



## ACKNOWLEDGED RELIABILITY

For 60 years, APEM has developed, manufactured and supplied man-machine interfaces tailored to military requirements.

The design and qualification of our products are based on MIL STD 810, 1472 and 461. Our dedicated and fully-integrated production lines are regularly audited and certified to insure the traceability of our whole production.

100 % tested products for a zero defect reliability in operation.



PANEL MOUNTED SWITCHES PCB MOUNTED SWITCHES JOYSTICKS SWITCH PANELS LED INDICATORS

## YOU CAN RELY ON US

### PROVEN TECHNICAL EXPERTISE

With a vertically-integrated production, APEM controls all phases of product development and manufacturing : from tooling, moulding, screw machining and surface treatment to assembly and final inspection. Our dedicated and experienced teams can respond to the most complex requirements.

This technical expertise ensures the continuity of all our ranges in time and allows durable partnerships with our customers.

### CONTROLLED INNOVATION

Since 1952, worldwide manufacturers have placed their trust in APEM to develop and manufacture reliable high-performance products for demanding applications.

APEM is still and always innovating on the base of an expertise which has proven its worth on the ground over the years.

#### Preferential lists

QPL 3950  
QPL 83 731  
MUAHAG  
NATO, user code No F7507



## WORLDWIDE SALES & CUSTOMER SUPPORT

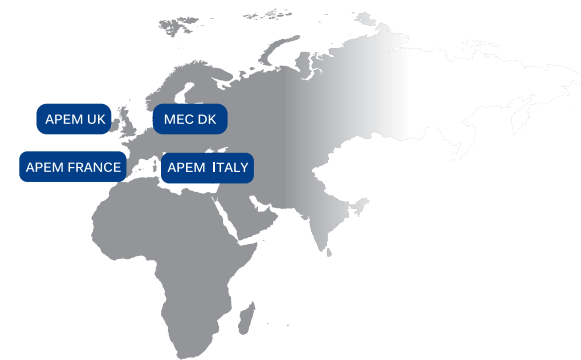
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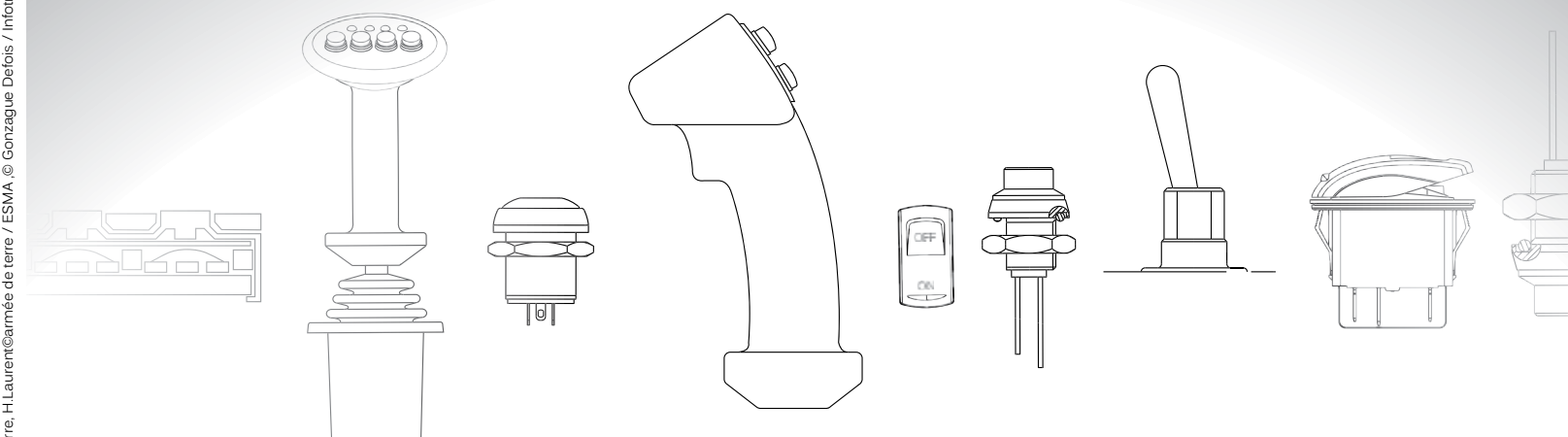
AND MORE THAN 130 DISTRIBUTORS WORLDWIDE  
(List available on [www.apemgroup.com](http://www.apemgroup.com))

manufacturing & product development sites

[www.apemgroup.com](http://www.apemgroup.com)



## DEFENCE



MDEF1205R1A - Designed by couleur-citron.com  
Photos : Jojo And Co, Blanchet&Arné de terre, H.Laurent&Arné de terre, ESMA © Gonçague Defois / Infotrac

A WORLD OF SWITCHING CAPABILITIES

# THEY TRUST US

## CIVIL & MILITARY SECURITY



**APPLICATION**  
Remote control for uav / drone.

**APEM SOLUTION**  
Micro joystick, navigation switches, selection switches and safety guard. A complete set of 21 components.

**ERGONOMICS**  
Sealing and low behind-panel depth facilitate integration into the remote control.

## SOLDIER SYSTEM



**APPLICATION**  
Scope control on an assault rifle.

**APEM SOLUTION**  
IP68 sealed rubber keypad with integrated electronics.

**APEM EXPERTISE**  
This custom product meets very stringent specifications.

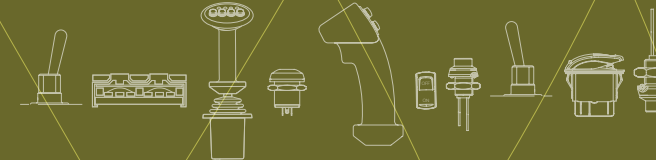
## LAND DEFENCE



**APPLICATION**  
Control of a gun turret for special on-road and off-road vehicles.

**APEM SOLUTION**  
Control handle equipped with a micro joystick and a navigation switch. Shooting function with safety guard and « dead man » function.

**APEM INNOVATION**  
The « dead man » detection sensor on the handle eliminates unnecessary movements. Grip is quicker and easier, without crispation.



## CONTROL SYSTEM



**APPLICATION**  
Control panel.

**APEM SOLUTION**  
A complete set of switches and accessories.

**GLOBAL SOLUTION**  
This custom solution meets all specifications in terms of ergonomics and functions.

## LAND DEFENCE



**APPLICATION**  
Control of a gun turret for special on-road and off-road vehicles.

**APEM SOLUTION**  
Custom switch panel with armoured window.

**CONTROLLED INNOVATION**  
This solution combines a MIL-technology keyboard and an armoured window.

### PANEL MOUNTED SWITCHES | PCB MOUNTED SWITCHES | JOYSTICKS | SWITCH PANELS | LED INDICATORS

#### VERY ROBUST - SUITABLE FOR HARSH ENVIRONMENT

Series	Key Features	Cut-out, Mounting	Sealing	Approvals	Accessories	Lifetime
13000	Up to three poles Suitable for immersion up to 10m	6.35-11.9mm Rear mounting*	IP67	UL, CECC, QPL, MUAHAG listed	Sealing boots Specific nuts and washers Safety guards	up to 150 000 cycles
ES - Estop	Up to three poles Push Pull, IK10	22.2mm Drop in mounting*	IP69K	EN 60947-5-1	-	up to 100 000 cycles
IA	Frost, sand, hydrocarbons resistant. Customisable : Color / Marking	16mm Drop in mounting	IP67	-	-	up to 1 million cycles
IC	Short body - Very compact behind panel Customisable : Shape / Color / Marking	13.60mm Drop in mounting*	IP67	-	Sealing boots Specific nuts and washers	up to 1 million cycles
IM	Snap-action mechanism Customisable : Shape / Color / Marking	13.60mm Drop in mounting*	IP67	UL (pending)	Sealing boots Specific nuts and washers	up to 1 million cycles
IP	LED illuminated Customisable : Shape / Color / Marking	13.60mm Drop in mounting*	IP67	UL	Sealing boots Specific nuts and washers	up to 1 million cycles
IZ	LED illuminated Customisable : Shape / Color / Marking	16mm Rear mounting*	IP67	-	Sealing boots Specific nuts and washers	up to 1 million cycles

\* Drop in available with pins outputs for PCB mounting

Series	Key Features	Cut-out, Mounting	Sealing	Approvals	Accessories	Lifetime
MEC Switches	Micro pushbuttons	PCB mounted Through-hole or SMD	IP67	-	Many different caps, navigators, LEDs	10 million cycles
Fix Grip	Fully customisable faceplate with engraving, USB and CAN outputs available	Drop in mounting	Up to IP68	-	-	-
HG	Up to three axes Several handle styles available Fully customisable faceplate with engraving, USB and CAN outputs available	71.4mm Drop in mounting	IP68	-	Sealing boots Specific nuts and washers Safety guards	Up to 10 million cycles
3000	Up to three axes Many handle styles available	35mm Drop in or rear mounting	Up to IP68	-	-	Up to 10 million cycles
Q indicators	Very robust (high resistance to shocks and vibrations), Low consumption (10 to 25mA), Low heating emission NVIS version	6 / 8 / 12 / 14 / 16 / 19 / 22mm Rear mounting	IP67	UL	-	100 000 hours
Keyboards	MIL 810 approved - Modular design	-	Up to IP68	-	Military switches, joysticks, indicators	-

Series	Key Features	Cut-out, Mounting	Sealing	Approvals	Accessories	Lifetime
12000	Compact behind panel Suitable for immersion up to 10m Locking mechanism available Customisable : many lever styles available	11.9mm Rear mounting	IP67	MIL 3950, CECC QPL, MUAHAG listed	Safety guards Sealing boots Specific nuts and washers	Up to 150 000 cycles
3500	High current rating Locking mechanism available Customisable : many lever styles available	11.9mm Rear mounting	IP69K	CECC	Safety guards Sealing boots Specific nuts and washers	40 000 cycles
6000	Up to four poles Locking mechanism available Customisable : many lever styles available	12.5mm Rear mounting	IP67	-	Safety guards Sealing boots Specific nuts and washers	-
11000	Up to four poles Locking mechanism available Customisable : many lever styles available	6.35mm Rear mounting	IP65	CECC	Safety guards Sealing boots Specific nuts and washers	150 000 cycles

#### ACCESSORIES :

