

# 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

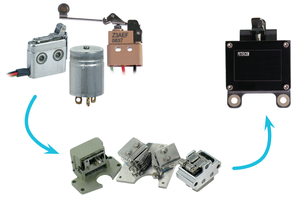


## PRODUCTS

- Microswitches
- Sensors
- Limit Switches
- Proximity 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.

# MAFELEC TEAM

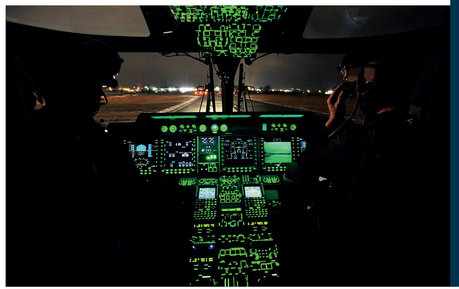
CREATING **TOGETHER** SMART AND SUSTAINABLE INTERFACES

**MAFELEC TEAM** brings together several entities based in France, Germany, Poland, China, the United Kingdom and the Czech Republic. A specialist in the design and development of solutions for demanding environments — railway, aeronautics, defense, energy, industry and buses — MAFELEC TEAM is today a key player with international recognition across all its markets.

Its strategic vision is driven by a single ambition: to anticipate and shape the future of its markets and its solutions. As industries evolve and demands grow more complex, MAFELEC TEAM continuously transforms its product ranges into smarter, more integrated and more sustainable solutions — always one step ahead of tomorrow's challenges.

This ambition relies on a powerful engineering force: a 150-strong team of experts in mechanics, optics, electronics and software, distributed across all its entities. This integrated R&D capability enables MAFELEC TEAM to master every stage of the value chain — design, development, manufacturing, delivery and after-sales support — ensuring full control over quality, performance and customization.

Driven by a culture of innovation and a passion for tailor-made solutions, MAFELEC TEAM continuously evolves its product ranges into comprehensive, high-value solutions across its key application areas: exterior and interior lighting, driver desk HMI, power devices, passenger access...



We reserve the right to make technical changes.
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## OUR TEAM



# MAFELEC TEAM

CREATING **TOGETHER** SMART AND SUSTAINABLE INTERFACES





COMPLETE HUMAN MACHINE-INTERFACES
CUSTOMIZED DESIGN TO SPECIFIC APPLICATIONS

## PRODUCTS

- Lighted and Control Panels
- Customized 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 D/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 Balistic 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
MS1, MICA, STORM SHADOW, TORNADO

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



# MILITARY VEHICULES & LAND SYSTEMS





## PRODUCTS

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

## 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



## 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.



Basic components



Customized products

## 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 HARSHEST 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 Véritas (BV) Approval - EG13C -
MIL-STD461 - STANAG 1008

## PROGRAMS

**BARRACUDA**
**FREMM**
**GOWIND**
**SCORPENE**
**SNLE NG**
**S36**

## OUR CUSTOMERS

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