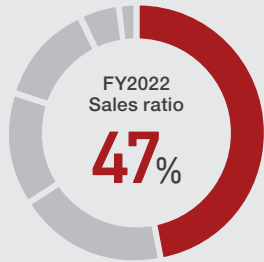
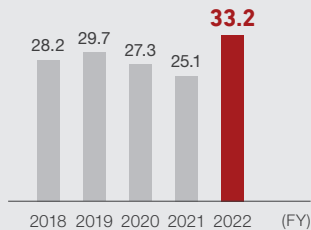


Industrial Switches



Net sales (billion yen)



Business overview for FY2022

Sales of both IDEC and APEM were strong, and sales increased particularly in Japan, the Americas and Europe because demand for capital investment in the manufacturing industry has been at a high level combined with economic normalization after emergence of the COVID-19 pandemic.

In Asia Pacific, sales increased mainly in China, where demand continued to increase.

Priority business measures

Creating the optimum environment for humans and machines, as a leading company of industrial switches

Since 1958 when we began sales of industrial switches, we have developed a diverse product line-up and have gained a high market share in Japan through continuous design reviews and quality improvements. In 2017, the APEM Group of France joined the IDEC Group. This has enabled us to achieve a more optimal geographical portfolio. We are now promoting business expansion as both IDEC and APEM work to complement each other in industries and regions of their strengths to expand sales, generate synergies in technology, and develop next-generation HMI products.

We are determined to continue providing diverse HMI solutions with the aim of becoming a top global company in industrial switches.

Participating in the rapidly growing AGV and AMR market by accelerating joint development with APEM

In recent years, as a solution to the labor shortage in the manufacturing industry, manpower reduction and automation have been increased in factories and warehouses, and demand for AGV and AMR has increased. In addition, due to the revision of international safety standards, the manual controller equipped with the AGV and AMR requires the installation of emergency-stop switches and hold-to-run functions (which turns the machine on only when the button is pressed). Each industrial makers are required to respond accordingly.

In response to these needs, we are working on joint development of high-value-added manual controllers that take advantage of the strengths of both IDEC and APEM. We are incorporating the opinions of major AGV manufacturers in Europe and the Americas in product development and aim for product launching for sales expansion.

Product development that leverages the strengths of both companies

IDEC
Development technology for high security products
Know-how for handheld devices

APEM
Development technology for joysticks
Ergonomic design development



Touchless switches to reduce risk in environments where an unspecified large number of people operate

Due to the COVID-19 pandemic, there is an increasing demand for touchless switching to replace conventional switches operated by a large number of people, for elevators and other equipment. We thus introduced a touchless switch that can be used indoors or outdoors in 2022.

In addition to this means to help prevent transmission of infectious disease, we intend to introduce touchless switching in a wide variety of applications, including food processing hygiene management and situations where people feel exhausted by high-frequency operations.



Adding an advanced function to “safety commanders” with safety features attached to tablets used at manufacturing sites

High-function but cheap off-the-shelf tablet devices are now often used as control terminals of robots at manufacturing sites. The tablets which are used near sources of danger from machinery, need to be equipped with safety devices, such as an emergency-stop switch. They are also required from the standpoint of safety standards. IDEC has therefore released safety commanders that can be easily attached to various off-the-shelf tablets available in the global market. In 2022 we plan to launch the HT4P safety commander with an additional wired LAN communication function. We strive to further improve convenience in manufacturing sites.

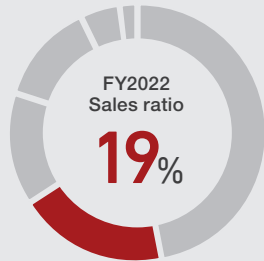
Safer and easier to operate

Lower cost

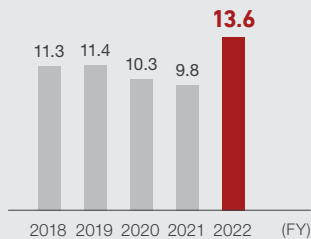
More efficient operation



Industrial Relays & Components



Net sales (billion yen)



Business overview for FY2022

Sales of switching power supply products increased in all regions. The growth was driven by new equipment for remote work (increased due to the COVID-19 pandemic), increased demand for power supplies for sales of new products. In Japan, sales of LED illumination units and control relays for favorably-selling machine tools increased.

Sales of control relays in the key markets of the Americas and China were also strong and the overall segment sales increased.

Priority business measures

Offering a full line-up of products to help customers overcome challenges

Industrial relays and components is a collective term for various electronic devices incorporated inside control panels and control boxes that are used in the operation and control of machinery and manufacturing lines. They are in use in a wide variety of settings, such as manufacturing sites, automated warehouses, industrial machinery, and semiconductor manufacturing equipment.

Responding to ever-growing needs for “smarter” facilities and equipment, space-saving, and quality stabilization, IDEC adds new technologies to various devices installed inside control panels, thereby providing more-efficient, highly-convenient, operator-friendly production environments, and assisting customers find solutions to various challenges.

Broadening PCB-mounted products that are smaller in size and require less wiring and less man-hours

As a solution to the challenges of the control panels and the control part – reducing their size and reducing man-hours in development and assembly, decentralizing of the control part is increasing. The control units are cut out from the large control panels and are made into blocks for greater usability and strengthening the value chain from development and production to sales and maintenance. There is thus an accelerating trend to make control units into “PCBs (printed circuit boards) of controls” as the control unit can be separated from the large panel into a block for greater utility.

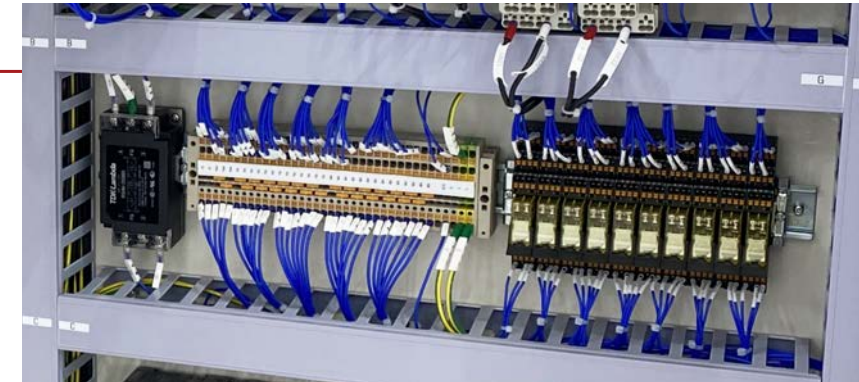
Demand for PCB-mounted equipment is expected to grow more and more, in line with an increase in new devices born from the creation of a new normal environment and various devices utilizing IoT technologies. IDEC has been developing, manufacturing and selling PCB-mounted equipment such as industrial relays, terminal blocks and circuit protectors. We will continue to focus on launching new products in the market.



For PCB circuit protector “NRP Series” (left)
Terminal block “BP Series” (right)



Slim power relays for PCB
“RJ Series”



Push-in products enabling well-being of manufacturing sites

Spring-type push-in products that can be easily wired by simply plugging in the terminals can reduce wiring work and achieve stable quality compared to use of screw type products.

They thus contribute to workstyle improvement of the manufacturing sites, by means such as making less experienced workers have a sense of accomplishment and by reducing overtime hours.

Simple wiring No need of tightening work X Solving labor shortages	No falling off of a screw X Safety and ANSHIN	Vibration resistance Shock resistance X Reliable
Color variations X Simplified identification	Robot production Automation X Stable quality Increased productivity	Universal design X Work by diverse workers

Industry-specific LED illumination units help resolve challenges

We sell the LF3D series of LED illumination units that are ideal for machine tools, where they satisfy needs to reduce multiple shadows and reflections of lighting sources, improving visibility at hand.

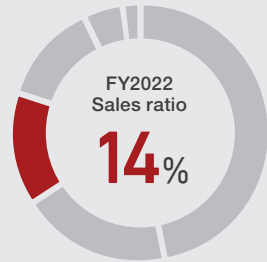
In addition, the LF1B-N type yellow light-emitting type emits only a single yellow light that does not contain the wavelength of the blue component in typical LED lighting, and is therefore highly popular for use with ANSHIN in semiconductor manufacturing equipment. IDEC supports the growth of various industries by providing products incorporating advanced technology to satisfy market needs.



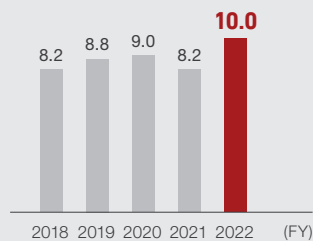
LED illumination unit “LF3D Series”

LED illumination unit “LF1B-N Series”

Automation & Sensing



Net sales (billion yen)



Business overview for FY2022

In the automation business, demand for PLCs and operator interfaces rapidly recovered in Japan, the Americas, and Europe, and sales increased up to the first half of FY2022. In the Americas, the COVID-19 pandemic boosted demand, and sales of PLC were strong for new customers in the medical field. From the second half of the year, however, the business was affected by the difficulty in sourcing electronic parts worldwide. On the other hand, the sensing business increased sales mainly in the overseas markets. The overall automation & sensing business has favorably performed both in Japan and overseas.

Priority business measures

Offering optimal solutions matching the era of IoT and Industry 4.0

Along with a decline in Japan's working population and permeation of IoT, we see an increase in need to support remote monitoring and operations, and an increase in demand for key devices that promote work efficiency and automation. We have a diverse product line-up precisely related to that need and demand. IDEC's solutions contribute to higher levels of automation and efficiency in manufacturing. These solutions include automation products, such as PLCs (to control machinery, equipment, and assembly lines) as well as operator interfaces (to create more comfortable operating environments), and further include sensing products such as sensors (to detect physical objects and changes in conditions), code readers (with potential growth in demand for traceability application), and RFIDs and other automatic identification products.

Advancing new product development by establishing a joint venture with ALPS ALPINE

In September 2021, we established IDEC ALPS Technologies CORPORATION, a joint venture with ALPS ALPINE CO., LTD., a manufacturer of electronic parts and automotive information equipment. By combining IDEC's FA knowledge with ALPS ALPINE's HMI and sensing technologies, we will promote the development of new products for the FA and industrial machinery fields and establish a solution-oriented business model.

We are conducting business planning, product development, and sales and manufacturing for industrial machinery, leveraging the strengths of both companies. Our target is a market launch of new products in FY2023.

Strengths of IDEC and ALPS ALPINE



Industry leader of HMI and safety for industrial machinery
Deep knowledge and high recognition of industrial machinery
High-quality, wide-variety and variable-volume production
Solution proposals that meet customer needs



Industry leader of HMI for automotive and consumer use
Sensing technology
High-quality, safe production
Software integration



Launching products that enable the IoT

Because of the need for efficient operation of facilities as a way to combat the decline in Japan's working population and the COVID-19 movement restrictions, we launched a new cloud-based data logger that makes it easy to build an IoT system in Japan. By simply installing it on the device and equipment, it enables remote monitoring and data acquisition. We have also launched a 7-inch operator interface, demand of which is growing in all regions. Through enhanced response to IoT-related demand, we are contributing to resolving societal challenges.



Cloud-based data logger "SG1A Series"



Operator interface "HG2J Series"

Broadening the variety available in sensors and accessories to satisfy increasing demand

In order to meet the growing and diverse needs of various industries, we offer a wide range of sensors with different detection principles, distances and detection objects. The miniature photoelectric switch "SA2E Series" has achieved a response time of 0.5ms, which is one-half that of conventional products, making it possible to detect objects at high speed. As accessories, our product line-up includes a portable sensor checker, which allows easy testing of sensors at manufacturing site or on a desk without being connected to a power outlet.

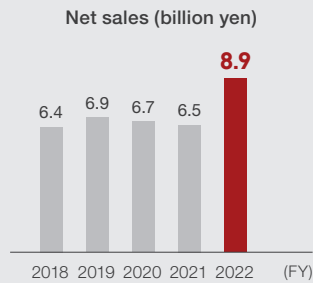


Miniature photoelectric switch "SA2E Series"



Sensor checker "SA1P Series"

Safety & Explosion Protection



Business overview for FY2022

Sales increased globally due to a steady recovery in capital investment demand. Sales of safety-related products increased, driven by growth in demand of interlock switches particularly in Japan and China, and strong sales of enabling switches in Europe, the Americas, and Japan.

Sales of explosion protection products increased mainly in Japan.

Priority business measures

As a company that pursues and realizes world-class safety, ANSHIN and well-being, we provide solutions that enhance safety and productivity

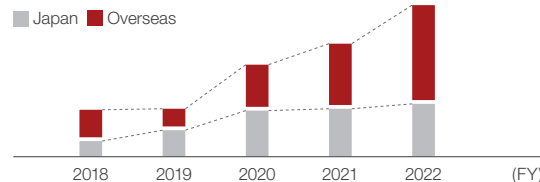
From the day the company was founded, the IDEC Group has been delivering a variety of products and services to the public with the aim of creating the optimum environment for humans and machines. Through those activities, we contribute to realizing both the safety of operators and the improvement of productivity by developing and providing safety-related products that reduce the risk of using machinery and equipment, and explosion protection products that can be safely used in the presence of flammable gas or liquid.

As a company that develops and provides products that protect the lives of people, we are making efforts to improve well-being throughout society in order to contribute to enabling everyone to lead a healthy, happy and vigorous life. Our products and services realize both safety and productivity not only in manufacturing sites but also in a variety of scenes. We are working to improve safety, ANSHIN and well-being in diverse working environments.

Globally expanding sales of safety-related products

More automation at manufacturing sites and increased awareness of labor safety have led to expansion of the global market for safety-related products. Thanks to our product development and sales efforts focused on industries in which safety-related products are used, our overseas sales have significantly increased in recent years, with notable sales growth of interlock switches. Particularly in China, demand is rapidly expanding and is expected to continue growing in the future. We are therefore working to partially transfer interlock switches production to a local base in addition to a base in Japan, in order to establish a system of local production to better meet Chinese demand.

Sales of "HS5L Series" interlock switches



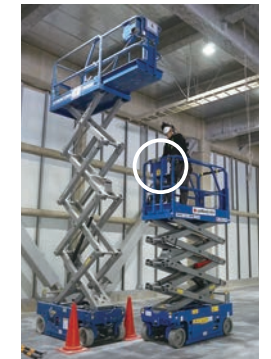
Contributing to improved safety and well-being for workers at construction and civil engineering sites

As an example of the many ways IDEC products play a role in safety assurance, IDEC supplies a three-position enabling switch that is developed based on ergonomics and vital for construction-related system. The system prevents serious accidents of on-site workers being trapped between a vehicle for work at height and a building frame or ceiling. It is being increasingly adopted by DAIWA HOUSE INDUSTRY CO., LTD. and other rental companies.

We are committed to providing solutions to ensure the safety of various workplaces, regardless of the industries.



Three-position enabling switches



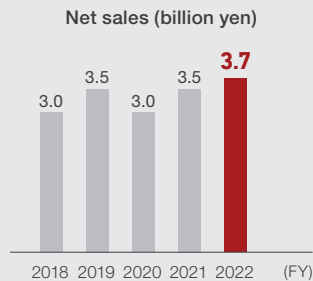
The IoT enables predictive maintenance of equipment and devices in explosion protection areas

IDEC's ES3M series wireless vibration sensor, which is intrinsically safe and explosion protection, can be used in hazardous locations such as petroleum refineries and chemical plants. By detecting the warning signs of equipment failure through the wireless network using the ES3M series, "predictive maintenance" can be achieved. This product ensures safety and ANSHIN especially in explosion protection areas where there are risks associated with aging of the facility and of not carrying out sufficient maintenance due to labor shortage or a decline in availability of skilled engineers.



Wireless vibration sensor "ES3M Series"

Systems



Business overview for FY2022

Demand for AMR increased markedly and collaborative safety robot systems were introduced in new markets. IDEC acquired Squsse Co., Ltd. in April 2021 and its sales to the food industry also contributed to segment sales. Order booking in FY2022 reached a record high, driven by strong orders received for control panels and systems for the semiconductor and logistics industries. Overall sales, increased only slightly from the previous year even though a prolonged delivery period of components for systems, caused by a worldwide shortage of semiconductors and difficult procurement of some parts.

Priority business measures

Contribution to resolving societal challenges by working closely with customers and providing optimal solutions to their needs and challenges

As a system integrator, IDEC FACTORY SOLUTIONS CORPORATION, a group company, supplies systems and various application packages to meet customer needs. The systems are based on safety-related products and safety systems that are the strengths of IDEC, and combine various makers' collaborative robots, vision sensors, artificial intelligence (AI), AMR, and other products. In 2021, we were registered as a certified manufacturer of control panels for the UL 508A Standard for industrial control panels in the U.S. By utilizing 3D CAD (EPLAN) for control panel design and manufacturing capability both in Japan and overseas, we are focusing on reducing design and production man-hour and improving quality. We are also developing the library systems business, centered on automatic lending systems that help improve the efficiency and convenience of library operations, and including the system for entry and exit and PC lockers.

Enhancing robot system proposals in anticipation of the arrival of a new collaborative society of humans and robots

IDEC FACTORY SOLUTIONS CORPORATION is offering application cells that utilize the offline simulation software "RoboDK", which has a library of almost all robots, and that can be operated easily and without robot teaching even at small and medium-sized companies. We also intend to develop our own products to meet customer needs, such as conveyors and lifters mounted on top of the AMR.

In addition, we focus on risk assessment support services for industrial robots, collaborative robots and service robots by safety professionals who are certified as safety assessors. We thus provide optimal system solutions.



Various robot systems



Contribution to the automation needs in the food industry and other workplaces

The food industry nowadays faces societal challenges such as food waste loss, labor shortage, and need to reduce plastic use. The industry's efforts to reduce food waste losses by extending expiration dates has led to an increase in demand for chilled and frozen foods. In response to this demand, we are proposing systems centered on automation of inter-process transport and an automation of the producer's last stage of packing products in boxes or cases. We will also utilize IDEC group's know-how and propose IoT-based production visibility systems and "line solutions" that automate multiple processes.



* HACCP: Hazard Analysis and Critical Control Point

Expanding production capacity in the systems

In response to growing demand, IDEC FACTORY SOLUTIONS CORPORATION built a new factory in 2021 and a new head office in 2022. Aiming for further business expansion, we have relocated the Collaborative Safety Robot Technical Center to the new head office and are expanding production capacity for robot systems.



The new head office, which was completed in 2022