

Switches

Snap-action Microswitches

Ultraminiature



Type **X5**



F1



F1NS



F4



F5

| | | | | | |
|-----------------|---|--|--|--|---|
| Characteristics | <ul style="list-style-type: none"> ■ small size ■ low current ■ PCB mounting | <ul style="list-style-type: none"> ■ small size ■ high current ■ long mechanical life ■ PCB mounting from side | <ul style="list-style-type: none"> ■ small size ■ low current ■ long mechanical life ■ PCB mounting from side ■ sealed (IP54) | <ul style="list-style-type: none"> ■ small size ■ long mechanical and electrical life ■ solder terminals ■ 2.8 mm quick connect ■ PCB terminals | <ul style="list-style-type: none"> ■ small size ■ long mechanical and electrical life ■ PCB mounting |
| Rating | 250 VAC, 1.5 A | 250 VAC, 5 A | up to 250 VAC, 1 A | 250 VAC, 5 A | 250 VAC, 5 A |
| Dimensions (mm) | 13 x 6.5 x 6 | 16 x 6 x 6.5 | 16 x 6.5 x 6 | 12.8 x 10 x 5 | 12.8 x 7 x 5 |
| Actuator | <ul style="list-style-type: none"> ■ plunger ■ plain levers | <ul style="list-style-type: none"> ■ plunger ■ plain levers ■ simulated roller levers | <ul style="list-style-type: none"> ■ plunger ■ plain lever ■ simulated roller levers | <ul style="list-style-type: none"> ■ plunger ■ plain levers ■ simulated roller levers | <ul style="list-style-type: none"> ■ plunger ■ plain levers ■ simulated roller levers |
| Approvals | UL, CSA | UL, CSA | | UL, CSA | UL, CSA |

Snap-action Microswitches

Ultraminiature



Type **F6**

Subminiature



XC



X4



V4NC



V4N

| | | | | | |
|-----------------|--|---|---|--|--|
| Characteristics | <ul style="list-style-type: none"> ■ small size ■ sealed construction (IP67) ■ PCB mounting | <ul style="list-style-type: none"> ■ wide number of force variants ■ long mechanical and electrical life ■ solder terminals ■ PCB terminals | <ul style="list-style-type: none"> ■ thermoplastic housing ■ wide number of force variants ■ long mechanical and electrical life ■ solder and quick connect terminals | <ul style="list-style-type: none"> ■ peg mounting option ■ pre-wired ■ sealed (IP67) ■ wide variety of levers ■ solder and quick connect terminals ■ PCB terminals | <ul style="list-style-type: none"> ■ solder terminals ■ 2.8 mm quick connect ■ PCB terminals ■ sealed (IP67) |
| Rating | 12–30 VDC, 5–300 mA | 250 VAC, up to 12 A | up to 250 VAC, 12 A | 250 VAC, 5 A | 250 VAC, 5 A |
| Dimensions (mm) | 14.65 x 9 x 5.35 | 19.9 x 9.5 x 6.4 | 19.9 x 9.65 x 6.4 | 20 x 10.3 x 6.4 | 20 x 10.3 x 6.4 |
| Actuator | <ul style="list-style-type: none"> ■ plunger ■ plain levers | <ul style="list-style-type: none"> ■ plunger ■ plain levers ■ roller levers | <ul style="list-style-type: none"> ■ plunger ■ plain levers ■ simulated roller levers ■ roller levers | <ul style="list-style-type: none"> ■ plunger ■ plain levers ■ roller levers ■ simulated roller levers | <ul style="list-style-type: none"> ■ plunger ■ plain levers ■ roller levers ■ simulated roller levers |
| Approvals | none | ENEC, UL, cUL, CSA | UL, cUL, CSA, ENEC, CCEE | none | UL, CSA |

Snap-action Microswitches

Subminiature



Type **V4L**

Miniature



Type **XG**



Type **X3**



Type **G3**

| | | | | |
|-----------------|---|--|--|---|
| Characteristics | <ul style="list-style-type: none"> long overtravel of 2.2 mm minimum sealed to IP67 pre-wired option available solder terminals | <ul style="list-style-type: none"> wide number of force variants long mechanical and electrical life solder terminals quick connect PCB terminals | <ul style="list-style-type: none"> 8 mm creepage and 8 mm clearance distance to the actuator long mechanical and electrical life solder terminals quick connect PCB terminals | <ul style="list-style-type: none"> low force variants long mechanical and electrical life quick connect and solder terminals |
| Rating | 250 VAC, 5 A | up to 250 VAC, 26 A (XGT 86) | up to 250 VAC, 21 A | up to 250 VAC, 18 A |
| Dimensions (mm) | 20 x 11 x 6.4 | 27.8 x 15.9 x 10.3 | 27.8 x 15.9 x 10.3 | 28 x 16 x 10 |
| Actuator | <ul style="list-style-type: none"> plunger plain lever ice break lever | <ul style="list-style-type: none"> plunger plain levers roller levers simulated roller levers | <ul style="list-style-type: none"> plunger straight lever simulated roller levers roller levers | <ul style="list-style-type: none"> plunger ramp plunger |
| Approvals | VDE (EN), UL | ENEC, UL, cUL, CSA | UL, cUL, CSA, ENEC, CCEE | ENEC, UL, CSA |

Snap-action Microswitches

Miniature



Type **V3S**



Type **V9N**



Type **PN4**



Type **4BR**



Type **3BR**

| | | | | | |
|-----------------|---|---|--|--|--|
| Characteristics | <ul style="list-style-type: none"> sealed construction (IP67) flying leads robust construction | <ul style="list-style-type: none"> metal housed sealed construction screw terminals or flying leads sealed (IP67) | <ul style="list-style-type: none"> precision switching long mechanical life screw terminals | <ul style="list-style-type: none"> choice of IP54 or IP67 sealed versions precise movements and exceptional repeat accuracy robust metal housing flying lead version available | <ul style="list-style-type: none"> choice of IP54 or IP67 sealed versions precise movements and exceptional repeat accuracy robust metal housing flying lead version available |
| Rating | 250 VAC, 5 A | 250 VAC, 10 A | 250 VAC, 15 A | up to 250 VAC, 15 A | up to 250 VAC, 10 A |
| Dimensions (mm) | 32 x 24 x 10 | 42 x 24.5 x 16 | 49 x 22 x 17.5 | 53.1 x 20.6 x 29.2 | 53.1 x 20.6 x 30.8 |
| Actuator | <ul style="list-style-type: none"> plunger plain levers roller levers | <ul style="list-style-type: none"> plunger plain levers reverse action levers roller levers | <ul style="list-style-type: none"> plunger plain lever roller lever | <ul style="list-style-type: none"> plunger | <ul style="list-style-type: none"> plunger |
| Approvals | UL, CSA, ENEC | UL, CSA | UL, CSA | CSA | CSA |

Snap-action Microswitches

Standard



Type **4CR**



Type **M9 / C9**



Type **M2V3 / C2V3**

Miniature



Type **BVM3**



Type **V9B**

| | | | | | |
|-----------------|--|--|--|--|---|
| Characteristics | <ul style="list-style-type: none"> precise movements and exceptional repeat accuracy robust metal housing screw terminals | <ul style="list-style-type: none"> sealed to IP67 internal earth (ground) screw provided trident spring mechanism for precise movements hazardous area version | <ul style="list-style-type: none"> sealed to IP65 contains two electrically independent change-over switches rotary action levers can be mounted in four different positions and then adjusted through 360° | <ul style="list-style-type: none"> positive action forced break contacts internationally recognised V3 housing quick connect terminals | <ul style="list-style-type: none"> positive action forced break contacts metal housed with screw terminals or flying leads sealed construction (IP67) |
| Rating | up to 250 VAC, 15 A | up to 250 VAC, 15 A | up to 250 VAC, 10 A | 250 VAC, 10 A | 250 VAC, 10 A |
| Dimensions (mm) | 53.1 x 20.6 x 30.8 | 76.7 x 45.8 x 26 | 66.9 x 38.3 x 30.2 | 28 x 16 x 10.5 | 42 x 24.5 x 16 |
| Actuator | <ul style="list-style-type: none"> spring plunger spring plunger with in-line roller | <ul style="list-style-type: none"> spring plunger adjustable roller lever wobble stick | <ul style="list-style-type: none"> spring plunger roller levers rod lever wobble stick | <ul style="list-style-type: none"> plunger plain levers roller levers | <ul style="list-style-type: none"> plunger plain levers roller levers |
| Approvals | CSA | UL, CSA, ATEX | UL, CSA | UL, CSA | UL, CSA |

Positive-action Switches

Special types



Type **KB5**



Type **KB5EQ**

Double break



Type **K5**



Type **FK4**



Type **XP**

| | | | | | |
|-----------------|---|---|--|---|---|
| Characteristics | <ul style="list-style-type: none"> positive action double break switching high electrical rating quick connect terminals | <ul style="list-style-type: none"> positive action double break switching enclosed design long overtravel screw terminals | <ul style="list-style-type: none"> double break switching long mechanical life high electrical rating 6.3 mm quick connect terminals | <ul style="list-style-type: none"> double break switching long mechanical and electrical life solder terminals 2.8 mm quick connect PCB terminals | <ul style="list-style-type: none"> long overtravel single/double pole switching quick connect terminals double break switching forced break option |
| Rating | 250 V, 25 A | 250 VAC, 25 A | 250 VAC, 25 A | 250 VAC, 5 A | 250 VAC, 16 A |
| Dimensions (mm) | 41 x 19 x 15.5 | 54 x 50 x 17.5 | 41 x 19 x 15.5 | 18 x 8 x 5 | 30 x 32 x 12 |
| Actuator | <ul style="list-style-type: none"> plunger plain lever roller levers | <ul style="list-style-type: none"> plunger plunger roller | <ul style="list-style-type: none"> plunger plain levers roller levers | <ul style="list-style-type: none"> plunger plain lever simulated roller levers | <ul style="list-style-type: none"> plain plunger mushroom/shrouded plunger |
| Approvals | UL, CSA | UL, CSA | UL, CSA | UL, CSA | ENEC, UL, CSA |

Special Switches

| | Snap-action | | | | |
|-----------------|---|---|--|--|---|
| Type | XT | M0 | 600 | TPS | DS |
| Characteristics | <ul style="list-style-type: none"> 8 mm contact gap and 8 mm creepage and air-gaps between individual and accessible parts safe mechanical separation by reset springs double break contacts | <ul style="list-style-type: none"> mid-off function sealed IP6K7 spring return to centre toggle action long overtravel | <ul style="list-style-type: none"> low and medium torque operation horizontal and vertical actuation 6.35 x 0.8 fast-on | <ul style="list-style-type: none"> enclosed with snap action long overtravel adjustable operating position screw terminals | <ul style="list-style-type: none"> enclosed with snap action long overtravel compact construction tapped plunger for attachments screw terminals |
| Rating | up to 400 VAC, 16.5 A | 12 VDC, 100 mA | 250 VAC, 5 A | 250 VAC, 15 A 380 VAC, 10 A | 250 VAC, 15 A |
| Dimensions (mm) | 30 x 32 x 12 | 13 x 25.5 x 5.5 | 39.6 x 22 x 16.4 | 54 x 50 x 18 | 48 x 51 x 16 |
| Actuator | shrouded plunger | pendulum | wire levers | plain spindle plunger | plain spindle plunger |
| Approvals | UL, cUL, CSA, ENEC | None | None | UL, CSA | UL, CSA |

Momentary Switches

| | Momentary | | Snap-action | |
|-----------------|--|--|--|--|
| Type | 1427 | 1430 | 1429 | XKA |
| Characteristics | <ul style="list-style-type: none"> single pole quick connect snap-in mounting or central-fixing | <ul style="list-style-type: none"> single pole quick connect snap-in mounting or central-fixing | <ul style="list-style-type: none"> single pole snap-action function quick connect snap-in mounting | <ul style="list-style-type: none"> long overtravel micro disconnection snap-in mounting |
| Rating | 250 VAC, 0.2 [0.2] A | 250 VAC, 0.2 [0.2] A | 250 VAC, 0.2 [0.2] A | 250 VAC, 1 A |
| Dimensions (mm) | various | various | various | 28 x 20 x 15 |
| Actuator | plunger | lever | plunger | plain lever round levers |
| Approvals | ENEC | ENEC | ENEC | UL, cUL, CSA, ENEC |