

# Electro-Mechanical Components

From the simplest component to the most intricate assembly, Vexos is committed to offering our customers the highest quality electro-mechanical component solutions for a diverse group of industries including medical, consumer electronics, automotive, LED lighting and more.









## Membrane Switches

Vexos provides outstanding service with quick prototype and manufacturing of custom membrane switch solutions. Our experienced team will ensure your custom design will meet all stringent cosmetic and reliable durability specifications required.

#### **CAPABILITIES**

- Moisture proof membrane switches utilizing thermal-fuse technology
- Tactile or non-tactile operation
- Flat or embossed; metal snap dome and polydome
- Wide range of actuation force options
- · Silver and carbon contacts and tail cover
- High life cycle operation: 1 to 10 million cycles
- Operating temperature range: -40° to 85° C
- Termination options: male or female type, positive or zero-insertion-force
- Backlighting with light foil LEDs, EL or fiber optic, integration of SMD components, EMI shielding, RFI shielding, ESD shielding, environmentally sealed options
- Mold/tool design and fabrication capabilities
- Screen printing, offset printing, digital printing
- 100% electrical testing performed switch assemblies

## Injection Molded Plastics

Vexos has extensive experience in a wide range of plastics products from low to high volume, helping customers develop plastic parts for the medical, consumer electronics, automotive and LED lighting industries, and others. All of Vexos' molding partners have modern in-house mold/tool design capabilities and equipment.

#### **CAPABILITIES**

- 15 ton to 850 ton presses
- · Class-A mold building
- Co-injection molding, IMD (In-Mold-Decorating), insert molding and SLA (prototyping)
- Materials: general purpose plastics including PMMA, HIPS, PP, PE, PS and engineering resins including ABS, SAN, PET, PVC, PTFE/Teflon, PSU, PPO, PPS and PMO/Acetal.
- Decorating/graphics such as silkscreen, pad printing, laser etching, painting, electroplating and soft touch
- Value-added processes include ultrasonic welding, heat staking and bonding
- Software application for mold design includes Pro-ENGINEERING, Pro-DESIGNER, Pro-DESKTOP, Euclid/Catia, Unigraphics, SolidWorks, MoldFlow, CADKey, AutoCAD, Power Mill and Mastercam



## **Touch Screens**

Vexos provides touch screen as a stand-alone product, laminated to glass, or an integrated piece with the LCD module, with technologies to include matrix, resistive, surface capacitive and P-Cap. Our experienced team can assist in determining the best solution for your needs.

#### **CAPABILITIES**

- Film to IM (with or without substrate) support
- Film to IM matrix touch panel
- Film to glass matrix touch panel
- Film to glass resistive touch panel (4, 5, 8 wire)
- Film to glass projective capacitive touch panel
- Film to film projective capacitive touch panel
- · Choices of FPC and heat seal connector
- Smallest spacer dot available: 0.035mm

## Silicone Keypads and Parts

Vexos manufactures silicone keypads as well components from simple gaskets to complex multi-colored keypads. Low and high durometer materials that can meet the most demanding requirements, high and low service temperatures, various tactile actuation forces, as well as thin and thick wall cross-sectional areas. Our tooling capabilities include single cavity prototype to complex multi-cavity compression molds that produce parts requiring no post-mold deflashing, saving our customers money.

#### **CAPABILITIES**

- Multiple colors and phosphorescent (glow-in-the-dark)
- Low to high durometer materials
- Laser etch and silk-screen graphics
- · Wide range of actuation and travel forces
- · Contact options: carbon pill, gold plated and stainless steel
- Plastic keycap-to-silicone covers
- Polycarbonate film
- Protective coatings: clear, gloss, matte and epoxy coatings, as well as metal and EM
- Prototype and production tooling design

## **Dependable Quality**

Vexos achieves the highest quality levels by utilizing the latest equipment, processes, quality standards and certifications across the organization; to enable a flawless launch of each individual program.

- · Rigorous selection of sub-contractors or partner factories
- Performance evaluation and monitoring through regular audits of the factories
- Continuous training for personnel at all levels
- Document control to safeguard your data and release of technical documents
- · Sample approval process including production part approval process (PPAP)

#### **Certifications & Awards**

- ISO 9001:2015
- ISO 13485:2016
- ISO 14001:2015
- FDA registered
- AS9100D:2016
- CGP certification
- UL Certified ZPVI2 ITAR Compliant

• IATF 16949:2016

• OHSAS 18001:2007

• RoHS and Non-RoHS

- KGMP Certified
- FDA QSR 21 CFR 820 Compliant

#### Markets We Serve



COMMUNICATIONS



**INDUSTRIAL** 



**MEDICAL** 



**SMART GRID** 



**SECURITY** 



**AUTOMOTIVE** 



COMPUTING

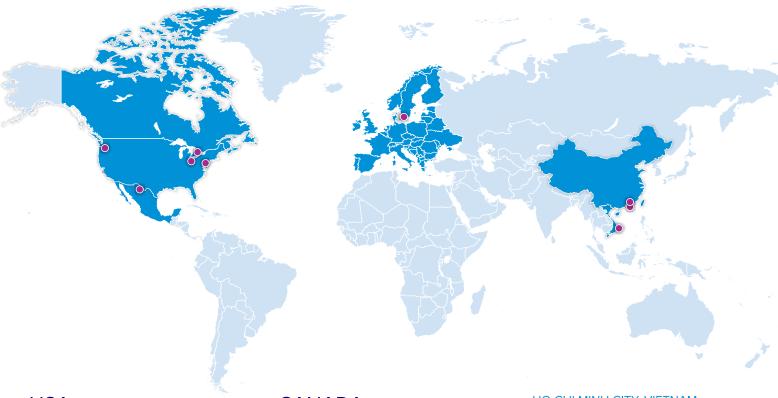


**AVIATION DEFENSE SPACE** 





## Locations



## **USA**

LAGRANGE, OHIO, USA MANUFACTURING FACILITY 110 Commerce Drive LaGrange, OH 44050, USA +1 440-284-2500

#### VANCOUVER, WASHINGTON, USA

MANUFACTURING FACILITY VEXOS | CONTROLTEK 3905 NE 112 Avenue, Vancouver, WA 98682 +1 360.896.9375

## **MEXICO**

#### JUAREZ, CHIHUAHUA, MEXICO

P 41 – VEXOS Boulevard Manuel Talamas Camandari #6867, Colonia Puente Alto. CD. JUAREZ, CHIHUAHUA MÉXICO C.P. 32695 +1 905-479-6203

## **CANADA**

#### MARKHAM, ONTARIO, CANADA

MANUFACTURING FACILITY 195 Royal Crest Court Markham, Ontario, Canada L3R 9X6 +1 905-479-6203

### **EUROPE**

#### MALMÖ, SWEDEN

EUROPEAN SALES OFFICE WTC BUILDING, SKEPPSGATAN 19 SE-211 11 MALMÖ, SWEDEN +46 705 48 26 59

## **ASIA**

#### DONGGUAN, CHINA

MANUFACTURING FACILITY Block A, Plainvim Industrial Park, Dongkeng Avenue, Dongkeng Town Dongguan City, Guangdong, PRC, 523455 +86 769 8101 5368

#### HO CHI MINH CITY, VIETNAM

MANUFACTURING FACILITY Floor 4th, Standard factory B, Tan Thuan street, Tan Thuan EPZ, Tan Thuan Dong ward, District 7, Ho Chi Minh City, 72909, Vietnam +84 28 3636 2939

#### **HONG KONG**

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#### WINNER OF CIRCUITS ASSEMBLY AWARDS







