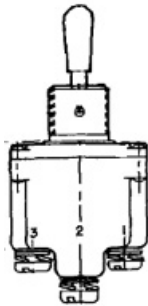




### 1TL1-1



*Actual product appearance may vary.*

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

#### Features

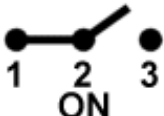

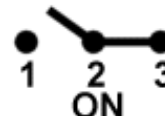
- Qualified to MIL-S-3950
- Environment-proof sealing
- 1,2, and 4 pole circuitry
- Standard and pull-to-unlock levers
- 2 and 3 position, maintained and momentary toggle action
- Temperature range: -85°F to +160°F
- Completely sealed switching chamber
- Step-design case provides added space between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

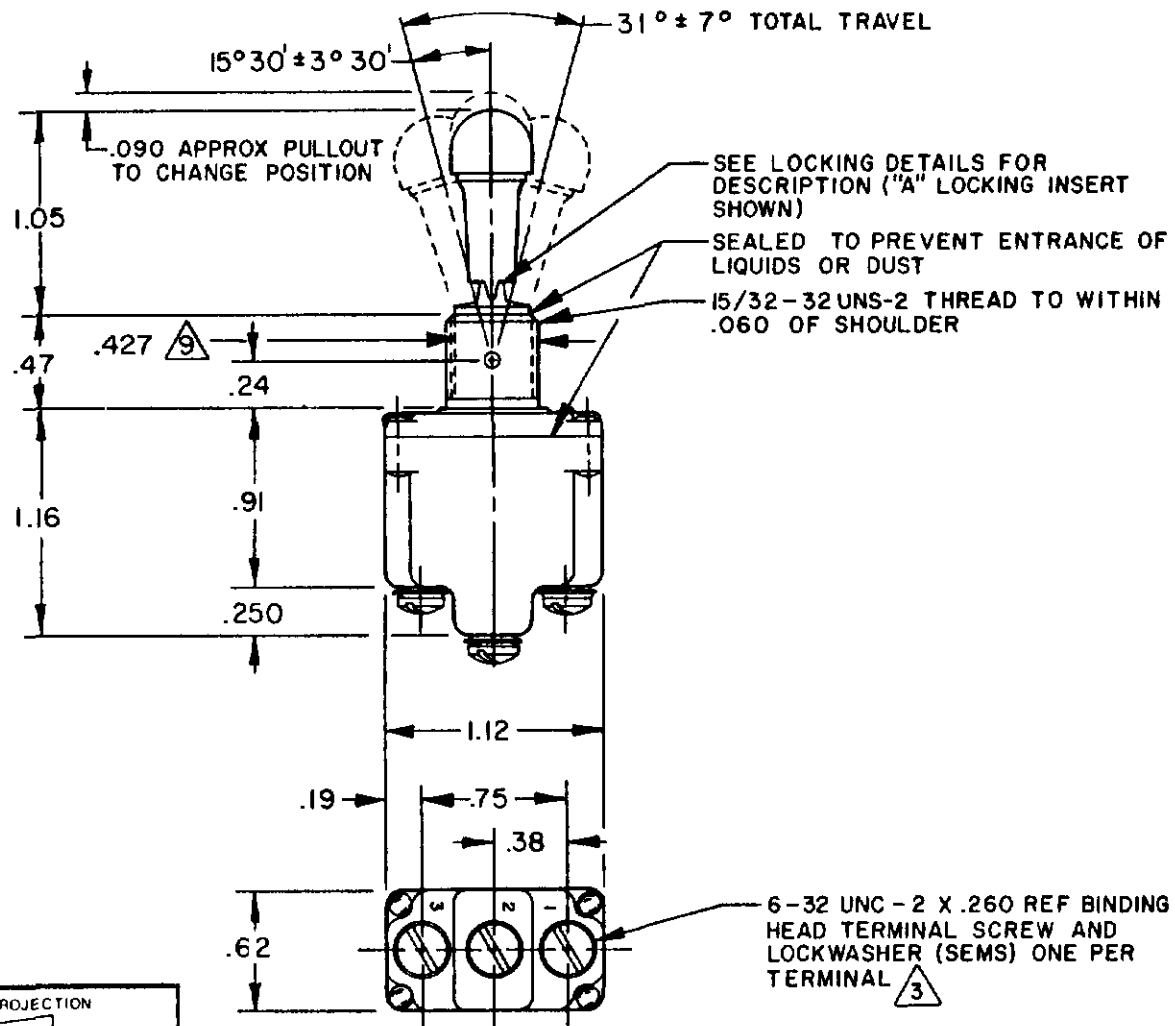
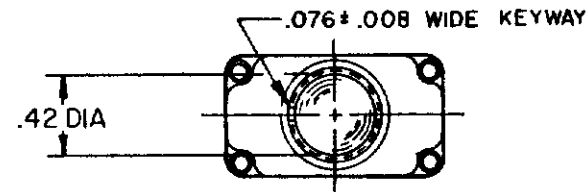
# MICRO SWITCH

FREEDPORT, ILLINOIS U.S.A.  
A DIVISION OF HONEYWELL  
FED. MFG. CODE 91929

## SWITCH-TOGGLE

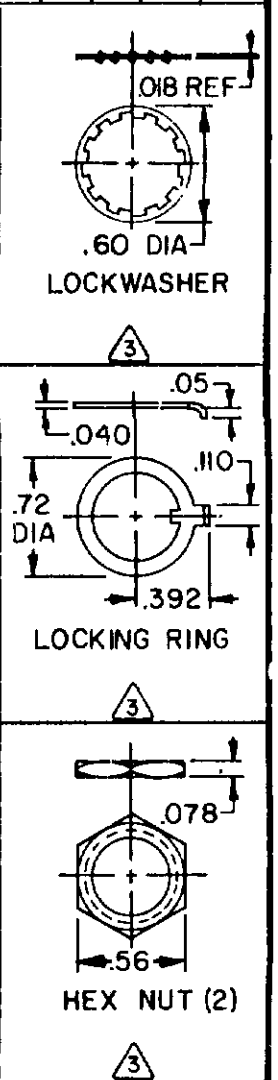
### CATALOG LISTING 1TL1 SERIES CHART 2

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MILITARY STANDARD NUMBER △6	CATALOG LISTING △6	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		LAMP LOAD		INDUCTIVE LOAD								
						DC VOLTS	IAC VOLTS	28 VDC	125 VAC	28 VDC	125 VAC							
MS-24658-21	ITLI-1	ABDEF, GH, JK, LM, NP	ON	OFF	ON													
MS-24658-22	ITLI-2	D, F, G	OFF	NONE	ON													
MS-24658-23	ITLI-3	D, F, G	ON	NONE	ON	20	75	5	15	6	5	3	15	10	(REFER TO L191 FOR UL RATING)			
MS-24658-24	ITLI-2I	E, F, K, M	NONE	OFF	ON													
MS-24658-33	ITLI-3I	E, F, K, M	NONE	ON	ON													
MS-24658-29	ITLI-4	F	MOM OFF	NONE	ON													
MS-24658-31	ITLI-5	E, F, K, L, M, N	MOM ON	OFF	ON													
MS-24658-30	ITLI-6	F	MOM ON	NONE	OFF													
MS-24658-27	ITLI-7	E, L, N	MOM ON	OFF	MOM ON													
MS-24658-26	ITLI-8	F	MOM ON	NONE	ON													
MS-24658-32	ITLI-5I	E	NONE	ON	MOM ON													
MS-24658-28	ITLI-6I	E	MOM ON	OFF	NONE													

"A" LOCKED IN THREE POSITIONS	"B" LOCKED IN CENTER AND EXTREME POSITION (KEYWAY SIDE)	"D" LOCKED OUT OF CENTER POSITION	"E" LOCKED IN CENTER POSITION	"F" LOCKED IN EXTREME POSITION (OPPOSITE KEYWAY)
"G" LOCKED IN EXTREME POSITION (KEYWAY SIDE)	"H" LOCKED OUT OF CENTER AND EXTREME POSITION (KEYWAY SIDE)	"J" LOCKED OUT OF CENTER AND EXTREME POSITION (OPPOSITE KEYWAY)	"K" LOCKED IN CENTER AND EXTREME POSITION (OPPOSITE KEYWAY)	"L" LOCKED OUT OF EXTREME POSITION (KEYWAY SIDE)
"M" LOCKED OUT OF AND INTO EXTREME POSITION (OPPOSITE KEYWAY)	"N" LOCKED OUT OF EXTREME POSITION (OPPOSITE KEYWAY)	"P" LOCKED OUT OF AND INTO EXTREME POSITION (KEYWAY SIDE)		



- 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  
 PAGE 1 OF 1  
 ISSUE 31  
 REVISIONS:  
 A C077942 JAF 28 JUN 94  
 B C095061 DLT 2 JUN 99  
 C CO-94429 CBT 24 NOV 99  
 D 204846 SAV 7 FEB 02  
 FORMTEK DRAWN JAF 28 JUN 94 CHECK

THIRD ANGLE PROJECTION

SCALE FULL

DO NOT SCALE PRINT

TOLERANCES  
APPLY TO DESIGN UNITS CONVERSIONS ARE ONLY FOR REFERENCE UNLESS NOTED TOLERANCES ARE:

DIM	TOL	DIM	TOL
mm	mm/in	in	mm/in
NO PLACES	F	1/64	0.01/03
ONE PLACE	F X	0.01/016	0.01/016
TWO PLACES	F X X	0.001/008	0.001/016
THREE PLACES	F X X X	0.0001/006	0.0001/006
ANGLES			

DESIGN UNITS: SI METRIC ( ), US CUSTOMARY ( )

RAW MATERIAL - COMMERCIAL STANDARD MICRO SWITCH STANDARDS APPLY

DIMENSIONS ARE TO BE MET BEFORE PROTECTIVE COATINGS ARE APPLIED

WEIGHT .08 LBS. APPROX

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