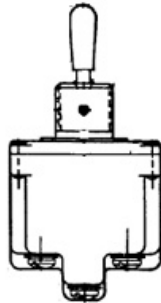




### 4TL1-1



*Actual product appearance may vary.*

**TL Series Toggle Switch, 4 pole, 3 position, Screw terminal, Standard Lever, Military Part Number MS24525-21**

#### Features

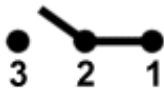

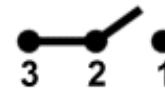
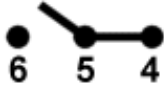

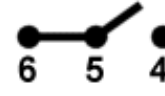
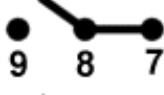

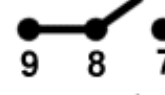
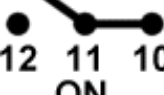

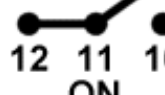
- Qualified to MIL-S-3950
- Environment-proof sealing
- 1,2, and 4 pole circuitry
- Standard and pull-to-unlock levers
- 2 and 3 position, maintained and momentary toggle action
- Temperature range: -85°F to +160°F
- Completely sealed switching chamber
- Step-design case provides added space between 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	<b>Keyway Position</b>	<b>Center Position</b>	<b>Opposite Keyway Position</b>
			
			
			
	 <b>ON</b>	 <b>OFF</b>	 <b>ON</b>
Product Type	MICRO SWITCH™ Toggle Switch		
Ampere/ Voltage Range (Resistive Load)	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, 0.5 A to 20 A at 0.5 Vdc to 28 Vdc		
Circuitry	4PDT		
Action	3 position		
Mounting	Bushing 15/32 in		
Termination	Screw		
Military Part Number	MS24525-21		
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		

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

**SWITCH-TOGGLE**

CATALOG LISTING  
**4TL1 SERIES**  
**CHART 1**

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

4TL1 SERIES  
CHART 1

M

DRAWING  
NUMBER

ISSUE 25

REVISIONS

A CO-81150  
JAK  
20 JUN 95

CHECK

14 JAN 66

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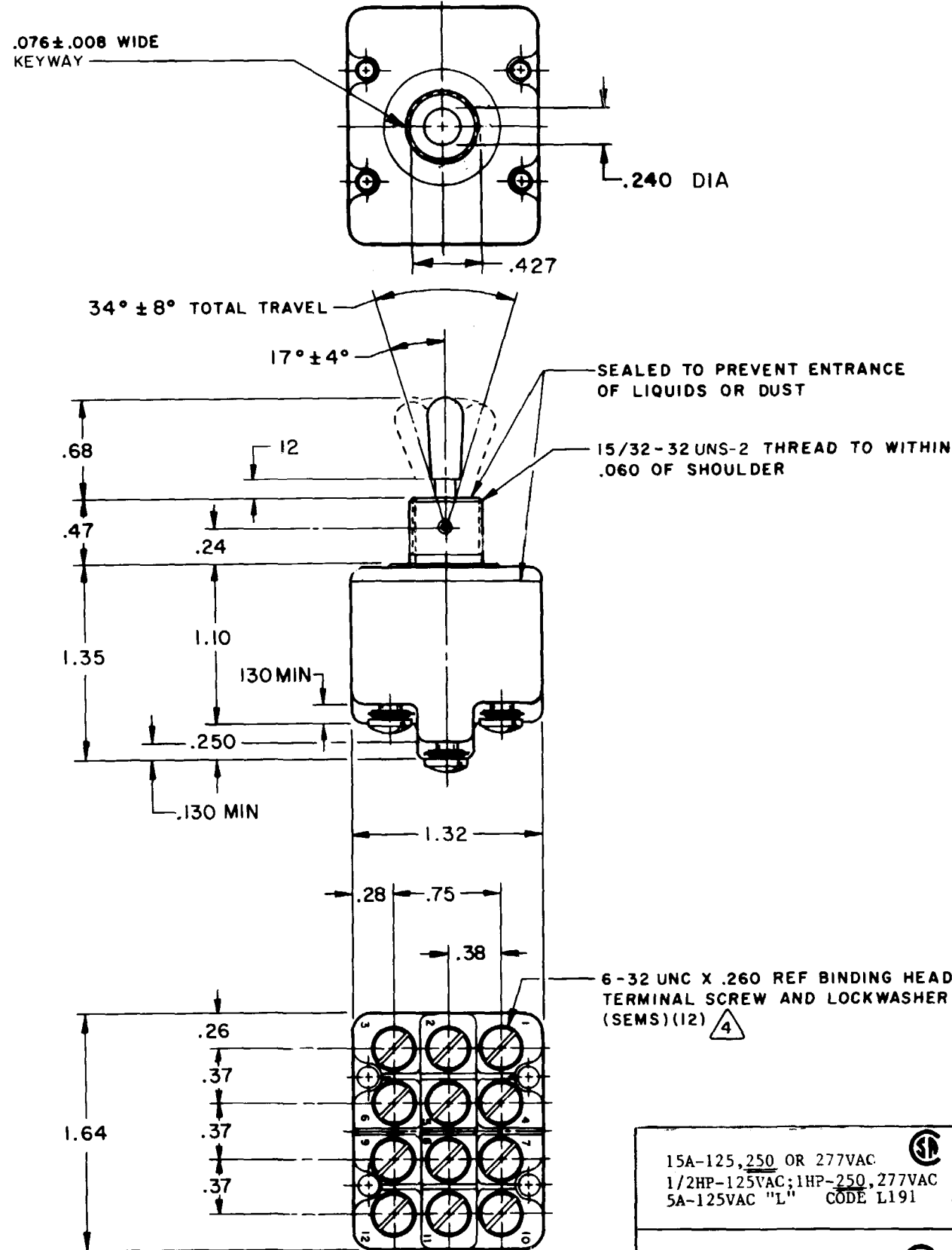
14 JAN 66

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14 JAN 66

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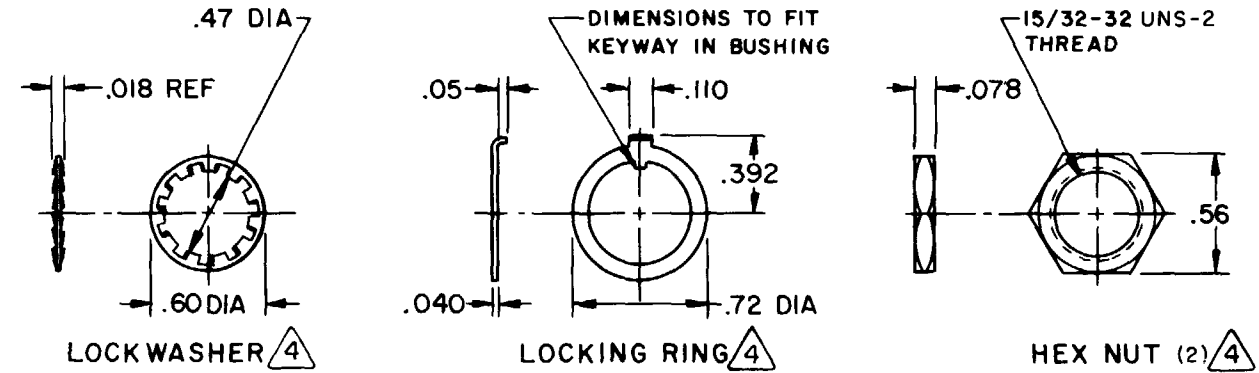
14 JAN 66



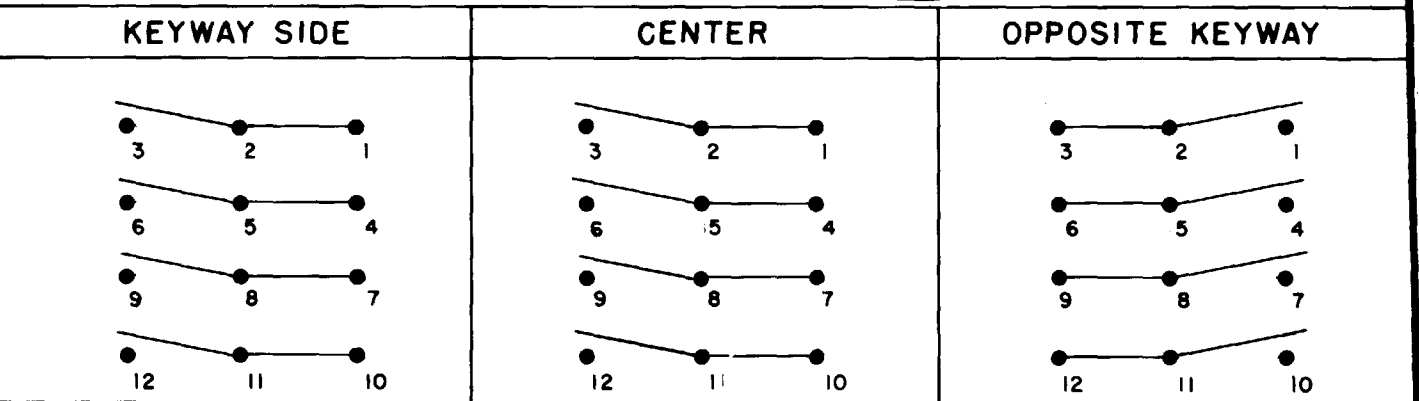
15A-125, 250 OR 277VAC  
 1/2HP-125VAC; 1HP-250, 277VAC  
 5A-125VAC "L" CODE L191

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

CAT. LIST.	CIRCUIT WITH TOGGLE IN			MILITARY RATING (AMPS)								MS NUMBER	
	EXTREME POSITION KEYWAY SIDE	CENTER	EXTREME POSITION OPPOSITE KEYWAY	RESISTIVE LOAD			LAMP LOAD		INDUCTIVE LOAD		CONTINUOUS		
				DC VOLTS	AC VOLTS		28 VDC	125 VAC	28 VDC	125 VAC			
4TL1-1	ON	OFF	ON									MS24525-21	
4TL1-2	OFF	NONE	ON									MS24525-22	
4TL1-3	ON	NONE	ON									MS24525-23	
4TL1-21	NONE	OFF	ON	20	.75	.5	15	6	5	4	12	15	MS24525-24
4TL1-31	NONE	ON	ON										MS24525-33
(REFER TO L191 FOR UL RATING)													
4TL1-4	MOM OFF	NONE	ON										MS24525-29
4TL1-5	MOM ON	OFF	ON										MS24525-31
4TL1-6	MOM ON	NONE	OFF										MS24525-30
4TL1-7	MOM ON	OFF	MOM ON										MS24525-27
4TL1-8	MOM ON	NONE	ON										MS24525-26
4TL1-51	NONE	ON	MOM ON	18	.75	.5	11	6	4	2	10	8	MS24525-32
4TL1-61	MOM ON	OFF	NONE										MS24525-28
(REFER TO L192 FOR UL RATING)													



**CIRCUIT DIAGRAM 6**



- NOTE-
- 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
  - FOR TERMINAL COVER SEE MICRO SWITCH CATALOG LISTING 5PA9
  - FURNISHED UNASSEMBLED
  - THESE SWITCHES ARE QUALIFIED UNDER MIL-S-3950
  - CIRCUIT DIAGRAMS APPLY ONLY TO "ON" AND "MOM ON" POSITIONS

SCALE FULL

DO NOT SCALE PRINT

UNLESS OTHERWISE SPECIFIED TOLERANCES ARE

ONE PLACE	(.0)	±.030
TWO PLACE	(.00)	±.015
THREE PLACE	(.000)	±.005
ANGLES		±