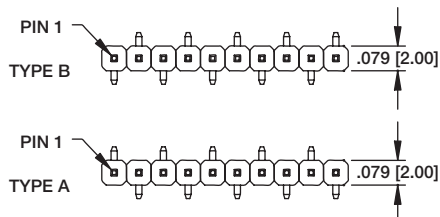


### D2PH-1 (SMT)

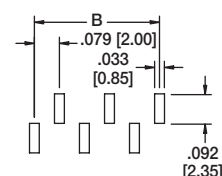
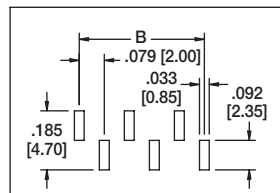
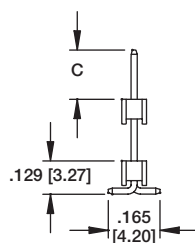
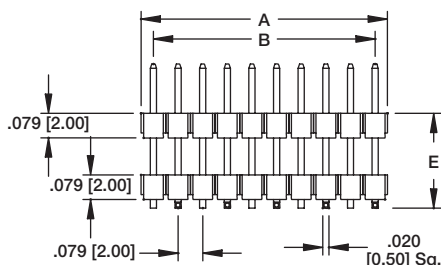


A = .079" [2.00] x No. of positions  
B = .079" [2.00] x No. of spaces

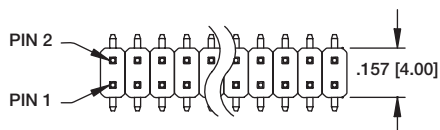


D2PH-1-12-U-.100/SMT-B/.240

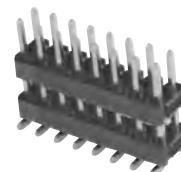
#### Recommended PCB Layouts



### D2PH-2 (SMT)

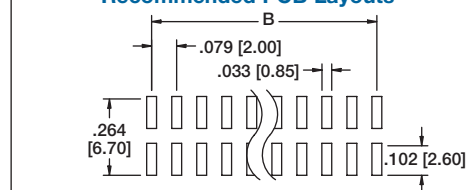
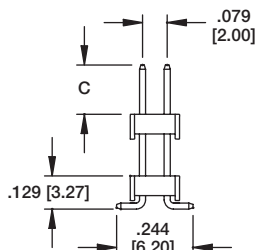
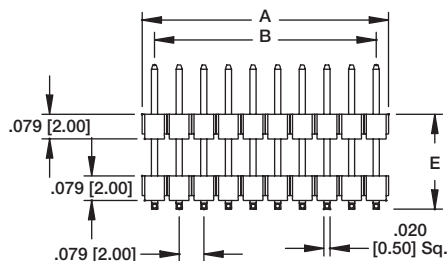


A = .079" [2.00] x No. of positions  
B = .079" [2.00] x No. of spaces

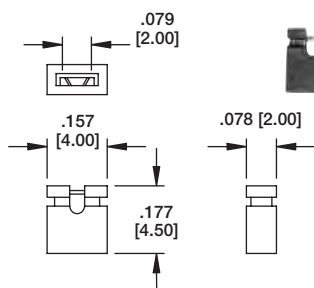


D2PH-2-16-U-.145/SMT/.360

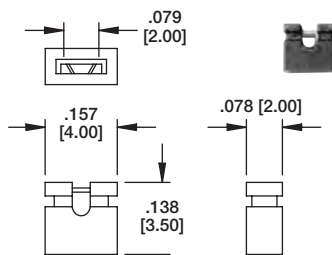
#### Recommended PCB Layouts



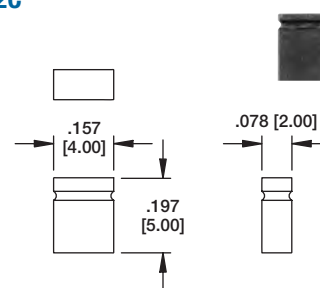
### MS2A



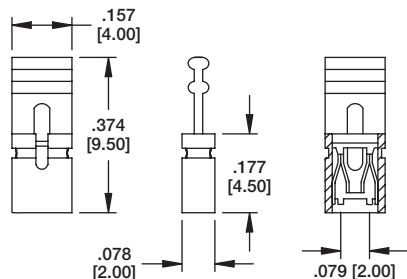
### MS2B



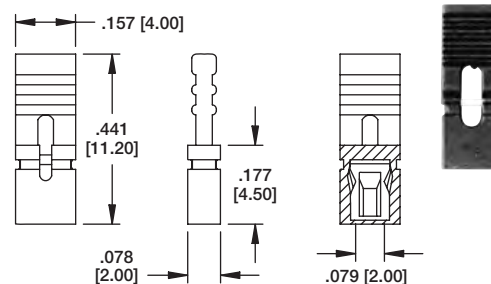
### MS2C



### MS2H-1 RIGID SHORT HANDLE



### MS2H-2 FLEXIBLE LONG HANDLE



### INTRODUCTION:

Adam Tech MS Series Mini Shunts are available in .050", 2.0mm, .100" and .200" centerlines. They quickly and easily jump individual pins on pin headers to perform manual programming on PCB's. This series offers a broad range of sizes, shapes and colors. Shunts are designed with detents at top for easy fingertip installation and removal. Options include integrated pull tabs and gang types which are molded in one piece. This series is extremely low cost and is a highly economical, cost effective solution to replacing PCB switches. Adam Tech's shunts are available in Gold or Tin plating.

### FEATURES:

Electrically connects two or more pin header posts  
Wide variety of bodies and styles to choose from  
Superior insulator design provides easy Fingertip extraction  
Pull Tab and Ganged options available  
Choice of Gold or Tin-plated contact area  
Side and end stackable

### MATING OPTIONS:

Mates with .025" sq. pin headers on .100" centers and all industry standard pin headers with .025" square post on .100" [2.54mm] centerlines.

### SPECIFICATIONS:

#### Material:

Insulator: PBT, rated UL94V-0  
Insulator Color: Black  
Contacts: Phosphor Bronze

#### Contact Plating:

G = Gold over nickel underplate overall  
T = Tin over copper underplate overall

#### Electrical:

Operating voltage: 250V AC max.  
Current rating: 3 Amps max  
Contact resistance: 20 mΩ max. initial  
Insulation resistance: 5000 MΩ min.  
Dielectric withstanding voltage: 1000V AC for 1 minute

#### Mechanical:

Insertion force: 1.57 lbs max.  
Withdrawal force: .65 lbs min  
Mating durability: 50 Cycles Gold  
20 Cycles Tin

#### Temperature Rating:

Operating temperature: -40°C to +105°C

#### PACKAGING:

Anti-ESD plastic bags

#### SAFETY AGENCY APPROVALS:

UL Recognized File no. E224053



### ORDERING INFORMATION

**MSB**

**G**

#### BODY STYLE/HEIGHT

**MSA** = Closed top, .256"  
**MSB** = Open top, .236"  
**MSC** = Open top, .177"  
**MSDA** = Closed top, .315"  
**MSDB** = Open top, .315"  
**MSBH** = Handle-top, .531"  
**HMSA** = .050" Mini Shunt (1 x 2)  
**HMSB** = .050" Mini Shunt (2 x 2)  
**HMSC** = .050" Mini Shunt, .118"  
**MSE** = Closed top, 3 position  
**MST** = 10 piece strip  
**MSBG** = Ganged, block type  
(Specify # of positions, 2 thru 10)

#### PLATING

**G** = Gold plated  
**T** = Tin plated

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#### OPTIONS:

Add designator(s) to end of part number  
30 = 30 μin gold plating in contact area

STANDARD INSULATOR COLOR IS BLACK  
Other insulator colors available

Add designator(s) to end of part number

**R** = Red \*  
**B** = Blue \*  
**W** = White \*  
**Y** = Yellow \*  
**G** = Green \*

\* Minimum order required

|                                                                                                                                    |                                               |                                                   |
|------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|---------------------------------------------------|
| <div>MSA<br/>.100"</div> <div></div>                                                                                               | <div>MSB<br/>.100"</div> <div></div>          |                                                   |
| <div>MSC<br/>.100"</div> <div></div>                                                                                               | <div>MSDA<br/>.100"</div> <div></div>         |                                                   |
| <div>MSDB<br/>.100"</div> <div></div>                                                                                              | <div>MSBH<br/>.100"</div> <div></div>         |                                                   |
| <div>HMSA (1 X 2)<br/>.050"</div> <div></div>                                                                                      | <div>HMSB (2 X 2)<br/>.050"</div> <div></div> | <div>MSE<br/>.200" 3P JUMPER</div> <div></div>    |
| <div>A - .100 [2.54] X No of Positions<br/>B = .100 [2.54] X No of Spaces</div> <div>MSBG<br/>.100" GANGED BLOCK</div> <div></div> |                                               | <div>MST<br/>.100" 10 PC. STRIP</div> <div></div> |