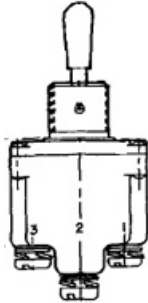




### 1TL1-1



*Actual product appearance may vary.*

**TL Series Toggle Switch, 1 pole, 3 position, Screw terminal, Standard Lever, Military Part Number MS24523-21**

#### Features

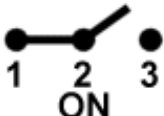

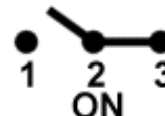
- Qualified to MIL-S-3950
- Environment-proof sealing
- 1,2, and 4 pole circuitry
- Standard and pull-to-unlock levers
- 2 and 3 position, maintained and momentary toggle action
- Temperature range: -85°F to +160°F
- Completely sealed switching chamber
- Step-design case provides added space between terminals to help prevent shorting
- UL recognized, CSA certified
- CE approved

#### Potential Applications

- Industrial machinery and equipment
- Military and commercial aviation
- Construction equipment
- Test instruments
- Agricultural machinery
- Process control
- Medical instrumentation

#### Description

MICRO SWITCH™TL Series toggle switches have high strength, temperature resistant, non-tracking case material and silver cadmium oxide contacts. Pull-to-Unlock toggle levers prevent accidental operation; the lever must be pulled approx. 2,3 mm (0.09 inches) to change positions.

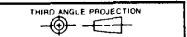
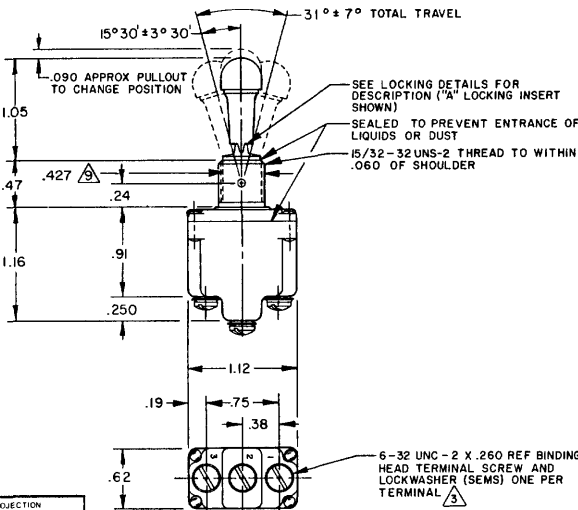
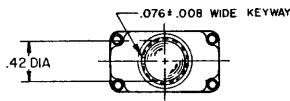
Product Specifications	
Circuitry/ Operating action	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p><b>Keyway Position</b></p>  </div> <div style="text-align: center;"> <p><b>Center Position</b></p>  </div> <div style="text-align: center;"> <p><b>Opposite Keyway Position</b></p>  </div> </div>
Product Type	MICRO SWITCH™ Toggle Switch
Ampere/ Voltage Range (Resistive Load)	0.5 A to 20 A at 0.5 Vdc to 28 Vdc, 0.5 A to 15 A at 0.5 Vac to 277 Vac, 0.5 A at 250 Vdc, 0.75 A at 115 Vdc
Circuitry	SPDT
Action	3 position
Mounting	Bushing 15/32 in
Termination	Screw
Military Part Number	MS24523-21
Lever Type	Standard
UL/CSA Rating Code	L191: 15 A-125, 250, 277 Vac; 1/2 Hp-125 Vac; 1 Hp-250, 277 Vac; 5 A-120 Vac "L"
Comment	Silver cadmium oxide contacts
Availability	Global
UNSPSC Code	30211908
UNSPSC Commodity	30211908 Toggle switches
Series Name	TL

**MICRO SWITCH**  
 FREEPORT, ILLINOIS U.S.A.  
 A DIVISION OF HONEYWELL  
 FED. MFG. CODE 91929

**SWITCH-TOGGLE**

CATALOG LISTING  
**1TL1 SERIES**  
**CHART 2**

THIS DRAWING COVERS A PROPRIETARY ITEM AND IS THE PROPERTY OF MICRO SWITCH, A DIVISION OF HONEYWELL. THIS DRAWING IS NOT TO BE COPIED OR USED WITHOUT THE APPROVAL OF MICRO SWITCH.



SCALE FULL

DO NOT SCALE PRINT

TOLERANCES

FINISH	FINISH	FINISH	FINISH
0.0005	0.001	0.002	0.005
0.001	0.002	0.005	0.010
0.002	0.005	0.010	0.020
0.005	0.010	0.020	0.050
0.010	0.020	0.050	0.100
0.020	0.050	0.100	0.200
0.050	0.100	0.200	0.500
0.100	0.200	0.500	1.000
0.200	0.500	1.000	2.000
0.500	1.000	2.000	5.000
1.000	2.000	5.000	10.000

DESIGN UNITS

RAW MATERIAL - COMMERCIAL STANDARD

MICRO SWITCH STANDARDS APPLY

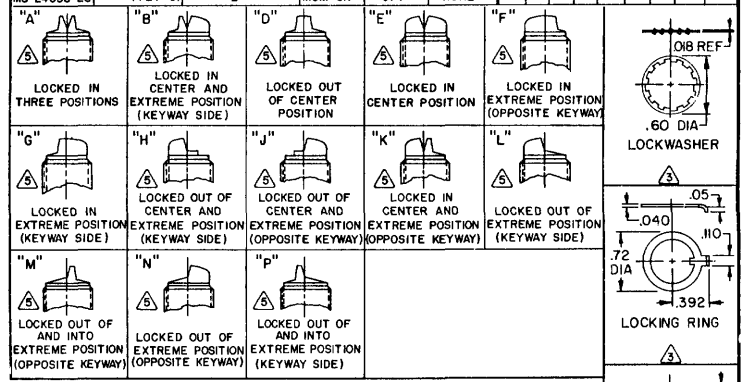
DIMENSIONS ARE TO BE MET UNLESS OTHERWISE SPECIFIED

PROTECTIVE COATINGS ARE APPLIED

WEIGHT .08 LBS. APPROX

15A-125, 250 OR 277VAC	10A-125, 250 OR 277VAC
1/2HP-125VAC; 1HP-250, 277VAC	1/4HP-125VAC; 1/2HP-250, 277VAC
5A-125VAC "L" CODE L191	3A-125VAC "L" CODE L192

MILITARY STANDARD NUMBER	CATALOG LISTING	AVAILABLE LOCKING COMBINATIONS FOR CONFIGURATION SEE LETTERED DETAILS	CIRCUIT MADE WITH TOGGLE LEVER IN			MILITARY RATING (AMPS)								
			KEYWAY SIDE (1-2)	CENTER (1-2)	OPPOSITE KEYWAY (2-3)	RESISTIVE LOAD DC VOLTS	RESISTIVE LOAD AC VOLTS	LAMP LOAD DC VAC	INDUCTIVE LOAD DC VAC					
MS-24658-21	ITLI-1	A,B,D,E,F,G,H,K,L,M,N,P	ON	OFF	ON	20	75	5	15	6	5	3	15	10
MS-24658-22	ITLI-2	D,F,G	OFF	NONE	ON	(REFER TO L191 FOR UL RATING)								
MS-24658-23	ITLI-3	D,F,G	ON	NONE	ON	(REFER TO L191 FOR UL RATING)								
MS-24658-24	ITLI-21	E,F,K,M	NONE	OFF	ON	(REFER TO L191 FOR UL RATING)								
MS-24658-33	ITLI-31	E,F,K,M	NONE	ON	ON	(REFER TO L191 FOR UL RATING)								
MS-24658-29	ITLI-4	F	MOM OFF	NONE	ON	(REFER TO L192 FOR UL RATING)								
MS-24658-31	ITLI-5	E,F,K,L,M,N	MOM ON	OFF	ON	(REFER TO L192 FOR UL RATING)								
MS-24658-30	ITLI-6	F	MOM ON	NONE	OFF	(REFER TO L192 FOR UL RATING)								
MS-24658-27	ITLI-7	E,L,N	MOM ON	OFF	MOM ON	(REFER TO L192 FOR UL RATING)								
MS-24658-26	ITLI-8	F	MOM ON	NONE	ON	(REFER TO L192 FOR UL RATING)								
MS-24658-52	ITLI-51	E	NONE	ON	MOM ON	(REFER TO L192 FOR UL RATING)								
MS-24658-28	ITLI-61	E	MOM ON	OFF	NONE	(REFER TO L192 FOR UL RATING)								



**NOTES**

- SWITCHES ARE CAPABLE OF WITHSTANDING A TEMPERATURE OF 160°F CONTINUOUSLY AT FULL RATED LOAD
- CIRCUIT DESIGNATION, MICRO SWITCH CATALOG LISTING AND MS NUMBER MARKED ON SIDE OF SWITCH
- FURNISHED UNASSEMBLED
- FOR TERMINAL COVER, SEE MICRO SWITCH CATALOG LISTING 5PA7
- KEYWAY SHOWN ON LEFT SIDE
- SUFFIX LETTER MUST BE ADDED FOR DESIRED TYPE OF TOGGLE LOCKING. SEE CHART FOR AVAILABLE LOCKING COMBINATIONS
- APPLIES ONLY TO "ON" AND "MOMENTARY ON" POSITIONS
- THESE SWITCHES ARE QUALIFIED UNDER MIL-S-3950 FROM BOTTOM OF KEYWAY TO MAJOR DIA. OF 15/32 THREAD

CATALOG LISTING  
 1TL1 SERIES CHART 2  
 ISSUE 31  
 CHECK 31  
 REV. 128 JUN 94  
 FORMTEK  
 DRAWN JAF