Rubber keypads are used in many industries such as telecommunication devices, consumer and home appliance products and game systems.

There are several types of rubber keypads: traditional silicone rubber keypads, plastic keycaps over rubber keypads, and In-Mold Decorated (IMD) keypads. Silicone rubber keypads are typically compression molded. Custom keypads can combine colors, light pipes and epoxy coatings. A rubber keypad assembly offers the ability to design three dimensional keytops, oversized key surfaces, and improved tactile response. Graphics can be silk screened or painted for additional colors and laser etched for texts and icons. Rubber keypads can also be backlit for icon and switch indication. Keycaps and IMD technology, once only used in high volume cell phone type applications are now cost effective options for many applications.

Molex integrates the silicone rubber keypads with tactile metal domes and its membrane switch technology to offer complete interface assemblies.

FEATURES AND BENEFITS

- Enhanced design aesthetics
- Increase switch travel and tactile feedback
- Provide discrete key appearance with multiple surface finishes
- Patented Molex rocker switch options
- Hard keycap options/in-mold decorating
- Multiple backlighting options

SPECIFICATIONS

- **Actuation force:**
  - 20 grams to 500 grams
- **Key stroke:**
  - 0mm to 5mm
- **Contact Resistance:**
  - less than 200 ohms
- **Contact Rating:**
  - 30mA/30VDC
- **Temperature Rating:**
  - -40°C ~ +250°C
- **Operating Temperature:**
  - -20°C ~ +70°C
- **Contact Bounce:**
  - less than 5ms
- **Break Down Voltage:**
  - 25K to 30KV per millimeter
- **Life Expectancy:**
  - 500K to 20 million actuations

APPLICATIONS

- **Communications**
  - Telephone, mobile phone, two-way radio
- **Industrial market**
  - Control panel of mechanical, industrial, military equipment
- **Consumer**
  - Set-top boxes, games, POS, card reader