



 **Innovating Motion**



On any given day, and wherever you may be,
there's probably a Johnson Electric motion
solution right where you are – our motion solutions
are in more than 300 applications globally.

1 out of 4 coffee grinders
is powered by Johnson Electric

1 out of 4 drills
runs on a Johnson Electric motor

2 out of 5 cars
have features powered by many
products from Johnson Electric

3 out of 4 postal sorters
in America have a Johnson Electric
motion solution

4 out of 5 inkjet printers
have a Johnson Electric motion system

1 out of 3 digital cameras
incorporates a motion subsystem
by Johnson Electric

2 out of 5 hairdryers
run on a Johnson Electric motor,
4 out of 5 in America

1 out of 4 garden tools
is powered by a Johnson Electric motor

2 out of 5 vacuum cleaners
run on a Johnson Electric motor

Founded in 1959, Johnson Electric pioneered manufacturing of high quality micromotors in Hong Kong. With rapid expansion, the Group has become a US\$2.1 billion global enterprise that is well positioned for further growth.

1972
Established AC
motor business

1959
Johnson Electric
was established

1976
Established
Johnson Electric
in the USA

1959 1970

1920
Saia AG founded
in Bern (CH)

1935
Burgess Products
Ltd founded in
Hinckley (UK)

1936
Takeover of Saia by
Landis & Gyr

1952
Burgess switch
production
transferred to
Gateshead (UK)

1953
1st production
of miniature
synchronous
motors by Saia
AG

1969
The 1st electro-
mechanical
timers are
launched on the
market by Saia
AG

1979
Saia AG
launched the 1st
programmable
logic controller

1920 1930 1940 1950 1960 1970



The Johnson Electric Group is one of the world's largest providers of motion subsystems and motion components for automotive, medical and industrial applications.

Over the years, we have shipped billions of motors to more than thirty countries in over one hundred different applications. Johnson Electric has an annual production capacity of one billion motors and motion subsystems.

At the heart of Johnson Electric's success is our commitment to make our customers successful. Our customers include many of the world's leading industrial, consumer and automotive companies. We begin by understanding our customers' business needs, and the product application requirements of the end user of our customers' products. Then we design and deliver innovative motion solutions that help our customers to differentiate their products in the marketplace. Our goal is to be instrumental in the successful launch of our customers' products in their respective marketplaces.

Our Vision

"To be the world's definitive provider of innovative and reliable motion systems"

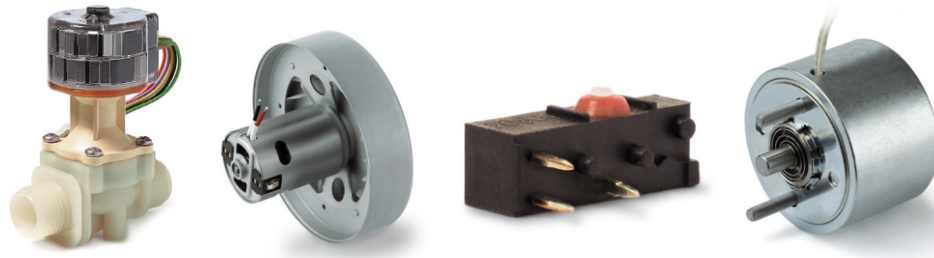
"Technology Leadership"

- Differentiation with innovative motion products.
- Technology roadmaps for multiple technologies.
- Collaborative design and productizing process.
- Product life cycle support from creation to end-of-life.
- Quality & reliability / designed-in.

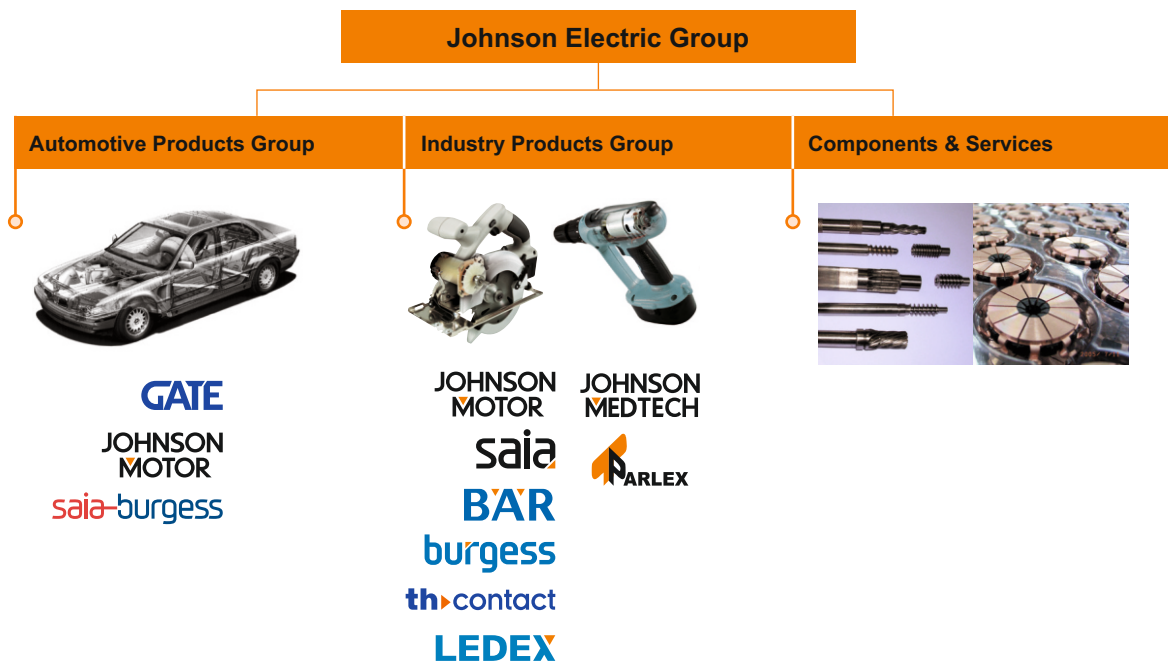
"The Safe Choice"

- Total quality assurance and reliability.
- Commitment to customer success at all levels in the organization.
- Assurance of supply & on-time delivery worldwide.
- Global logistics support 24/7.
- Financial strength and long standing supplier relationships.

Our business growth hinges with leading "branded" goods producers to deliver differentiation and innovation through our motion products. The core platform for delivering these solutions is a highly developed production base and focused customer support teams throughout the world. This combines scale advantages in production and procurement with skilled and dedicated motion application experts.



HOW WE ARE ORGANIZED



The Group's motion systems, motors and switches businesses are managed through three operating divisions: Automotive Products Group, Industry Products Group and Johnson Medtech.

The Automotive Products Group (APG) is focused on providing customized motion solutions for all major automotive applications. APG goes to market under three product brands: Saia-Burgess for custom actuators; GATE for engine cooling fan modules; and Johnson Motor for DC motors and brushless DC motors.

The Industry Products Group (IPG) provides motion products and solutions for various commercial and industrial application sectors, including home appliances, power tools, business equipment, personal care products, medical equipment, building automation, security, audio-visual and other industrial products. IPG goes to market under seven product brands: Johnson Motor for DC motors, AC motors and brushless DC motors; Saia Motor for stepper motors and synchronous motors; Leduc for solenoids; and Saia, Bär, Burgess, th-contact brands for switches.

Johnson Medtech is an ISO13485 certified designer and manufacturer of motion related products for the medical device industry. The focus of Johnson Medtech is primarily in subsystem for medication delivery systems, surgical robotics and image guided surgery.

Supporting these three business units is the Components & Services division which produces metal and plastic parts, tooling and production equipment for the Group. Johnson Electric is a highly vertically integrated business that manufactures an exceptionally wide range of components that form the basis for its final products. We make magnets, bearings, shafts, housings, laminations, commutators and die cast parts. We also build tools, assembly fixtures, plastic molds as well as armature winding and other production machines.

Supporting our customers worldwide are sixteen R&D centres located in Hong Kong (China), Shenzhen (China), Shanghai (China), Nagano (Japan), Yokneam (Israel), Asti (Italy), Murten (Switzerland), Halver (Germany), Dresden (Germany), Oldenburg (Germany), Isle of Wight (Parlex), San Jose (USA), Methuen (USA), Vandalia (USA), Springfield (USA) and Plymouth (USA).

OUR COMPETITIVE ADVANTAGE

Johnson Electric's competitive advantage is built on excellence and innovation in all areas of the company, qualities that provide reassurance and differentiation for our customers.

Application Focus

Business units are structured to support key market segments and deliver on our customers' application requirements

Quality Focus

Unrelenting commitment to continual improvement and to the ultimate attainment of zero defects in all areas of our business

Customer Partnerships

Established long-term strategic relationships with world's best-known brands in the industry, providing motion solutions that last

Global Footprint

A global company that provides "local" sales and technical support to customers

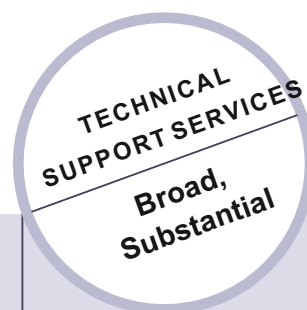
INNOVATING FOR THE FUTURE



- Collaboration on-site with innovative customers – rapid new product development and prototyping
- Leverages Johnson Electric's and customers' capabilities
- Creates new products for new markets
- Creates leadership in strategic projects



- Shajing — Motors & Electronics
- Murten — Actuators
- Yokneam — Piezo-electric Motors
- Dresden — Stepper & Synchronous Motors, Gears
- Halver — Switches
- Vandalia — Solenoids



- Customer validates testing results: Material Laboratories, UL certified laboratory, Acoustic Laboratory, Wind Tunnel for Cooling Fans, EMI
- Finite Element Analysis: Structural, Magnetic, Computational Fluid Dynamics
- Rapid Prototyping: SLS Technology Plastic Parts, SLA Technology Parts, KelTool Technology Parts, Vacuum Casting Technology Parts

Assurance of Supply

More than 50 years in the motion business, with a strong history of financial stability and long-term relationships with key suppliers and customers

Engineering Expertise & Flexibility

Proven reliable technical partner, with an application focus that enables us to offer value-based expertise

Scale & Speed

Constantly delivering the benefits of scale and speed to demanding customers

Unrivalled Technology & Capabilities

An array of products and capabilities that span AC, DC & stepper motors, solenoids, actuators, precision gears, precision plastics, switches and flexible circuits

JOHNSON UNIVERSITY Extensive, Focused

- Extensive programs and courses covering leadership, engineering design, environment, quality systems, operational training, work safety, prevention and maintenance
- Graduates in Master of Science in Engineering, B.S. Engineering, etc.

JOHNSON CITY Manufacturing Excellence

- 30,000+ employees and subcontract workers, 250,000+ square meters
- Around 2,000 engineers and designers
- Capacity: 3 million motors and motion subsystems a day
- Skills Training Center
- High degree of Vertical Integration: in-house components and equipment

- Lean Manufacturing Concepts: Cellular assembly, flexible manufacturing, Johnson Electric Production System (JEPS)
- Customer Supply Chain Integration: Local Final Assembly, Local Replenishment (JIT.Kanban)
- ISO13485, ISO9001, ISO14001 Certified

Johnson Electric offers its employees exceptional opportunities for personal development and rewarding careers. We have over 36,000 employees and subcontract workers in over 23 countries worldwide. Design engineering centers are located in Hong Kong, China, Switzerland, Germany, Italy, Israel, Japan, UK and USA.

AMERICAS

- Methuen, Massachusetts
- Plymouth, Michigan
- Vandalia, Ohio
- Springfield, Tennessee
- Buenos Aires, Argentina
- Sao Paulo, Brazil
- Zacatecas, Mexico

Engineering Manufacturing All



Vandalia OH, USA



Murten, Switzerland

EUROPE

- Murten, Switzerland
- Saint Remy de Maurienne, France
- Dresden, Germany
- Halver, Germany
- Stuttgart, Germany
- Hatvan, Hungary
- Ozd, Hungary
- Yokneam, Israel
- Asti, Italy
- Dabrowa Gornicza, Poland
- Nis, Serbia
- Newport Isle of Wight, UK

ASIA

- Hong Kong *Headquarters*
- Shajing, Shenzhen, China
- Shanghai, China
- Beihai, China
- Changchun, China
- Nanjing, China
- Chennai, India
- Tokyo, Japan
- Seoul, Korea



Johnson City, Shajing, China



Hong Kong Headquarters

To be the world's definitive
provider of innovative and
reliable motion systems

Motion Solutions & Actuators

Johnson Electric offers a comprehensive combination of technology, engineering and manufacturing resources that would satisfy any motion solution need. Our products are designed, built, tested, packaged, and shipped to exacting specifications.

To serve our customers, Johnson Electric invests significant resources to utilize the latest industry standards and advancements that create ongoing opportunities for quality enhancements, on-time delivery and cost reductions.

The performance of our products in specific applications is vitally important to us. As such, we do not only invest in design and manufacturing resources but also on reliability and application specific testing such as our application based reliability (ABR) tests.

Value-added assemblies eliminate added cost to maintain multiple vendors, added manufacturing resources and additional inventory. Whether it's as simple as adding a special connector or modifying a shaft, or as complex as fabricating a complete assembly of motors or solenoids, gears, switches and electronic controls, Johnson Electric is capable and willing to work with our customers' design teams to come up with cost effective motion solutions.

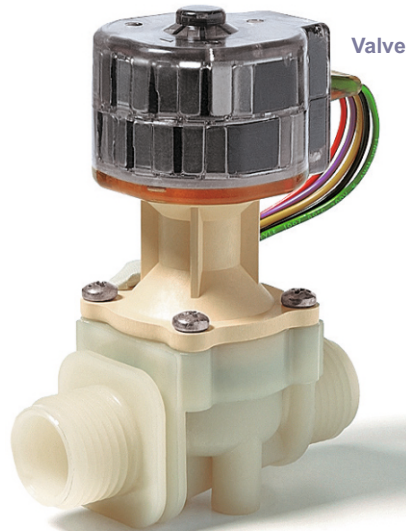
How do we develop a solution that's right for the application?

Our engineers understand designing for manufacturability and reliability, and bringing the most cost-effective solutions to our customers. We take all the requirements and formulate a design through the latest design and CAD tools available that would also allow us to simulate and analyze the performance of our products. As a result, prototypes are available more quickly and on a timely basis.

We appreciate the opportunity to collaboratively work with our customers' design teams early in the development cycle of the applications. We can respond to requirements quickly by networking our know-how across the global Johnson Electric organization and at the same time providing local support to increase efficiency, reduce costs and to streamline application development cycles.

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:

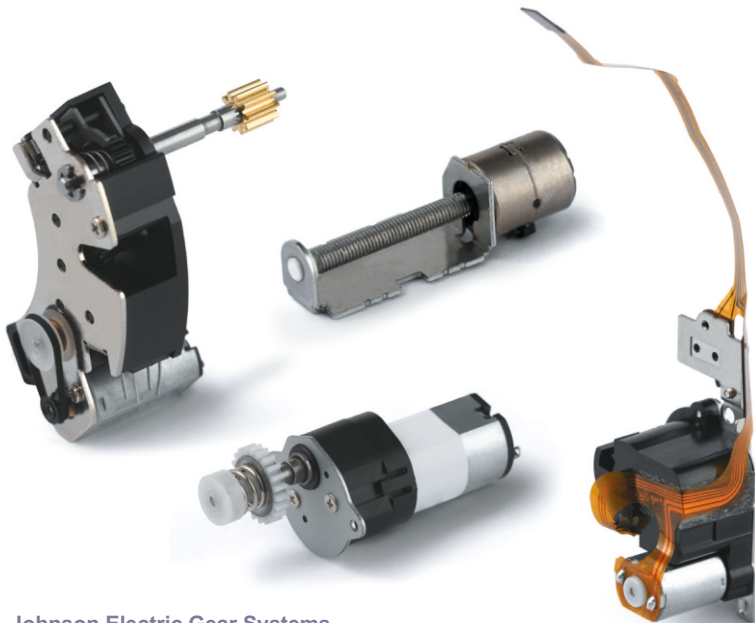


As a leader in providing innovative motion solutions, we have the experience and expertise in combining motor, switch, solenoid, gear and motion control technology to provide our customers with leading edge products. Our various product capabilities include vending machine gearboxes, motors with encoder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



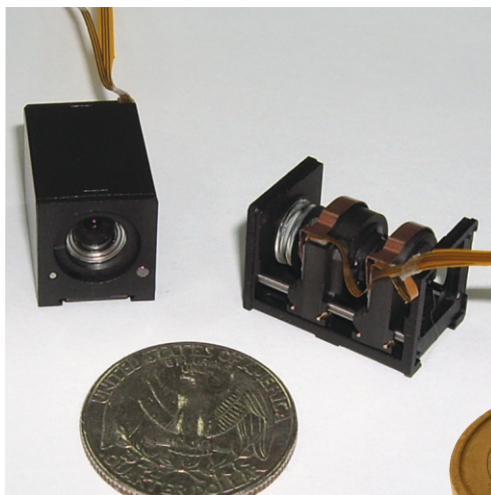
Johnson Electric

Motion Solutions & Actuators



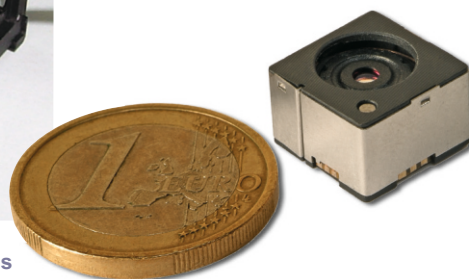
Johnson Electric Gear Systems

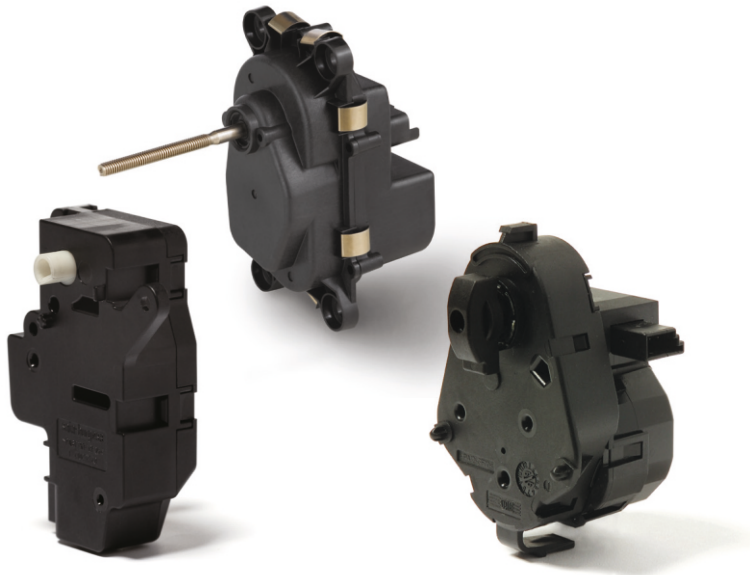
Our precision motion expertise in DC motor plus excellence in precision plastics and gears, have enabled us to provide innovative gear systems used in applications such as camera focus and zoom systems, motorized blinds and toilet seat systems, etc..



NanoLens™ and NanoZoom™ Camera Lens Modules from Johnson Nanomotion

Combining piezoelectric motion technology from Nanomotion with Johnson Electric's precision gear system 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.





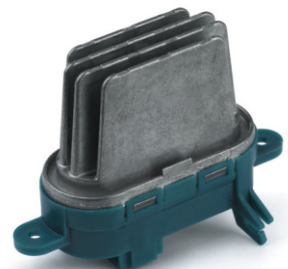
Actuators from Saia-Burgess

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..

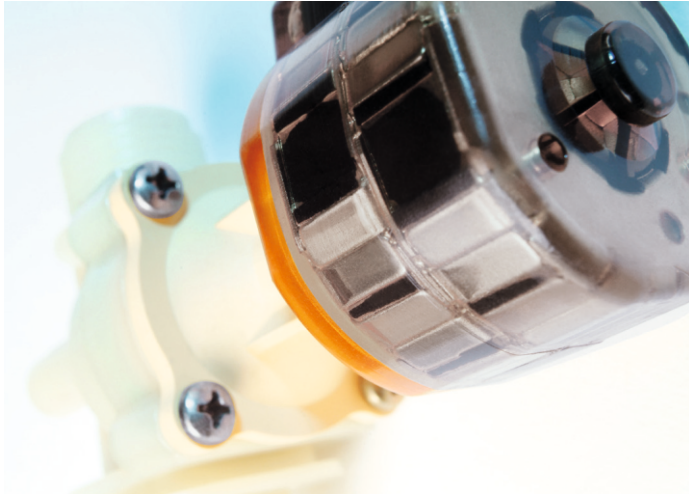


Cooling Fan Modules from Johnson Gate

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 Motors



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.

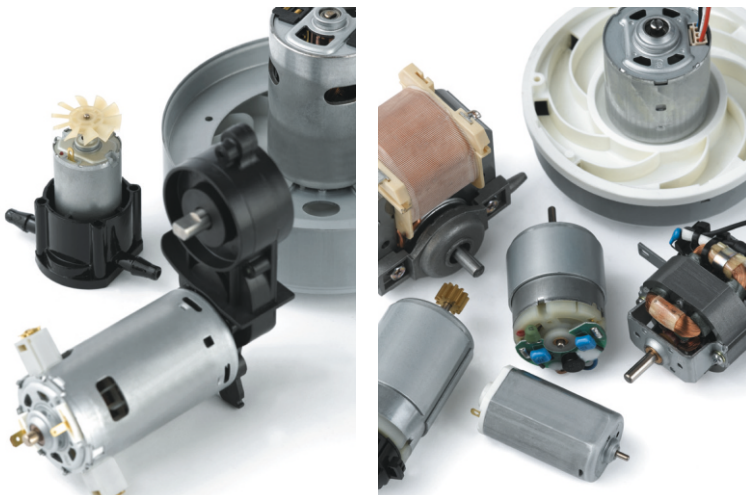
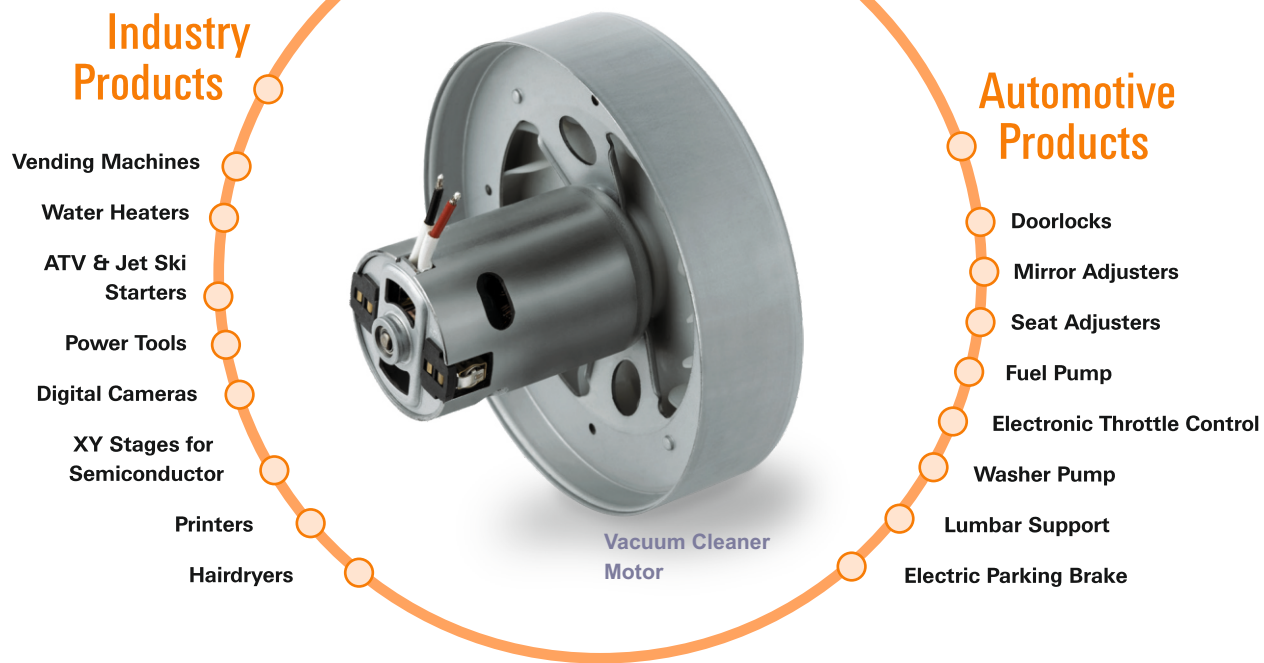


Ledex Solenoid Assemblies

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

PRODUCTS

Motors

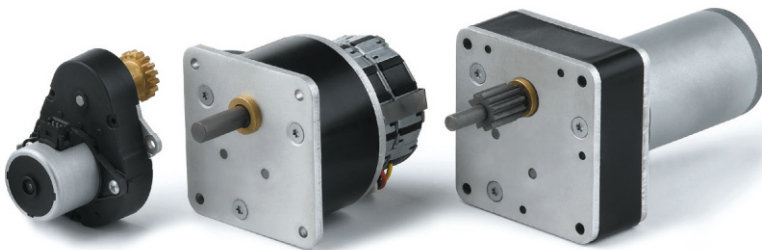


JOHNSON MOTOR

- #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 dish-washer 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



NANOMOTION

- #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

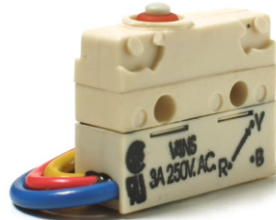
Switches

th>contact

Panel mounted switches
#1 in control panel flexibility

BAR

Manual operated switches
Sets industry standards



saia

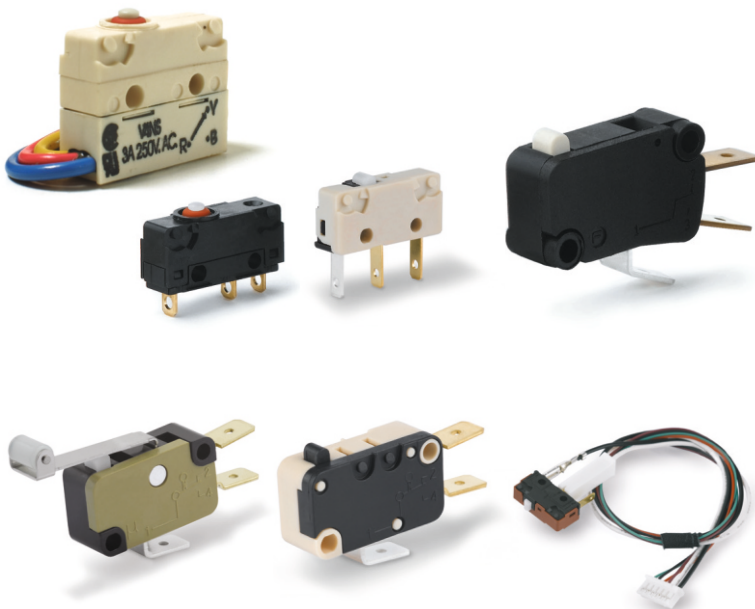
Micro switches

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



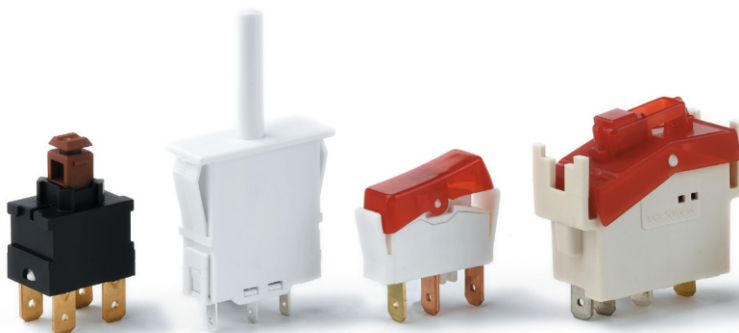
burgess

- 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



thcontact

- 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

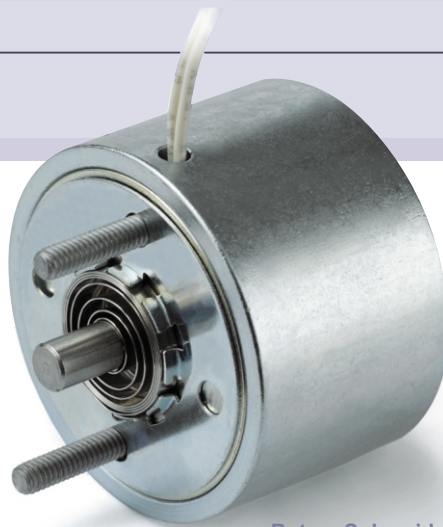
Mail Sorters / Diverters

Copiers

Data Storage

Security Locks

Office Automation



Rotary Solenoid

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

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For the complete listing of our worldwide sales offices, please visit
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- Springfield, Tennessee
- Buenos Aires, Argentina
- Sao Paulo, Brazil
- Zacatecas, Mexico



Sales



Engineering



Manufacturing



All



Vandalia OH, USA



Murten, Switzerland

EUROPE

- Murten, Switzerland
- Salzburg, Austria
- Gennevilliers, France
- Saint Remy de Maurienne, France
- Dresden, Germany
- Halver, Germany
- Stuttgart, Germany
- Hatvan, Hungary
- Ozd, Hungary
- Yokneam, Israel

- Asti, Italy
- Milan, Italy
- Den Haag, Netherlands
- Dabrowa Gornicza, Poland
- Nis, Serbia
- Barcelona, Spain
- Istanbul, Turkey
- Boldon, Tyne & Wear, UK
- Newmarket, UK
- Newport Isle of Wight, UK

ASIA

- Hong Kong *Headquarters*
- Shajing, Shenzhen, China
- Shanghai, China
- Beihai, China
- Changchun, China
- Chengdu, China
- Nanjing, China
- XiAn, China
- Chennai, India
- Tokyo, Japan
- Seoul, Korea
- Singapore



Johnson City, Shajing, China



Hong Kong Headquarters

To be the world's definitive
provider of innovative and
reliable motion systems

