

SENSING AND CONTROL

## Product Range Guide

## For innovation that's well apart, there's only Honeywell Sensing and Control. <br> With more than 50,000 products ranging from snap-action, limit, toggle, and pressure switches to position, speed, pressure, and airflow sensors, Honeywell Sensing and Control (S\&C) has one of the broadest sensing and switching portfolios available. <br> Honeywell sensor, switch, and control components are tailored to exact specifications for stronger performance, longer productivity, and increased safety. Enhanced accuracy and durability are built into every part, improving output and

 endurance. For our customers, this can reduce expenditures and operational costs. Our global footprint and channels help to competitively price such components for your chosen application and provide immediate technical support.Our expertise in aerospace and defense, transportation, medical, and industrial industries means we offer products and solutions for a wide range of applications. But, an impressive product line is only one part. We possess unique engineering expertise and value-added capabilities.

While Honeywell's switch and sensor solutions are suitable for a wide array of basic and complex applications, our custom-


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## MICRO SWITCH™ Snap-Action Series Premium and Standard V-Series Switches



Simple or precision on/off, end of limit, presence/absence, pressure, temperature, and manual operator interface application needs. Potential uses include a variety of applications, including business equipment, valves, manually operated devices, vending machines, water heaters, appliances, and industrial controls.


| Series | V7 | V15 |
| :---: | :---: | :---: |
| Type | premium | standard |
| Amp rating | 0.1 A to 25 A | 5 A to 26 A |
| Circuitry | SPDT, SPN0, SPNC | SPDT, SPNO, SPNC |
| Operating force | 0.702 max . to 14.60 max . | US: $\geq 100 \mathrm{~g}$ ( 16 A to 26 A ) <br> AP: 15 g to 400 g ( 5 A to 26 A ) |
| Terminations | quick connect, pc board, pcb straight angle left | quick connect, direct wire connection with no terminals, RAST |
| Actuators/levers | pin plunger, straight, short flag, roller, sim. roller, curved tip, loop, paddle | pin plunger, straight, roller, sim. roller |
| Voltage | $125 \mathrm{Vac}, 250 \mathrm{Vac}, 277 \mathrm{Vac}$ | $125 \mathrm{Vac}, 250 \mathrm{Vac}$ |
| Approvals | UL, CSA, ENEC | UL, cUL, ENEC, CQC |
| Operating temperature range | $-40^{\circ} \mathrm{C}$ to $150{ }^{\circ} \mathrm{C}$ [ $-40^{\circ} \mathrm{F}$ to $302^{\circ} \mathrm{F}$ ] | $-25^{\circ} \mathrm{C}$ to $150^{\circ} \mathrm{C}$ [ $-13^{\circ} \mathrm{F}$ to $300^{\circ} \mathrm{F}$ ] |
| Contacts | silver, silver cadmium oxide, gold | silver cadmium oxide |
| Housing material | PCT polyester thermoplastic | PBT polyester thermoplastic |
| Measurements | $\begin{aligned} & 15,9 \mathrm{~mm} \mathrm{H} \times 10,2 \mathrm{~mm} \mathrm{~W} \times 28,8 \mathrm{~mm} \mathrm{~L} \\ & {[0.63 \mathrm{in} \mathrm{H} \times 0.4 \text { in } \mathrm{W} \times 1.14 \mathrm{in} \mathrm{~L}]} \end{aligned}$ | $\begin{aligned} & 15,9 \mathrm{~mm} \mathrm{H} \times 10,3 \mathrm{~mm} \mathrm{~W} \times 27,8 \mathrm{~mm} \mathrm{~L} \\ & {[0.63 \mathrm{in} \mathrm{H} \times 0.41 \mathrm{in} \mathrm{~W} \times 1.09 \mathrm{in} \mathrm{L]}} \end{aligned}$ |
| Features | extended mechanical and electrical life; custom engineered solutions | broad range of electrical loads; wide temperature range; limited configuration options available |

## MICRO SWITCHTM Snap-Action Series Premium and Standard Miniature and Subminiature S



Designed for high precision, presence and absence detection, where physical contact with an object is permissible and in simple on-and-off actions. These compact, highly reliable and rugged switches are used in potential applications including aerospace, HVAC, instrumentation, office equipment, medical/dental, valves, and vending machines.


| Series | SM | SX |
| :---: | :---: | :---: |
| Type | premium | premium |
| Amp rating | 0.1 A to 11 A | 1 A to 7 A |
| Circuitry | SPDT | SPDT, SPN0 |
| Operating force | $0.040 z$ to $20 z$ | 0.71 oz to $60 z$ |
| Terminations | quick connect, solder, pcb | quick connect, solder, pcb |
| Actuators/levers | pin plunger, straight, roller, sim. roller, paddle | pin plunger, straight, roller, sim. roller, offset flag, crossed roller |
| Voltage | $115 \mathrm{Vac}, 125 \mathrm{Vac}, 250 \mathrm{Vac}, 30 \mathrm{Vdc}$ | $125 \mathrm{Vac}, 250 \mathrm{Vac}, 28 \mathrm{Vdc}$ |
| Approvals | UL, CSA, ENEC, CE | UL, CSA, ENEC, CE |
| Operating temperature range | $-55^{\circ} \mathrm{C}$ to $125^{\circ} \mathrm{C}$ [ $-67^{\circ} \mathrm{F}$ to $\left.267^{\circ} \mathrm{F}\right]$ | $-55^{\circ} \mathrm{C}$ to $125^{\circ} \mathrm{C}$ [ $-67^{\circ} \mathrm{F}$ to $267^{\circ} \mathrm{F}$ ] |
| Contacts | silver, gold | silver, gold |
| Housing material | phenolic | phenolic or Valox ${ }^{\text {® }}$ |
| Measurements | $\begin{aligned} & 12,7 \mathrm{~mm} \mathrm{H} \times 6,35 \mathrm{~mm} \text { W } \times 20,3 \mathrm{~mm} \mathrm{~L} \\ & {[0.5 \mathrm{in} \mathrm{H} \times 0.25 \mathrm{in} \mathrm{~W} \times 0.8 \mathrm{in} \mathrm{~L}]} \end{aligned}$ | $\begin{aligned} & 12,7 \mathrm{~mm} \mathrm{H} \times 6,35 \mathrm{~mm} \text { W } \times 20,3 \mathrm{~mm} \mathrm{~L} \\ & {[0.5 \mathrm{in} \mathrm{H} \times 0.25 \text { in } \mathrm{W} \times 0.8 \mathrm{in} \mathrm{~L} \mathrm{~L}} \end{aligned}$ |
| Features | extended operating life; elongated mounting holes; MIL-PRF-8805 qualified listings available | extended operating life; elongated mounting holes; MIL-PRF-8805 qualified listings available |

## vitches

|  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| ZD | ZM | ZV | ZW | ZX |
| standard | standard | standard | standard | standard |
| 0.1 A, 3 A | 0.1 A, 5 A, 10.1 A, 16 A | 0.1 A, 6 A, 10.1 A | 0.1 A, 5 A | 0.1 A, 3 A |
| SPDT | SPST, SPDT, SPNO | SPDT, SPN0, SPNC | SPDT, SPNO, SPNC | SPDT |
| 130 gfto 195 gf | 0.18 oz to 8.780 z | 0.78 oz to 11.01 oz | $1.940 z$ to $7.160 z$ | 0.53 oz to 5.3 oz |
| solder, pcb straight, pcb left angle, pcb right angle, pre-wired | quick connect, solder, pcb | quick connect, solder, pcb | quick connect, solder, cable bottom/end, cable side exit | solder, pcb snap-in, pcb left angle, pcb right angle |
| pin plunger, straight, sim. roller | pin plunger, straight, roller, sim. roller, L-shaped | pin plunger, straight, roller, sim. roller | pin plunger, straight, roller, sim. roller | pin plunger, straight, sim. roller, special |
| $125 \mathrm{Vac}, 12 \mathrm{Vdc}$ | $125 \mathrm{Vac}, 250 \mathrm{Vac}, 30 \mathrm{Vdc}$ | $125 \mathrm{Vac} / 125 \mathrm{Vdc} ; 6$ (2) A, 250 Vac | $125 \mathrm{Vac}, 250 \mathrm{Vac}$ | $125 \mathrm{Vac}, 48 \mathrm{Vdc}$ |
| UL, cUL, CE, ENEC | UL, CSA, CE | UL, CUL, ENEC, CE | UL, cUL, CE, ENEC | UL, CSA |
| $\begin{aligned} & -40^{\circ} \mathrm{C} \text { to } 85^{\circ} \mathrm{C} \\ & {\left[-40^{\circ} \mathrm{F} \text { to } 185^{\circ} \mathrm{F}\right]} \\ & \hline \end{aligned}$ | $\begin{aligned} & -25^{\circ} \mathrm{C} \text { to } 85^{\circ} \mathrm{C} \\ & {\left[-13{ }^{\circ} \mathrm{F} \text { to } 185^{\circ} \mathrm{F}\right]} \end{aligned}$ | $\begin{aligned} & -25^{\circ} \mathrm{C} \text { to } 85^{\circ} \mathrm{C} \\ & {\left[-13^{\circ} \mathrm{F} \text { to } 185^{\circ} \mathrm{F}\right]} \end{aligned}$ | $\begin{aligned} & -25^{\circ} \mathrm{C} \text { to } 80^{\circ} \mathrm{C} \\ & {\left[-13{ }^{\circ} \mathrm{F} \text { to } 1766^{\circ} \mathrm{F}\right]} \end{aligned}$ | $\begin{aligned} & -25^{\circ} \mathrm{C} \text { to } 85^{\circ} \mathrm{C} \\ & {\left[-13^{\circ} \mathrm{F} \text { to } 185^{\circ} \mathrm{F}\right]} \end{aligned}$ |
| silver, gold-plated silver | silver, gold-plated silver, silver-tin-indium oxide | silver, gold-plated silver, silver-tin-indium oxide | silver, gold-plated silver | silver, gold-plated silver |
| PBT polyester | polyamide (nylon) | polyamide (nylon) | PBT (polyester) | polyamide (nylon) |
| $10,6 \mathrm{~mm} \mathrm{H} \times 6,35 \mathrm{~mm} \mathrm{Wx}$ $19,8 \mathrm{~mm} \mathrm{~L}[0.42$ in H x 0.25 in W $\times 0.78$ in L] | $\begin{aligned} & 10,6 \mathrm{~mm} \mathrm{H} \times 6,4 \mathrm{~mm} \mathrm{~W} \mathrm{x} \\ & 19,8 \mathrm{~mm} \mathrm{~L} \mathrm{~L} 0.42 \mathrm{in} \mathrm{H} \times 0.25 \mathrm{in} \mathrm{~W} \\ & \times 0.78 \mathrm{in} \mathrm{L]} \end{aligned}$ | $\begin{aligned} & 10,6 \mathrm{~mm} \mathrm{H} \times 6,4 \mathrm{~mm} \mathrm{~W} \mathrm{x} \\ & 19,8 \mathrm{~mm} \mathrm{~L}[0.42 \mathrm{in} \mathrm{H} \times 0.25 \mathrm{in} \mathrm{~W} \\ & \times 0.78 \mathrm{in} \mathrm{L]} \end{aligned}$ | $\begin{aligned} & 9,0 \mathrm{~mm} \mathrm{H} \times 6,4 \mathrm{~mm} \mathrm{~W} \times \\ & 19,8 \mathrm{~mm} \mathrm{~L}[0.36 \text { in } \mathrm{H} \times 0.25 \mathrm{in} \mathrm{~W} \\ & \times 0.78 \mathrm{inL} \mathrm{l} \end{aligned}$ | $6,5 \mathrm{~mm} \mathrm{Hx} 5,7 \mathrm{~mm} \mathrm{Wx}$ $12,7 \mathrm{~mm} \mathrm{~L}[0.26$ in $\mathrm{H} \times 0.22$ in W $\times 0.50$ in L] |
| low energy or power-duty electrical ratings; gold-plated or silver contacts; PBT polyester housing material | Iow energy or power-duty electrical ratings; gold-plated or silver contacts | low energy or power-duty electrical ratings; gold-plated or silver contacts | IP67 available; low energy or power-duty electrical ratings; gold-plated or silver contacts; PBT polyester housing material | low energy or power-duty electrical ratings; gold-plated or silver contacts; polybutylene terephthalate housing |

## MICRO SWITCH™ Snap-Action Series Large Switches and Accessories



Often ideal for high cost-of-failure applications. Low operating force and differential travel. Current ratings from 10 A to 25 A. Designed to withstand 100 K operations at full load or 10 M for mechanical life. Have been used in a variety of applications including irrigation, transportation, medical/dental, valves, office equipment, presses, machine tools, and HVAC.


| Series | BZ/BA/BM/BE | DT |
| :---: | :---: | :---: |
| Type | premium | premium |
| Amp rating | 15 A (BZ), 22 A (BM), 20 A (BA), 25 A (BE) | 10 A |
| Circuitry | SPDT | DPDT |
| Operating force | 1.002 to $280 z$ | 7.00 oto 10.00 oz |
| Terminations | quick connect, solder, screw | screw |
| Actuators/levers | pin plunger, overtravel plunger, straight, roller, flexible roller leat, flexible leaf | pin plunger |
| Voltage | $115 \mathrm{Vac}, 125 \mathrm{Vac}, 250 \mathrm{Vac}$ | $250 \mathrm{Vac}, 28 \mathrm{Vdc}$ |
| Approvals | UL, CSA, ENEC, CE (varies by model) | UL, CSA |
| Operating temp. range | $-55^{\circ} \mathrm{C}$ to $85^{\circ} \mathrm{C}\left[-67^{\circ} \mathrm{F}\right.$ to $\left.185{ }^{\circ} \mathrm{F}\right]$ | $-55^{\circ} \mathrm{C}$ to $85^{\circ} \mathrm{C}\left[-67^{\circ} \mathrm{F}\right.$ to $\left.185{ }^{\circ} \mathrm{F}\right]$ |
| Contacts | silver, silver cadmium oxide | silver |
| Housing material | general purpose phenolic | general purpose phenolic |
| Measurements | $\begin{aligned} & 25,4 \mathrm{~mm} \mathrm{H} \times 17,8 \mathrm{~mm} \mathrm{~W} \times 50,8 \mathrm{~mm} \mathrm{~L} \\ & {[1.0 \mathrm{in} \mathrm{H} \times 0.7 \text { in W } \times 2.0 \mathrm{in} \mathrm{~L}]} \end{aligned}$ | $\begin{aligned} & 25,4 \mathrm{~mm} \mathrm{H} \times 17,8 \mathrm{~mm} \mathrm{~W} \times 50,8 \mathrm{~mm} \mathrm{~L} \\ & {[1.0 \mathrm{in} \mathrm{H} \times 0.7 \text { in } \mathrm{W} \times 2.0 \mathrm{in} \mathrm{~L}]} \end{aligned}$ |
| Features | worldwide standard "large snap-action" switch; Iow operating force and travel; extended mechanical life; momentary or maintained actions | mounting interchangeability with BZ Series switches; permits several wiring combinations |


|  |  |  |  |
| :---: | :---: | :---: | :---: |
| Series | 8MA1 | 8MA2 | 17MA1-B |
| Type | adjustable mounting bracket | adjustable mounting bracket | conversion mounting bracket |
| Description | adjustment slot on the left | adjustment slot on the right | - |
| Housing material | steel | steel | corrosion-resistant metal |
| Measurements | $60,2 \mathrm{~mm} \mathrm{~W} \times 21,3 \mathrm{~mm} \mathrm{H} \times 7,4 \mathrm{~mm} \mathrm{D}$ [2.37 in W x 0.84 in $\mathrm{H} \times 0.29$ in D] | $60,2 \mathrm{~mm} \mathrm{~W} \times 21,3 \mathrm{~mm} \mathrm{H} \times 7,4 \mathrm{~mm}$ D [2.37 in W x 0.84 in $\mathrm{H} \times 0.29$ in D] | $\begin{aligned} & 66,8 \mathrm{~mm} \text { W } \times 19,0 \mathrm{~mm} \text { D } \\ & {[2.63 \text { in } \mathrm{W} \times 0.75 \text { in D] }} \end{aligned}$ |
| Features | sturdy plated steel construction; fast, easy screwdriver adjustment; can be used with all standard snap-action switches | sturdy plated steel construction; fast, easy screwdriver adjustment; can be used with all standard snap-action switches | converts standard snap-action switches from side to top mount; corrosion resistant; snaps into switch mounting holes without tools |



| 3MN | 6AS | AC | DM |
| :---: | :---: | :---: | :---: |
| premium | premium | special application | special application |
| 15 A | $10 \mathrm{~A}, 15 \mathrm{~A}, 20 \mathrm{~A}$ | 5 A to 25 A | $10 \mathrm{~A}, 16 \mathrm{~A}$ |
| two circuit, double break (2 CKT DB) | SPDT | SPDT | SPDT, DPDT |
| 7.0 oz to 2002 | 802 to 1402 | - | 4,17 N [15 0z] max. |
| screw | solder, screw, A2, T | turret-type solder, screw, flying leads | quick connect |
| pin plunger | straight, roller, leaf | rod | bullet nose plunger |
| 480 Vac | $125 \mathrm{Vac}, 250 \mathrm{Vac}, 480 \mathrm{Vac}$ | $125 \mathrm{Vac}, 250 \mathrm{Vac}, 480 \mathrm{Vac}, 30 \mathrm{Vdc}$ | $125 \mathrm{Vac}, 250 \mathrm{Vac}, 277 \mathrm{Vac}$ |
| UL, CSA | UL | UL versions available | UL, CSA |
| $-55^{\circ} \mathrm{C}$ to $85{ }^{\circ} \mathrm{C}\left[-67{ }^{\circ} \mathrm{F}\right.$ to $\left.185{ }^{\circ} \mathrm{F}\right]$ | $-55^{\circ} \mathrm{C}$ to $85^{\circ} \mathrm{C}\left[-67^{\circ} \mathrm{F}\right.$ to $\left.185{ }^{\circ} \mathrm{F}\right]$ | $-54^{\circ} \mathrm{C}$ to $121^{\circ} \mathrm{C}\left[-65{ }^{\circ} \mathrm{F}\right.$ to $\left.250{ }^{\circ} \mathrm{F}\right]$ | $-37{ }^{\circ} \mathrm{C}$ to $82{ }^{\circ} \mathrm{C}\left[-35{ }^{\circ} \mathrm{F}\right.$ to $\left.180{ }^{\circ} \mathrm{F}\right]$ |
| silver | silver | silver | silver |
| general purpose phenolic | general purpose phenolic | die-cast stainless steel bracket, stainless steel or polyester rod | polyester |
| $25,4 \mathrm{~mm} \mathrm{H} \times 17,8 \mathrm{~mm} \mathrm{~W} \times 50,8 \mathrm{~mm} \mathrm{~L}$ [1.0 in $\mathrm{H} \times 0.7$ in $\mathrm{W} \times 2.0$ in L] | $20,1 \mathrm{~mm}$ H $\times 35,1 \mathrm{~mm}$ W $\times 49,3 \mathrm{~mm} \mathrm{~L}$ [ 0.79 in $\mathrm{H} \times 1.38$ in $\mathrm{W} \times 1.94 \mathrm{inL}$ ] | varies by model | $\begin{aligned} & 48,8 \mathrm{~mm} \mathrm{H} \times 31,8 \mathrm{~mm} \mathrm{~W} \mathrm{x} \\ & 14,0 \mathrm{~mm} \mathrm{D]} \mathrm{[1.93} \mathrm{in} \mathrm{H} \mathrm{x} 1.25 \mathrm{in} \mathrm{~W} \\ & \times 0.55 \mathrm{in} \mathrm{D]} \\ & \hline \end{aligned}$ |
| double-break circuitry; extended mechanical life; space between terminals reduces possibility of shorting; arc-resistant plastic | tandem switch assembly; field adjustable operating point on one or both snap-action switches | cuts power when door/drawer is opened; momentary, maintained or pull-to-cheat actuation; one or two SPDT switches | easy installation; momentary, alternate push-pull, or pull-to-cheat operation; expected mechanical life: 1 million operations, 95\% survival |


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# MICRO SWITCH™ Snap-Action Series Sealed Switches 



Sealed switches are snap-action precision switches enclosed within a corrosionresistant aluminum housing that seals the switch contacts from contamination. These sealed switches have often been used in aerospace, ordnance, industrial, marine, and transportation applications.

|  |  |  |
| :---: | :---: | :---: |
| Series | SE/XE | HM |
| Type | anodized aluminum | stainless steel |
| Sealing | MIL-PRF-8805, symbol 3 | MIL-PRF-8805, symbol 5, hermetic |
| Operating temperature range | $-53{ }^{\circ} \mathrm{C}$ to $105^{\circ} \mathrm{C}\left[-65{ }^{\circ} \mathrm{F}\right.$ to $\left.221^{\circ} \mathrm{F}\right]$ | $-65^{\circ} \mathrm{C}$ to $121^{\circ} \mathrm{C}\left[-85^{\circ} \mathrm{F}\right.$ to $250^{\circ} \mathrm{F}$ ] high temp available: $500^{\circ} \mathrm{F}$ |
| Actuators/levers | auxiliary actuators available | integral lever; aux. actuators: leaf, roller leaf, straight, roller lever |
| Termination | solder, leadwire | solder, leadwire |
| Circuitry | SPDT | SPDT |
| Contacts | silver, gold, bifurcated gold | silver, gold, bifurcated gold |
| Amp rating | 7A max. | 0.5 A to 3 A |
| Approvals | CE, UL/CSA, MIL-PRF-8805 (selected listings) | MIL-PRF-8805 |
| Measurements | SE: $19,05 \mathrm{~mm} \mathrm{H} \times 8,64 \mathrm{~mm} \mathrm{~W} \times 22,35 \mathrm{~mm} \mathrm{~L}$ [ 0.75 in H x 0.34 in $\mathrm{W} \times 0.88$ in L] XE: $19,05 \mathrm{~mm} \mathrm{H} \times 8,13 \mathrm{~mm} \mathrm{~W} \times 15,75 \mathrm{~mm} \mathrm{~L}$ [ 0.75 in $\mathrm{H} \times 0.32$ in $\mathrm{W} \times 0.62$ in L] | $\begin{aligned} & 12,7 \mathrm{~mm} \mathrm{H} \times 6,35 \mathrm{~mm} \mathrm{~W} \times 20,3 \mathrm{~mm} \mathrm{~L} \\ & {[0.5 \text { in } \mathrm{H} \times 0.25 \text { in } \mathrm{W} \times 0.8 \mathrm{in} \mathrm{L]}} \end{aligned}$ |
| Features | watertight and military standard construction per MIL-PRF-8805; corrosion-resistant aluminum housing | hermetically sealed per MIL-PRF-8805; high temperature construction; reduced sensitivity to changes in altitude or pressure |


|  |  |
| :---: | :---: |
| Series | HS |
| Type | stainless steel, phenolic |
| Sealing | MIL-PRF-8805, symbol 5, hermetic |
| Operating temperature | $-54^{\circ} \mathrm{C}$ to $121^{\circ} \mathrm{C}$ [-65 ${ }^{\circ} \mathrm{F}$ to $\left.250{ }^{\circ} \mathrm{F}\right]$ |
| Actuators/levers | integral lever |
| Termination | screw, leadwire |
| Circuitry | SPDT |
| Contacts | silver |
| Amp rating | 1 A to 25 A |
| Approvals | UL, CSA, MIL-PRF-8805 |
| Measurements | $25,4 \mathrm{~mm} \mathrm{H} \times 17,8 \mathrm{~mm} \mathrm{~W} \times 50,8 \mathrm{~mm} \mathrm{~L} \mathrm{[1.0} \mathrm{in} \mathrm{H} \times 0.7 \mathrm{in} \mathrm{W} \times 2.0$ in L] |
| Features | hermetically sealed per MIL-PRF-8805; high temperature construction; reduced sensitivity to changes in altitude or pressure |

## MICRO SWITCH ${ }^{\text {TM }}$ Pushbutton Switches Lit and Unlit Pushbuttons



Lighted or unlighted, pushbuttons are designed to enhance manual operation with a flexible and attractive interface. Snap-in surface products are easy to apply, operate, and maintain. Potential applications include control boards and panels found in industrial machinery, instrumentation, flight decks, and test equipment.


| Series | PB |
| :--- | :--- |
| Panel area | depends on type and number of snap-action switches |
| Display | 8,1 mm [0.32 in] and other button sizes |
| Colored buttons | available |
| Mounting | threaded bushing |
| Termination | solder, H58, quick connect |
| Sealing | panel-seal version, hermetically sealed switch units |
| Electrical | 2 A to 5 A, 125/250 Vac |
| Approvals | UL, CSA, some meet MIL-PRF-8805 and MIL-STD-1080D |
| Features | up to four poles; compact or miniature sizes; sealed versions available |


| Series | AML | MML |
| :---: | :---: | :---: |
| Panel area | $20,5 \mathrm{~mm}$ [ 0.80 in$]$ square; <br> $20,5 \mathrm{~mm} \times 30,5 \mathrm{~mm}$ [ $0.80 \mathrm{in} \times 1.20 \mathrm{in}$ ] rectangular | $15 \mathrm{~mm} \times 9,9 \mathrm{~mm}$ [0.59 in $\times 0.39 \mathrm{in}]$ rectangular; $17,8 \mathrm{~mm} \times 12,7 \mathrm{~mm}$ [ $0.70 \mathrm{in} \times 0.50 \mathrm{in}]$ rectangular; $9,9 \mathrm{~mm}$ [0.39 in] square |
| Display | $15,0 \mathrm{~mm}$ [0.59 in] square; <br> $15 \mathrm{~mm} \times 25 \mathrm{~mm}$ [ $0.59 \mathrm{in} \times 0.99 \mathrm{in}$ ] buttons | $13 \mathrm{~mm} \times 6,6 \mathrm{~mm}$ [0.51 in $\times 0.26 \mathrm{in}$ ] rectangular; $6,8 \mathrm{~mm}$ [0.27 in] square |
| Illumination | incandescent T-1-3/4 lamps $-6 \mathrm{~V}, 14 \mathrm{~V}, 28 \mathrm{~V}$; LEDs $-2 \mathrm{~V}, 4 \mathrm{~V}, 5 \mathrm{~V}, 10 \mathrm{~V}, 15 \mathrm{~V}$; neon lamps - $125 \mathrm{~V}, 250 \mathrm{~V}$ | $\begin{aligned} & \text { T-1 - } 5 \mathrm{~V}, 28 \mathrm{~V} \text {; } \\ & \text { incandescent T-1-3/4 LEDs }-2 \mathrm{~V}, 2.5 \mathrm{~V}, 3 \mathrm{~V} \end{aligned}$ |
| Behind panel | $43,1 \mathrm{~mm}$ [1.7 in] | 17,0 mm [0.67 in] |
| Mounting | snap-in individual, strip, matrix, sub-panel, pcb | snap-in individual, strip, sub-panel, pcb, bezel |
| Termination | solder, quick connect, pc board, push-on | solder, quick connect, printed wiring board |
| Sealing | optional panel seal | - |
| Electrical | solid state: $5 \mathrm{Vdc}, 6 \mathrm{Vdc}$ to 16 Vdc , 4.5 Vdc to 24 Vdc ; electronic control: up to $3 \mathrm{~A}, 125 \mathrm{Vac}$ | silver contacts: up to $1 \mathrm{~A}, 125 \mathrm{Vac} ; 6 \mathrm{~A}$ @ $125 \mathrm{Vac}, 250 \mathrm{Vac} ; 2 \mathrm{~A} @ 30 \mathrm{Vdc} ; 1 \mathrm{~A} @ 125 \mathrm{Vdc} ;$ 1/10 hp @ 125 Vac; gold contacts: up to 0.25 A, 30 Vdc ; UL rating 0.10 A |
| Approvals | UL, CSA, CDE, CE (selected products) | UL, CSA |
| Features | silver or gold contacts; full guard bezel option; lamp circuit independent of switch circuit | silver or gold contacts; pwb or panel-mount switches; multi-unit strip mounting available |

# MICRO SWITCH™ Toggle \& Rocker Switches Sealed and Standard Toggles and Rockers 



Hermetic and environmentally sealed toggle switches offer enhanced reliability with MICRO SWITCH ${ }^{T M}$ technology. Can be used in a variety of applications where a panel-mount switch with an environment-proof rating is needed, including industrial equipment, military and


| Series | AT | TS |
| :--- | :--- | :--- |
| Type | stainless steel toggle | stainless steel, phenolic toggle |
| Sealing | MIL-PRF-8805/26/98 | - |
| Operating temp. | various | $-54^{\circ} \mathrm{C}$ to $71^{\circ} \mathrm{C}$ [ $\left[-65^{\circ}\right.$ F to $\left.160^{\circ} \mathrm{F}\right]$ |
| Actuator/lever | standard, locking, tab, special design | standard |
| Action | 2-position, momentary \& maintained | $2-$ or 3-position, momentary \& maintained |
| Mounting | $15 / 32$ in bushing, 1/4 in bushing, 3-hole, above panel | $15 / 32$ in bushing |
| Termination | solder, solder T2, screw, quick connect, leadwire, H58 | solder, screw, quick connect |
| Circuitry | SPDT, DPDT, DPN0, 3PDT, 4PDT, 6PDT, 7PDT, <br> $8 P D T, ~ 10 P D T ~$ | SPST, SPDT, DPST, DPDT |
| Contacts | silver, gold | silver cadmium oxide |
| Amp rating | 0.01 A to 5 A (resistive) | up to 15 A |
| Measurements | various | various |
| Approvals | qualified to MIL-PRF-8805/26/98 | UL, CSA |
| Features | choice of sealed bushing; short behind panel depth | lever-to-bushing seal |


| Series | AML |
| :--- | :--- |
| Housing type | non-lighted, rectangle; 1 lamp circuit, rectangle; 2 lamp circuits, rectangle |
| Circuitry | SPST, SPDT, DPST, DPST, 4PDT |
| Action | 2 position, 3 position |
| Mounting | snap-in panel |
| Termination | solder, quick connect, printed circuit, push-on |
| Ampere/voltage range | 0.4 A to 2 A @ 0.5 Vdc to 30 Vdc; 0.4 A to $3 \mathrm{~A} \mathrm{@} \mathrm{0.5} \mathrm{Vac} \mathrm{to} \mathrm{125} \mathrm{Vac;} \mathrm{0.4} \mathrm{~A} \mathrm{to} \mathrm{2} \mathrm{A} \mathrm{@} \mathrm{0.5} \mathrm{Vac} \mathrm{to} \mathrm{250} \mathrm{Vac}$ |
| Light (if applicable) | no lamp installed; incandescent 6 V, 14 V, 28 V; neon |
| LED/neon color | red, yellow, green |
| Measurements | various |
| Approvals | - |
| Features | silver and gold contacts; available with or without diode protection for LEDs; lamp circuit independent of <br> switch circuit |


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| :--- | :--- | :--- |
|  |  |  |
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## Warranty/Remedy

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Honeywell's standard product warranty applies unless agreed to otherwise by Honeywell in writing; please refer to your order acknowledgement or consult your local sales office for specific warranty details. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace, at its option, without charge those items it finds defective. The foregoing is buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose. In no event shall Honeywell be liable for consequential, special, or indirect damages.

While we provide application assistance personally, through our literature and the Honeywell web site, it is up to the customer to determine the suitability of the product in the application.

Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this printing. However, we assume no responsibility for its use.

## A WARNING MISUSE OF DOCUMENTATION

- The information presented in this literature is for reference only. DO NOT USE this document as product installation information.
- Complete installation, operation and maintenance information is provided in the instructions supplied with each product.

Failure to comply with these instructions could result in death or serious injury.

## For products not designed for safety applications:

## WARNING

## PERSONAL INJURY

DO NOT USE these products as safety or emergency stop devices or in any other application where failure of the product could result in personal injury.
Failure to comply with these instructions could result in death or serious injury.

For products designed for safety applications:

## WARNING

 RISK TO LIFE OR PROPERTYNever use this product for an application involving serious risk to life or property without ensuring that the system as a whole has been designed to address the risks, and that this product is properly rated and installed for the intended use within the overall system.

Failure to comply with these instructions could result in death or serious injury.

