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- Aggressive environments polluted by dust, grease or ink particles suspended in the air, e.g. printing machines.
- Sterile environments cleaned using ultrasonic techniques, e.g. medical equipment.
- Hygienic environments cleaned using pressure washing, e.g. food packaging equipment.
- Explosive atmospheres which must be free of contacts and electrostatic discharge.
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Both options are available with PS2 or USB interface and compatible with PCs using Windows operating systems from Win 98SE.
Rely on EAO for 16mm switches

We offer a wide choice of non-illuminated and illuminated pushbuttons, indicators, keylocks, selector switches, interlocking switches and Emergency-stops. Our LED and lamp-illuminated pushbuttons are available with circular, square and rectangular head shapes, mounted either raised or flush to the panel.

EAO can supply 16mm switches sealed up to IP65 and approved to a range of standards including UL/UR, CE and EN66. We also offer an extensive range of customer options.

Our switches are ideal for retrofitting existing control panels or for new designs in the machinery, process-control equipment and instrumentation industries.

EAO products are available through a global network of sales agents and distributors that cover more than 50 countries, making us one of the world’s largest manufacturers and suppliers in the 16mm market. So even if your regular 16mm supplier can no longer supply, you can be sure that EAO will keep on delivering high-quality products for industry to rely on.

As people become more integrated with their machines by sight, sound and touch, the need for user-friendly control panels becomes crucial.

When Human Machine Interface systems become increasingly more complex, the need for well-designed controls becomes more important too. Put another way, it’s important that creators of HMI architecture don’t forget the ‘human’ element from the equation.

Virtual environments where users scroll through commands on screen can be complicated and time-consuming to navigate, particularly for repetitive actions. They are unresponsive too, providing no reassuring tactile feedback for the operators to indicate their status; touch-screen visibility can be a problem in poor light conditions.

At EAO, we believe that the cornerstone of good HMI design is still at the point of contact between the user and machine. If a function is controlled by an illuminated pushbutton, for example, the operator can quickly establish the status of a control by looking for a particular coloured light.

So EAO’s message is simple: when purchasing a new HMI system, please remember the human who has to use it.

Damian Semple, InTouch editor
EAO’s Markus Matter, right, and Sony representatives

• Available with touchpad and trackball
• 4 million per key operational life
• Sealed to IP67
• Laser engraved keys
• All metal grid and anti-pull-off keys
• Stainless steel and Zamac

Product Focus
W series keyboard
- Stainless steel and Zama construction
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Independent Kiosk-industry consultant, Francie Mendelsohn, praises the W series keyboard.

Francie Mendelsohn, President of Summit Research Associates – the only international consulting firm devoted to kiosks – endorses the EAO W series keyboard.

EAO: How did you hear about EAO?
Francie: During different conferences and seminars I speak at throughout Europe. I have seen the products several times and I always have been very impressed.

EAO: You’ve declared EAO’s W series keyboard to be the best you’ve seen so far. What features did you find particularly attractive?
Francie: The layout is excellent and the trackball is highly ergonomic; you manipulate it without looking at your hands. The brushed stainless steel material is very attractive. The tactile feedback is very light. The concave shape of the keys is comfortable and allows the user to rest his finger tip on it.

EAO: You are testing thousands of kiosks and web payphones each year around the world, so what makes EAO keyboards different to the competitors?
Francie: Rugged, ergonomic and particularly attractive?

Sony make EAO Green Partner

Sony Corporation has awarded EAO AG with their coveted ‘Certificate of Green Partner’, a new requirement for all suppliers who want to do business with Sony.

EAO received the award last year from Sony’s Procurement Manager, Mr Kazuo Ogawa.

To qualify as a Green Partner, EAO had to target the reduction and possible elimination of environmentally hazardous substances used in the production of their products. These include cadmium, mercury, lead and hexavalent chromium compounds amongst others.

The qualification was first introduced in 2001, and then became a mandatory requirement in April 2003. It must be renewed every two years.

Sony make EAO Green Partner

EAO has launched a new compact, illuminated Emergency-stop as part of its Series 84 range. Built to EAO’s renowned high standards, this new switch has been designed by experts for optimal functionality and usability throughout assembly, mounting and operation. With a low behind-panel depth, ‘trockproof’ mono-block design and bright LED illumination, the Series 84 represents the finest in Emergency-stops.

This switch requires no additional assembly because of its single-piece design. It can be mounted to a flat plate with a thickness of between 1 and 5mm and safely and easily adapted to PCBs of different heights. It is available with a choice of terminations – flying lead or plug-in terminals.

EAO: What do Summit Research Associates do?
Francie: We provide an honest and independent appraisal of kiosk projects. Using our customer service background, we can put ourselves into the user’s shoes. The hardest part of consulting on kiosks is having to tell clients that their baby is ugly.

EAO: What did they do?
Francie: They made the projects look as good as possible; they designed the layout, kiosk design, development of software, and hardware design.

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Customer Project Engineering

Every customer is unique

By using EAO, development times can be trimmed with rapid prototyping using modern technologies including stereolithography and urethane casting. We also plan the production sequence while developing the solution to help bring your products to market faster.

When it comes to Human Machine Interfaces, you’ll go further and faster with EAO.

EAO – A range of products for industry to rely on

- Stainless steel Series 04 and 14
- LED illumination
- Keyboards and keypads:
  - • Modular design with variety of functions
  - • Panel mount, unsealed IP40 switches
  - • Flush mount and raised mounting

Do you need a switch that’s immediately recognisable as a control, even by the partially-sighted, and designed to encourage use? EAO, the experts in Human Machine Interfaces, presents the Series 56 - a pushbutton that tells the whole story in one switch.

With its bright front bezel which can be complemented with braille text, LED ‘halo’ illumination and a large touch-surface which can be supplied with a range of raised symbols, the Series 56 is ideal for catching the eye and focusing attention on a particular control.

These raised symbols are an excellent way of defining the switch function; EAO offers a wide choice as standard, including: Door Open/Closed, Up/Down, Lock/Unlock.

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The tough thermoplastic housing, metal lens and IP67 protection from the front makes the Series 56 one of our most rugged products. It is vandal-resistant and can be used inside or outside for numerous applications including door controls, toilet controls (Door Open, Lock, Flush), emergency HELP points and wheelchair-ramp controls.

The low actuation force makes this switch suitable for use by disabled users. The bright coloured, contrasting bezel with braille text and ‘halo’ illumination helps identify the touch area for partially-sighted users.

Tell the whole story in one switch

Series 56

For further information on EAO and its ISO Company Series 56, visit www.eao.com

A message from Guido Bachman

“We are the manager of the Customer Projects Centre. I lead a highly motivated team who share a spirit to develop products that go beyond the customer’s expectations. The combination of technical and commercial skills, planning and organizing resources and applying new technologies provides unique challenges.”

Guido Bachman, Customer Projects Centre

Customer Project Engineering

Connex customer project

To build non-standard products, you have to be a non-standard company. You must be able to develop commercially viable solutions to meet your customer’s unique needs and deliver them whenever they require them; however they require them – on time. In short, you need to be a specialist.

EAO is a specialist in customer project engineering, which is why we were chosen by UK train operators, Connex, for a major train refurbishment project. It would involve high volumes of production and strict terms and conditions for delivery and, of course, time was of the essence.

‘Customers demand out-of-the-box delivery’ Connex were using Class 465 electric trains manufactured between 1990 and 1995. They were experiencing problems with the door controls, which were failing due to broken filament bulbs and switching elements. The bulbs were having to be replaced regularly which meant the train would have to be taken out of service, sometimes resulting in large fines from the track operators.

EAO recommended their market-leading Series 56 door-opening pushbuttons that use LEDs instead of filament bulbs.

Connex were impressed by the attractive design but needed more than just a standard product; they wanted a complete ‘plug and play’ panel of ‘open’ and ‘close’ pushbuttons and an ‘out of service’ indicator, delivered with the right connections and ready to install straight from the box.

EAO demonstrated high levels of customer care from the initial consultation to final delivery, working patiently with Connex to develop a panel to fit their demanding requirements. This included providing extensive technical support, the development and iterations of the drawings, samples of working prototypes, and samples for trial installations. Regular meetings were held with Connex, often on-site, to prove that the panel could be installed without problems.

‘To do specials, you have to be special!’ Products used in the rail industry must be rigorously tested for safety and reliability to comply with numerous rail directives, including the Rail Vehicle Accessibility Regulations. EAO not only met these demands but helped advise on them. Using the factory in Switzerland, famous for its attention to detail, EAO hand-tested every panel to ensure quality control, checking both technical characteristics and aesthetic ones too - even the density and smoothness of the engraved ‘door open’ inscription had to be perfect before EAO would pass it.

Connex’s delivery requirements were equally demanding: 9600 panels needed to be delivered over 25 weeks, with weekly quantities varying according to their refurbishment schedules.

This project was a complete success because EAO is a company built on customer-orientated processes rather than a supplier of standard products that also ‘does specials’. EAO believes that to do specials, you have to be special.

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EAO is an ISO Company

EAO’s manufacturing headquarters in Olten, Switzerland, is certified to ISO 9001:2000 and ISO 14001:1996. The IS9000 and ISO 14000 families are among ISO’s most widely known standards ever. ISO 9000 has become an international reference for quality management requirements in business-to-business dealings, and ISO 14000 is well on the way to achieving as much, if not more, in enabling organisations to meet their environmental challenges.

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Transportation

Products are developed to meet standards for shock, vibration, fire and smoke emissions and to comply with the latest regulations on access for the disabled.

Machinery

Industrial switches including foolproof Emergency-stops and high-illumination pushbuttons will improve the operation security of any machine and bring a unique, tactile ‘click’ that is reassuring for the user.

Instrumentation

Specialised HMI components offering sophisticated function and design for every instrument application, whether it’s medical electronics, measuring instruments or test equipment.

Lifting and Moving

Controls that are responsive and tactile to answer the operator’s every touch, and adaptable to nearly any environments, whether it’s industrial, hydraulic lifting equipment or a personal stair-lift in the home.