

# MHPS SERIES KEY SWITCHES

## FEATURES

- Double pole - double throw and 4 pole - double throw configurations.
- Momentary (non-locking) and maintained action (locking) models.
- Shorting and non-shorting contacts.
- Audible ('click') and non-audible action models.

## GENERAL SPECIFICATIONS

|                                  |                                |
|----------------------------------|--------------------------------|
| Contact rating:                  | 100 mA @ 30 VDC                |
| Insulation resistance:           | 100 megohms minimum at 500 VDC |
| Dielectric withstanding voltage: | 500 VAC for 1 minute           |
| Contact resistance:              | 100 milliohms maximum          |
| Life:                            | 10,000 cycles minimum          |
| Operating temperature range:     | -20°C to +65°C                 |

## SOLDERING

|                   |                                    |
|-------------------|------------------------------------|
| Wave soldering:   | 260°C max. for 5 seconds maximum   |
| Manual soldering: | 350°C ± 10°C for 3 seconds maximum |
| Solvent washing:  | Non-washable.                      |

## MATERIALS

|                   |                                               |
|-------------------|-----------------------------------------------|
| Case:             | PBT (model MHPS2266 only - Type 6/6 nylon)    |
| Cover:            | Acetal (model MHPS2266 only - Type 6/6 nylon) |
| Actuator:         | Acetal                                        |
| Terminals:        | Silver plated brass                           |
| Shorting Contact: | Silver plated phosphor bronze                 |

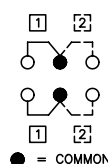
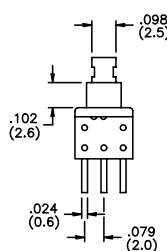
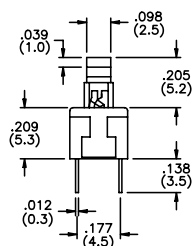
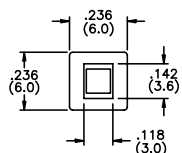
SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

### US # MHPS2266

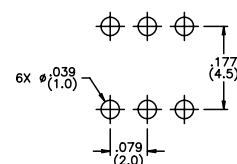
Travel: full-.075" (1.9mm)  
to lock-.039" (1mm)  
Operating force: 140±50g



### DOUBLE POLE



SCHEMATIC



P.C. board layout

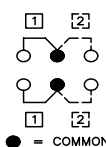
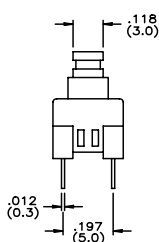
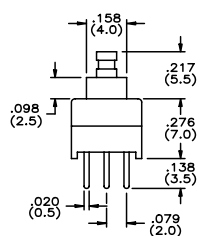
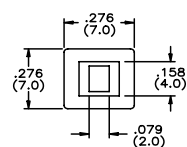
| US Model No.     | Action   | Contacts    | Audible |
|------------------|----------|-------------|---------|
| <b>MHPS2266</b>  | maint'd. | non-sh't'g. | no      |
| <b>MHPS2266N</b> | mom.     | non-sh't'g. | no      |

### US # MHPS2273 EU # PHAP4673

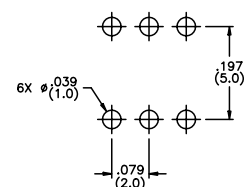
Travel: full-.071" (1.8mm)  
to lock-.039" (1mm)  
Operating force: 200gf ± 50gf



### DOUBLE POLE



SCHEMATIC



P.C. board layout

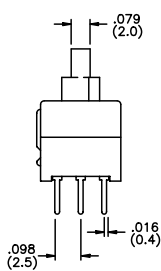
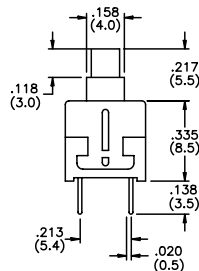
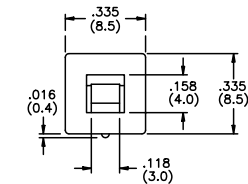
| US Model No.     | Action   | Contacts    | Audible | EU Model No.    |
|------------------|----------|-------------|---------|-----------------|
| <b>MHPS2273</b>  | maint'd. | non-sh't'g. | no      | <b>PHAP4673</b> |
| <b>MHPS2273N</b> | mom.     | non-sh't'g. | no      | N/A             |

**US # MHPS2283**  
**EU # PHAP4683W**

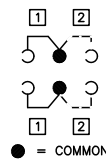
Travel: full- .098" (2.5mm)  
to lock- .059" (1.5mm)  
Operating force: 180±50g



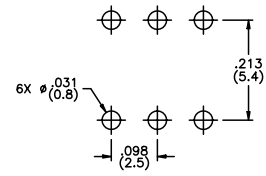
**DOUBLE POLE**



| US Model No.     | Action   | Contacts   | Audible | EU Model No.     |
|------------------|----------|------------|---------|------------------|
| <b>MHPS2283</b>  | maint'd. | non-sht'g. | yes     | <b>PHAP4683W</b> |
| <b>MHPS2283N</b> | mom.     | non-sht'g. | no      | N/A              |
| <b>MHPS2283V</b> | mom.     | non-sht'g. | yes     | <b>PHAP4383V</b> |



SCHEMATIC



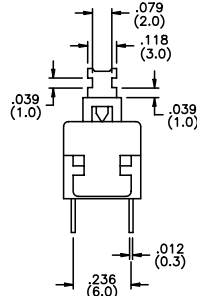
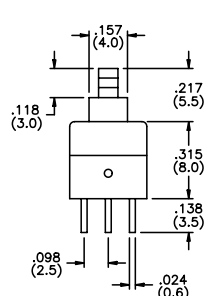
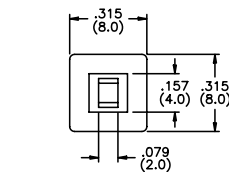
P.C. board layout

**US # MHPS2285**

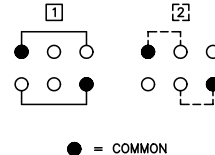
Travel: full- .098" (2.5mm)  
to lock- .059" (1.5mm)  
Operating force: 180±50g



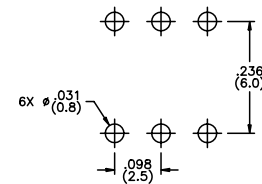
**DOUBLE POLE**



| Model No.        | Action   | Contacts   | Audible |
|------------------|----------|------------|---------|
| <b>MHPS2285</b>  | maint'd. | non-sht'g. | yes     |
| <b>MHPS2285N</b> | mom.     | non-sht'g. | no      |
| <b>MHPS2285V</b> | mom.     | non-sht'g. | yes     |



SCHEMATIC



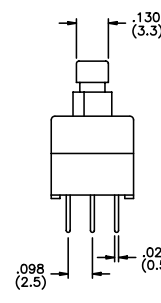
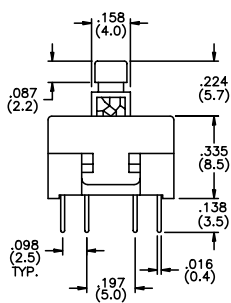
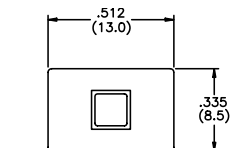
P.C. board layout

**US # MHPS4284**

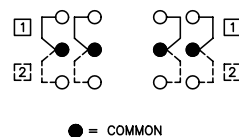
Travel: full- .098" (2.5mm)  
to lock- .059" (1.5mm)  
Operating force: 180g  
+100g, -50g



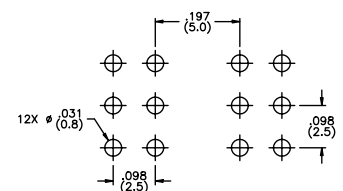
**FOUR POLE**



| Model No.        | Action   | Contacts   | Audible |
|------------------|----------|------------|---------|
| <b>MHPS4284</b>  | maint'd. | non-sht'g. | no      |
| <b>MHPS4284N</b> | mom.     | non-sht'g. | no      |
| <b>MHPS4284V</b> | mom.     | non-sht'g. | yes     |

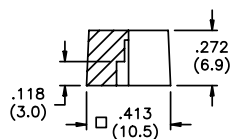


SCHEMATIC

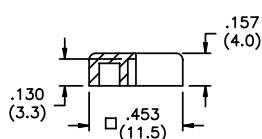


P.C. board layout

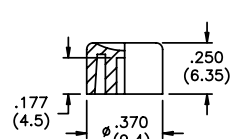
**CAPS** (fit MHPS2273, MHPS2283 and MHPS2285 models only)



**MH1** Square cap



**U4520** Square cap



**U4530** Round cap

Note - add digit from table to cap part number for color.  
Example - **MH12** indicates black cap.

| No. | Color  |
|-----|--------|
| 1   | blue   |
| 2   | black  |
| 3   | green  |
| 5   | yellow |
| 6   | red    |
| 7   | ivory  |

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