

## Industry Products

- Diverter Valves
- Thermostatic Valves
- Peristaltic Pumps
- Security Systems
- Camera Lens Modules
- Printer Encoder Systems
- Postal Sorters



## Automotive Products

- Cooling Fan Modules
- HVAC Blowers
- Climate Control Actuators
- Windowlift Gear Systems
- Wiper Motor Gear Systems
- Headlamp Adjusters
- Doorlock Latch Systems

### Examples of some of the solutions that we provide:



Johnson Electric



As a leader in providing innovative motion solutions, we have the experience and expertise in combining motor, switch, solenoid, gear and motion control technology to provide our customers with leading edge products. Our various product capabilities include vending machine gearboxes, motors with encoder systems, pumps, blowers, windowlift and wiper motor gear systems, electronic speed controlled motion systems, etc..

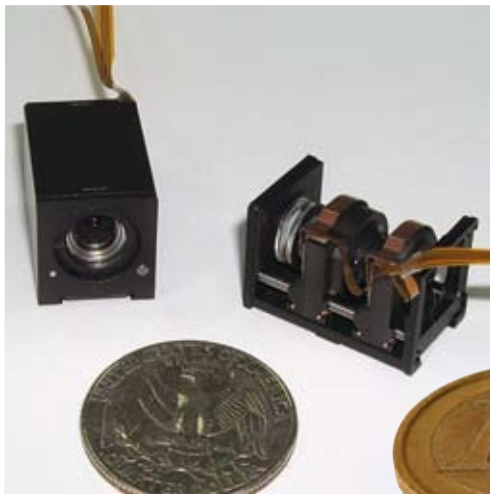


## Motion Solutions & Actuators



Johnson Nihon Mini Gear Systems

Our precision motion expertise in DC motor plus excellence in precision plastics and gears, have enabled us to provide innovative gear systems used in applications such as camera focus and zoom systems, power curtains and toilet seat systems, etc..



NanoLens™ and NanoZoom™  
Camera Lens Modules from Johnson  
Nanomotion

Combining piezoelectric motion technology from Nanomotion with Nihon Mini's precision and camera motor market leadership, Johnson Electric introduced NanoLens™, the highest performance autofocus lens module, and NanoZoom™, the first 3x optical zoom with continuous autofocus lens module, to the camera phone market.



Actuators from Saia-Burgess

With unparalleled expertise in developing complete actuator systems, we are #1 in automotive HVAC actuators and headlamp adjusters, providing customers with the flexibility of simple to complex positioning, direct or bus controlled, and fast response with maximum reliability products. Other products include interior lighting switch systems, doorlock latches, gear shifter, brake transmission shift interlock, accelerator pedal box systems, ABS switching system, etc..



Cooling Fan Modules from Johnson Gate

As the #1 manufacturer of automotive cooling fan modules, we are experts in fan and motor technology. We work collaboratively with our customers to develop cooling fan modules, HVAC blowers and speed controllers that are customized to their requirements.

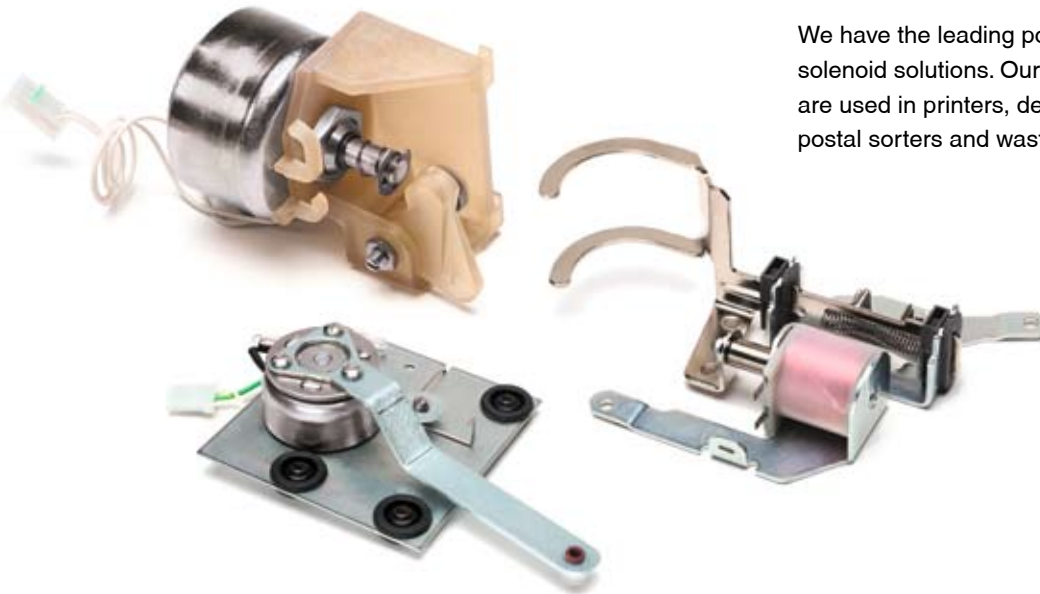


## Motion Solutions & Actuators



Saia Water Valve Solutions

With our proven expertise in stepper motion solutions, we have become #1 in providing HVAC water and gas valve solutions. Other products include level indicator, thermatic valve, squeeze pump and diverter valve.



Ledex Solenoid Assemblies

We have the leading position in providing precision solenoid solutions. Our solenoid motion solutions are used in printers, defibrillators, ATMs, door locks, postal sorters and wastewater pump controls.

**PRODUCTS**

**Motors**

**Industry Products**

- Vending Machines
- Water Heaters
- ATV and Jet-Skis Starters
- Power Tools
- Digital Cameras
- XY Stages for Semiconductor
- Printers
- Hairdryers



Vaccum Cleaner Motor

**Automotive Products**

- Doorlocks
- Mirror Adjusters
- Seat Adjusters
- Fuel Pump
- Electronic Throttle Control
- Washer Pump
- Lumbar Support
- Electric Parking Brake



**JOHNSON MOTOR**

- #1 provider of PMDC, brushless, AC and universal motors for power tools, home appliance, business equipment, personal care and audio-visual markets
- Motor and component technology combined with application expertise, scale and production efficiency
- 3 million motors per day capacity
- New products include high voltage DC for dishwasher drain pump, stand mixer and vacuum cleaner power brush

## PRODUCTS

### Motors



**saia**

- #1 in stepper motors
- Precision and efficiency
- Products include stepper and synchronous motors, stepper with gearbox used in industrial applications from 10 to 60mm diameter
- Large variety for motor-gear combination
- Customer-specific solutions-oriented with a high degree of flexibility



**nm** NANOMOTION LTD.

- #1 in piezoelectric motors and stages
- Nanomotion's product line ranges from single element motors for actuation to larger motors for driving typical stages, and they operate with no intrinsic magnetic fields and no moving parts
- Motors provide unlimited travel in a compact package, with the ability to achieve unmatched precision for linear or rotary motion
- Typical applications include semiconductor and flat panel equipment, fiber optics manufacturing, storage media manufacturing and test equipment, bio-medical and pharmaceutical manufacturing, metrology and general automation



PRODUCTS

Switches

**th>contact**  
Panel mounted switches  
#1 in control panel flexibility

**BAR**  
Manual operated switches  
Sets industry standards



**saia**  
Micro switches  
Leader in appliance and consumer product segment

**burgess**  
Micro switches  
Reliability in industrial applications



**saia**

- High volume production lines for micro switches with less than 3 mm contact gap
- High precision switch operating position, small tolerance
- High operating speed / frequency
- High electrical ratings and longer life cycles
- Snap action function with leaf-spring and coil-spring mechanisms available
- Many switch contact options (low and high current)
- Wide range of switching characteristics and terminal options
- Strong in home appliance applications
- Sure switch contacts with contact wiping

## PRODUCTS



## burgess

- Strong in industrial automation
- World's first snap action switch company
- Expert innovative switch solutions
- Solid products fulfill high requirements in robustness
- Largest variety in switching technologies
- Worldwide widest range of micro switches
- Low-volume capabilities



## th contact

- Panel mounted switches such as illuminated push-button and keylock switches, as well as joysticks and emergency stop switches for control panels
- Best modular design so that various permutations can easily be assembled
- Worldwide reseller channel



## BAR

- Innovative switch solutions for home appliances
- Setting industry standards
- Rocker, push-button and door switches with customized styling
- Intelligent switch combined with electronic controller
- Safety and comfort solutions in switch functions for the home appliance market
- Experts in optical styling for operators and tactile feel for switches



**PRODUCTS**

**Solenoids**

**Industry Products**

Pharmaceutical Dispensers

Industrial Breakers

Mail Sorters / Diverters

Copiers

Data Storage

Security Locks

Office Automation



LEDEX Solenoids

**Automotive Products**

E-gas

Transmission Shift Interlock Assemblies

Headlamp Focusing

Lock and Latching



**LEDEX**

- America's leading industrial solenoid brand for more than 60 years
- Precision electromechanical and electromagnetic solutions
- Experienced teams of design and production engineers for applications such as printers, defibrillators, ATMs, door locks and waste water pump controls
- Excellent customer service and delivery performance with our technical design advantage

**DORMEYER**

- Leading AC solenoid brand
- Electromechanical and electromagnetic solutions for appliance and industrial actuation applications
- Applications include garage doors, ice dispensers, beverage dispensers, garbage sanitation and washing machines
- Excellent customer service and delivery performance to support high-volume AC solenoid requirements

