

# HMI (Human-Machine Interface)

Priority business measures

## Creating the optimum environment for humans and machines as a leading company of HMI

Since 1958 when we began sales of industrial switches, we have supplied diverse HMI products supporting human-machine interactions. Our products and the years of design and quality enhancements we have made to them have enabled us to build up a strong market share. >>P.6 When France's APEM joined our Group in 2017, our lineup expanded with not only more industrial switches, but also new offerings such as joysticks, LED indicators, and keyboards. In a world where an enormous array of products are needed to serve different regions, applications, and settings, we are enjoying the strong synergy generated by the combination of IDEC's and APEM's diverse product features and sales channels.

Whereas IDEC focuses mainly on supplying standard products to factory automation (FA)-centric markets, APEM's

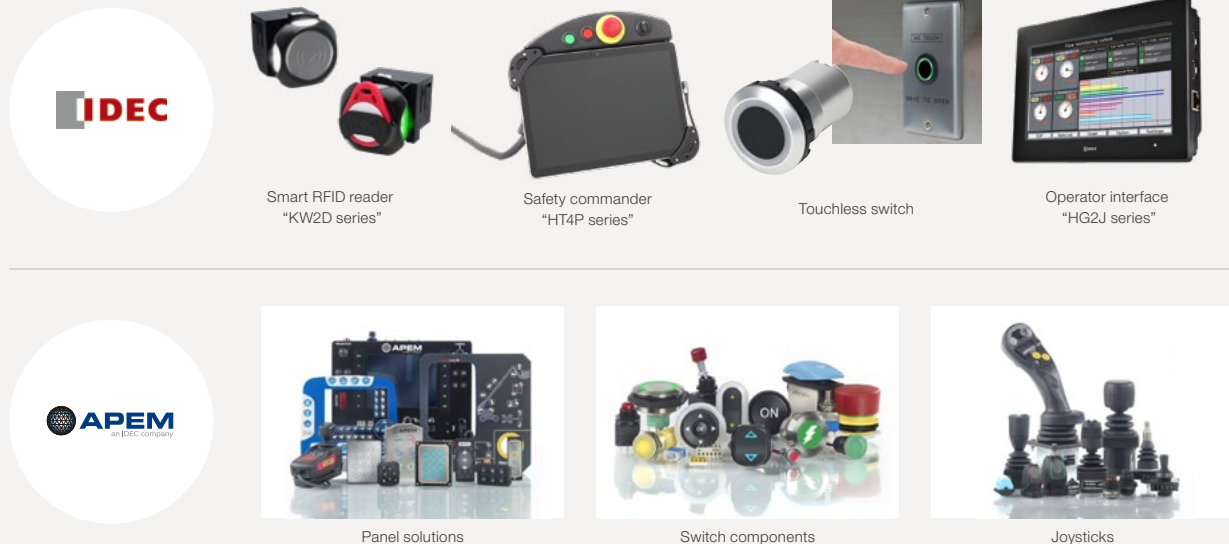
offerings lean toward special vehicles, such as construction and agricultural machinery, and various products serving the material handling and new mobility industries. Roughly 75% of APEM's sales are from customized products, which are found at work in many different industries since they are tailored to each customer's needs. This focus on customizing products for a wide range of applications is underpinned by APEM's superb design and development capabilities, generating high-quality products that robustly perform under challenging environmental conditions. We are working to produce even greater synergies between IDEC and APEM by optimizing manufacturing, sales, and logistics centers to lower costs and streamline operations, exchanging talent, and localizing sales strategies.



## Developing next-generation HMI products to realize HMI-X

Seeking to become the world's No.1 leader in HMI, the IDEC Group develops products that respond to new needs emerging in the global market. Today, environments where people and machines work together are changing. Under HMI-X [Transformation], a new concept we put forward in 2022, we are aiming to optimize those environments by bringing greater interactivity to machine control. To do this, we have been launching new products—such as smart RFID readers for managing machine access and operation logs, safety commanders that can be attached to tablets used at manufacturing sites to ensure worker safety, and touchless switches that address needs for contactless solutions—and have been expanding the lineup of APEM products to better serve diverse customer needs.

In order for us to continue growing in a landscape where megatrends and market changes are transforming customer needs in many ways, we must develop next-generation HMI products that offer new features. Going forward, we will continue creating new HMI products to further grow our business and help realize safety, ANSHIN, and well-being.



# HMI (Human-Machine Interface)



## Adding safety functions to manufacturing site tablets

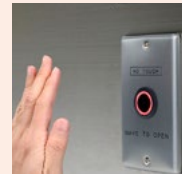
High-performance but cheap off-the-shelf tablet devices are now often used as control terminals for robots at manufacturing sites. Tablets used near hazardous spots need to be equipped with safety devices such as an emergency-stop switch, and they are also required from the standpoint of safety standards.

To serve this need, we globally market safety commander products that can be simply attached to diverse tablets to provide safety functions. In October 2022, we released the "HT4P series", which incorporates new features such as wired LAN connectivity.

Safety commander "HT4P series"



Touchless switch



## Touchless switches to reduce risk in environments where switches are operated by many people

In 2022, we marketed a touchless switch that can be used indoors and outdoors, as one response to the need for contactless operation of switches operated by many people. This product helps to prevent the spread of infectious diseases and provides a touchless solution for hygiene management in food processing, prevention of worker fatigue due to frequent switch operation, and many other purposes.

## Team Member's Message

A fusion of advanced sensor technology with a stylish design

**Tatsumi Nakamura**

Junior Associate  
HMI & Panel Product Development Department  
IDEC CORPORATION

Our touchless switch uses precision sensor technology that can sense a person's palm even when wearing gloves. As developers, we were also keen about the product's look. Since it is intended for use in not only industrial settings, but also public facilities and other places where it will be seen by many people, we opted for a simple but stylish design that would blend in with the surroundings.

We were particular about the details. For example, we explored different lens structures to keep the light ring clearly visible despite its thin profile.

## Mid-size joysticks that serve diverse customer needs and offer high environmental tolerance

The "XP series" is a new lineup of mid-size joysticks developed in the UK that are compact and robust. They feature high environmental tolerance, with dust and water resistance backed by an IP67 rating, and are suitable for both indoor and outdoor applications. They are combined with various other APEM products to offer multifunctional solutions and customizable options. Two types of handles are available, making it possible to design products tailored to each customer's needs. The selection of functions and handles will be expanded in 2023.



Joystick "XP series"

## Customized remote controls based on decades of know-how

Remote controls enable safer and faster operation of robots and heavy machinery such as cranes and hoists. APEM has built up strong know-how in this area through decades of developing customized remote controls to support diverse industries, including material handling, agriculture, and construction. The company's approach to design is founded on the following considerations:

- 1 How can the necessary functions be provided in an optimal form?
- 2 How can the most ergonomic solution be designed?
- 3 What is the most optimal and safest method of connecting the product with the application it supports?
- 4 How can the product be designed to withstand the impact of falls, and to prevent unintended operations?



Remote control

## Leader's Message

APEM panel solution projects that aim for greater customer satisfaction

**Hanh Lin**

Project Leader for Panel Solutions  
APEM SAS (France)

My duties can be largely divided into three scopes. First, in the project planning stage I respond to the customer's request for a quotation, clarify the customer's needs, and determine the project cost. Once the project begins, I handle its management, including coordinating with the relevant personnel at APEM and tracking the project's progress toward the completion of product development. Lastly, I handle marketing duties such as managing the price and margin, providing training, taking part in the unit's promotional events, and appearing in promotional videos. As I do so, I work to increase customer satisfaction and expand the panel solutions business.