



TRANSFORMING
YOUR PRODUCT IDEAS
INTO GREAT USER
EXPERIENCES

WE INVITE YOU TO REINVENT YOUR PRODUCT WITH PIEZO SWITCH AND CONTROL SOLUTIONS FROM EVERSWITCH

If you aspire to create exceptional products that balance **form & function** and provide meaningful experiences to the people who use them, this ebook is for you.



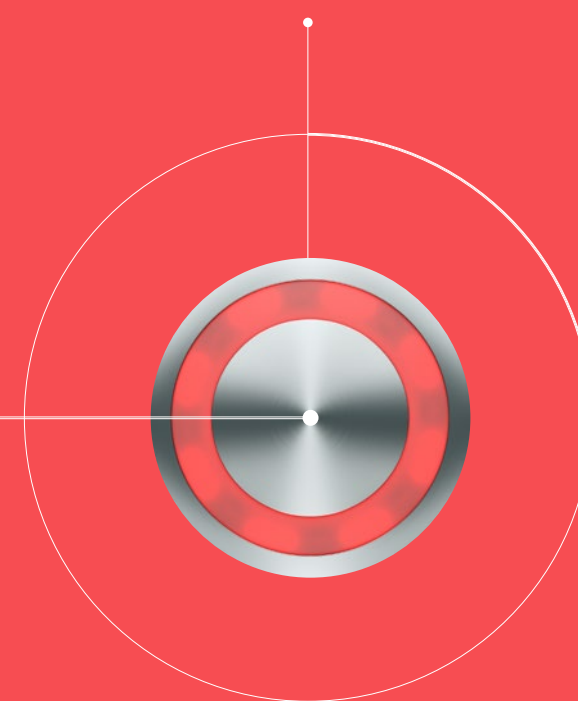
PRODUCT TEAMS HAVE A LOT ON THEIR SHOULDERS

- Your products need to stand out from the crowd. Stand the test of time. And be valued by customers.

You must deliver rapid ROI, market differentiation, and get to market fast. All while working with limited time and budget and technology agnostic partners.

We get it. That's why we're here to help make your goals a reality.

For product teams,
the stakes are high,
constraints are many,
and time is short



GREAT COMPONENTS
INSPIRE
EXTRAORDINARY
PRODUCTS



At Everswitch, we don't just create switches and control systems, we develop mini-masterpieces of form, function and aesthetics that inspire your imagination.



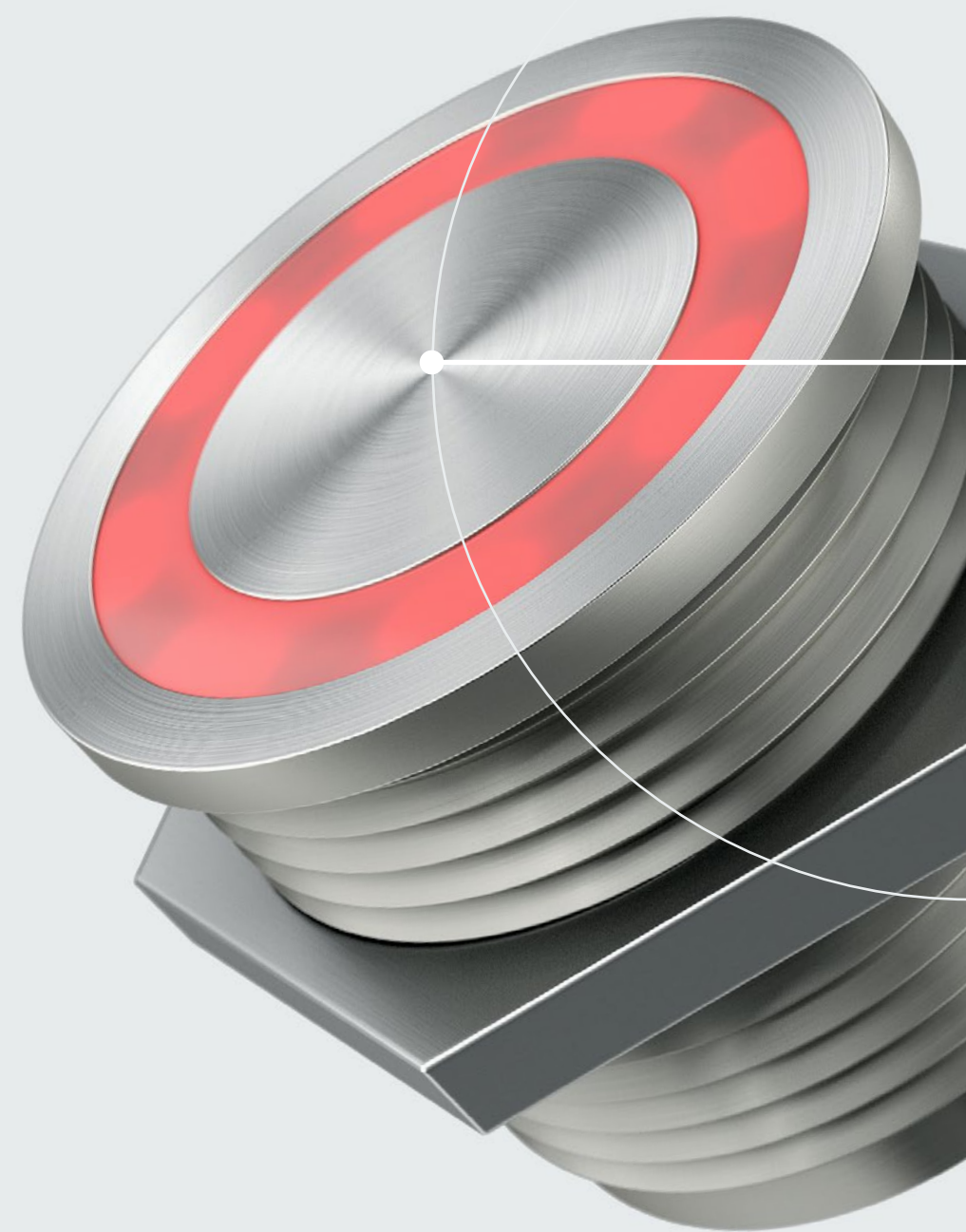
We invite you to learn how Human Machine Interface (HMI) systems can play a small but vital part in creating your next product masterpiece.

FORM & FUNCTION

"Form & Function".
It's an inseparable duo.

If you aspire to create products
that deliver great user
experience, you cannot trade one
for the other.

By always combining thoughtful
usability with appealing
aesthetics, Everswitch enables
you to bring extra value to your
next product.

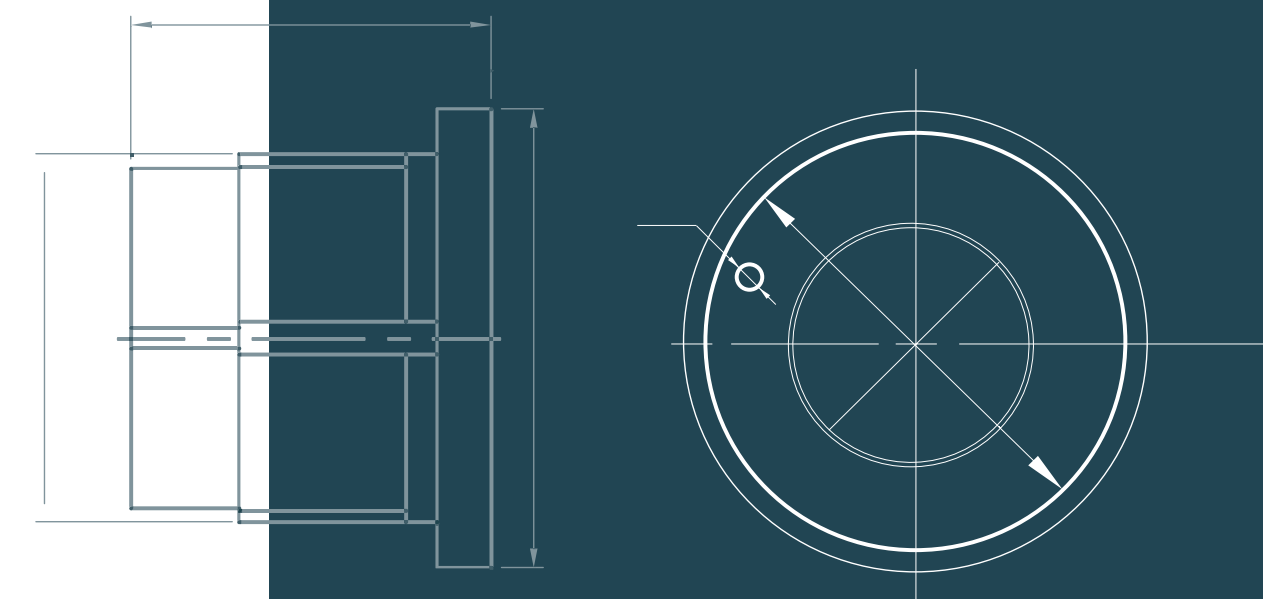


NOT ALL SWITCHES ARE CREATED EQUAL

Everswitch piezoelectric switches, panels and keypads are your secret sauce – adding relevant user experiences to your products.

Everswitch Touch Metal technology leverages the piezoelectric effect to create switches and keypads that reach a level of toughness, quality, reliability, intelligence and customization that conventional mechanical switches can only dream about.

Here's why.



• What is the “piezoelectric effect”?

Applying mechanical pressure to certain crystal materials will generate voltage. This is known as the “piezoelectric” effect. Where external power is unavailable, or batteries are not a viable option, this is extremely useful. But there's a lot more to Everswitch's piezo solutions besides power efficiency.

ENGINEERED FOR THE WORLD'S TOUGHEST ENVIRONMENTS

Everswitch piezo solutions are built to withstand extreme weather conditions, hazardous environments and vandal-prone locations.

Everswitch piezo solutions use patented technology for switching functions in solid housings, with no moving parts. This results in a hyper-ruggedized switch with high impact resistance, that makes it virtually indestructible.

Everswitch's patented modular approach eliminates the need for a solder connection to the delicate piezo ceramic. This creates a robust 125msec minimum switch closure (cf. market standards of just 20msec).

Everswitch metal technology uses single unit modules that eliminates the need to handle multiple components for every single push point manufactured.

Completely sealed & impervious to the environment

Operating from -40 to +125°C.

With no moving parts, eliminates switch failure due to motion, friction, dirt, moisture, vandalism or ice

Meets or exceeds CE, UL, IP69K, NEMA, MIL-STD, ATEX, ETL and FAA requirements

ENSURE YOUR PRODUCTS STAND THE TEST OF TIME

When you design your product using our switches or control panels, you are building in longevity, reliability and durability. Everswitch patented technology offers unsurpassed operational life, making it the ultimate solution for demanding, industrial environments and high traffic applications.

There are no moving parts, so nothing to break down.
You'd be forgiven for calling us the "forever"-switch company

- Successfully tested for **50,000,000 cycles** including vibration and impact tests
- Certified to the International Quality Standard ISO 9001:2008
- Industry-leading **five-year** warranty

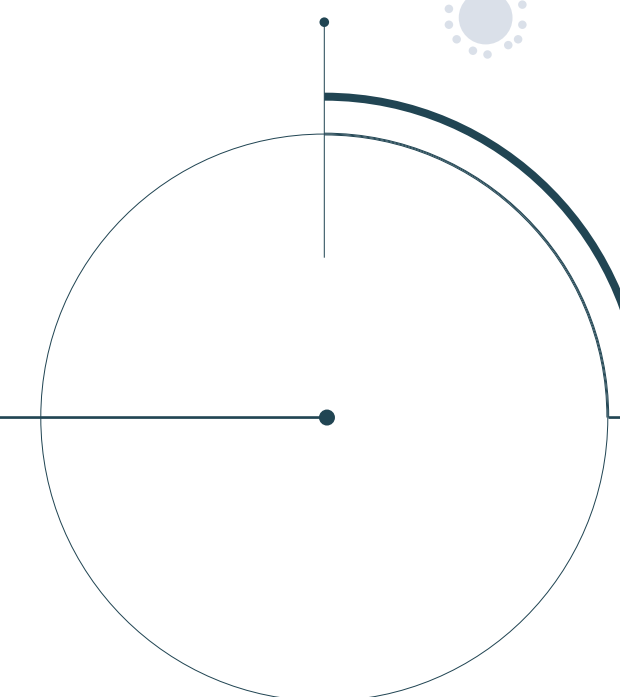
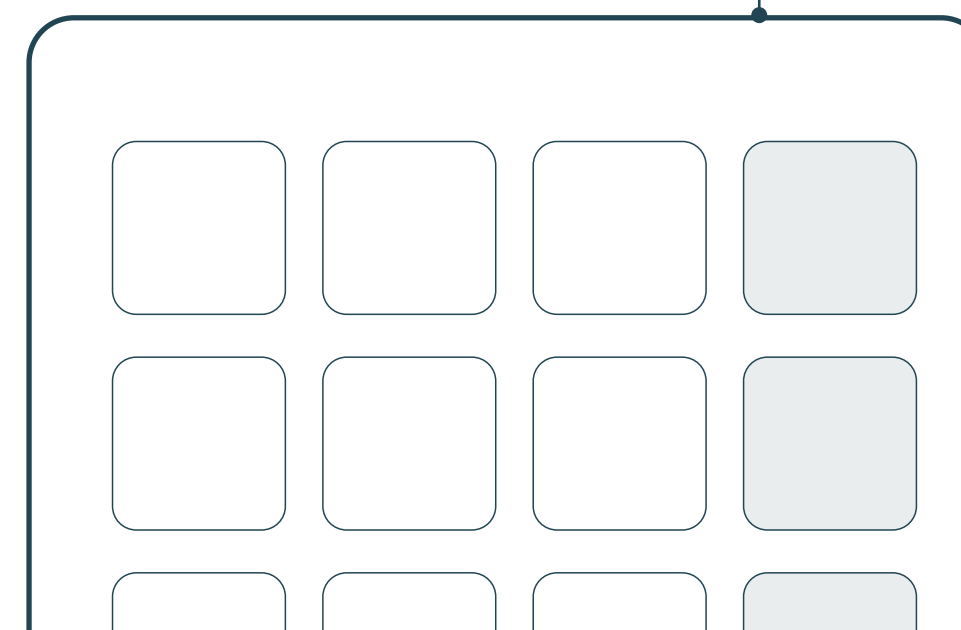
DESIGNED WITH PUBLIC HEALTH IN MIND

In today's environment, all frequently touched areas require frequent disinfection.

Our switches, keypads and control panels exceed IP-69K requirements for washdown.

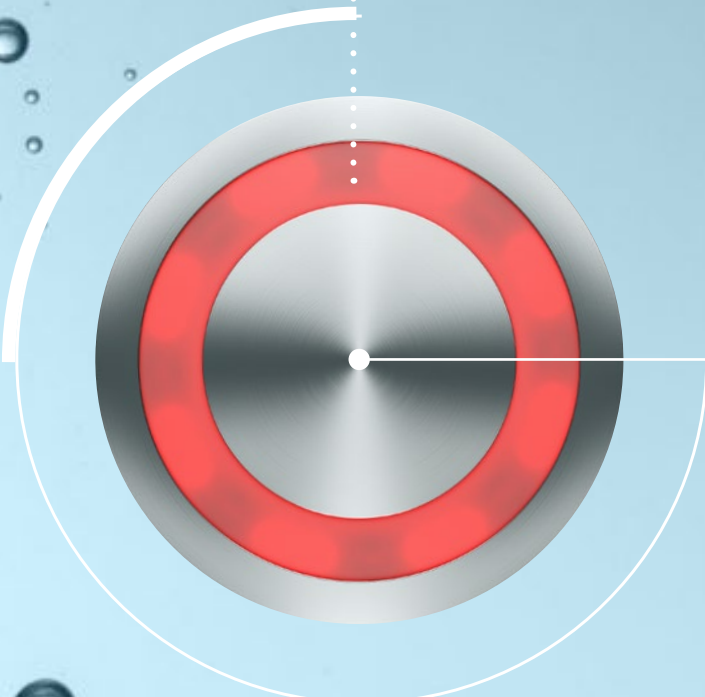
With no areas for germs, pathogens or dirt to collect, Everswitch products can withstand constant cleaning with the most aggressive detergents and are waterproof to the point of actually being submersible.

So viruses, beware



Our switches and controls are waterproof to the point of being submersible up to 300 meters. They are unaffected by gradual pressure changes and designed to prevent false activations and deformation.

Used at sea or deep underwater, your controls are guaranteed to function without fail.

A circular cross-section diagram of a switch. It shows a central silver-colored core surrounded by a red ring, which is further enclosed by a grey outer shell. A white line points from the red ring to the text box on the right.

Most conventional switches don't like water. Ours love it

WORKS PERFECTLY IN WATER, OR UNDER IT

- Operate submersible equipment, lights, or dive computers to 300m.
- Solid metal housings are completely sealed to prevent water ingress
- Piezoelectric technology exceeds IP-68 & 69K requirements for submersion
- Ideal for wet environment applications such as outdoor emergency switch, full pumps & more
- Used in oceanographic equipment, UAVs, oil platforms, wind turbines, etc.

SMART FUNCTIONALITY, GIVING USERS GREATER CONTROL

Featuring microchip technology, Everswitch “smart” solutions provide an array of different functions beyond a simple momentary switch closure. Prolonged, toggle, continuous, programmable and slide switch functions can be incorporated as well.

Everswitch “smart” solutions feature built-in software and proprietary algorithms that expand operability and user functionality, as well as self-diagnostic reporting capability and switching of line voltages.

Everswitch also offers the ability to integrate Bluetooth and WiFi, eliminating the need for cables, allowing remote operation, and even providing IoT connectivity.

- Switching functions: momentary, toggle, prolonged/continuous, timer, slide, dimmer, programmable and self diagnostic
- Integrate Bluetooth and WiFi
- Low power consumption, press sensitivity, tactile or haptic feedback
- Communication protocols: Matrix, CAN bus J1939, ASCII, common bus, etc.
- Conforms to keypad & keyboard communication protocols – Serial IF (I2C, UART, RS232, RS485, USB, SPI), Parallel IF
- Switching of line voltages up to 277 Volts and 30 Amperes

CREATE PRODUCTS YOUR CUSTOMERS WILL LOVE

Bring your creative vision to life,
with fully customizable piezo switches:

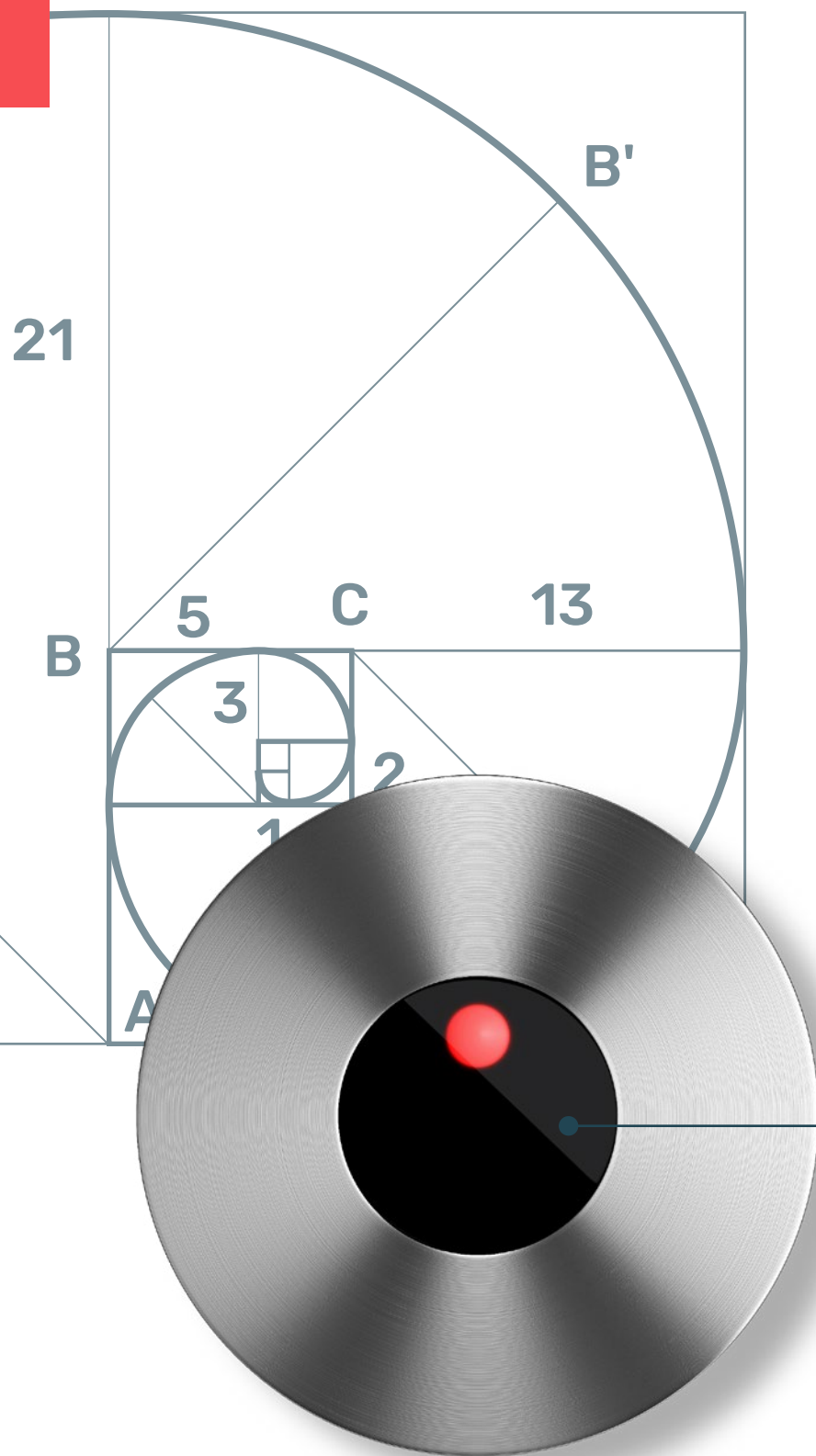
From the first impression, to the first interaction, to the first maintenance - great products create great experiences, again and again.

Creating memorable user experiences are never accidental. They happen when aesthetics, form and function work beautifully together.

We afford you many options for customizing and personalizing your switches and control systems - from the materials and color illumination to haptics.

So you'll love designing your product, as much as your customers will love using it.

- Customized laser engraving and anodized aluminum
- Ring or point illumination and LED color selection
- Housing materials: aluminum, stainless steel, glass, wood and polycarbonates
- Piezoelectric modules can be arranged in a myriad of configurations - from individual switches to multifunction switch panels and keypads



SUPPORTING YOUR PRODUCT DEVELOPMENT CYCLE, FROM **A** TO **Z**

Meet your commercial goals faster and with less friction. From design and engineering support until project completion. From material selection to component integration, our engineering team is at your side.

PIEZO SWITCHES DESIGNED BY ENGINEERS, FOR ENGINEERS

Relax, your language is spoken here.
So, in addition to quality piezo switches, you can
also expect on-going support from our in-house
team of experienced electronics engineers who
are always available to help you solve your product
engineering challenges.



MASTER THE JOURNEY FROM CONCEPT TO MANUFACTURING

Get your product development off to a flying start!

You'll receive support early in the design & development stages, and careful consideration of your product requirements up-front to reduce or eliminate delays and redesign costs down the line.

So your journey to the finish line is smooth and resource-smart.

Everswitch supports customers in all stages of planning in order to help you:

- Reduce costs
- Optimize process
- Minimize risks
- Smooth integration between product design and manufacturing
- Deliver products within budget and schedule

Concept & Design

Drawing

Tech Documentation & Specifications

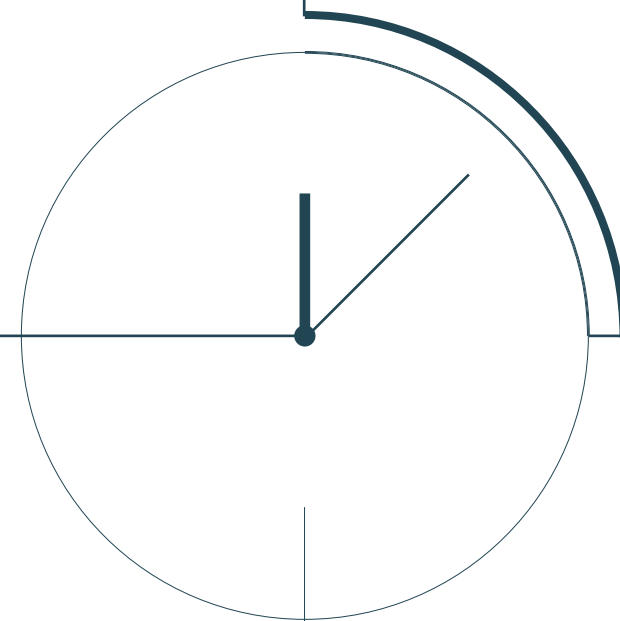
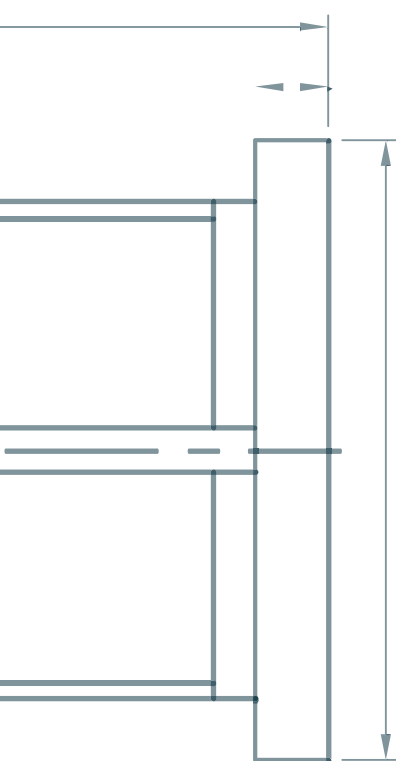
Prototyping & QA

Production

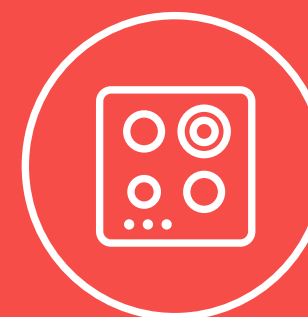
ONSITE MANUFACTURING, FOR BETTER RESULTS

Seeing the big picture helps deliver your specific concept, exactly as you want it.

Having R&D, concept development, machining capability, assembly and inspection all on one site, allows us to respond quickly to your needs, and helps **ensure your product gets to market faster.**



APPLICATIONS



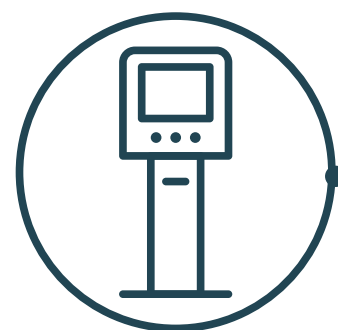
UNLIMITED APPLICATIONS CUSTOMER-CENTRIC SOLUTIONS

From luxury white appliances to naval equipment and submarines, **more than 500 million** Everswitch modules are used in applications worldwide.

By continuously responding to the market's evolving needs and feedback, we always keep our customers in the center.



SELF-SERVICE TERMINALS

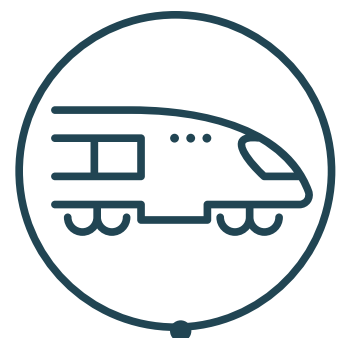


Rugged, vandal-proof Touch Metal solutions provide user-friendly interfaces, install & forget convenience, and withstand bad weather and bad behavior in equal measure.

Related Solutions:

- Public WiFi Kiosks
- Bike Share Systems
- Parking Meters and Pay By Space Stations
- Emergency Call Systems
- Correctional Facilities Phone Kiosks
- Port Access Control Kiosks – high security application

PUBLIC TRANSPORT



Streamline user interfaces for public transport operators, with multiple functionality in a single controller; reliably endures constant use while in motion.

Related Solutions:

- Access Control Keypads for Aviation and Rail
- Train Door Switches and Keypads
- Lavatory Controls for Aviation and Rail

MEDICAL & CLEAN ROOM EQUIPMENT

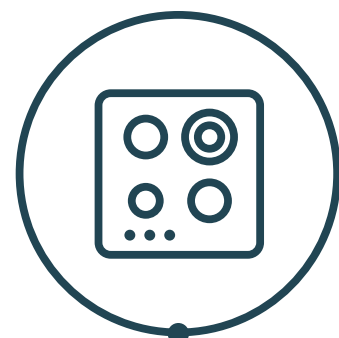


Fit for aggressive sterilization & disinfection, our Touch Metal keypads protect against Hospital Acquired Infection (HAI). In addition, Everswitch has a line of non-touch infrared and ultrasonic switches that also address challenges related to public hygiene.

Related Solutions:

- Lab/Clean Room Access Controls
- Sterilizable Keypads for Clean Rooms
- Pharmaceutical Manufacturing and Controlled Substance Environments
- 120V Lighting and HVAC Controls
- Switches Inside of Glove Boxes

WHITE APPLIANCES

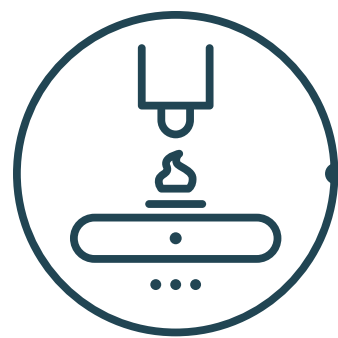


Everswitch gives designers of white appliances the freedom to create control interfaces combining the latest in functionality with contemporary and minimalist styling. Piezo switches fit seamlessly behind stainless steel/metal surfaces, providing a superior user experience than pushbutton switches: more attractive, more reliable, and easier to keep clean.

Related Solutions:

- Commercial Warewashing Equipment
- Quick Serve Restaurant Equipment
- Espresso Machines
- Dish Washers
- Microwaves
- Kitchen Hoods

FOOD PROCESSING & QUICK SERVE RESTAURANTS



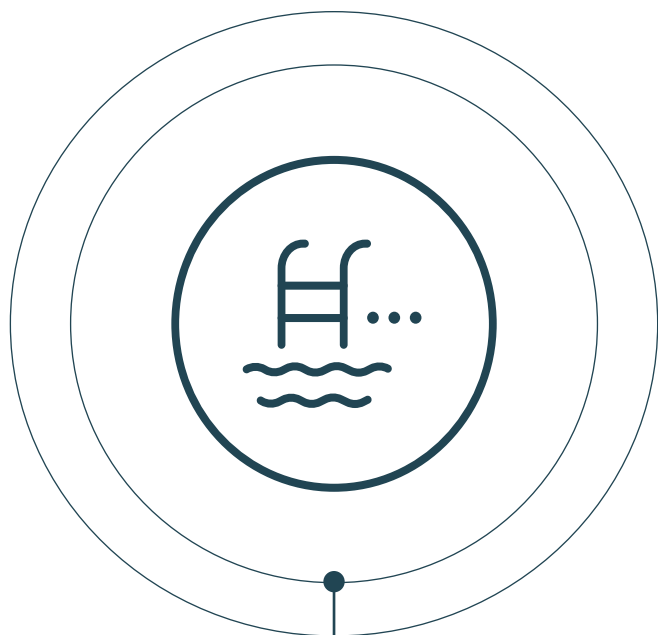
Chef safe and FSMA compliant, our solid surface piezo switches and keypads are easy to clean and sterilize, reduce downtime to near zero, and provide years of trouble free operation in the busiest food preparation settings.



Related Solutions:

- Kitchen Control System
- Bump Bars
- Steamers and Deep Fryers
- Meat Mincers, Bone Saws, Sausage Fillers
- Tenderizer and Strip Cutting Machines
- Hamburger Forming Machines
- Slicers, Peelers & Graters
- Fish Filleting, Skinning and De-heading Machines

POOL & SPA



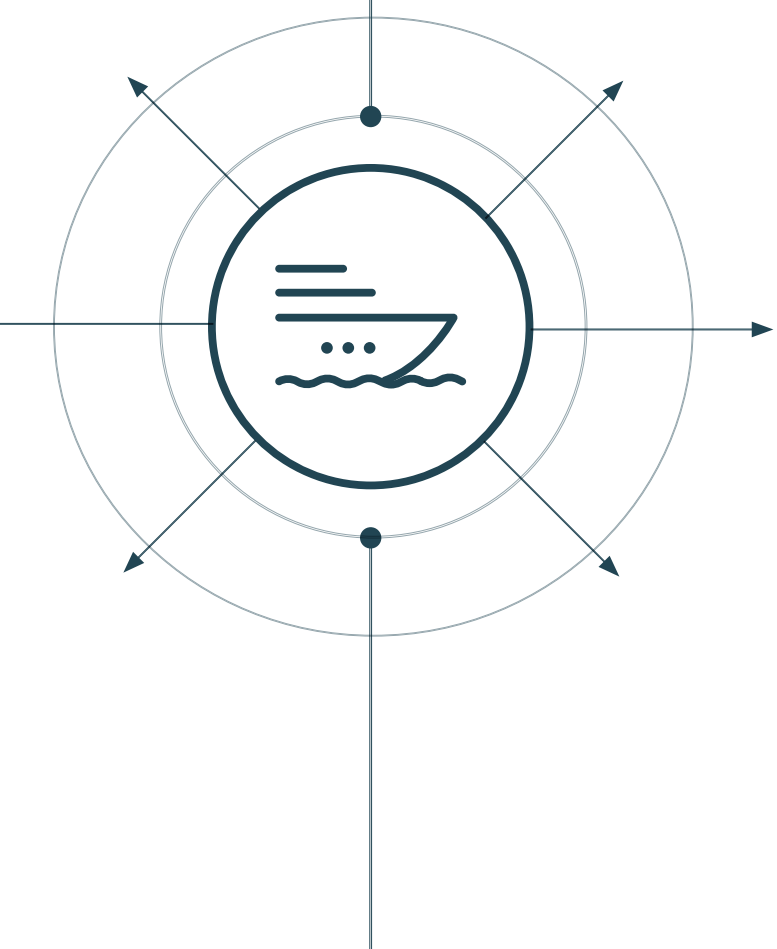
Bring a splash of luxury to the spa, swimming pool and jacuzzi experience by adding underwater switches and controls connecting seamlessly to the customers PLC.

Related Solutions:

- Spa Controls
- Shower Controls
- Steam Rooms
- Water Park Controls



MARINE & LUXURY YACHTS



Enjoy the perfect blend of form and function for marine craft. Sleek design and aesthetics meet ultra-reliable water and weather-resistant housings and CAN bus protocols providing simple installation in a ship's CANbus cable network.

Related Solutions:

- Helm Control Panels
- Blowers and Pumps
- Sanitary: Lavatory and Galley
- Thrusters
- Winches and Anchors
- Indoor and Outdoor Lighting
- Swim Platforms
- Engine Controls
- Access Keypads and Door Controls
- Man Over Board Wearable Alarm
- Oceanographic Instrumentation
- Fish Weighing Equipment
- Dive Gear and Computers
- UAVs, Submarines: Internal and External

AVIATION



Rated at 50 million activations, switches and control panels are operational from -40 to +125 deg C, impervious to harsh weather and high altitudes and are tamper-proof for maximum security.

Related Solutions:

- Cockpit Access Panels
- In-Flight Entertainment (IFE) Systems
- Kick-operable Lavatory Switches
- Emergency Call Pushbuttons
- Return to Seat Indicators
- Ground Support Equipment

DEFENSE



In mission critical defense applications and in high-security military installations, our Certified Keypad/Readers for Class1/Div1 ExProof environments and Touch Metal control solutions shield against unintended activation by thermal shock, sabotage or explosions, and ensure ultra-reliable use in remote, harsh and unattended situations.

Related Solutions:

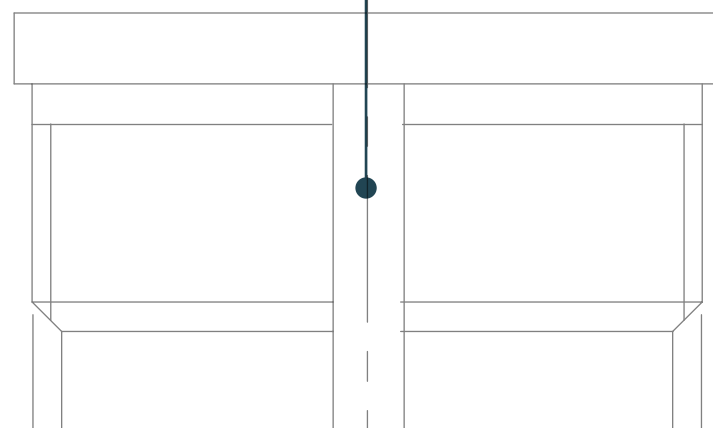
- Ordnance Disposal Systems
- Weapons Systems Testing
- Machine Gun Remote Controls
- Rocket Launch Facilities

OIL & GAS / CHEMICAL INDUSTRY



When safety and reliability are critical, our switches and control panels are the first choice. They are built to prevent unintended activation by thermal shock.

Completely sealed in solid metal housings, Everswitch products are ideally suited to remote, hazardous and unattended situations and meet Class 1 Div1 requirements.



Related Solutions:

- Mining
- Oil & Gas Production
- Gas Stations
- Chemical Processing
- Remote Location Fleet Refueling
- Access Control Keypads at Well Heads and Refineries, Metering Keypads at Refineries and Tanker Trucks
- Airport Refueling Equipment, Valve Controls
- Off-Shore Production Rigs, Class1 Division1 Enclosures



EVERSWITCH

PIONEERS IN PIEZO SWITCHING TECHNOLOGY



EVERSWITCH HAS BEEN THE
LEADER IN PIEZO SOLUTIONS
AND APPLICATIONS
FOR OVER 30 YEARS.

In fact, we were the first company to introduce commercially viable piezo switching technology - Everswitch piezoelectric Touch Metal technology for switches keypads and control panels.

Today we continue to lead the way with innovative, aesthetic, and ultra-reliable user-interface switches and controls, combined with full engineering support to enable customers around the world to develop products with strong and lasting market appeal.



CREATE PRODUCTS RESPONSIVE TO ENVIRONMENTS AND USER NEEDS

- If you share our passion for creating products that take form & function to a new level of user experience and satisfaction, we'd love to hear from you:

sales@baran-at.com

www.barantec.com



EVERSWITCH

- Everswitch is a leading provider of customizable switching solutions for the world's most demanding user environments. From marine and aviation to white appliances, public transport, self-service terminals and medical equipment, our switches, keypads and control panels are deployed in millions of applications worldwide.

As a company, our mission is to help manufacturers transform their product ideas into meaningful user experiences. By integrating design, engineering and production under one roof, we enable our customers to streamline product development and speed up time to market.

Everswitch was the first company to introduce commercially viable piezo switching technology and continues to set the standard in switching innovation.

- For more information, please visit **[our website](#)**

