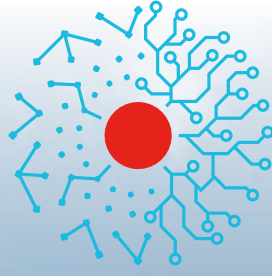


SOLUTIONS FOR AEROSPACE & DEFENSE



MAFELEC TEAM

CREATING **TOGETHER** SMART AND SUSTAINABLE INTERFACES





AEROSPACE

MICROSWITCH SOLUTIONS FOR HARSH ENVIRONMENTS
HIGH RELIABILITY COMPONENTS FOR CIVIL AND MILITARY AIRCRAFT

FUNCTIONS

SYSTEMS

- Thrust Reverser
- Flap & Slat
- Trim Horizontal Stabilizer Actuator
- Hoist Control
- Blade Angle Control
- Rotor Brake
- Propeller Angle Control
- Canopy and Doors

COCKPIT EQUIPMENT

- Spoilers Control
- Flap & Slat Control
- Landing Gear Control
- Engine Throttle
- Flight Control Unit
- Specific Control Units

LANDING GEAR AND TRAP

- Cargo Loading Door Control
- LG Up & Down locks
- LG Doors
- WOW-Weight on Wheel
- Locking Fuel-flap

CABIN

- Doors Closed & Locked Status
- Seat Position
- HVAC System Control



PRODUCTS

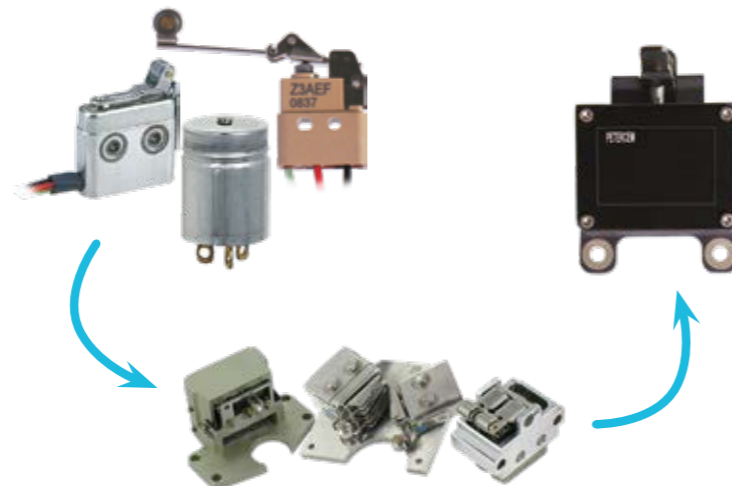
- Microswitches
- Sensors
- Limit Switches
- Proxy Switches

APPLICABLE STANDARDS

RTCA D0160, MIL - STD for design and qualification. Quality system and production meet the ISO 9001 / EN 9100 requirements

CUSTOMIZED SOLUTIONS

By putting together perfectly mastered technological elements, our research and development studies make solutions which are the most suited to your needs. Respecting your field of activity all along the way.



COMPLETE HUMAN MACHINE-INTERFACES
CUSTOMIZED DESIGN TO SPECIFIC APPLICATIONS

PRODUCTS

- Lighted and Control Panels
- Customised LED-Displays
- Electronic Systems
- LED Indicator Units
- Lighting Components



FUNCTIONS

ILLUMINATED DISPLAYS, CONTROL PANEL (FULLY EQUIPPED) AND CONTROL SYSTEMS

- Auto Flight System Control Panel (AFSCP)
- Radio Frequency Indicator (RFI)
- Selectors for Flight Control
- Multifunction Display Bezel
- Central Warning Panel
- Flight Control Unit
- Radio Control Unit
- Navigation Control Box
- Miscellaneous Cockpit Lights
- Onboard Airport Navigation System
- Board Computer Operating Panels
- Overhead Control Panel
- Circuit Breakers Panel
- Diming Unit
- Keyboards
- Elevator Trim Panel

APPLICABLE STANDARDS

DO-160 and MIL Specifications NVIS compatibility according to MIL-STD-3009. Quality system and production meet the ISO 9001 / EN 9100 requirements. EASA qualification according to Part 21G and Part.



OUR CUSTOMERS

COMMERCIAL & CIVIL AVIATION

Airbus, ATR, AVIC, Boeing, Bombardier, Cessna, Comac, Dassault, Dornier, Embraer, Gulfstream, Grob, Irkut, Pilatus

MILITARY AVIATION

Airbus, Dassault, Embraer, HAL, Panavia Tornado, Raytheon, Saab, Sukhoi

HELICOPTERS

Airbus Helicopters, Agusta-Westland, Bell, Denel, HAL, Sikorsky

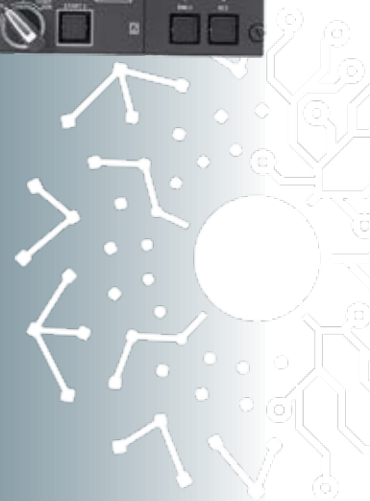
PROGRAMS

AIRCRAFT

A400M, A318/319/320/330/340/350/380/310, MRTT, ATR42, C919, F7X/F6X/F8X, G115E, KC390, MA60, MC21, M345, MIRAGE 2000, PC-12 NG, RAFALE

HELICOPTERS

AW 169/189, CH53 GA, EC 120/130/135/145/155/175 NH90, SUPER PUMA, TIGER, H160





MISSILES & SPACE

SEVERAL PRODUCT LINES DEDICATED TO THE DEFENSE AND SPACE INDUSTRY THAT MEET THE MAIN REQUIREMENTS IN TERMS OF SEALING, SHOCK, VIBRATION, EMC, HIGH AND LOW TEMPERATURES

FUNCTIONS

SATELLITES & ROCKETS

- Valve Control System
- Solar Panels
- Rocket Position Information
- Emergency Power Supply

MISSILES

- Locked / Unlocked
- Missile Firing
- Booster
- Command for Destruction in case of Ballistic Problem



PRODUCTS

- Box equipped for Firing Control
- Snap Action Switches, Manual or Motorized 25 to 5000 Amp AC/DC
- Push Button 20 Synchronised Contacts
- Microswitches & Sensors



APPLICABLE STANDARDS

MIL-STD461 / STANAG 4235 / MIL-STD810 / MIL-STD1472 / MIL-STD2165 / IEC60529 / STANAG 4236

PROGRAMS

MBDA MISSILES:
EXOCET, MISTRAL, MAGIC, SCALP
M51, MICA, STORM SHADOW, TORNADO

SATELLITES MANUFACTURERS:
ALTER TECHNOLOGY, ASTRIUM, KONGSBERG,
SENER, ARIANE ESPACE, AIRBUS DEFENSE & SPACE



MILITARY VEHICLES & LAND SYSTEMS



FUNCTIONS

EQUIPMENT

- Town Truck Actuator Control
- E.M.C. - I.M.C. Armored Boxes for Communications Network
- Gear Box
- Position Sensor
- Filter Presence
- Turret Safety Control
- Turret Door Inhibition
- Starter / Light Switches

WEAPON SYSTEM

- Remote Control / Check Weapon Systems
- Automatic Prohibition or Permission to Fire
- Firing Push Button Control
- Lock / Unlock 20 mm Gun



PRODUCTS

- Microswitches & Sensors
- Box equipped for Firing Control
- External Alarm
- LED Head Lights
- Magnetic Safety Switches
- Elapsed Time Indicators
- Circuit Breaker Panel

APPLICABLE STANDARDS

MIL-STD461 / STANAG 4235 / MIL-STD810 / MIL-STD1472 / MIL-STD2165 / IEC60529 / STANAG 4236

CUSTOMIZED SOLUTIONS

By putting together perfectly mastered technological elements, our research and development studies make solutions which are the most suited to your needs. Respecting your field of activity all along the way.



OUR CUSTOMERS

NEXTER Sytems,
NEXTER Electronics,
RAFAEL,
SAFRAN Electronics & Defense,
THALES,
KONGSBERG



SUBMARINES / UNDERWATER SYSTEMS

DESIGN OF ELECTROMECHANICAL COMPONENTS, SUB-ASSEMBLIES AND EQUIPMENTS RATED TO OPERATE IN THE HARSHTEST ENVIRONMENTS.
ATTACK SUBMARINE & BALLISTIC MISSILE SUBMARINE

FUNCTIONS

EQUIPMENT

- Switch on the Launch Pad
- Latching of the propulsion solenoid control valve
- Bleed Valve
- Position Sensor for ballast
- Periscope Position
- Position of the Access Lock Panels
- Protection against Shocks in the Bay, Boxes or Cabinets
- Cut-set and / or Bridging of the current BT-MT
- Electrical Power Network
- Panel Control

WEAPON SYSTEM

- Position Control / Checking of Missiles and Torpedos
- Hoisting and Manipulation of Missiles and Torpedos



PRODUCTS

- Equipped Panels Control
- LED Message Warning Panel
- Control and Signalling Components
- Complex Sub-assemblies

CUSTOMIZED SOLUTIONS



NAVAL

SURFACE SHIPS, LANDING CRAFT, OFFSHORE, COMMUNICATION SYSTEMS, WEAPONS, EQUIPMENT

FUNCTIONS

EQUIPMENT

- Switch on the Launch Pad
- Latching of the propulsion solenoid control valve
- Bleed Valve
- Position Sensor for ballast
- Periscope Position
- Position of the Access Lock Panels
- Protection against Shocks in the Bay, Boxes or Cabinets
- Cut-set and / or Bridging of the current BT-MT
- Electrical Power Network
- Panel Control

WEAPON SYSTEM

- Position Control / Checking of Missiles and Torpedos
- Hoisting and Manipulation of Missiles and Torpedos



PRODUCTS

- Waterproof Plug Sockets
- Equipped Electronic or Electromechanical Boxes
- Special Switches. Direct or Remote Control, Key or Magnetic Locking 25 to 5000 Amp AC/DC

APPLICABLE STANDARDS

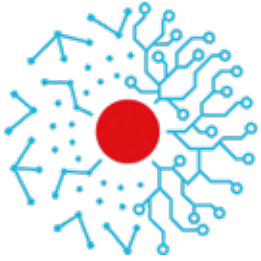
Bureau Veritas (BV) Approval - EG13C - MIL-STD461 - STANAG 1008

PROGRAMS

BARRACUDA
FREMM
GOWIND
SCORPENE
SNLE NG
S3G

OUR CUSTOMERS

NAVAL GROUP
CMN
PIRIOU BAE SYSTEMS
KONGSBERG
MBDA
FINCANTIERI
LACROIX
THALES C&S



MAFELEC TEAM

CREATING **TOGETHER** SMART AND SUSTAINABLE INTERFACES

MAFELEC TEAM is a family of nine entities located in different countries: France, Germany, Poland, China and United Kingdom. MAFELEC TEAM is specialist in development and design of solutions for harsh environments and demanding markets such as railway, aeronautics, defense, energy, industry and buses.

Continuously expanding and always looking to the world's future, MAFELEC TEAM is today a key player with international recognition in its various markets.

PETERCEM SWITCHES AND COMTRONIC

CREATING **TOGETHER** SMART AND SUSTAINABLE INTERFACES

PETERCEM SWITCHES develops robust solutions for position detection for harsh environments, as Aerospace, Defence and Energy industries.

COMTRONIC is an expert in solutions for human-machine interfaces for the aerospace market, that are precisely tailored to the customer needs. It goes from backlighted panels to complete control units.

Members of the MAFELEC TEAM

PETERCEM SWITCHES based in St Bonnet de Mure (France) and COMTRONIC in Schönau (Germany) belong to the MAFELEC TEAM. The owner-managed group of companies offers solutions for HMI, lighting, sensors and microswitches and is active in the markets of bus and railway, industrial vehicle, industry, energy, defence, aerospace, and elevators.

We reserve the right to make technical changes.
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OUR TEAM

