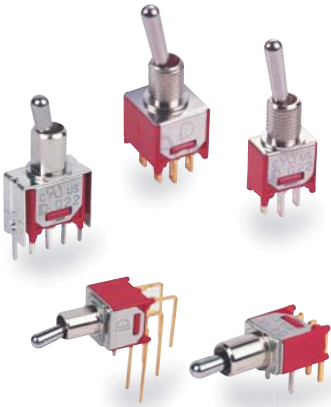


**SPECIFICATIONS****CONTACT RATING:** Dependent upon contact material See Page 28.**MECHANICAL LIFE:** 30,000 make-and-break cycles.**CONTACT RESISTANCE:** 20 mΩ max. initial @ 2-4VDC

100mA for both silver and gold plated contacts.

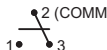
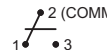
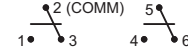
**INSULATION RESISTANCE:** 1,000 MΩ min.**DIELECTRIC STRENGTH:** 1,000 Vrms min.@sea level.**OPERATING TEMPERATURE:** -30°C to 85°C.**MATERIALS****CASE:** Diallyl phthalate (DAP) (UL94v-0).**ACTUATOR:** Brass,chrome plated.**BUSHING:** Brass,nickel plated.**HOUSING:** Stainless Steel.**SWITCH SUPPORT:** Brass,tin plated.**TERMINAL/CONTACT:** Brass,with Silver or gold plated.

(See Page 28 )

**HOW TO ORDER**

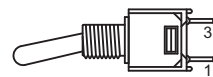
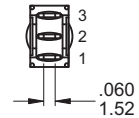
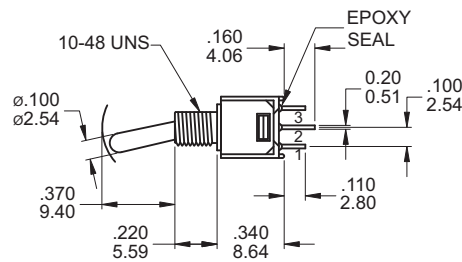
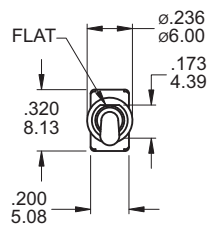
| MODEL NO.                                                                                                                                                                                                                                                                                                                                                                | ACTUATOR                                                                                                                                                                                                                                               | BUSHING                                                                                                                                                                                                                                                                                                                                                                                                 | TERMINATIONS                                                                                                                                                                                                                                                                                                                                                                                                                      | CONTACT MATERIAL                                                                                                                                                                                         | SEAL                                                                                             | ROHS SOLDERING                                                                                                                                                                                                                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div> <div> <div></div> <div></div> <div></div> <div></div> </div> <div>MODEL NO.</div> <div> 2MS1 SP On-None-On<br/> 2MS2 SP On-None-Mom.<br/> 2MS3 SP On- Off -On<br/> 2MS4 SP Mom.-Off-Mom.<br/> 2MS5 SP On- Off -Mom.<br/> 2MS6 SP Off- None -On.<br/> 2MD1 DP On-None-On<br/> 2MD2 DP On-None-Mom.<br/> 2MD3 DP On- Off -On.<br/> 2MD6 DP On- On -On. </div> </div> | <div> <div> <div></div> <div></div> </div> <div>ACTUATOR</div> <div> T1 9.40 high<br/> T2 5.33 high<br/> T3 7.37 high<br/> T4 10.41 high<br/> T5 5.59 high<br/> TL1 Locking lever<br/> 16.00 high<br/> TL2 Locking lever<br/> 16.26 high </div> </div> | <div> <div> <div></div> <div></div> <div></div> </div> <div>BUSHING</div> <div> B1 5.59 high,flat (thd)<br/> B2 5.59 high,flat (non-thd)<br/> B3 5.59 high,keyway (thd)<br/> B4 5.59 high,keyway (non-thd)<br/> B5 7.87 high,flat (thd)<br/> B6 7.87 high,flat (non-thd)<br/> B7 6.60 high,keyway (thd)<br/> B8 6.60 high,keyway (non-thd)<br/> B25 8.00 high,keyway,locking lever (thd ) </div> </div> | <div> <div> <div></div> <div></div> <div></div> </div> <div>TERMINATIONS</div> <div> M1 Solder Lug<br/> M2 PC thru-hole<br/> M5 Wire wrap<br/> M6 Right angle, PC thru-hole<br/> M6N Right angle, snap-in, PC thru-hole<br/> M7 Vertical right angle, PC thru-hole<br/> M7N Vertical right angle, snap-in, PC thru-hole<br/> VS2 V-bracket<br/> V2N Snap-in V-bracket<br/> VS3 V-bracket<br/> V3N Snap-in V-bracket </div> </div> | <div> <div> <div></div> </div> <div>CONTACT MATERIAL</div> <div> Q Silver<br/> R Gold<br/> G Gold,pure-tin<br/> S Silver,pure-tin<br/> C Gold over silver<br/> K Gold over silver,pure-tin </div> </div> | <div> <div> <div></div> </div> <div>SEAL</div> <div> E EPOXY (std)<br/> N NO EPOXY </div> </div> | <div> <div> <div></div> </div> <div>ROHS SOLDERING</div> <div> <input type="checkbox"/> Rohs Compliant<br/> <input checked="" type="checkbox"/> S Rohs &amp; Lead Free<br/> <input type="checkbox"/> F Halogen Free+RoHS </div> </div> |

### SWITCH FUNCTION

| NO.<br>POLES | UL/CSA<br>MODEL<br>NO. | MODEL<br>NO. | SWITCH FUNCTION                                                                   |                                                                                   |                                                                                   | CONNECTED TERMINALS / SCHEMATIC                                                                       |                                                                                     |                                                                                                |
|--------------|------------------------|--------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
|              |                        |              | POS.1                                                                             | POS.2                                                                             | POS.3                                                                             | POS.1                                                                                                 | POS.2                                                                               | POS.3                                                                                          |
|              |                        |              |  |  |  |                      |  |             |
| SP           | Q2211                  | 2MS1         | ON                                                                                | NONE                                                                              | ON                                                                                | 2-3<br>              | N/A                                                                                 | 2-1<br>     |
|              | Q2212                  | 2MS2         | ON                                                                                | NONE                                                                              | MOM                                                                               |                                                                                                       | OPEN                                                                                |                                                                                                |
|              | Q2213                  | 2MS3         | ON                                                                                | OFF                                                                               | ON                                                                                |                                                                                                       |                                                                                     |                                                                                                |
|              | Q2214                  | 2MS4         | MOM                                                                               | OFF                                                                               | MOM                                                                               | OPEN                                                                                                  |                                                                                     |                                                                                                |
|              | Q2215                  | 2MS5         | ON                                                                                | OFF                                                                               | MOM                                                                               |                                                                                                       |                                                                                     |                                                                                                |
|              | Q2216                  | 2MS6         | OFF                                                                               | NONE                                                                              | ON                                                                                |                                                                                                       | OPEN                                                                                | N/A                                                                                            |
| DP           | Q2221                  | 2MD1         | ON                                                                                | NONE                                                                              | ON                                                                                | 2-3,5-6<br>          | N/A                                                                                 | 2-1,5-4<br> |
|              | Q2222                  | 2MD2         | ON                                                                                | NONE                                                                              | MOM                                                                               |                                                                                                       | OPEN                                                                                |                                                                                                |
|              | Q2223                  | 2MD3         | ON                                                                                | OFF                                                                               | ON                                                                                | 1-2 (COMM) 5-6<br> |                                                                                     |                                                                                                |
|              | Q2226                  | 2MD6         | ON                                                                                | ON                                                                                | ON                                                                                | 2-3,5-6                                                                                               | 2-3,5-4                                                                             | 2-1,5-4                                                                                        |

MOM=MOMENTARY

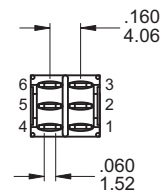
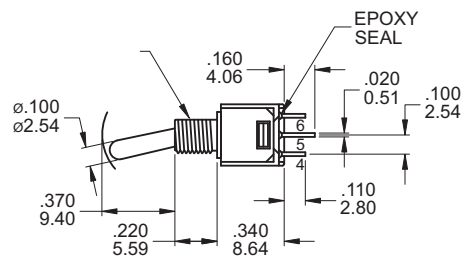
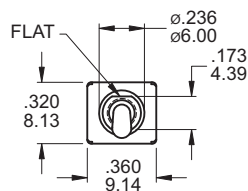
### POLE OPTIONS



SPDT

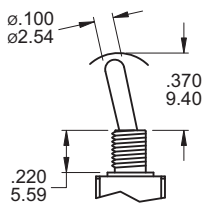
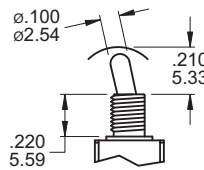
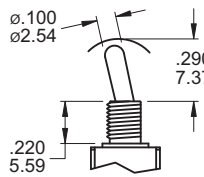
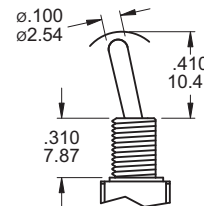
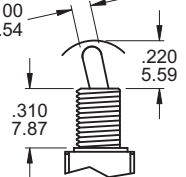
2MS6 Models : Omit 2nd terminal

Part No. Shown : 2MS1T1B1M1QE



DPDT

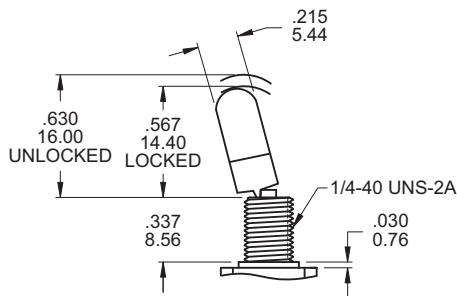
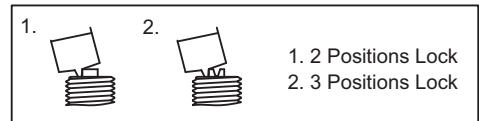
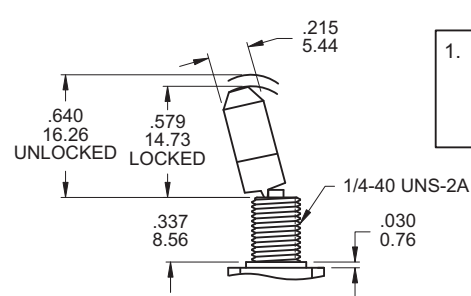
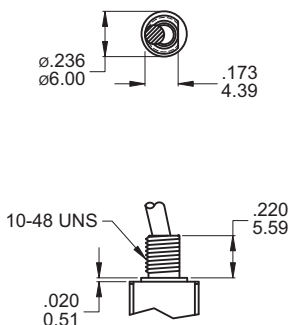
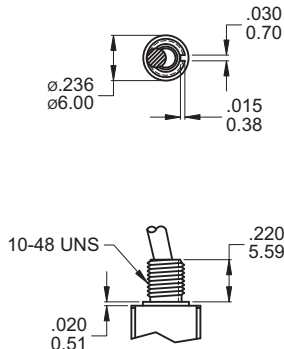
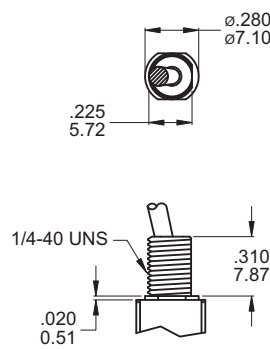
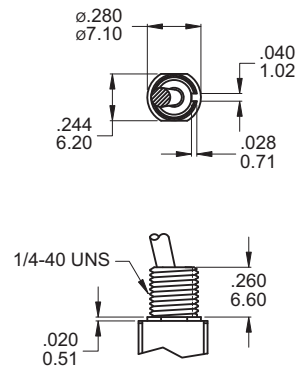
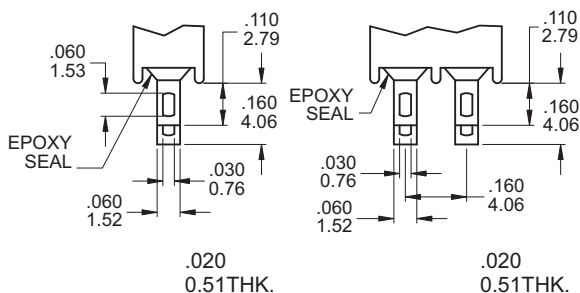
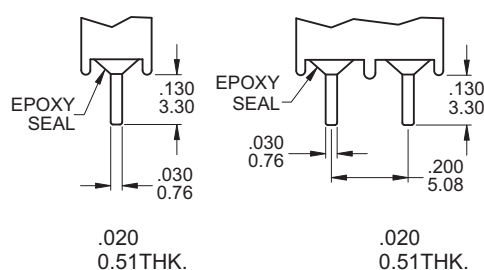
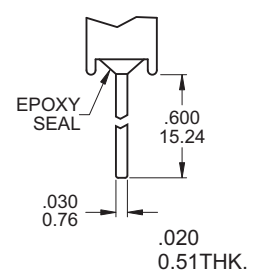
Part No. Shown : 2MD1T1B1M1RE

**ACTUATOR OPTIONS****T1****T2****T3****T4****T5**

T1,T2,T3 Actuator shown with B1 to B4 bushing, subtract 0.09 ( 2.29 ) for B5 bushing, subtract 0.04 ( 1.02 ) for B7 bushing.

T4,T5 Actuator shown with B5,B6 bushing, add 0.09 ( 2.29 ) for B1 to B3 bushing, add 0.05 ( 1.27 ) for B7 bushing.

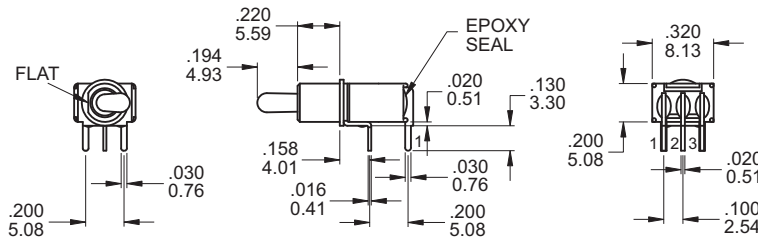
Std for M1,M2 Terminal sub .016(.040) for M6,M7,VSX

**TL1B25****TL2B25****BUSHING OPTIONS****B1 THD  
B2 NON-THD****B3 THD  
B4 NON-THD****B5 THD  
B6 NON-THD****B7 THD  
B8 NON-THD****TERMINATION OPTIONS****M1****M2****M5**

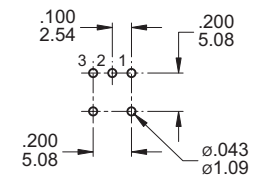
Double Pole

Double Pole

M6



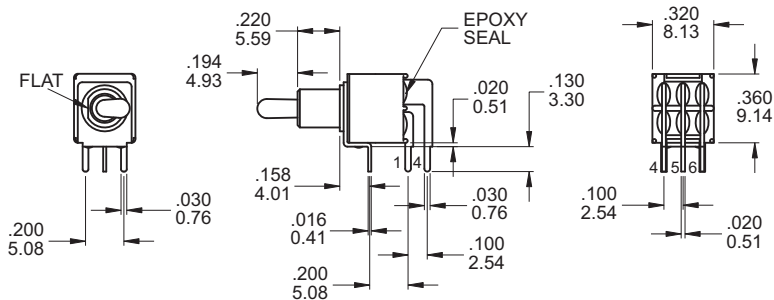
P.C. MOUNTING



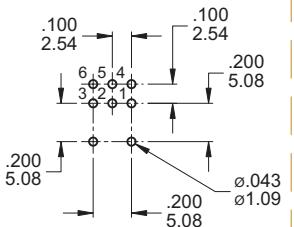
SPDT

Part No. Shown : 2MS1T2B2M6RE

M6



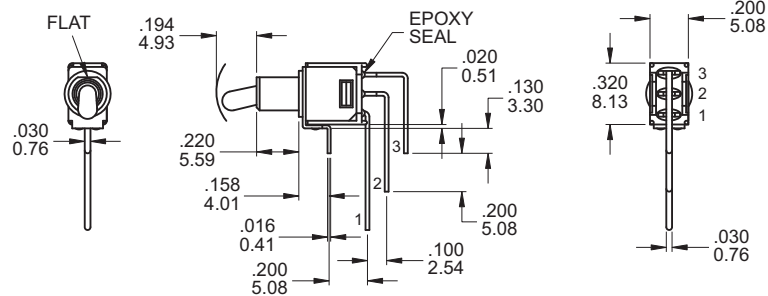
P.C. MOUNTING



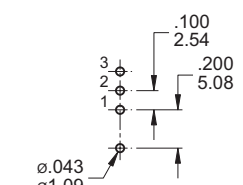
DPDT

Part No. Shown : 2MD1T2B2M6QE

M7



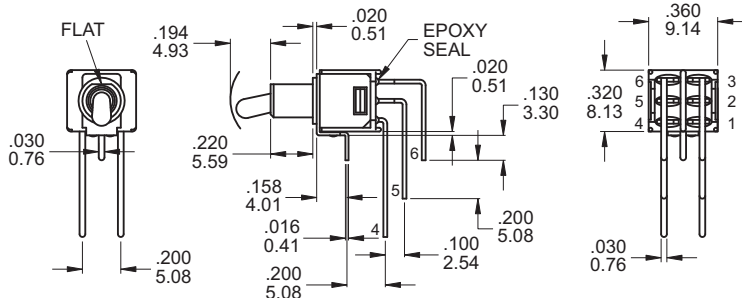
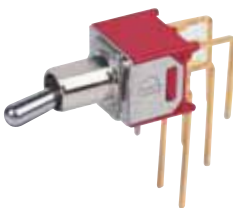
P.C. MOUNTING



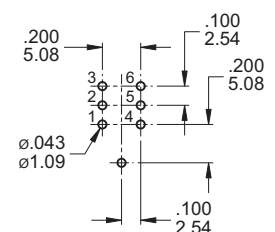
SPDT

Part No. Shown : 2MS1T2B2M7RE

M7



P.C. MOUNTING



DPDT

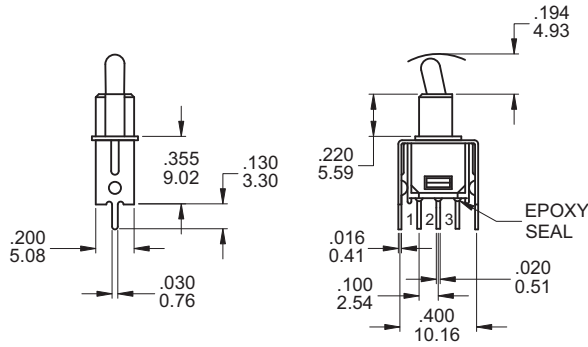
Part No. Shown : 2MD1T2B2M7RE

VS2 - VS3



SPDT

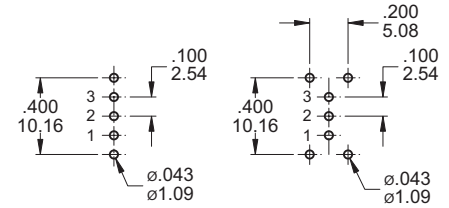
Part No. Shown : 2MS1T2B2VS2QE



P.C. MOUNTING

VS2

VS3

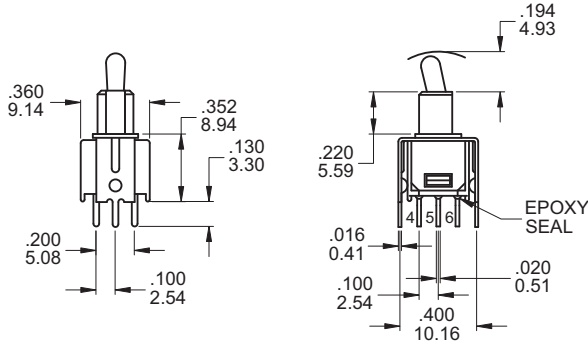


VS2 - VS3



DPDT

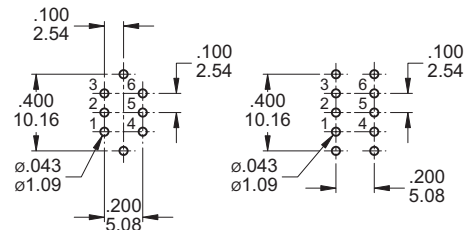
Part No. Shown : 2MD1T2B2VS2QE



P.C. MOUNTING

VS2

VS3



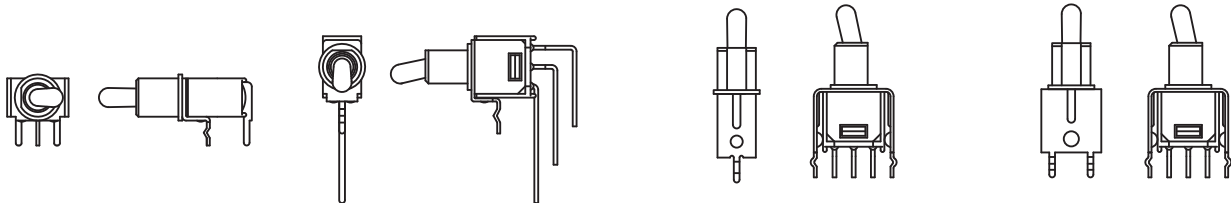
SNAP-IN TERMINATION OPTIONS

M6N

M7N

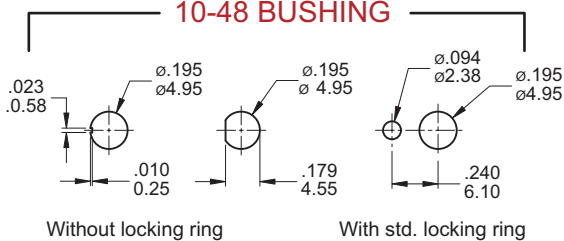
V2N

V3N

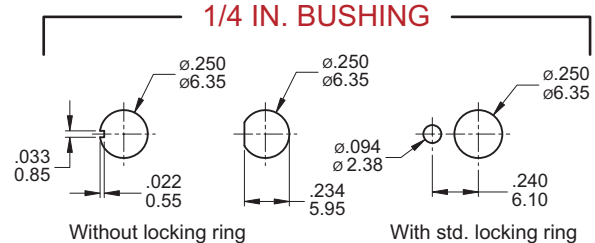


PANEL MOUNTING

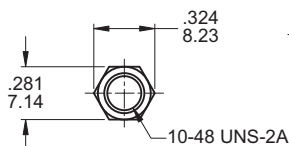
10-48 BUSHING



1/4 IN. BUSHING



HARDWARE





|   | CONTACT PLATING  | TERMINAL PLATING                | RATINGS                                                                             |
|---|------------------|---------------------------------|-------------------------------------------------------------------------------------|
| Q | Silver           | Q = Silver                      | 3 Amps with resistant load @ 120VAC or 28VDC<br>1 Amps with resistant load @ 250VAC |
| S |                  | S = Silver,pure - tin           |                                                                                     |
| C | Gold over Silver | C = Gold over silver            |                                                                                     |
| K |                  | K = Gold over silver,pure - tin |                                                                                     |
| R | Gold             | R = Gold                        | 0.4 Volt - Amps ( VA ) max. @ 20V max. ( AC or DC )                                 |
| G |                  | G = Gold,pure - tin             |                                                                                     |

## SOLDERING PROCESSES

MANUAL SOLDERING : Use soldering iron of 30 watts, controlled at 350°C  
approximately 5 seconds while applying solder.

WAVE SOLDERING : Recommended Soldering Temperature : 260 ± 5°C  
Duration of Solder Immersion : Max 5sec.  
(PCB is 1.6mm in thickness)

**SOLDERING : Vapor phase**