



*Think Automation and beyond...*

## PRODUCT GUIDE

---



# Product Guide



# Value Creation Process

As a part of efforts to support the future of manufacturing and daily life, IDEC creates value through products that provide safety. At the same time, the Company undertakes a wide range of activities in a bid to resolve societal challenges.

## Societal Challenges

- Growing shortage of labor
- Further aging of society
- Frequent occurrence of industrial accidents
- Onset of global warming
- Decline in food self-sufficiency ratio

# Core Competencies

## Safety Technology and Products

Leveraging our longstanding knowledge to ensure a high level of safety

## High Quality

Reliable quality backed by our technical capabilities

Research & Development



Procurement



Manufacturing



## Automation

Products and solutions that enable automation and labor savings

## HMI Solutions

Providing optimal solutions tailored to customer needs

# Our Value in Action

Automotive



Elevators



Material Handling



## Output

—Creating value for society—

- Development and increased use of safe products
- Providing collaborative robot systems
- Developing IoT-compatible products
- Designing environmentally-friendly products
- Helping industrialize agriculture

## Outcome

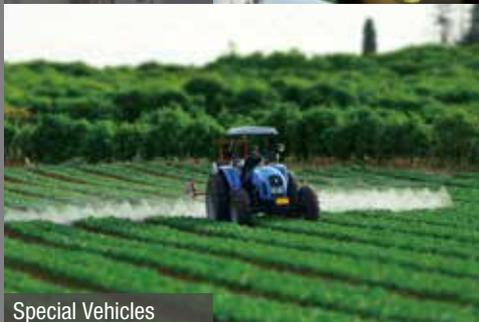
—Resolving societal challenges—

- Increasing productivity and efficiency
- Realizing safety
- Ensuring a smaller environmental footprint

Machine Tools



Robot Systems



Special Vehicles

**We make the point of contact, where people interface with machines, easy, safe and secure. We create new possibilities.**

One of our corporate principles is to conduct business with consideration for social contribution. Since its founding, IDEC has developed and introduced the world to numerous products and services centered on its control technology. Today, our products are used not only in factories, but in a wide range of settings in people's everyday lives where customers desire safety, ease of use, reliability and a smaller environmental footprint.

Having celebrated its 70th anniversary in March of 2017, the IDEC Group will continue to brighten the future of manufacturing and people's lives as it moves into the centennial of its existence and beyond.

---

## Europe and Others

Sales bases: **7**  
Manufacturing base: **10**  
No. of employees: **1,013**



---

## Americas

Sales bases: **3**  
Manufacturing base: **2**  
No. of employees: **233**



---

## Greater China

Sales base: **19**  
Manufacturing base: **6**  
No. of employees: **1,501**

---



---

## Japan

Sales base: **24**  
Manufacturing base: **6**  
No. of employees: **972**

---



---

## Asia Pacific

Sales base: **3**  
Manufacturing base: **1**  
No. of employees: **193**

---



## Europe



### *IDEC presence in Europe*

Since 1976, IDEC has served the competitive European market by providing the very best products and services that satisfy the market needs, that never cease changing and evolving. Today we are proud that our products are used in a wide range of industry and application, from manufacturing sites to people's everyday lives.

### *Providing key products for Industry 4.0*

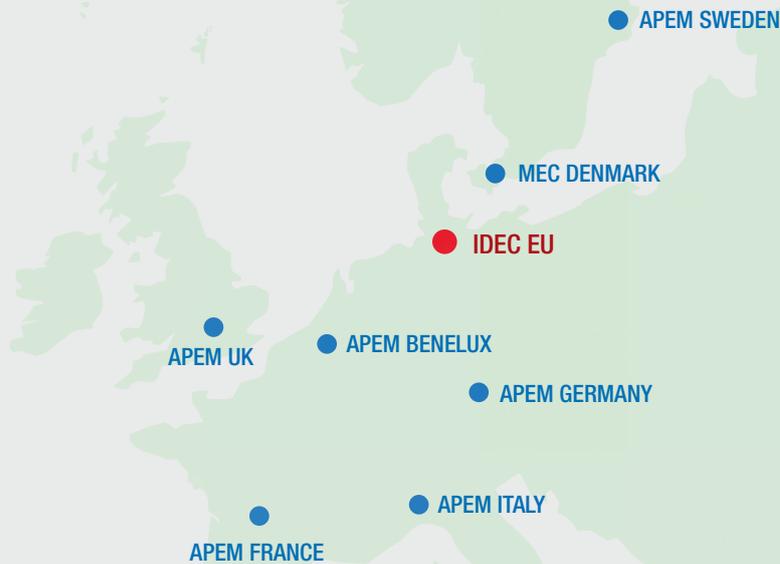
Industry 4.0 and the Internet of things (IoT) are developing dynamically in manufacturing automation, and there is a high demand to upgrade safety products and robotic systems to meet the new trends. IDEC is actively taking steps to add more values and to satisfy customers by offering customized safety products for their automated manufacturing equipment and systems.

### *Increased customer satisfaction in Europe*

In March 2017, IDEC Group welcomed APEM Group, which has a history of 65 years in manufacturing Human Machine Interface (HMI) products with its strongest sales in Europe. The addition of APEM Group with its 10 sales and 14 manufacturing bases will greatly enhance the IDEC Group's global sales capabilities. Benefitting from diversities in cultures, backgrounds, product offerings and regional strengths of the two companies, we will continue to serve customers by satisfying their needs.



# Europe Network



## IDEC Elektrotechnik GmbH

Address: Heselstuecken 8, 22453  
Hamburg, Germany  
Tel: 49-40-253054-0  
Fax: 49-40-253054-24  
Email: [service@eu.idec.com](mailto:service@eu.idec.com)  
Website: <http://eu.idec.com>



## APEM France

Address: 55, avenue Edouard Herriot  
BP1 82303 cedex Caussade,  
France  
Tel: 33 5 63 93 14 98  
Fax: 33 5 63 93 19 03  
Email: [commercial@apem.fr](mailto:commercial@apem.fr)  
Website: <http://www.apem.com/fr/>



## Corporate Data

### IDEC CORPORATION

Established: March 26, 1947  
Capital stock: €83.958.967.88  
No. of employees: 3,911 (on a consolidated basis as of March 31, 2017),  
excluding contract and temporary employees  
Stock listing: First section, Tokyo Stock Exchange  
Head office: 2-6-64, Nishi-Miyahara, Yodogawa-ku,  
Osaka 532-0004 Japan  
Tel: +81-6-6398-2500 (main number)  
Tokyo head office: 2-15-1, Konan, Minato-ku, Tokyo 108-6014 Japan  
Tel: +81-3-5782-7690 (main number)



# Human-Machine Interface



## Switches

### Flush Silhouette Switches



Photo: LBW

LB series: Slim 2mm-thick bezels for stylish panels. Bezel size  $\varnothing 22/\square 22$  mm (panel cut-out  $\varnothing 18.2/\square 18.2$  mm). LBW series: Projects only 2mm from the panel. Smart appearance with large surface for secure operation.



Flush bezel projecting only 2.5 mm from panel front, with short, 39.9 mm depth behind the panel. Third-generation safety structure.



Create stylish panel with flush bezels projecting only 2.0 mm from panel front. Easy to install/remove, and ideal for panels that require cleanliness and safety.

### Switches/Pilot Lights



Only 27.9 mm panel depth. Removable contact blocks ideal for single board mounting. Pushbuttons, selector switches, and key selector switches available with up to 3PDT contacts.



Light duty with 30 mm panel depth (body length: 22 mm). Suitable for a wide variety of office and factory applications.

### Switches/Pilot Lights



Compact, lightweight, 10 mm thick contact blocks with removable operator. Separate contact block makes installation and removable easy.



True classic of removable contact block model. A wide variety of types available, including pilot lights with short depth suitable for distribution panel and control panel.



Heavy-duty  $\varnothing 22$  switches that can withstand harsh environment.



Highly reliable, heavy-duty  $\varnothing 25$  switches suitable for industrial use.



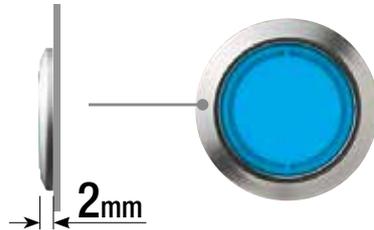
Photo: TWND

IP20 contact block with integrated terminal cover and captive spring-up terminals. Blue (NO) or reddish purple (NC) contact blocks for easy visual identification. Snap-fit installation/easy removal.

## Stylish & refined panels

### Flush Silhouette Switches **LB/LBW**

Flush bezel projects only 2 mm from front of panel.  
Short depth behind the panel—34.9 mm.



## Universal contact blocks

### ø30 **TWN/TWND**

Since 1958, IDEC has been relentlessly developing the control switches that provide high level of safety and operability.

Universal contact blocks are installed on:



ø22 TW\*



ø22 HW\*



ø25 TWS\*



ø30 TWND



ø30 TWN



\* Scheduled late 2017.

## Pilot Lights/Buzzers/Control Boxes

### Switches/Pilot Lights

#### MA/MC



Square-, rectangular-, and round-body miniature control units. MC: removable contact blocks for easy mounting. MA: Compact and space-saving (unibody: 22 mm).

### Miniature Pilot Lights

#### AP/UP



AP: ø8/10/12/16 space-saving miniature style. UP: ø6/7/8/9/10, available in various sizes and design.

#### AP6S



Short body with high voltage BA9S base LED lamp (100V AC/DC, 200V AC/DC). Round, square, rectangular, and dome style.

#### AP22



Outstanding visibility even in sunlight, ideal for alerting personnel of danger. High visibility from all directions, and is not susceptible to external scattered light.

### Display Lights

#### SLC



Compact and highly bright combination display lights. Fingersafe spring-up terminals reduce wiring and labor.

### Surface Mount Indicators

#### LH



Innovative indicators with IP67 protection. Directly mountable on equipment and aluminum frames.

### Illuminated Buzzer

#### HW1Z



Waterproof combination buzzer and pilot light. Meets the requirement of the revised elevator standard EN81-20/50.

### Control Boxes

#### FB



IP65 lightweight plastic enclosures for installing ø22 switches. Available with HW series switches and pilot lights, and XW series emergency stop switches.

#### AG/KG



A wide selection to choose from: AG series: IP65/splash-proof, aluminum alloy die-cast KG series: IP40/enclosed

# Panel Solutions



## Products inside Panel

### Relays

RJ



Compact and rugged power relays. Large contact ratings.

RU



Full featured, environment-friendly universal miniature relays. No lead ore cadmium used.

RF2



2-pole force guided relay to reduce cost and installation space. Two terminal styles - socket mounting and PC board mounting.

RL



This power relay ensures stable operation even when voltage drops momentarily. Single pole rated at 30A, double pole at 25A.

RV8H



Ultra-slim, 6mm-wide interface relays suitable for high density mounting. Screw and spring clamp terminals. Release lever for easy locking and removal of relay.

### Sockets

SJ



Slim and space-saving sockets with marking plate for RJ and RF2.

DF



This finger-safe socket accepts the same marking plates as the RU series relays, allowing for easy identification of circuits.

SR/SH/SM/SY/SU



DIN rail mount (standard, finger-safe, slim, spring-clamp), panel mount (solder, wire-wrap), and PC board mount.

### Timer

GT3



Solid-state CMOS circuitry ensures high accuracy. Various operation modes available, such as off delay and star-delta.

GE1A



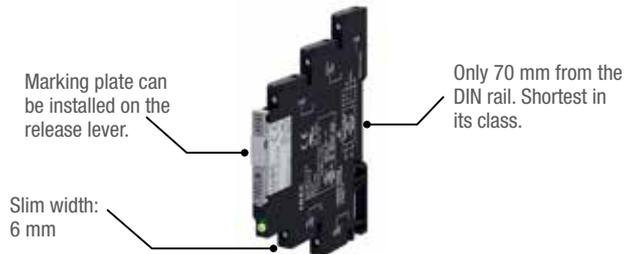
Two different time ranges to cover a wide time range. Large clear knob for easy time range setting. ON Delay function, highly precise time control, instant monitoring of operation status by LED indicators.

## Slim & Space-saving

### Interface Relays

**RV8H**

Space-saving 6 mm width suitable for high density mounting inside control panels.

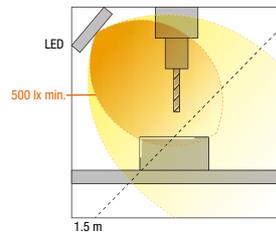


## For Lighting Machine Tools

### LED Illuminating Unit

**LF1D/LF2D**

Ideal for machine tools and other industrial machines. Uniform light distribution brightly lights objects and machine tool tips, making visual checks easy.



## Products inside Panel/Equipment

### Switching Power Supplies

**PS5R-V**



Space-saving DIN-rail switching power supplies. Can be installed in six mounting directions.

**PS6R**



High-power and space-saving switching power supplies. 93% efficiency reduces running costs.

**PS3X**



Universal AC input voltage. Wide power range: 10W, 25W, 50W, 75W, 100W. Compliant with international standards.

### Circuit Protectors

**NC1V**



IDEC's unique spring-up, fingersafe terminals reduce wiring and labor.

**NH/NR**



Wide range of applications from office automation and consumer use to factory automation.

### Terminal Blocks

**BN1U/BN-W/BNH-W**



UL, CSA, TÜV approved. Available in a variety of constructions, such as spring-up screw, self-lifting, and touch-down constructions.

**BY1K/BY1S**



BY1K: Screw clamp. Mounting space reduced by 50%. Available with standard and ground terminal blocks. BY1S: Spring clamp. Easy wiring with just one screwdriver reduces wiring and labor.

### LED Illumination Units

**LF2B**



Universal AC input for worldwide applications. Thin and slim profiles allow for installation in wide applications and in space-limited areas.

**LF1B-N**



Thin and slim profiles with IP65 protection (waterproof, dust-proof). Ideal for applications subject to water and in space-limited areas.

**LF1D/2D**



Rugged construction with robust housing of aluminum diecast, stainless steel, and reinforced glass. IP67F protection.

# Automation Solutions



## PLC/Controller/Operator Interface

PLC/Controller  
**FC6A**



A maximum of 528-I/O, fast basic instruction execution of 42 ns. 28 types of expansion modules, various options, Web Server and Email functions available.

**FT1A Pro/Lite**



10A relay outputs, Ethernet, SD memory card, USB embedded. Independent dual-axis control and multistage control available.

3.8 inch **FT1A Touch**



Built-in LCD enables control and display with high visibility.

IDEC SmartRelay  
**FL1F**



Equipped with convenience and high functionality. Multiple power supply variations.

Teaching Pendants  
**HG1H/HG1T**



Designed to be held in one hand. Features IDEC's 3-position enabling switch and emergency stop switch. Mechanical switches such as pushbutton/key selector switches mountable.

## Operator Interface

12.1 inch **HG4G**



Compact housing with a versatile interface. High performance operator interface with multimedia functions.

10.4 inch **HG3G**



Excellent visibility by super-bright LED backlight. 700 cd/m<sup>2</sup> (10.4-inch), 600 cd/m<sup>2</sup> (8.4-inch).

5.7 inch **HG2G**



Excellent visibility of 800 cd/m<sup>2</sup> with highly bright LED backlight. Withstands harsh environments, and suitable for use in a wide temperature range from cold to hot environment.

4.3 inch **HG1G**



Bright and true-to-life display. Quick 1.5-sec startup, and suitable for use in environments with wide temperature range, and also powerful water jets or temporary submersion in water.

4.6 inch **HG1F**



4.6-inch STN monochrome LCD. Clear legible display of 300 × 100 pixels.

## PLC for IoT Era

### MICROSmart FC6A

Equipped with USB, Ethernet, SD memory card, and CAN J1939 interface in its compact size, FC6A programmable logic controller is best suited to the new era of IoT. Monitor and control the production sites most effectively and simply.

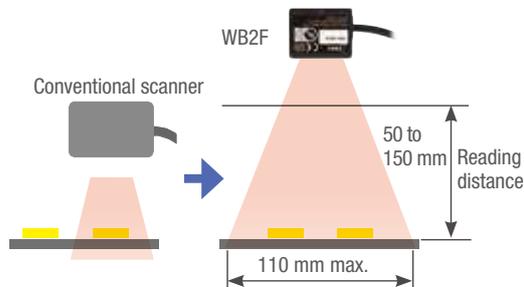


## Flexible setup, mounting, and operation

### 2D Code Scanner

### WB2F

Smallest in its class. Reads micro symbols in a wide area from a distance of 150 mm.



## Photoelectric Switches/Code Reader

### Photoelectric Switches

#### SA1E



Simple, compact design for world-wide usage with six sensing methods.

#### SA1E-L



Class 1 laser with fastest response in its class. Reliably detects fast-moving objects.

#### SA1E-X



Coaxial optical structure and narrow beam ensure stable detection; unaffected by constriction, inclination or shaking of a bottle.

#### SA1U



Universal voltage types operate on 24-240V AC and 12-240V DC. DC power types operate on 12-24V DC. Four sensing methods (through-beam, polarized retroreflective, diffuse-reflective, and background suppression).

### Code Scanner

#### WB1F



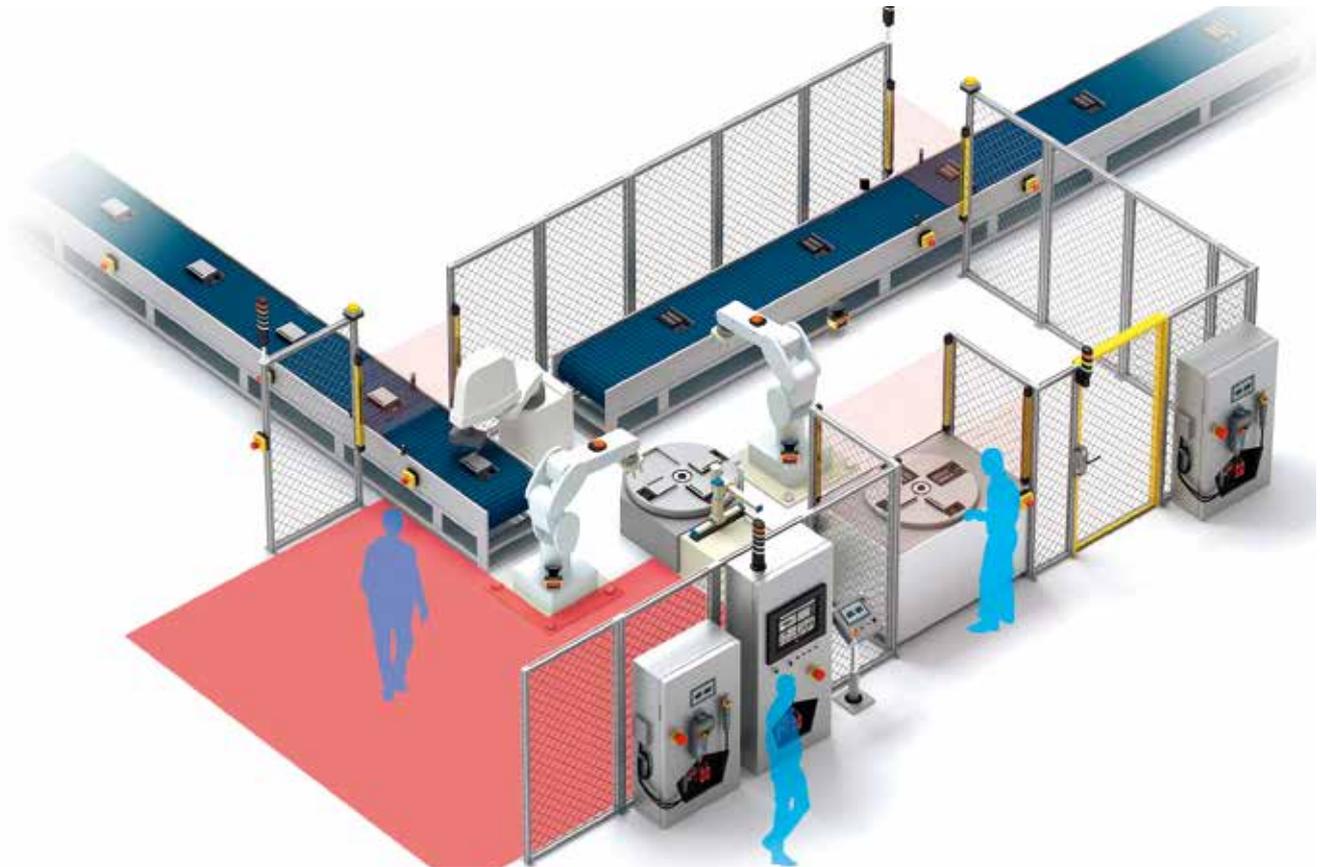
1D CCD scanner with convenient modes, such as test mode. Compact and can be installed on small equipment.

#### WB2F



Small, flexible and reliable 2D code scanner. Up to 150 mm long reading distance. High-resolution sensor to read small symbols in a wide area.

# Safety Solutions



## Emergency Stop Switches/Interlock Switches

### Emergency Stop Switches

ø16 X6



Third-generation emergency stop switch with Reverse Energy Structure. Smallest in its class; only 19.5 mm depth behind the panel.

ø16 XA



Safety lock mechanism and direct opening action. Removable contact block and unibody models. Suitable for installing in space-limited applications.

ø22 XW



Innovative Safe Break Action installed. A wide variety of models to choose from, including mechanical indicator and SEMI Emergency Off (EMO).

ø30 XN



Padlockable, flush bezel, 60 mm jumbo mushroom, illuminated, and LED push-on are available.

FB



IP65 lightweight, yellow plastic enclosures for installing emergency stop switch.

### Interlock Switches

HS5L



Interlock switch with solenoid. 2-contact: ideal for use on applications such as food machines and injection molding machines. 4-contact: ideal for use on limited mounting spaces such as small doors.

HS5D



Head removable detection function provides higher level of safety.

HS1L



3000N locking strength. Suitable for large and heavy doors that require high locking strength.

HS6E/6B



HS6E: Small and thinnest solenoid interlock switch with five poles and solenoid. HS6B: World-class compactness with three poles of contacts.

### Non-contact Interlock Switches

HS7A

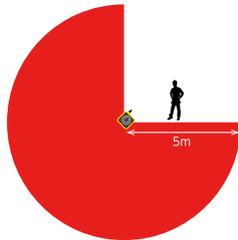


Compact size and easy positioning.

## Distance 5m, wide sensing angle 270°

### Safety Laser Scanner SE2L

By allowing only objects, not humans, enter dangerous areas, SE2L safety laser scanners ensure the safety of operators who are left in hazardous areas or those approaching the moving machines.



Distance 5 m  
Sensing angle 270°  
A maximum of 32 area patterns



## 3-position enabling switches compliant with international standard

### Enabling Switches HE

When faced with unexpected dangerous situation, an operator either releases or squeezes the device held in hand. By holding a device equipped with 3-position enabling switches, robot/machine operation is disabled, thus ensuring safety of operators.



## Safety Products

### Non-contact Interlock Switches

#### HS3A



RFID non-contact interlock switch, Category 4 and PLe compliant.

### Actuators

#### Door Handle



Locks rattling doors smoothly and securely.

#### Slide Handle



Shock-resistant metal slide handle actuators ensure safety of operators.

### Grip Style Enabling Switches

#### HE2G



Small, lightweight grip style enabling switches with 3-position enabling switch embedded.

### Safety Light Curtains

#### SE4D



Robust safety light curtains with advanced and easy-to-use functionality.

### Safety Controllers

#### FS1A



No programming required—just turn on a logic switch to complete configuration of a safety circuit. Pre-programmed logics are compliant with international standards.

### Safety Relay Modules

#### HR



Compact design and easy maintenance for easy-to-use operation.

### Force-guided Relays

#### RF2



2-pole force guided relay to reduce cost and installation space. Two terminal styles: socket mounting and PC board mounting.

#### RF1



Compact and EN compliant force guided relays. Contact configuration can be selected: Built-in LED indicator model and counter-electromotive force diode model are available.

### SignalLight Towers

#### LD6A



Design meets functionality. Stylish oval shape with striped design for clear visibility.

# Explosion-proof Solutions



## Explosion-proof Products

### Relay Barriers

#### EB3C



Input contacts can be used in any explosive gas and Zone 0 areas.

#### EB3L



126 types of pilot lights and buzzers can be connected for use in any explosive gas and Zone 0 areas. Illuminated pushbuttons and illuminated selector switches can be connected by combining with the EB3C.

#### EB3N



Explosion protection: [Exia] II C. Ideal for establishing a safety system in an explosive atmosphere. ISO 13849-1 (PL, Cat4) approved.

### Frameproof LED

#### EF1A



Can be used in hazardous area of Zone 1 and 2, where hydrogen or acetylene gas is present.

## Flameproof LED Illumination Units

Hazardous location lighting for use in areas where explosive gases and combustible dusts exist.

Ex d IIB T4 Gb / Ex tb IIIC T130° Db

Can be used in hazardous areas of Zone 1 and 2. Heavy-duty aluminium housing with reinforced glass. Narrow-angle and wide-angle beam models available, with clear or translucent lenses.



EF1A



## Ideal for use in Europe and South-east Asia

Frameproof & Increased Safety Control Boxes

EC2B

ATEX directive compliant control boxes. Corrosion-resistant stainless steel enclosure. Applicable in areas where explosive gases exist including hydrogen and acetylene.



### Explosion-proof Products

#### Control Boxes

EC2A



Applicable for any explosive gas in Zone 1 and 2 areas. Stainless steel plate enclosure with high corrosion resistance.

EC1A



Frameproof control box extremely lightweight in aluminum alloy enclosure.

EC2B



ATEX directive compliant control boxes ideal for use in Europe and south-east Asia. Corrosion resistant stainless steel enclosure.

#### Control Units

EU2B



Pilot lights, pushbuttons, selector switches, and emergency switches for flameproof and increased safety control boxes.

#### Grip Style Enabling Switches

HE2G-X



Inherently safe grip style enabling switches that can be used in explosive atmosphere, such as paint plant. (Availability depends on the area. Contact IDEC for details.)

# Vertical Solutions



## Automotive

In the production lines of automotive and automotive parts industry, productivity and safety must be achieved while meeting the user's various needs. IDEC has the products and solutions that best match each requirement.

- Minimize maintenance time and labor
- Improve accuracy of visual check with LED illumination
- Improve the performance of door interlock switches
- Achieve traceability
- Provide reliable explosion protection to hydrogen stations
- Improve visibility and reduce maintenance time and labor



## Machine Tools

Miniaturization of machines, compliance to safety standards, and improved maintainability are required in machine tool industry. IDEC helps you solve your issues with our wide range of products and solutions.

- Reduce the size of machine tools
- Excellent design
- Reduce cost and labor needed for replacing relays
- Optimize LED lighting to illuminate work objects
- Prevent momentary stops of machine
- Check the surface of work objects with even LED illumination



## Electronics and Semiconductor

Semiconductor industry requires smaller footprint and higher throughput. IDEC products help reduce labor, wiring, installation space, and maintenance cost/labor with our expertise and experience.

- Add flexible design to semiconductor manufacturing machines
- Upgrade traceability performance while reducing cost
- Replace switches quickly in order to minimize downtime
- Reduce downtime for lighting replacement by 80%
- Reduce the size of semiconductor manufacturing equipment with the thinnest door interlock switch in its class





## Food and Packaging

As safety and quality of foods have attracted more attention, there is a change in the trend/needs for food processing machines. Our products developed with cutting-edge technology solve your issues in food processing lines.

- Eliminate external controllers
- Create the new standard of compact operator interface
- Reduce the labor required to install products in cold environments
- Replace multiple control products with an HMI-integrated controller
- Improve safety and operability of control boxes



## Material Handling

Material handling is all about automatizing process lines and making them more efficient. Now the new values are required—they must move seamlessly without unwanted stops, and operators must be able to oversee the entire operation accurately in real-time. Backed by our latest technology, IDEC has the solutions to satisfy your needs.

- Eliminate the risk of possible injury in the ceilings
- Ensure safety of low-floor automated guided vehicles
- Make up for the flaws of pelletizing robots
- Reduce the risk of possible injury during maintenance work
- Maintain production efficiency and eliminate the risk of accidents



## Elevators

Elevators, the vehicle often employed for public use, need to keep up with social trends and thus comply with standards/law, accordingly requiring new technologies. IDEC has products and solutions to help you comply with new elevator standards.

- Enhance elevator safety to avoid the potential business risk
- Prevent operational error and physical accidents at the time of inspection
- Employ remote monitoring to eliminate unnecessary maintenance work
- Provide simple solutions to prevent collision between the car and human
- Eliminate accidents caused by hoist malfunction





## Transport and Logistics

The more logistics is globalized, the more efficient and safer system is required. Our cutting-edge technology gives you solutions that provide both safety and productivity.

- Improve productivity with automated logistics system
- Establish collaborative safety where human and robots work adjacently
- Improve operability with ergonomics-based design



## Special Vehicles

Vehicles for special purposes need specialized operability and safety to satisfy each needs. With APEM products joining our family of products, IDEC provides you with more variety of HMI products to suit specific applications.

- Improve operability with ergonomics-based design
- Design user-friendly interfaces that allow anyone to operate safely
- Meet strict environmental and durability requirements



## Robotics

Production lines are increasingly employing collaborative robots to establish working environment where human and machines work in a collaborative manner. With products compliant with safety standards and collaborative safety solution, IDEC makes the ideal collaborative environment come true.

- Ensure safety of collaborative robots
- Solve labor shortage with collaborative safety robot system
- Establish new collaborative robot interface



# New Businesses

Create new value. Help solve issues.

## Fine Bubbles

### Create new industries

As a world leader of fine bubble generation technology, we create new industries. Fine bubbles are finding their applications in a broad range of fields—not only cleaning, but also accelerating the growth of plants in agriculture and marine products in fishery—just to name a few.

### Leading creation of international standards

GaLF series is a manifestation of IDEC's unique pressurized dissolution method to generate fine bubbles, applicable to a wide range of applications from compact, desk-top model for laboratory experiment to high-flow industrial usage. We are a founding member of FBIA (Fine Bubble Industries Association), which promotes international standardization and industrialization of fine bubble to create fine bubble market. In spring 2017, the first ISO standard of fine bubble technology was issued. Potential effect and wide application are expected with fine bubble.



- Quality Cleaning
- Plant Cultivation
- Keeping Food Fresh

## Agriculture

### Automate agriculture

With experience and technologies in control, fine bubble, and manufacturing, we are a reliable provider of total solutions to the agriculture of next generation. IDEC encourages more entities to enter the new market by proving that agriculture can be profitable.

### Next-generation agricultural plant

We offer a comprehensive support service of the next-generation, solar-combined agriculture plant from designing, construction, cultivation advice, to marketing. By automatically controlling plant growth factors such as the temperature in greenhouses, amount of light, CO<sub>2</sub> concentration, and watering amount, we contribute to save energy and increase production. Our goal is to achieve profitable agriculture, by maintaining stabilized yield amount and increasing sales with fine bubble technology.



- High Profitability
- Stable Production
- Energy Saving

## Eco Solutions

### Leverage natural energy

IDEC designs the best lighting plan for your plant, warehouse, commercial facility, and special environment. Our comprehensive, one-stop service in solar power generation system excels in generation efficiency and convenience in installation. Count on us to utilize the next-generation energy.

### Energy Management



HEMS

### LED Lighting



### Engineering



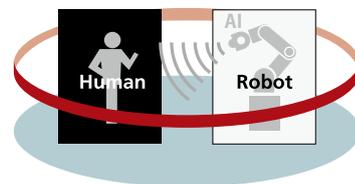
- Energy Utilization
- Optimized Lighting
- O&M

## Collaborative Safety Robot Systems

### Lead human-robot collaborative safety

With knowledge and experience built up over the years, IDEC also as a reliable system integrator assists you create a collaborative safety environment. We make sure that neither productivity nor safety is uncompromised.

### Collaborative Safety Robot Systems



- Robot Control Technology
- Peripherals Technology
- Safety Technology

# Your Partner & Expert In HMI Products

Providing safety and security to Human Machine Interface



In March 2017, IDEC celebrated our 70th anniversary since foundation. And to coincide with the event, we welcomed APEM Group, a French manufacturer of HMI products, to IDEC Group. APEM has a history of 65 years in industrial switches, joysticks, keyboards and other HMI products for markets such as construction, agriculture, specialty vehicles, aerospace, and defense. By leveraging respective product offerings and geographical presence, the IDEC Group will further increase its dynamic strengths, diversity, flexibility, efficiency and all essential aspects required to better serve our customers around the world.



A WORLD OF SWITCHING CAPABILITIES

# APEM Products

## PANEL SWITCHES

### TOGGLE SWITCHES

Robust construction for use in harsh environment. Pinned lever as standard, preventing internal damage to the contact arm and mechanism.



### ROCKER SWITCHES

Proven reliability. Modern appearance and intuitive ergonomics for easy one-hand operation.



### PUSHBUTTONS

Excellent visibility. Large choice of options in color, shape, marking and illumination.



High reliability and performance. Military grade CECC 96401-0001 approval.



Robust construction to withstand aggressive use made with metal material.



## PCB SWITCHES

### TACTILE SWITCHES

High performance model. 10 million trouble-free actuators.



## JOYSTICKS

Precision fingertip control. Ergonomically designed for repetitive operation over extended periods.



Multi-function hand grip control. Ergonomics and versatile design for safety critical applications.



## LED INDICATORS

Unlimited design possibilities. Super bright LEDs for good visibility even in bright daylight.



## CUSTOM

Custom products co-developed with customers. Switches, membrane keypads, and CAN bus connectivity.



UNLIMITED HMI COMBINATIONS

COMPLETE INTERFACE SOLUTIONS

ELECTRONIC & SOFTWARE DESIGN

### Interface Solutions

Combines switches, pilot lights, joysticks, switch panels and other components with standard electronic boards and programming.



# IDEC CORPORATION

 [www.idec.com](http://www.idec.com)

## Head Office

6-64, Nishi-Miyahara-2-Chome, Yodogawa-ku, Osaka 532-0004, Japan

<b>USA</b>	IDEC Corporation	Tel: +1-408-747-0550	opencontact@idec.com	<b>Hong Kong</b>	IDEC Izumi (H.K.) Co., Ltd.	Tel: +852-2803-8989	info@hk.idec.com
<b>Germany</b>	IDEC Elektrotechnik GmbH	Tel: +49-40-25 30 54 - 0	service@eu.idec.com	<b>China/Shanghai</b>	IDEC (Shanghai) Corporation	Tel: +86-21-6135-1515	idec@cn.idec.com
<b>Singapore</b>	IDEC Izumi Asia Pte. Ltd.	Tel: +65-6746-1155	info@sg.idec.com	<b>China/Shenzhen</b>	IDEC (Shenzhen) Corporation	Tel: +86-755-8356-2977	idec@cn.idec.com
<b>Thailand</b>	IDEC Asia (Thailand) Co., Ltd	Tel: +66-2-392-9765	sales@th.idec.com	<b>China/Beijing</b>	IDEC (Beijing) Corporation	Tel: +86-10-6581-6131	idec@cn.idec.com
<b>Australia</b>	IDEC Australia Pty. Ltd.	Tel: +61-3-8523-5900	sales@au.idec.com	<b>Japan</b>	IDEC Corporation	Tel: +81-6-6398-2527	marketing@idec.co.jp
<b>Taiwan</b>	IDEC Taiwan Corporation	Tel: +886-2-2698-3929	service@tw.idec.com				

Specifications and other descriptions in this brochure are subject to change without notice.  
2017 IDEC Corporation, All Rights Reserved.

EP1643-0-E OCTOBER 2017

