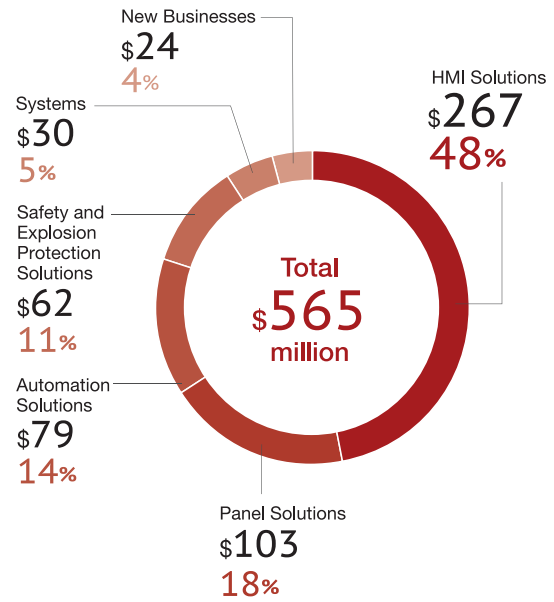


Product Groups

Providing the most suitable products and solutions to meet the needs of the times

To respond to diverse and changing customer needs over time, IDEC provides a broad range of products and solutions centered on its control technology. We are committed to supporting the future of manufacturing and daily life by continuously providing new value through the use of core technologies we have innovated over many years.

■FY2019 Sales ratio by product group
(Millions of U.S. dollars)



Note: Amounts in U.S. dollars are calculated at the prevailing exchange rate as of March 31 in every fiscal year.
Note: Exchange rate (1 U.S. dollar): FY2019 (¥111.01)



Control switches



Control switches



Industrial switches



Joysticks



Emergency-stop switches



Keyboards



Environmental energy-related business



Collaborative safety robot systems



Next-generation agricultural solutions

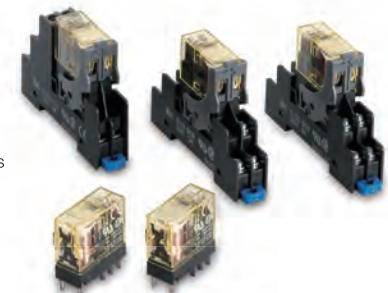
HMI Solutions
▶▶ P.13

New Businesses
▶ P.21

Safety and Explosion Protection Solutions
▶ P.19

Panel Solutions
▶▶ P.15

Automation Solutions
▶▶ P.17



Relays



Terminal blocks



LED illumination units



Safety laser scanners



Interlock switches



Explosion protection control boxes



Sensors



Teaching pendants



Operator interfaces



Explosion protection operator interfaces



Programmable logic controllers

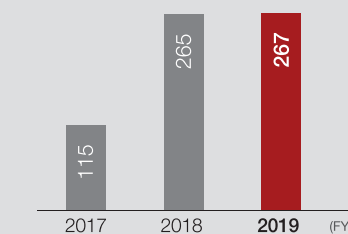
HMI Solutions



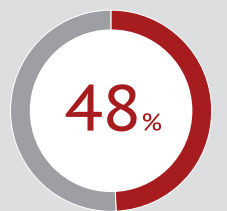
Business overview for FY2019

The European-centered sales for APEM Group progressed in a positive manner, against a background of factors such as a globally increased demand for capital investment. In addition, sales of IDEC's control switches increased globally.

Sales trends (Millions of U.S. dollars)



Sales ratio



Note: Amounts in U.S. dollars are calculated at the prevailing exchange rate as of March 31 in every fiscal year.
 Note: Exchange rate (1 U.S. dollar): FY2017 (¥112.20), FY2018 (¥106.27), FY2019 (¥111.01)

Creating an optimum environment for humans and machines as a leading company in the field of Human-Machine Interface (HMI)

Leveraging control technologies accumulated since its founding, IDEC contributes to realizing a safer and sustainable society by providing innovative solutions globally, not only for the factory automation (FA) industry but also in familiar daily-life situations.

In 2017, the French industrial switch manufacturer APEM Group was added to the IDEC Group, expanding its product lineup in the HMI field. This addition to the IDEC brand enabled market expansion via APEM-brand products that featured superior designability and environmental resistance, allowing the IDEC Group to provide a variety of products and solutions to customers in a broader range of industries.

We are aiming at nothing less than becoming the number one global HMI company, through our dedicated pursuit of quality, durability, and safety in our products, and through a lineup that boasts a designability and an ease of use that anyone can understand. Through our product lineup, we are able to provide countless solutions that bring together humans and machines.



Application Scenes



Stylish control panels for a variety of devices and special vehicles



Emergency-stop switches demand a high degree of safety

TOPICS

We are bringing push-in style φ22 control units that allow for safe and simple use to the market. These units are optimal for this era where a vast variety of human resources is in the workforce.

(planned launch: July 2019)

The adoption of novel push-in style wiring methods is on the rise in the global market. In addition to control switches, a wide variety of products incorporating this wiring offer better wire saving, space saving, and reliability.

We have developed a new push-in style of φ22 control unit that serves as our company's primary model. We are able to offer products for an increasingly diversified workforce—products of reliable quality that are easy for anyone to work with, and which are directly linked to a reduction in man-hours spent in wiring and secondary tightening.



HW and CW Series Control Units



These pluggable control units enable easy placement of electrical wiring, and offer dual-action mounting and removal simply by inserting a flat-head screwdriver

Control switches



Emergency-stop switches



Buzzers



Pilot lights



Joysticks



Keyboards



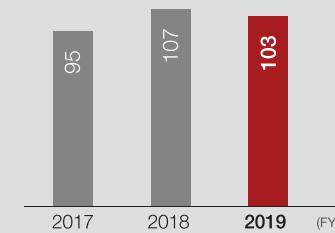
Panel Solutions



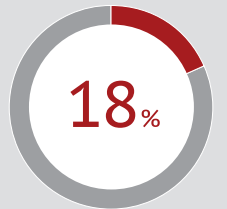
Business overview for FY2019

Our relays and terminal blocks experienced positive growth in the Asia Pacific region. In addition, our relays steadily trended upward in Japan and the Americas.

Sales trends (Millions of U.S. dollars)



Sales ratio



Note: Amounts in U.S. dollars are calculated at the prevailing exchange rate as of March 31 in every fiscal year.
 Note: Exchange rate (1 U.S. dollar): FY2017 (¥112.20), FY2018 (¥106.27), FY2019 (¥111.01)

Resolving customers' challenges with a full lineup of products for inside the panel

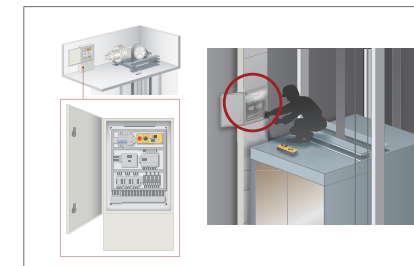
Our "panel solutions" represent a catch-all name for the various electronic devices incorporated inside control panels and control boxes that are used to control and manipulate machinery and manufacturing lines. These panel solutions are in use in a wide variety of settings such as those for building facilities management or elevator controls, not to mention in industrial settings.

Due to increasing need for space-saving and cost-reduction devices, the miniaturization of control panels has received considerable attention. IDEC solves this problem by providing customers with a varied lineup of in-panel products that enable space saving and increase operational efficiency.

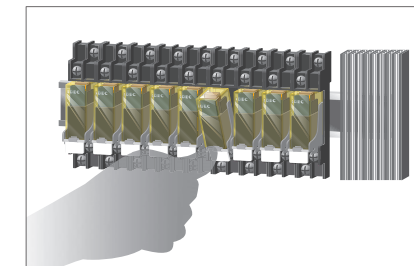
These variations include relays that switch electronic signals on and off, circuit protectors that offer defense against current surges above rated capacities, switching power supplies that convert the alternating current in commercial power supplies to a more stable direct current voltage, and the LED illumination units equipped inside machine tools and control panels that emit a clear and uniform illumination.



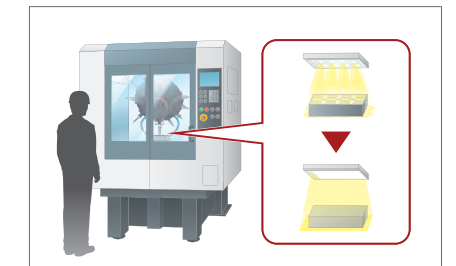
Application Scenes



Control panels for elevators, etc.



Products that enable enhanced space saving inside of control panels



LED illumination units

TOPICS

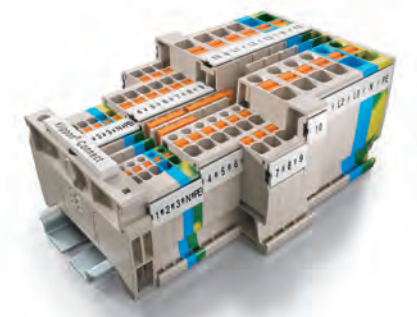
Efficiency – Push-in style terminal blocks for innovative connection solutions.

With the increasingly diversified workforce of the modern world, there is a demand for products of reliable quality that are not only easy for anyone to use, but which offer space saving and a reduction in man-hours needed for work. To that end, we offer a broad lineup of push-in style terminal blocks that allow for the more effective, practical use of the space within the thin-type control panels than do conventional screw-based systems, and which also allow a significant reduction in the amount of inspection work that needs to be performed after wiring or operational tasks, all while maintaining a high level of safety.

In 2019, IDEC entered into a partnership agreement with Weidmüller, initiating the sale of Klippon® Connect terminal blocks in Japan.

* Klippon® is a registered trademark of Weidmüller Interface GmbH & Co. KG.

Innovation by



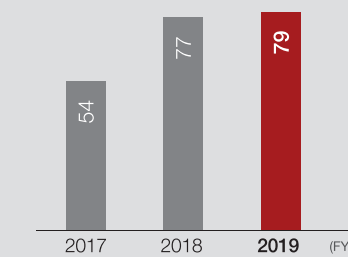
Automation Solutions



Business overview for FY2019

Our sales of programmable logic controllers and operator interfaces are expanding in Japan. With the additional business contributions of Welcat Inc., our sales of automatic identification devices products also rose. Our programmable logic controllers were steadily trending upwards in the Americas.

Sales trends (Millions of U.S. dollars)



Sales ratio



Note: Amounts in U.S. dollars are calculated at the prevailing exchange rate as of March 31 in every fiscal year.
 Note: Exchange rate (1 U.S. dollar): FY2017 (¥112.20), FY2018 (¥106.27), FY2019 (¥111.01)

Offering a broad range of optimal solutions in the era of IoT and Industry 4.0, while promoting Connected Industries

As IoT is exhibiting growth in a variety of industrial sites and daily-life scenes, we are seeing a growing demand for support for remote monitoring and operations. Since there is also a rising demand for products that can serve as key devices in the need for high working efficiency and the drive towards automation that is going hand-in-hand with a reduced working population and advancing technology, we have a multi-faceted and diverse variety of products available. In 2017, we added Welcat Inc. to the IDEC Group. Welcat is known for its advanced technical skill in the field of automatic identification devices such as code scanners, which is aiding us in expanding our product lineup and making increased market inroads.

IDEC contributes to greater production automation and efficiency by providing a variety of products and solutions. These include programmable logic controllers, used to control machine equipment and assembly lines; operator interfaces, for more comfortable operating environments; sensors that can identify physical objects and changes in conditions; and code scanners and RFID systems whose demand is expanding in traceability applications.



Application Scenes



Programmable logic controllers and operator interfaces that enable remote monitoring and operations



Wearable terminals that improve worker efficiency

TOPICS

Sensors that offer durability and laser-enhanced legibility, with the capacity to discriminate distances on a sub-millimeter scale.

In December of 2018, we began to market the durable and environmentally resistant SA1Q-model CMOS laser sensor with a built-in amplifier.

The sensor employs a stainless-steel housing that gives it both anti-impact and anti-vibration properties, enabling IP67, IP68, and IP69K protective ratings*. Its incorporation of CMOS line sensors in its photodetectors reduces the likelihood of the background color impacting the visibility of the object being looked at, and it is capable of making out both distance and height. The sensor also has an on-board dual mode capable of discriminating distance and brightness together, and it can stably detect transparent objects.

We also offer a line of products compatible with IO-Link, a key IoT technology, allowing us to better contribute towards the spread of IoT.

* The IP standards are standards for dust-resistance and water-resistance that define classes of protection against the ingress of foreign matter into electrical equipment.



* A handheld device used to record and play back the movements of a robot to make it move and perform tasks

Safety and Explosion Protection Solutions

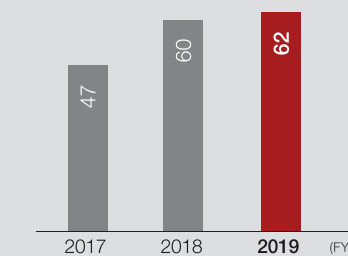


Business overview for FY2019

As a result of rising concerns regarding safety, our global sales of safety-related devices steadily trended upward. In addition, there were also sales contributions from Tokyo Sensor Co., Ltd., another member of the IDEC Group from July 2018. Our sales of explosion protection devices primarily expanded in Japan.

* Tokyo Sensor Co., Ltd. joined IDEC in a merger in April of 2019.

Sales trends (Millions of U.S. dollars)



Sales ratio



Note: Amounts in U.S. dollars are calculated at the prevailing exchange rate as of March 31 in every fiscal year.
 Note: Exchange rate (1 U.S. dollar): FY2017 (¥112.20), FY2018 (¥106.27), FY2019 (¥111.01)

Providing solutions that enhance safety and productivity, as a leading company in safety

Since our founding, we have focused on safe environments for humans interacting with machines, and to that end we have developed safety-related devices that are thoroughly dedicated to safety, reliability, and ease of use. We are on the cutting edge of providing solutions that enhance safety and productivity. Automation and the use of robotics is on the rise at manufacturing sites. We have come up with our next-generation safety philosophy "Collaborative Safety (Safety2.0)", which is aimed at coordinating safety between humans and machines. This philosophy doesn't just deal with keeping humans out of harm's way, it also allows us to provide cooperative safety equipment applications that allow the machines to sense any dangers for humans in order to better regulate the safety environment. At the same

time, we are pouring our efforts into outreach programs such as the creation of new safety standards and safety consulting.

With our products such as safety laser scanners that are able to detect the presence or incursion of humans in work areas or within the bounds of safety fences, interlock switches that can detect whether device doors or safety fence gates are opened or closed, or enabling devices that are compliant with international safety standards, we provide comprehensive environments where safety is always the number one consideration. We offer support for all manner of safety architecture in mechanical devices that conform to international standards, and we are actively promoting Vision Zero*.

* For further details about Vision Zero, please refer to P24.

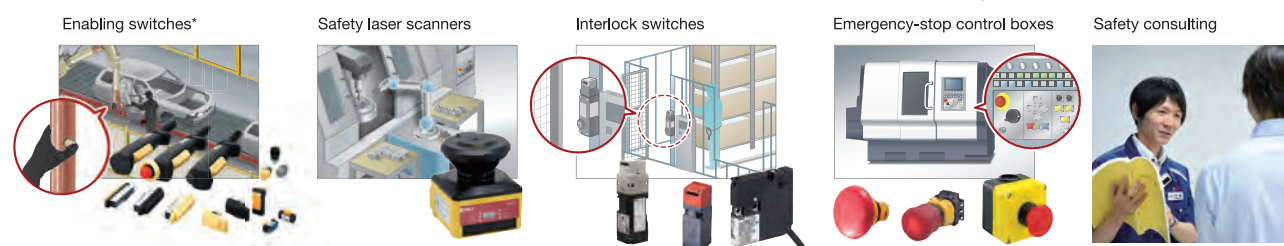
Creating explosion protection environments with enhanced safety and security

We have been responding to our customers' needs through our more than 70 years of research and development into explosion protection technologies. We have adapted to social changes such as factory automation and internationalization, and we have been able to develop a wide variety of equipment associated with explosion protection that can be used at sites such as petroleum plants and chemical factories that handle explosive gases, or warehouses.

We fulfill more detailed customer requests for control boxes, such as their layouts, sizes, and operability, while promoting the acquisition of overseas explosion protection certifications such as IECEx (international explosion protection product certification) and ATEX (the European directive for explosion protection) directives, and North

American UL standards. Ours is a product lineup that is able to respond on a global scale.

We have an abundant variety of LED illumination units available that can take the place of conventional mercury lamps, offering illumination from high ceilings or for penetrative in-tank inspections. These lights benefit our customers with energy savings and low maintenance. In addition, optimal networked camera systems for monitoring in sites such as manufacturing plants enable an enhanced degree of freedom for installation sites via wireless LANs, as well as monitoring via remote operation. These systems also contribute towards improved safety in explosion protection environments and towards energy savings and reduced maintenance.



* Safety-related devices to be incorporated into teaching pendants for robots or machine tools, etc.



* A device that limits the voltage and current that can reach a hazardous area under overcurrent conditions

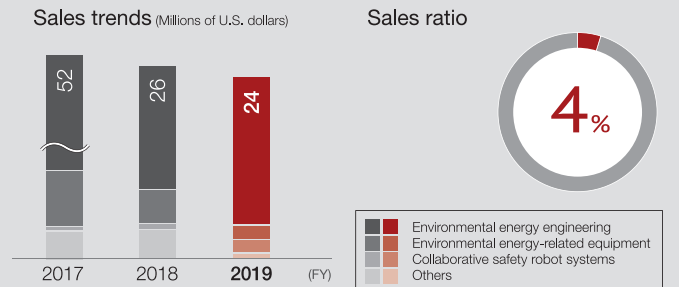
New Businesses



Business overview for FY2019

Regarding our environmental energy EPC* and electricity sales, we are gradually moving away from energy generation through mega solar plants, towards markets that are predicted to expand—the energy production business for self-consumption and energy management systems.

Our business in the area of solutions for collaborative safety robot systems is seeing more and more examples of introduction due to factors such as a rising need for the automation of manufacturing equipment. * "EPC" is an abbreviation for "Engineering, Procurement, and Construction"



Note: Amounts in U.S. dollars are calculated at the prevailing exchange rate as of March 31 in every fiscal year.
 Note: Exchange rate (1 U.S. dollar: FY2017 (¥112.20), FY2018 (¥106.27), FY2019 (¥111.01))

Contributing to resolving social issues through a variety of solutions utilizing control technologies

One of the group members, IDEC FACTORY SOLUTIONS CORPORATION, is developing a collaborative safety robot systems business that will act as a robotic systems integrator for the cooperation of humans and machines. In recent years, industrial sites have seen rapid progress in the introduction of collaborative robots in response to manpower shortages and in order to improve productivity and efficiency. These robots are capable of working at the same sites as humans without the need for safety fences. To that end, we are able to focus on one of IDEC's strengths—safety-related devices and safety systems that allow us to propose systems that incorporate elements such as collaborative robots and vision sensors, AI, and

automatic guided vehicles from multiple manufacturers, and to put together a wide variety of application packages that let us match optimal collaborative safety robot systems to our customers' needs.

In addition, through our efforts towards the promulgation of such initiatives as mega solar power generation, renewable energy, and next-generation agricultural plants, we are able to put the control technologies, environmental technologies, and fine-bubble technologies that we have cultivated over many years into motion, and we can contribute towards resolving a variety of social issues that are advancing on a global level.

3D bulk picking systems



Collaborative robots and mobile automatic carrier robots



Operation of collaborative robots website



Environmental energy-related business



Next-generation agricultural solutions

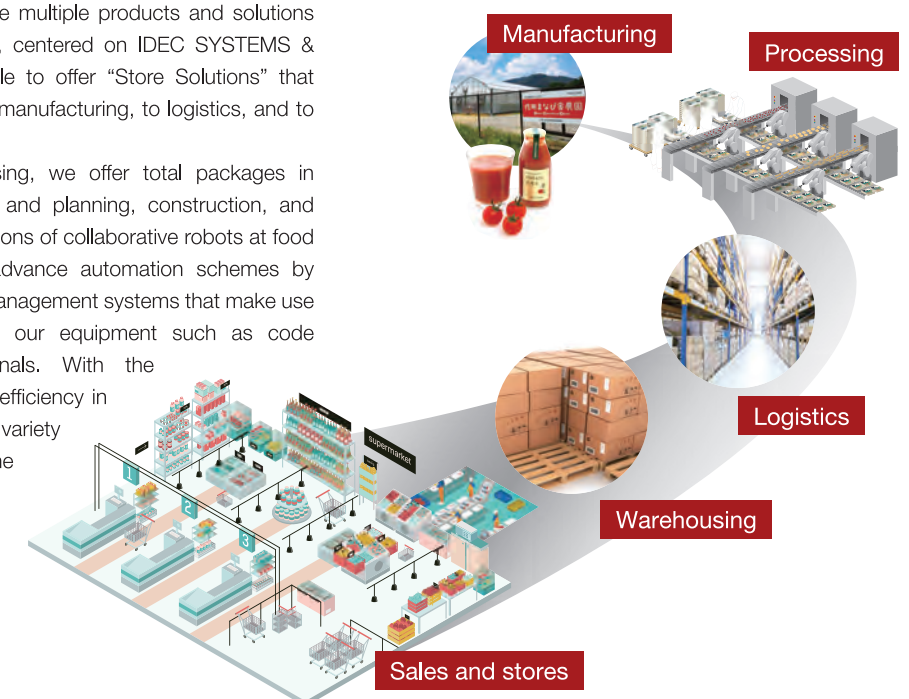


TOPICS

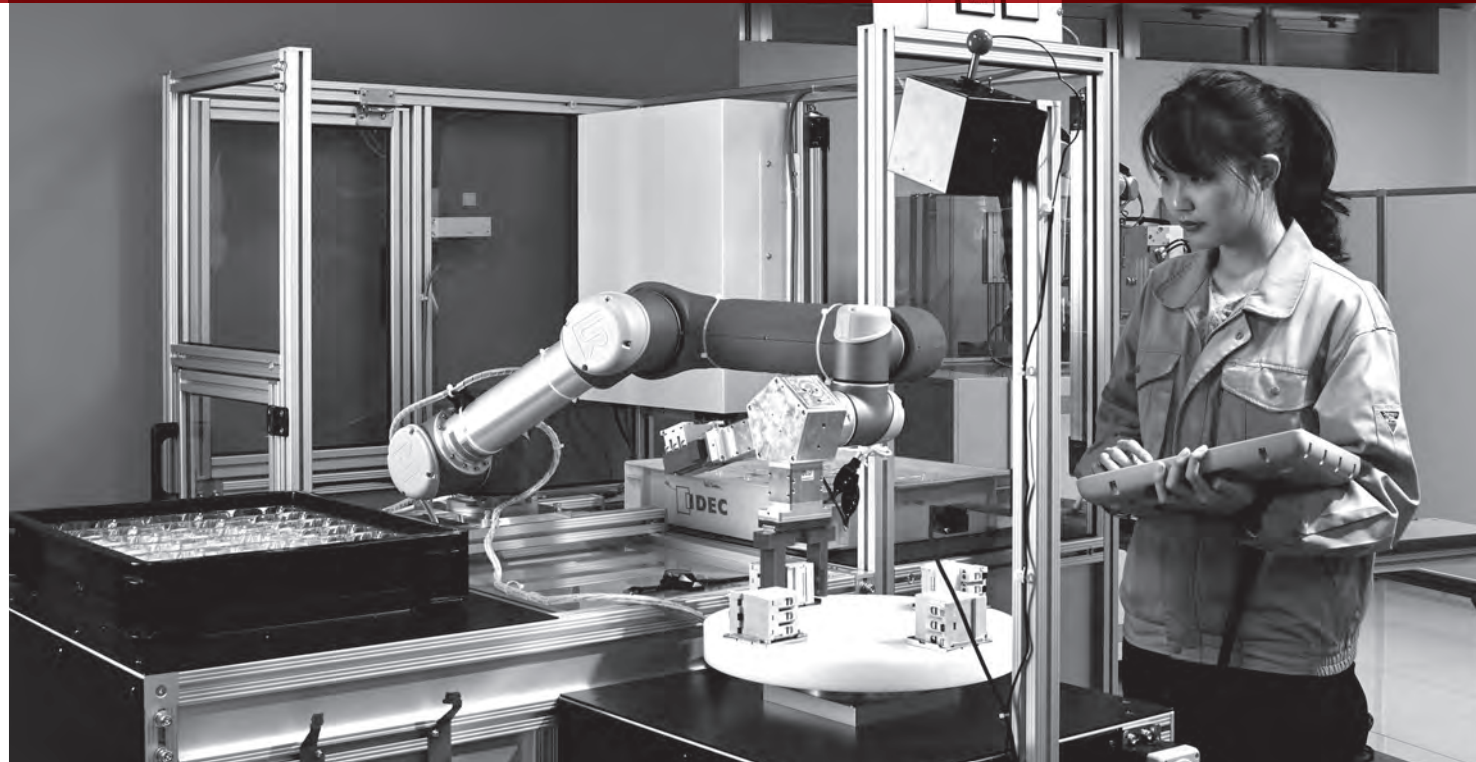
Developing store solutions as an ESG-compliant partner.

Through a mutual network of applying the multiple products and solutions offered by our various group companies, centered on IDEC SYSTEMS & CONTROLS CORPORATION, we are able to offer "Store Solutions" that encompass the overall supply chain from manufacturing, to logistics, and to storefronts.

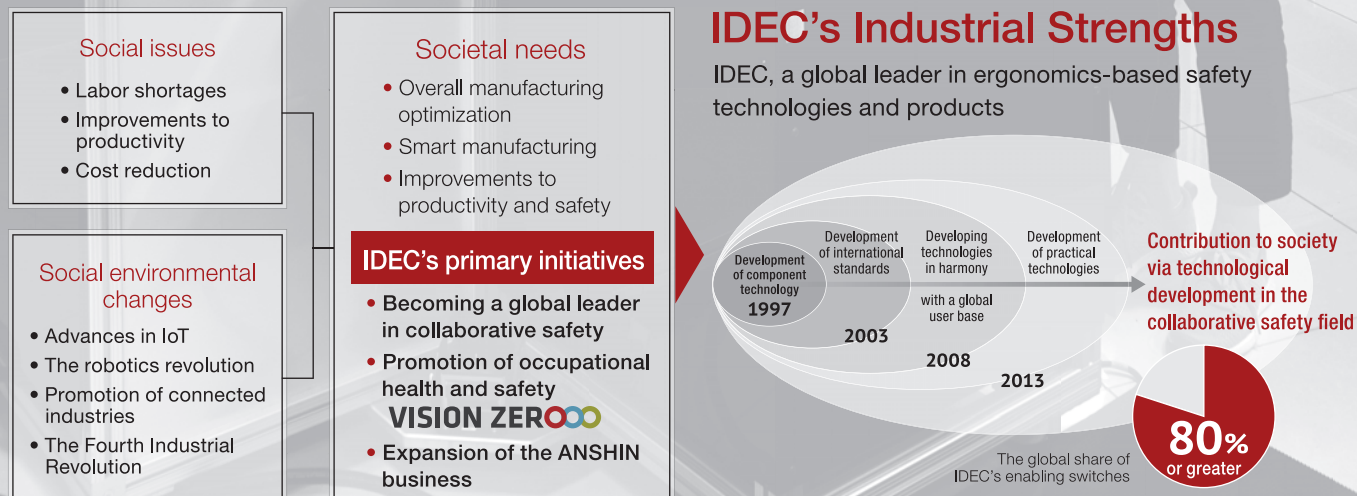
In terms of manufacturing and processing, we offer total packages in next-generation agricultural plant design and planning, construction, and sales support, as well as practical applications of collaborative robots at food processing sites. In addition, we can advance automation schemes by offering proposals for logistics and store management systems that make use of automatic identification devices with our equipment such as code scanners, RFID, and wearable terminals. With the improvement of business operations and efficiency in mind, we can also provide solutions for a variety of operational needs, including the introduction of solar power systems and energy management for storefronts, logistics facilities, and factories, which can cut operational expenditures through more easily comprehensible and efficient use of natural energy sources.



We are dedicated to the pursuit and realization of world-class concepts in safety through the creation of the optimum environment for humans and machines



In recent years, there have been major changes in our social environment, starting with how we manufacture things. Against this background of change, IDEC is focusing on its strengths—safety and security technologies and know-how that can respond to the social needs that have become global issues. Plus, through our promotion of our ANSHIN business that is adding “peace of mind” to our conventional “safety”, we are further enhancing our corporate value.



Safety Concept

A leading company in collaborative safety (Safety2.0)

When people and things work in harmony with their environment, it allows a higher level of safety to be maintained in areas where both humans and machines share a space. In our pursuit of our next-generation safety philosophy “Collaborative Safety (Safety2.0)”, we hope to enhance both safety and productivity, while furthering a revolution in robotics and helping to usher in truly connected industries.

We are putting our efforts not only into the development and proposal of an array of safety-related devices, but also into performing risk assessments, training professional safety evangelists, and holding a variety of seminars, all with the intention of promoting our “Safety2.0” international standardization activities.



Promotion of occupational health and safety through Vision Zero

Vision Zero is an occupational safety and health concept promoted by the International Social Security Association (ISSA) under the auspices of the United Nations International Labour Organization (ILO) that promotes SDGs. It is spearheaded by top management as an approach towards the pursuit of corporate safety, health, and wellbeing. In January of 2018, IDEC was the first company in Japan to register with Vision Zero.

As part of our Vision Zero promotional activities, in March of 2019 one of our main factories, the Takino Plant, became the first in the Japanese electrical industry to obtain occupational safety and health management system ISO 45001 certification from the Japan Industrial Safety and Health Association. Through our collection of risk data and our risk assessment initiatives, we are working to create a workplace environment that is safe and more pleasant to work in.

A Company of **VISION ZERO**
 Safety.Health.Wellbeing.



The Takino Plant is ISO45001 certified (Hyogo Prefecture)

Safety Integration

Proposing optimal collaborative safety robot systems

We have established Collaborative Safety Robot Technical Centers in both Aichi Prefecture and Tokyo, where we offer exhibits on collaborative robots both from Japan and abroad. A combination of optimal collaborative robots and a variety of IDEC's safety-related devices is helping to bring about a true collaboration between humans and robots, and we are working hard to put systems in place that will allow for secure contact with robotics. Via proposals for safe systems architecture strategies and safety consulting delivered by a qualified robotic safety assessor, we are bringing about improved productivity at manufacturing sites and reduced occupational injuries.



Collaborative Safety Robot Technical Center (Aichi Prefecture)

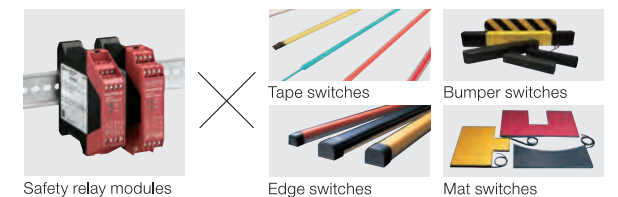
Safety Components

Development of equipment that ensures safety and peace of mind

Tokyo Sensor Co., Ltd., one of the major Japanese manufacturers of touch sensors, joined the IDEC Group in 2018. Along with them we are putting our safety- and explosion protection-related knowledge to work to proactively advance the certification of a variety of products. In 2019, we will put the first explosion protection mat switches in the world on the market.

Our promotion of the expansion and reinforcement of equipment that is bringing enhanced safety and peace of mind to the workplace is furthering the expansion of our ANSHIN business and is creating entirely new market opportunities.

* Tokyo Sensor Co., Ltd. joined IDEC in a merger in April of 2019.



2018.4 ▶ 2019.3 TOPICS

Primary topics from April 2018 to March 2019

2018 4 Starting sales of Welcat products

We began Japanese domestic sales of automatic identification devices manufactured by Welcat Inc., a member of the IDEC Group. By taking advantage of IDEC's market inroads, we are able to contribute towards the enhanced visibility of information and towards work efficiency in the areas of logistics, retail, and the factory automation (FA) industry, in all of which there is a growing demand for automatic identification devices.



6 June

2018 4 April



April Established CSR Committee



June Commemoration of IDEC's founder with our "Farewell to Tsuneo Funaki"

2018 4 Released the LED illumination units LG1H-300 series

LED illumination units, designed for high ceilings, are optimum products for spaces such as factories and warehouses. These LED illumination units come standard with dimmer functionality that allows their brightness to be adjusted, and their improved luminescence efficiency allows for greater energy savings than that of conventional lighting. Their lightweight design reduces structural loads in places such as ceilings, alleviating constraints to construction.



2018 5 Released the SC1P ionizer

Ionizers, which eliminate static electricity, help to prevent foreign substances from adhering to products and prevent damage to those products during processing in the semiconductor, electronic parts, foodstuffs, and packaging industries, improving product quality and increasing yields. Our lineup includes top-of-the-line ionizers that are available in both wide and compact models that can offer high-speed static electricity elimination.



Wide type

Compact type

7 July



July Tokyo Sensor Co., Ltd. joined the IDEC Group

2018 9 Addition of a non-illuminated type of buzzer to the HW1Z illuminated buzzer

We have added a new non-illuminated type of buzzer to the φ22 illuminated buzzers that we started selling in 2017, which were the first of their kind in Japan to incorporate both a buzzer and an indicator light into a single unit. These buzzers can be found not only in the factory automation (FA) industry, but also in elevators and train station platforms, where they allow for greater miniaturization and space savings for devices and panels, as well as a reduction in the amount of work needed for wiring.

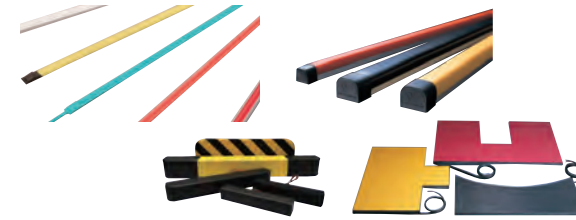


(Left and center) Illuminated buzzer (Right) Non-illuminated buzzer

2018 11 Starting sales of Tokyo Sensor products

We have started Japanese domestic sales of the tape switches and bumper switches for which our group member Tokyo Sensor Co., Ltd. These switches are employed in a wide variety of applications, and can enable capabilities such as collision detection. Our expanded lineup of safety-related equipment puts us in a position where we are better able to respond to a broad range of demands.

* Tokyo Sensor Co., Ltd. joined IDEC in a merger in April of 2019.



10 October



August The CSR Procurement Briefing

11 November

12 December



November Exhibition at the Electronica Show 2018 (Munich, Germany)

2018 12 Released the SA1Q CMOS laser sensor

These distance-detecting sensors offer high precision, stable detection in a wide range of fields including automobiles, semiconductors, and machine tools, and are unparalleled in terms of their durability and environmental resistance. By connecting a programmable logic controller to devices that are compatible with IO-Link, the key IoT technology, it enables predictive maintenance that can warn of malfunctions before problems occur, greatly contributing to a reduction in production losses.



2019 2 Released the HS1T interlock switches

HS1T interlock switches are the smallest in their class in the world, while still offering a locking strength of 5,000 N. Installation of these interlock switches on the front panels of machine tools, or on safety gate doors in dangerous areas where industrial robots operate allows for detection of whether doors are opened or closed. Having these switches in place helps contribute towards better safety measures that can prevent industrial accidents.



3 March

2019 1 January

2 February



March IDEC signed a partnership agreement with Weidmüller

2019 3 Released the HG1P teaching pendant

This teaching pendant offers a lightweight structure and a built-in, high-resolution 4.3-inch display, with a design based on ergonomic principles that makes it easy to use and helps reduce burdens during long working times. In addition, it is also durable, with a drop-resistance up to 1.5 meters, making it a product that can be adapted to a variety of production sites.



Released the HG5G-V operator interfaces

We have newly started our sales of the HG5G-V, which is equipped with a large, 15-inch screen. Our broad lineup of these operator interfaces ranges from a compact model to a high-performance model. The high-performance model comes equipped with a high-resolution monitor and a large memory capacity, which offer enhanced support for implementing IoT at sites with increasing data volumes.

