

## MICRO SWITCH

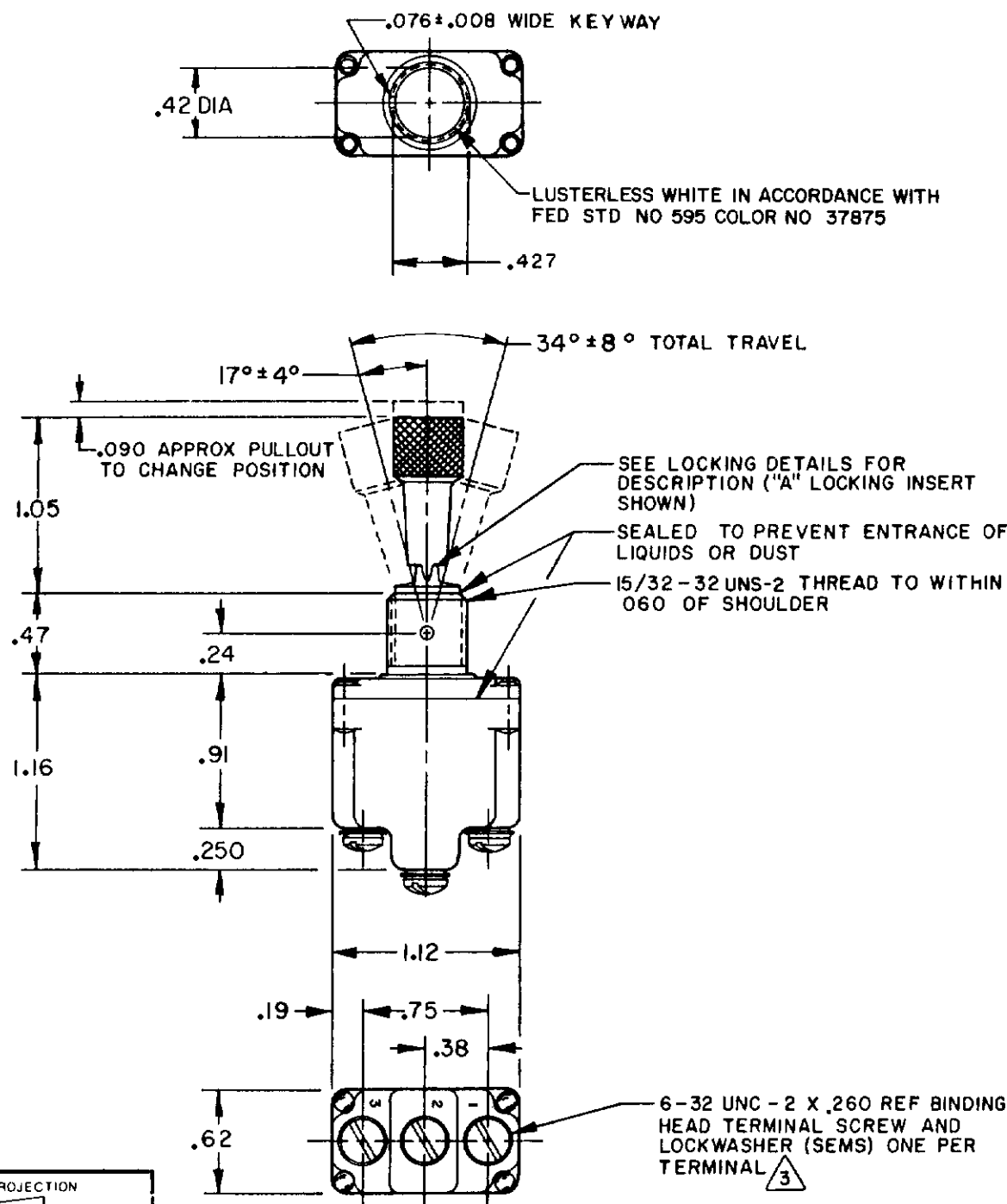
FREEPORT ILLINOIS U S A  
A DIVISION OF HONEYWELL  
FED. MFG. CODE 91929

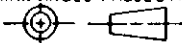
## SWITCH-TOGGLE

CATALOG LISTING  
1TL49 SERIES

## CHART I

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|                                                                                                                                                                                                                                                                                  |       |                                                                                     |     |    |       |           |   |           |     |            |       |              |  |        |  |                                                                                                                                                                                                                                    |  |     |     |    |       |  |   |  |     |  |       |  |  |  |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------------------------------------------------------------------------------------|-----|----|-------|-----------|---|-----------|-----|------------|-------|--------------|--|--------|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----|-----|----|-------|--|---|--|-----|--|-------|--|--|--|--|
| THIRD ANGLE PROJECTION                                                                                                                                                                                                                                                           |       |                                                                                     |     |    |       |           |   |           |     |            |       |              |  |        |  |                                                                                                                                                                                                                                    |  |     |     |    |       |  |   |  |     |  |       |  |  |  |  |
|                                                                                                                                                                                               |       |                                                                                     |     |    |       |           |   |           |     |            |       |              |  |        |  |                                                                                                                                                                                                                                    |  |     |     |    |       |  |   |  |     |  |       |  |  |  |  |
| SCALE                                                                                                                                                                                                                                                                            |       | FULL                                                                                |     |    |       |           |   |           |     |            |       |              |  |        |  |                                                                                                                                                                                                                                    |  |     |     |    |       |  |   |  |     |  |       |  |  |  |  |
| DO NOT SCALE PRINT                                                                                                                                                                                                                                                               |       |                                                                                     |     |    |       |           |   |           |     |            |       |              |  |        |  |                                                                                                                                                                                                                                    |  |     |     |    |       |  |   |  |     |  |       |  |  |  |  |
| TOLERANCES                                                                                                                                                                                                                                                                       |       |                                                                                     |     |    |       |           |   |           |     |            |       |              |  |        |  |                                                                                                                                                                                                                                    |  |     |     |    |       |  |   |  |     |  |       |  |  |  |  |
| APPLY TO DESIGN UNITS CONVERSIONS ARE ONLY FOR REFERENCE UNLESS NOTED TOLERANCES ARE ±                                                                                                                                                                                           |       |                                                                                     |     |    |       |           |   |           |     |            |       |              |  |        |  |                                                                                                                                                                                                                                    |  |     |     |    |       |  |   |  |     |  |       |  |  |  |  |
| <table><tr><td>DIM</td><td>TOL</td></tr><tr><td>mm</td><td>mm/in</td></tr><tr><td>NO PLACES</td><td>X</td></tr><tr><td>ONE PLACE</td><td>X X</td></tr><tr><td>TWO PLACES</td><td>X X X</td></tr><tr><td>THREE PLACES</td><td></td></tr><tr><td>ANGLES</td><td></td></tr></table> |       | DIM                                                                                 | TOL | mm | mm/in | NO PLACES | X | ONE PLACE | X X | TWO PLACES | X X X | THREE PLACES |  | ANGLES |  | <table><tr><td>DIM</td><td>TOL</td></tr><tr><td>in</td><td>mm/in</td></tr><tr><td></td><td>X</td></tr><tr><td></td><td>X X</td></tr><tr><td></td><td>X X X</td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table> |  | DIM | TOL | in | mm/in |  | X |  | X X |  | X X X |  |  |  |  |
| DIM                                                                                                                                                                                                                                                                              | TOL   |                                                                                     |     |    |       |           |   |           |     |            |       |              |  |        |  |                                                                                                                                                                                                                                    |  |     |     |    |       |  |   |  |     |  |       |  |  |  |  |
| mm                                                                                                                                                                                                                                                                               | mm/in |                                                                                     |     |    |       |           |   |           |     |            |       |              |  |        |  |                                                                                                                                                                                                                                    |  |     |     |    |       |  |   |  |     |  |       |  |  |  |  |
| NO PLACES                                                                                                                                                                                                                                                                        | X     |                                                                                     |     |    |       |           |   |           |     |            |       |              |  |        |  |                                                                                                                                                                                                                                    |  |     |     |    |       |  |   |  |     |  |       |  |  |  |  |
| ONE PLACE                                                                                                                                                                                                                                                                        | X X   |                                                                                     |     |    |       |           |   |           |     |            |       |              |  |        |  |                                                                                                                                                                                                                                    |  |     |     |    |       |  |   |  |     |  |       |  |  |  |  |
| TWO PLACES                                                                                                                                                                                                                                                                       | X X X |                                                                                     |     |    |       |           |   |           |     |            |       |              |  |        |  |                                                                                                                                                                                                                                    |  |     |     |    |       |  |   |  |     |  |       |  |  |  |  |
| THREE PLACES                                                                                                                                                                                                                                                                     |       |                                                                                     |     |    |       |           |   |           |     |            |       |              |  |        |  |                                                                                                                                                                                                                                    |  |     |     |    |       |  |   |  |     |  |       |  |  |  |  |
| ANGLES                                                                                                                                                                                                                                                                           |       |                                                                                     |     |    |       |           |   |           |     |            |       |              |  |        |  |                                                                                                                                                                                                                                    |  |     |     |    |       |  |   |  |     |  |       |  |  |  |  |
| DIM                                                                                                                                                                                                                                                                              | TOL   |                                                                                     |     |    |       |           |   |           |     |            |       |              |  |        |  |                                                                                                                                                                                                                                    |  |     |     |    |       |  |   |  |     |  |       |  |  |  |  |
| in                                                                                                                                                                                                                                                                               | mm/in |                                                                                     |     |    |       |           |   |           |     |            |       |              |  |        |  |                                                                                                                                                                                                                                    |  |     |     |    |       |  |   |  |     |  |       |  |  |  |  |
|                                                                                                                                                                                                                                                                                  | X     |                                                                                     |     |    |       |           |   |           |     |            |       |              |  |        |  |                                                                                                                                                                                                                                    |  |     |     |    |       |  |   |  |     |  |       |  |  |  |  |
|                                                                                                                                                                                                                                                                                  | X X   |                                                                                     |     |    |       |           |   |           |     |            |       |              |  |        |  |                                                                                                                                                                                                                                    |  |     |     |    |       |  |   |  |     |  |       |  |  |  |  |
|                                                                                                                                                                                                                                                                                  | X X X |                                                                                     |     |    |       |           |   |           |     |            |       |              |  |        |  |                                                                                                                                                                                                                                    |  |     |     |    |       |  |   |  |     |  |       |  |  |  |  |
|                                                                                                                                                                                                                                                                                  |       |                                                                                     |     |    |       |           |   |           |     |            |       |              |  |        |  |                                                                                                                                                                                                                                    |  |     |     |    |       |  |   |  |     |  |       |  |  |  |  |
|                                                                                                                                                                                                                                                                                  |       |                                                                                     |     |    |       |           |   |           |     |            |       |              |  |        |  |                                                                                                                                                                                                                                    |  |     |     |    |       |  |   |  |     |  |       |  |  |  |  |
| SI METRIC                                                                                                                                                                                                                                                                        |       | US CUSTOMARY                                                                        |     |    |       |           |   |           |     |            |       |              |  |        |  |                                                                                                                                                                                                                                    |  |     |     |    |       |  |   |  |     |  |       |  |  |  |  |
| DESIGN UNITS                                                                                                                                                                                  |       |  |     |    |       |           |   |           |     |            |       |              |  |        |  |                                                                                                                                                                                                                                    |  |     |     |    |       |  |   |  |     |  |       |  |  |  |  |
| 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 L19110A-125,250,277VAC  
1/4HP-125VAC; 1/2HP-250,277VAC  
3A-125VAC "L" L192

| 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       |    | JAC VOLTS |    | LAMP LOAD 28 VDC |   | INDUCTIVE LOAD 28 VDC |    |
| ITL49-1         | ABDEFGHJKLMNP                                                         | ON                                | OFF          | ON                    | 20                            | 75 | 5         | 15 | 6                | 5 | 3                     | 15 |
| ITL49-2         | D,F,G                                                                 | OFF                               | NONE         | ON                    | (REFER TO L191 FOR UL RATING) |    |           |    |                  |   |                       |    |
| ITL49-3         | D,F,G                                                                 | ON                                | NONE         | ON                    |                               |    |           |    |                  |   |                       |    |
| ITL49-2I        | E,F,K,M                                                               | NONE                              | OFF          | ON                    |                               |    |           |    |                  |   |                       |    |
| ITL49-3I        | E,F,K,M                                                               | NONE                              | ON           | ON                    |                               |    |           |    |                  |   |                       |    |
| ITL49-4         | F                                                                     | MOM OFF                           | NONE         | ON                    |                               |    |           |    |                  |   |                       |    |
| ITL49-5         | E,F,K,L,M,N                                                           | MOM ON                            | OFF          | ON                    |                               |    |           |    |                  |   |                       |    |
| ITL49-6         | F                                                                     | MOM ON                            | NONE         | OFF                   |                               |    |           |    |                  |   |                       |    |
| ITL49-7         | E,L,N                                                                 | MOM ON                            | OFF          | MOM ON                | 15                            | 75 | 5         | 15 | 6                | 4 | 2                     | 10 |
| ITL49-8         | F                                                                     | MOM ON                            | NONE         | ON                    | (REFER TO L192 FOR UL RATING) |    |           |    |                  |   |                       |    |
| ITL49-5I        | E                                                                     | NONE                              | ON           | MOM ON                |                               |    |           |    |                  |   |                       |    |
| ITL49-6I        | E                                                                     | MOM ON                            | OFF          | NONE                  |                               |    |           |    |                  |   |                       |    |

|                                                                  |                                                                |                                                                    |                                                                |                                                     |                                                        |
|------------------------------------------------------------------|----------------------------------------------------------------|--------------------------------------------------------------------|----------------------------------------------------------------|-----------------------------------------------------|--------------------------------------------------------|
| "A"<br>LOCKED IN THREE POSITIONS                                 | "B"<br>LOCKED IN CENTER AND EXTREME POSITION (KEYWAY SIDE)     | "D"<br>LOCKED OUT OF CENTER POSITION                               | "E"<br>LOCKED IN CENTER POSITION                               | "F"<br>LOCKED IN EXTREME POSITION (OPPOSITE KEYWAY) | LOCKWASHER<br>.018 REF<br>.60 DIA                      |
| "G"<br>LOCKED IN EXTREME POSITION (KEYWAY SIDE)                  | "H"<br>LOCKED OUT OF CENTER AND EXTREME POSITION (KEYWAY SIDE) | "J"<br>LOCKED OUT OF CENTER AND EXTREME POSITION (OPPOSITE KEYWAY) | "K"<br>LOCKED IN CENTER AND EXTREME POSITION (OPPOSITE KEYWAY) | "L"<br>LOCKED OUT OF EXTREME POSITION (KEYWAY SIDE) | LOCKING RING<br>.05<br>.040<br>.110<br>.72 DIA<br>.392 |
| "M"<br>LOCKED OUT OF AND INTO EXTREME POSITION (OPPOSITE KEYWAY) | "N"<br>LOCKED OUT OF EXTREME POSITION (OPPOSITE KEYWAY)        | "P"<br>LOCKED OUT OF AND INTO EXTREME POSITION (KEYWAY SIDE)       |                                                                |                                                     | HEX NUT (2)<br>.078<br>.56                             |

## NOTES:

- SWITCHES ARE CAPABLE OF WITHSTANDING A TEMPERATURE OF 160°F CONTINUOUSLY AT FULL RATED LOAD
- CIRCUIT DESIGNATION AND MICRO SWITCH CATALOG LISTING 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