

Miniature Microswitch Introduction

Alcoswitch miniature microswitches are offered with many options to suit most typical applications.

These switches are available in a current range from 16A to .1A. Additional options available throughout the different current ratings include:

- Pin Plunger**
- Short, normal and long lever**
- Short and normal roller**
- Simulated lever**
- SPDT, SPNO and SPNC circuitry**

Within the 16A range, in addition to two different terminal options, there are three different actuation force options.

You can count on this offering of switches to be high reliability and low cost to fulfill your basic microswitch needs. Of course if you need something custom, we can offer that also. Contact your Tyco Electronics sales engineer for details.

Technical Information

Performance Information

| | | | |
|---|--|-----------|---------------------------|
| Amp Rating | 16 | 5 | 0.1 |
| Insulation Resistance | Min. 100M ohm | | |
| Contact Resistance | max 15M ohm | | Max 50M ohm |
| Dielectric Strength | Between Non-consecutive terminals | AC 2,000V | |
| | Between each terminal & earth | AC 2,000V | |
| Operating Speed | 0.2mm/sec - 1,000mm/sec | | 1mm/sec - 500mm/sec |
| Max Allowed Mechanical Open/close Frequencies | 600 Cycles/min | | 300 Cycles/min |
| Shock Resistance (without lever) | 300mm/sec ² (approx 30G) | | |
| Vibration Resistance (without lever) | 1.5mm 10 - 55Hz (2Hr) | | 1.5mm 10 - 20Hz (2Hr) |
| Electrical Life | 100,000 Operations at rated load (max 20 Operations/min) | | 1,000,000 Operations |
| Mechanical Life | 10,000,000 operations (Max 200 operations/min) | | |
| Safety Approval | UL / CSA / VDE | | |
| Operating Temperature Range | -20°C to +130°C RH85% Max | | -30°C to +130°C RH90% Max |

See drawings for DC ratings.

Materials

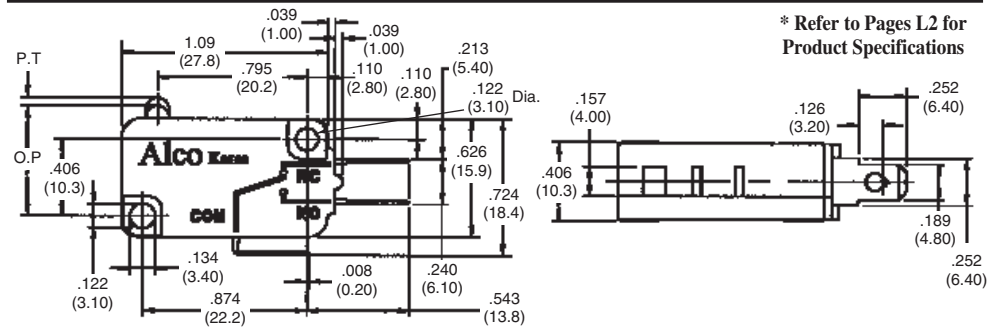
| | 5 & 16A | .1A |
|-----------------|---------------------------|---------------------------|
| Case and Cover | P.B.T Resin, UL 94 V-0 | P.B.T Resin, UL 94 V-0 |
| Movable Contact | Brass, Silver Plated | Phosphor Bronze |
| Guide Plate | Brass, Silver Plated | Brass, Silver Plated |
| Plate Spring | Beryllium Copper | Beryllium Copper |
| Terminal Aid | Brass | Brass |
| Contact | Silver Alloy | Gold Alloy |
| Common Terminal | Brass, Silver Plated | Brass, Silver Plated |
| Terminals | Brass, Silver Plated | Brass |
| Actuator | Phenolic Resin, UL 94 V-0 | Phenolic Resin, UL 94 V-0 |
| Lever | Stainless Steel | Stainless Steel |

Spade/Solder Type Terminal



Product Facts

- n .187 [4.75] tab with solder hole
- n Use .187 [4.75] FASTON receptacles or solder wire directly to terminal



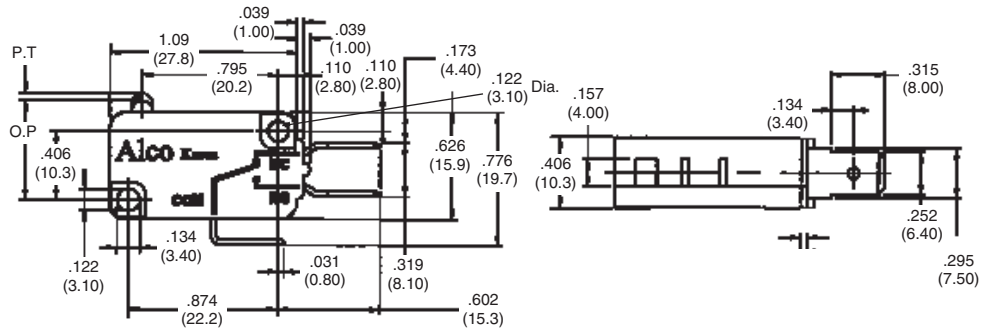
| AMP | Switch Position | Operating Force | Releasing Force | Pre Travel (P.T.) | Operating Position | Over Travel | Movement Differential | Part Number |
|------|-----------------|-----------------|-------------------|--------------------------|--------------------------|-------------------|-----------------------|-------------|
| 16 | SPDT | 120g | 20g | 1.6 m/m [.063] | 14.8 ±0.4 [.582±.016] | 0.8 m/m [.031] | 0.4 m/m [.016] | 1478603-1 |
| | | 200g | 50g | | | | | 1478604-1 |
| | | 300g | 70g | | | | | 1478605-1 |
| | SPNC | 120g | 20g | 1.6 m/m [.063] | 14.8 ±0.4 [.582±.016] | 0.8 m/m [.031] | 0.4 m/m [.016] | 1478609-1 |
| | | 200g | 50g | | | | | 1478610-1 |
| | | 300g | 70g | | | | | 1478611-1 |
| SPNO | 120g | 20g | 1.6 m/m [.063] | 14.8 ±0.4 [.582±.016] | 0.8 m/m [.031] | 0.4 m/m [.016] | 1478615-1 | |
| | 200g | 50g | | | | | 1478616-1 | |
| | 300g | 70g | | | | | 1478617-1 | |
| 5 | SPDT | 120g | 20g | 1.6 m/m [.063] | 14.8 ±0.4 [.582±.016] | 0.8 m/m [.031] | 0.4 m/m [.016] | 1478667-1 |
| | SPNC | | | | | | | 1478668-1 |
| | SPNO | | | | | | | 1478669-1 |
| 0.1 | SPDT | 60g | 12g | 1.6 m/m [.063] | 14.8 ±0.4 [.582±.016] | 0.8 m/m [.031] | 0.4 m/m [.016] | 1478670-1 |
| | SPNC | | | | | | | 1478671-1 |
| | SPNO | | | | | | | 1478672-1 |

Spade Type Terminal



Product Facts

- n .250 [6.35] tab for use with .250 [6.35] FASTON receptacles



| AMP | Switch Position | Operating Force | Releasing Force | Pre Travel (P.T.) | Operating Position | Over Travel | Movement Differential | Part Number |
|------|-----------------|-----------------|-------------------|--------------------------|--------------------------|-------------------|-----------------------|-------------|
| 16 | SPDT | 120g | 20g | 1.6 m/m [.063] | 14.8 ±0.4 [.582±.016] | 0.8 m/m [.031] | 0.4 m/m [.016] | 1478606-1 |
| | | 200g | 50g | | | | | 1478607-1 |
| | | 300g | 70g | | | | | 1478608-1 |
| | SPNC | 120g | 20g | 1.6 m/m [.063] | 14.8 ±0.4 [.582±.016] | 0.8 m/m [.031] | 0.4 m/m [.016] | 1478612-1 |
| | | 200g | 50g | | | | | 1478613-1 |
| | | 300g | 70g | | | | | 1478614-1 |
| SPNO | 120g | 20g | 1.6 m/m [.063] | 14.8 ±0.4 [.582±.016] | 0.8 m/m [.031] | 0.4 m/m [.016] | 1478618-1 | |
| | 200g | 50g | | | | | 1478619-1 | |
| | 300g | 70g | | | | | 1478620-1 | |