

TACT  
SWITCHESNAVIGATION  
SWITCHESPUSHBUTTON  
SWITCHESTOGGLE  
SWITCHESROCKER  
SWITCHESSLIDE  
SWITCHESSNAP-ACTION  
SWITCHESDIP  
SWITCHESKEYLOCK  
SWITCHESROTARY  
SWITCHESDETECTOR  
SWITCHESCAP  
OPTIONS

# SERIES MS SWITCHES

## SNAP ACTION SWITCHES - MINIATURE



### FEATURES & BENEFITS

- Available in gold & 5 amp versions
- Wide variety of actuator, operating force & termination options

### APPLICATIONS/MARKETS

- Appliance
- Timing controls
- Vending machines
- Gaming
- Industrial controls
- Power tools

### SPECIFICATIONS

Contact Rating: Gold .4VA max. @ 20 VDC or VAC Max.  
5 Amps @ 125/250 VAC-UL, CUL  
5 (1) Amp, 250 VAC VDE

Life Expectancy: 50,000 cycles minimum

Mechanical Life: 1,000,000 cycles typical

Insulation Resistance: 100 MΩ min.

Dielectric Strength: 1,000 VAC for 60 seconds

Operating Temperature: -25° C to 85° C (std)

Operating Force: See Chart

### MATERIALS

Switch Housing: High Temperature PBT (UL94 V-0)

Actuator Button: High Temperature PBT (UL94 V-0)

Contacts: Silver (std) or Gold

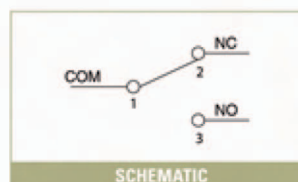
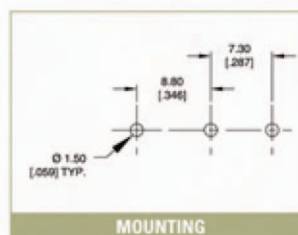
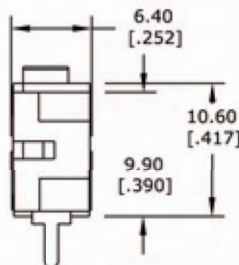
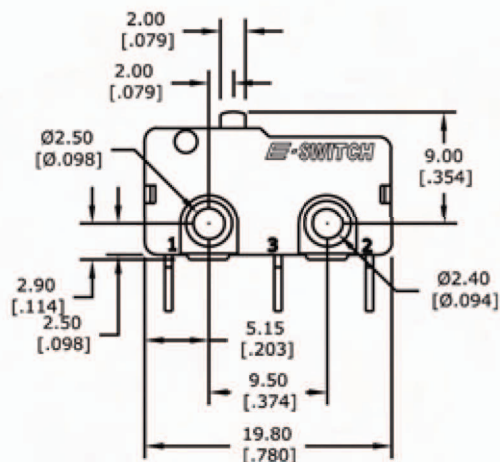
Terminals: Copper Alloy

### HOW TO ORDER

| SERIES | OPERATING TEMP. | CURRENT RATING | ACTUATOR | OPERATING FORCE | TERMINATION | CIRCUIT |
|--------|-----------------|----------------|----------|-----------------|-------------|---------|
| MS     |                 |                |          |                 |             |         |

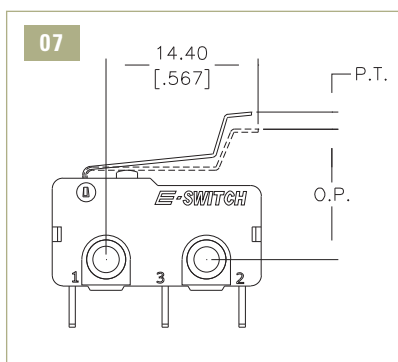
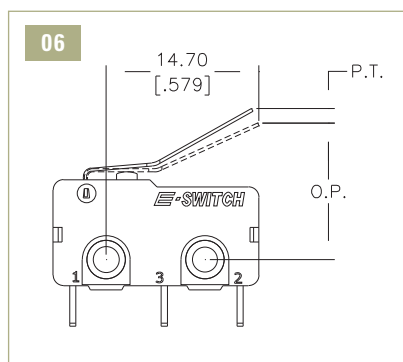
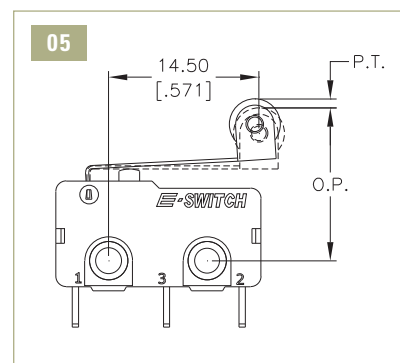
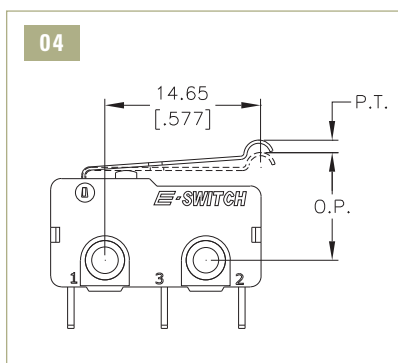
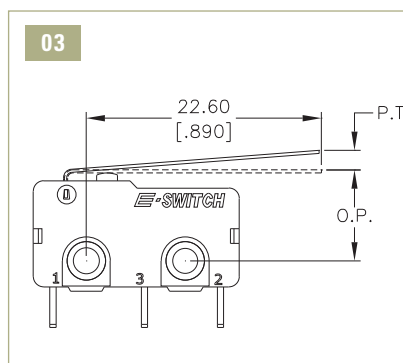
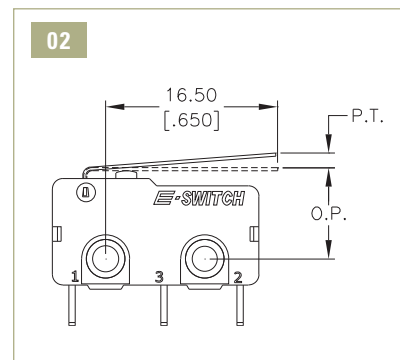
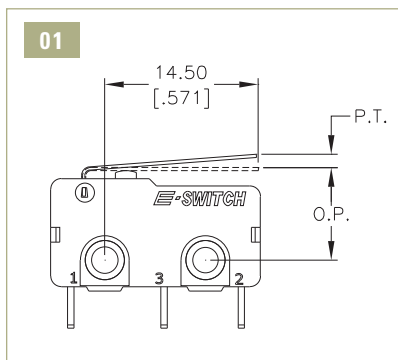
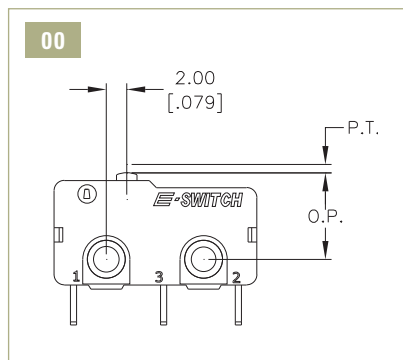
Example Ordering Number  
MS-085-R1-00-F130-S1-A

Specifications subject to change without notice.





## ACTUATOR OPTIONS

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ACTUATOR AND OPERATING FORCE CHART

| Actuator | Actuation/Return Force |         |         |          |          |          |          |          |          |          |
|----------|------------------------|---------|---------|----------|----------|----------|----------|----------|----------|----------|
|          | 60+/-25                | 80+/-25 | 95+/-30 | 115+/-40 | 130+/-40 | 150+/-40 | 175+/-45 | 190+/-45 | 250+/-50 | 295+/-55 |
| 00       | 60+/-25                | 80+/-25 | 95+/-30 | 115+/-40 | 130+/-40 | 150+/-40 | 175+/-45 | 190+/-45 | 250+/-50 | 295+/-55 |
| 01       | 20+/-8                 | 25+/-12 | 30+/-12 | 35+/-20  | 40+/-20  | 45+/-20  | 50+/-20  | 55+/-25  | 70+/-25  | 85+/-30  |
| 02       | 15+/-6                 | 20+/-8  | 25+/-12 | 30+/-12  | 35+/-20  | 40+/-20  | 45+/-20  | 50+/-20  | 65+/-25  | 75+/-25  |
| 03       | 10+/-5                 | 15+/-6  | 20+/-8  | 25+/-12  | 30+/-12  | 35+/-20  | 40+/-20  | 55+/-25  | 60+/-25  | ---      |
| 04       | 15+/-6                 | 20+/-8  | 25+/-12 | 30+/-12  | 35+/-20  | 40+/-20  | 45+/-20  | 50+/-20  | 65+/-25  | 75+/-25  |
| 05       | 15+/-6                 | 20+/-8  | 25+/-12 | 30+/-12  | 35+/-20  | 40+/-20  | 45+/-20  | 50+/-20  | 65+/-25  | 75+/-25  |
| 06       | 15+/-6                 | 20+/-8  | 25+/-12 | 30+/-12  | 35+/-20  | 40+/-20  | 45+/-20  | 50+/-20  | 65+/-25  | 75+/-25  |
| 07       | 15+/-6                 | 20+/-8  | 25+/-12 | 30+/-12  | 35+/-20  | 40+/-20  | 45+/-20  | 50+/-20  | 65+/-25  | 75+/-25  |

| Actuator | Pre-Travel | Operating Position |
|----------|------------|--------------------|
| 00       | 1.1 max    | 8.5+/-0.3          |
| 01       | 3.6 max    | 9.1+/-0.8          |
| 02       | 3.8 max    | 9.1+/-0.8          |
| 03       | 4.4 max    | 9.5+/-0.8          |
| 04       | 3.2 max    | 10.9+/-1.0         |
| 05       | 4.0 max    | 14.9+/-1.0         |
| 06       | 4.1 max    | 13.9+/-1.5         |
| 07       | 5.0 max    | 12.5+/-1.5         |

PT= Pretravel OP= Operating Point OT= Over Travel



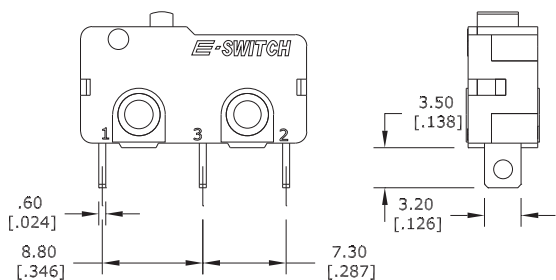
# SERIES MS SWITCHES

## SNAP ACTION SWITCHES - MINIATURE

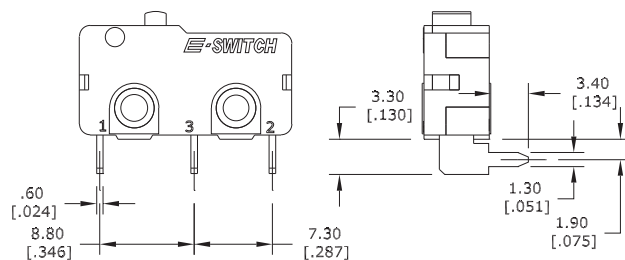
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### TERMINATION OPTIONS

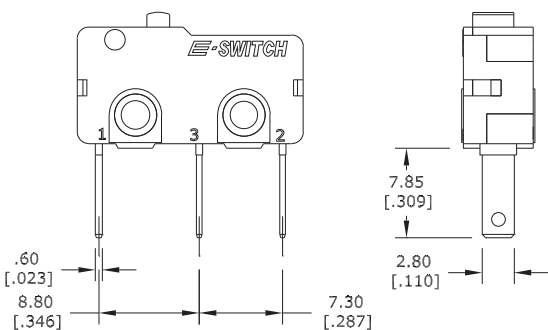
#### S1 SOLDER LUG



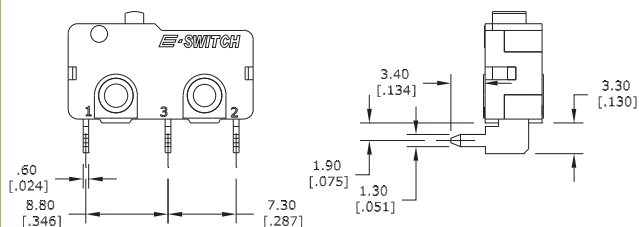
#### V1 RIGHT ANGLE PCB PIN



#### C1 0.110" QUICK CONNECT



#### V2 LEFT ANGLE PCB PIN



#### P1 PCB TERMINALS

