TOGGLE SWITCHES

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

T9 - X X X - XX X

SERIES

TYPE
M. MIL QUALIFIED TO MIL-S-3950
C. COMMERCIAL VERSION

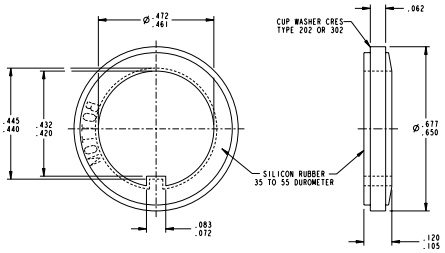
CONTACTS
S. STANDARD (SILVER PLATING)
L. LOW LEVEL (GOLD PLATING)
AVAILABLE IN COMMERCIAL ONLY

POLES
1. SINGLE POLE
2. DOUBLE POLE

CIRCUIT ID
21 THRU 33 (SEE CHART) 1 OR 2 POLE
01 THRU 06 (SEE CHART) *2 POLE ONLY*

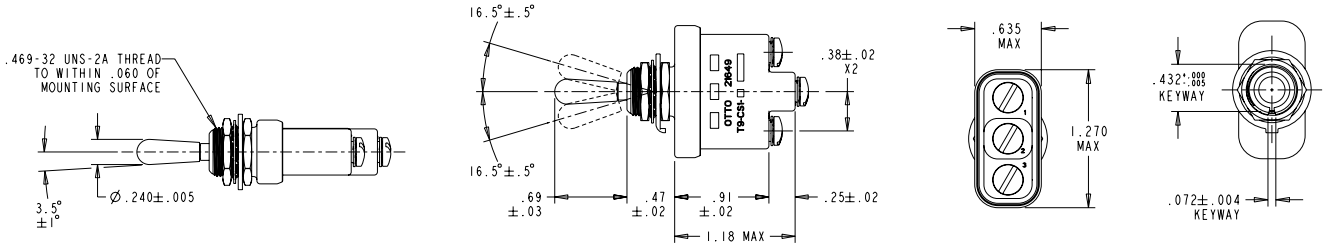
LOCKOUT SUFFIX
A, B, D, E, F, G, H, J, K, L, M, N, P (SEE CHART)

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



TOGGLE SWITCHES

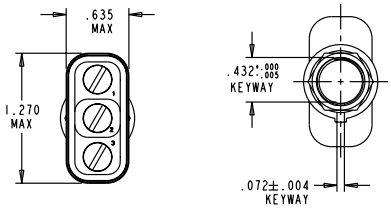
Single Pole

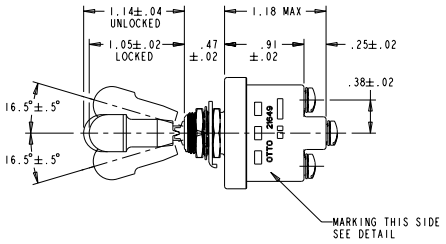


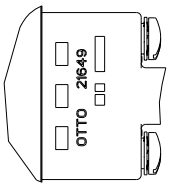
OTTO PART NO.	MILITARY NO.	DASH NO.	CIRCUIT BY TOGGLE LEVER POSITION			ELECTRICAL RATINGS - SEA LEVEL & 65,000 FT					
			KEYWAY 1-2	CENTER	OPP. KEYWAY 2-3	28 VDC			115 VAC		
						LAMP	RESISTIVE	INDUCTIVE	LAMP	RESISTIVE	INDUCTIVE
T9-MSI-	MS24523-	21	ON	OFF	ON	5	20	15	3	15	10
		22	OFF	NONE	ON						
		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 1-2	OPP. KEYWAY 2-3	28 VDC			115 VAC		
						LAMP	RESISTIVE	INDUCTIVE	LAMP	RESISTIVE	INDUCTIVE
T9-MSI-	MS24523-	32	NONE	ON	MOM ON	4	15	10	2	15	7
		33	NONE	ON	ON	5	20	15	3	15	10

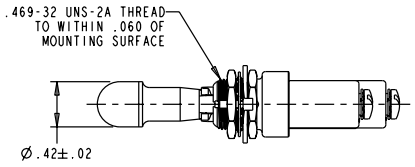
Lever/Lock Single Pole

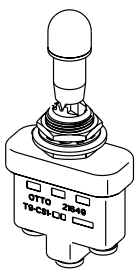
LOCKING CONFIGURATIONS						
LOCKED IN THREE POSITIONS A	LOCKED IN CENTER & KEYWAY SIDE POSITION B	LOCKED OUT OF CENTER POSTION D	LOCKED IN CENTER POSITION E	LOCKED IN OPPOSITE KEYWAY POSITION F	LOCKED IN KEYWAY SIDE POSITION G	LOCKED OUT OF CENTER & KEYWAY SIDE POSITION H
LOCKED OUT OF CENTER & OPPOSITE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





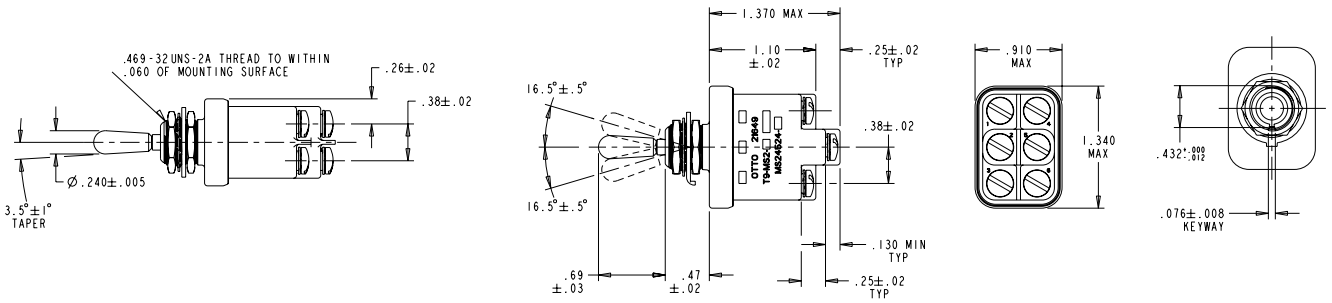




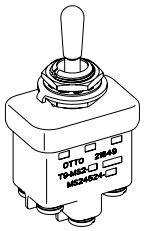


OTTO BASE PART NO.	MILITARY NO.	DASH NO.	AVAILABLE LOCKOUTS (SEE CHART)	CIRCUIT BY TOGGLE LEVER POSITION			ELECTRICAL RATINGS - SEA LEVEL & 65,000 FT					
				KEYWAY 1-2	CENTER	OPP. KEYWAY 2-3	28 VDC			115 VAC		
							LAMP	RESISTIVE	INDUCTIVE	LAMP	RESISTIVE	INDUCTIVE
T9-MSI-	MS24658-	21	ALL	ON	OFF	ON	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 BASE NO.	MILITARY NO.	DASH NO.	AVAILABLE LOCKOUT	KEYWAY	CENTER 1-2	OPP. KEYWAY 2-3	28 VDC			115 VAC		
							LAMP	RESISTIVE	INDUCTIVE	LAMP	RESISTIVE	INDUCTIVE
T9-MSI-	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



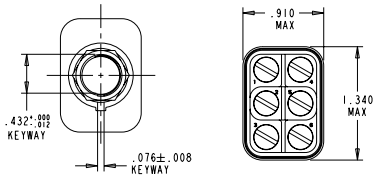
OTTO BASE PART NO.	MILITARY STANDARD	DASH NO.	CIRCUIT CONFIGURATION			ELECTRICAL CURRENT RATINGS (AMPS) - SEA LEVEL & 65,000 FT					
			KEYWAY 1-2 / 4-5	CENTER	OPP. KEYWAY 2-3 / 5-6	28 VDC			115 VAC, 60Hz & 400Hz		
						LAMP	RESISTIVE	INDUCTIVE	LAMP	RESISTIVE	INDUCTIVE
T9-MS2-	MS24524-	21	ON	OFF	ON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

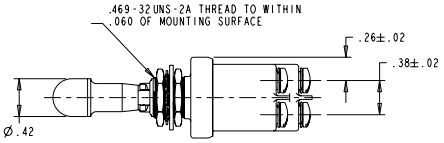


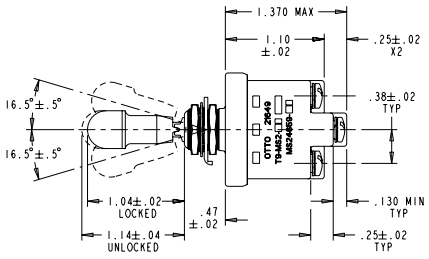
Lever/Lock Double Pole

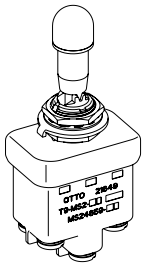
LOCKING CONFIGURATIONS

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









OTTO BASE PART NO.	MILITARY STANDARD	DASH NO.	AVAILABLE LOCKOUTS (SEE CHART)	CIRCUIT CONFIGURATION			ELECTRICAL CURRENT RATINGS (AMPS) - SEA LEVEL & 65,000 FT					
				KEYWAY 1-2 / 4-5	CENTER	OPP. KEYWAY 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	5	18	10	2	11	8
		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 BASE PART NO.	MILITARY STANDARD	DASH NO.	E	KEYWAY	CENTER 1-2 / 4-5	OPP. KEYWAY 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

TOGGLE GUARDS

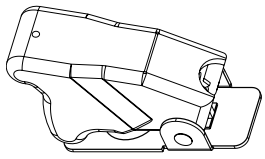
TG SERIES

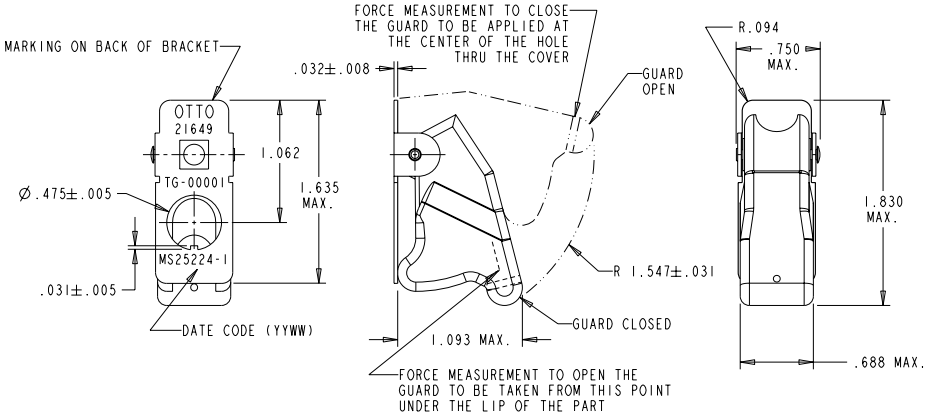
The TG series toggle guards are offered for two & three position switches with 15 /32 -32 threaded bushings and slotted or flat keyways. All models feature spring loaded covers that lock in either the open or closed positions. In the open position the switch actuator operates on all positions freely,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

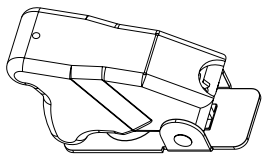
MS approved and QPL'd per MIL-DTL-7703 and MS25224-1

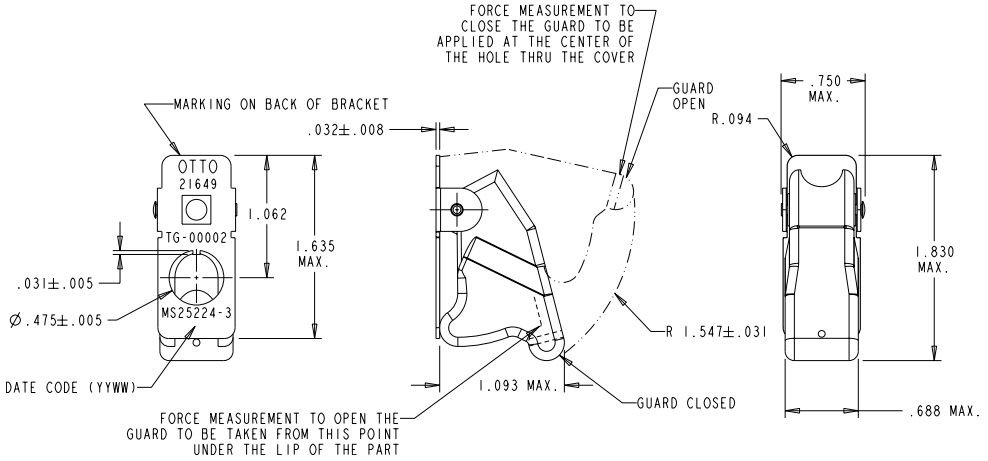
TG-0001





TG-0002





OTTO CONTROLS®
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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

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