONE                  | MOM OFF             | ON                       |                                                          |           |           |                       |           |           |
|                       |                      | 26          | MOM ON                | NONE                | ON                       | 5                                                        | 18        | 10        | 2                     | 11        | 8         |
|                       |                      | 27          | MOM ON                | OFF                 | MOM ON                   |                                                          |           |           |                       |           |           |
|                       |                      | 28          | MOM ON                | OFF                 | NONE                     |                                                          |           |           |                       |           |           |
|                       |                      | 29          | MOM OFF               | NONE                | ON                       |                                                          |           |           |                       |           |           |
|                       |                      | 30          | MOM ON                | NONE                | OFF                      |                                                          |           |           |                       |           |           |
|                       |                      | 31          | MOM ON                | OFF                 | ON                       |                                                          |           |           |                       |           |           |
| OTTO BASE<br>PART NO. | MILITARY<br>STANDARD | DASH<br>NO. | KEYWAY<br>1-2 / 4-5   | CENTER<br>1-2 / 4-5 | OPP. KEYWAY<br>2-3 / 5-6 | 28 VDC                                                   |           |           | 115 VAC               |           |           |
|                       |                      |             |                       |                     |                          | LAMP                                                     | RESISTIVE | INDUCTIVE | LAMP                  | RESISTIVE | INDUCTIVE |
| T9-MS2-               | MS24524-             | 32          | NONE                  | ON                  | MOM ON                   | 5                                                        | 18        | 10        | 2                     | 11        | 8         |
|                       |                      | 33          | NONE                  | ON                  | ON                       | 7                                                        | 20        | 15        | 4                     | 15        | 15        |



## Lever/Lock Double Pole



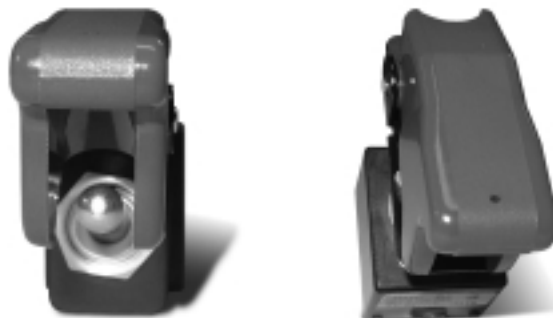
| OTTO BASE<br>PART NO. | MILITARY<br>STANDARD | DASH<br>NO. | AVAILABLE<br>LOCKOUTS<br>(SEE CHART) | CIRCUIT CONFIGURATION |                     |                          | ELECTRICAL CURRENT RATINGS (AMPS) - SEA LEVEL & 65,000 FT |           |           |                       |           |           |
|-----------------------|----------------------|-------------|--------------------------------------|-----------------------|---------------------|--------------------------|-----------------------------------------------------------|-----------|-----------|-----------------------|-----------|-----------|
|                       |                      |             |                                      | KEYWAY<br>1-2 / 4-5   | CENTER              | OPP. KEYWAY<br>2-3 / 5-6 | 28 VDC                                                    |           |           | 115 VAC, 60Hz & 400Hz |           |           |
|                       |                      |             |                                      |                       |                     |                          | LAMP                                                      | RESISTIVE | INDUCTIVE | LAMP                  | RESISTIVE | INDUCTIVE |
| T9-MS2-               | MS24659-             | 21          | ALL                                  | ON                    | OFF                 | ON                       | 7                                                         | 20        | 15        | 4                     | 15        | 10        |
|                       |                      | 22          | D, F, G                              | OFF                   | NONE                | ON                       |                                                           |           |           |                       |           |           |
|                       |                      | 23          | D, F, G                              | ON                    | NONE                | ON                       |                                                           |           |           |                       |           |           |
|                       |                      | 24          | E, F, K, M                           | NONE                  | OFF                 | ON                       |                                                           |           |           |                       |           |           |
|                       |                      | 25          | F                                    | NONE                  | MOM OFF             | ON                       |                                                           |           |           |                       |           |           |
|                       |                      | 26          | F                                    | MOM ON                | NONE                | ON                       | 5                                                         | 18        | 10        | 2                     | 11        | 8         |
|                       |                      | 27          | E, L, N                              | MOM ON                | OFF                 | MOM ON                   |                                                           |           |           |                       |           |           |
|                       |                      | 28          | E                                    | MOM ON                | OFF                 | NONE                     |                                                           |           |           |                       |           |           |
|                       |                      | 29          | F                                    | MOM OFF               | NONE                | ON                       |                                                           |           |           |                       |           |           |
|                       |                      | 30          | F                                    | MOM ON                | NONE                | OFF                      |                                                           |           |           |                       |           |           |
|                       |                      | 31          | E, F, K, L, M, N                     | MOM ON                | OFF                 | ON                       |                                                           |           |           |                       |           |           |
| OTTO BASE<br>PART NO. | MILITARY<br>STANDARD | DASH<br>NO. | E                                    | KEYWAY                | CENTER<br>1-2 / 4-5 | OPP. KEYWAY<br>2-3 / 5-6 | 28 VDC                                                    |           |           | 115 VAC               |           |           |
|                       |                      |             |                                      |                       |                     |                          | LAMP                                                      | RESISTIVE | INDUCTIVE | LAMP                  | RESISTIVE | INDUCTIVE |
| T9-MS2-               | MS24659-             | 32          | E                                    | NONE                  | ON                  | MOM ON                   | 5                                                         | 18        | 10        | 2                     | 11        | 8         |
|                       |                      | 33          | E, F, K, M                           | NONE                  | ON                  | ON                       | 7                                                         | 20        | 15        | 4                     | 15        | 15        |

## TG SERIES

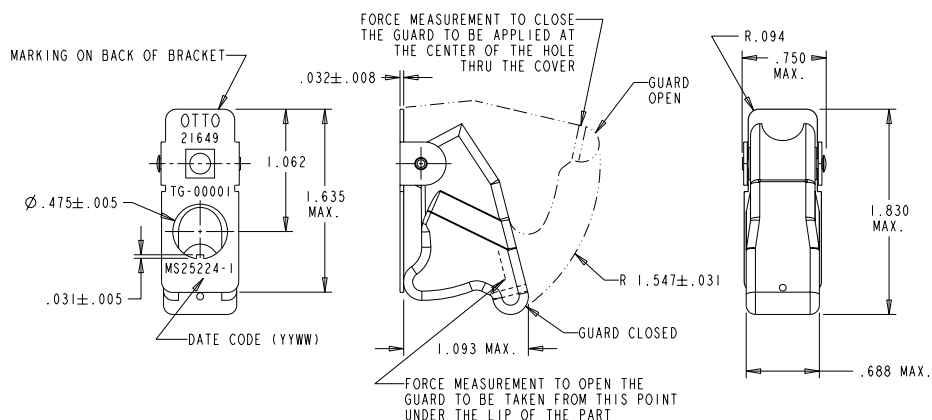
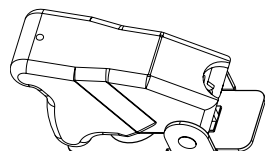
The TG series toggle guards are offered for two & three position switches with 15 /32 -32 threaded bushings and slotted or flat keyways. All models feature spring loaded covers that lock in either the open or closed positions. In the open position the switch actuator operates on all positions freely, in the closed position, the switch actuator is locked in the desired position.

The toggle guard is easily installed on the switch from the front panel with two mounting hex nuts and an optional panel seal provided with each switch.

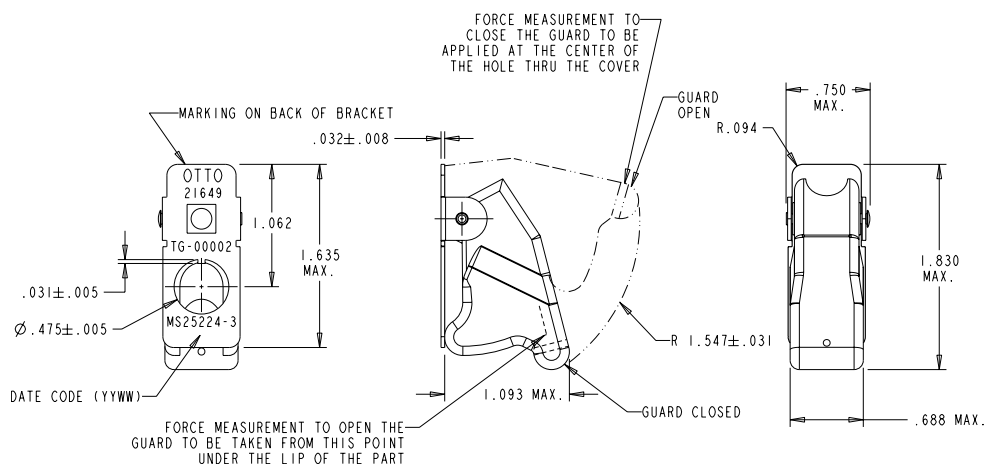
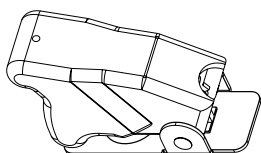
MS approved and QPL'd per MIL-DTL-7703 and MS25224-1



### TG-0001



### TG-0002



## Данный компонент на территории Российской Федерации

**Вы можете приобрести в компании MosChip.**

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

### Офис по работе с юридическими лицами:

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