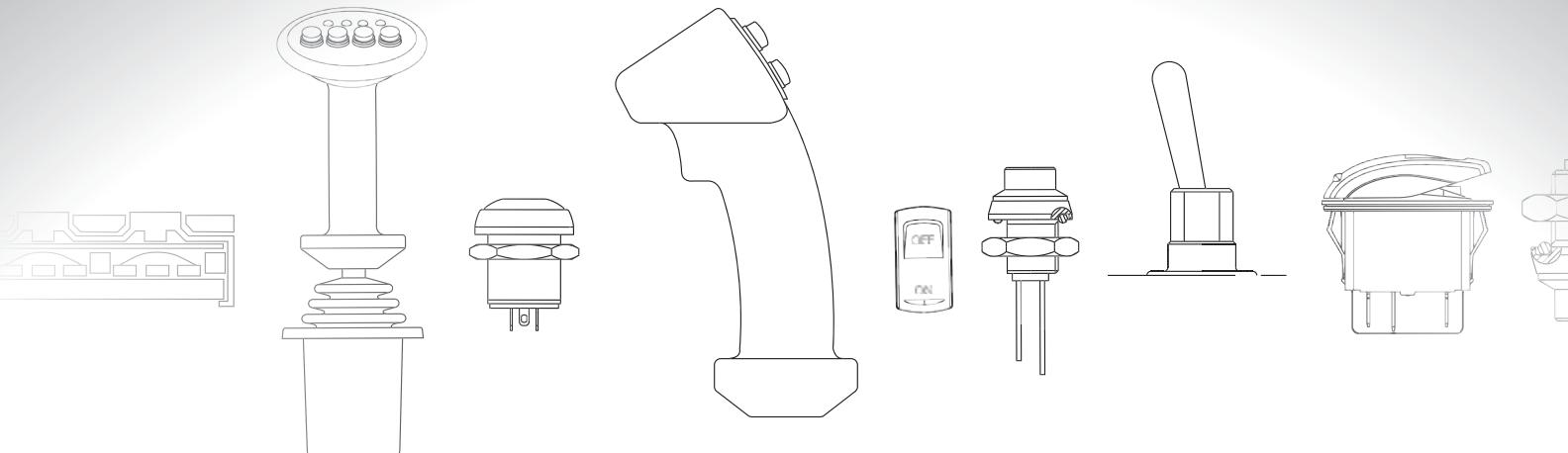


**APEM**



**DEFENSE**



A WORLD OF  
SWITCHING  
CAPABILITIES

## ACKNOWLEDGED RELIABILITY

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

The design and qualification of our products are based on MIL STD 810, 1472 and 461. Our dedication and fully integrated production lines are regularly audited and certified to support component traceability and defect-free quality.

**100 % tested products**



**PANEL MOUNTED SWITCHES** **PCB MOUNTED SWITCHES** **JOYSTICKS** **SWITCH PANELS** **LED INDICATORS**

# YOU CAN RELY ON US

## PROVEN TECHNICAL EXPERTISE

With vertically-integrated production, APEM controls all phases of product development and manufacturing: from tooling, molding, 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 products over time and allows sustaining 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 innovations in the field of man-machine interface solutions have proven their worth through many demanding applications over the past 60 years.

## Preferential lists

QPL 3950

QPL 83731

MUAHAG

NATO, user code No F7507

# CIVIL & MILITARY SECURITY



## APPLICATION

Remote control for UAV / drones.

## 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.

**PANEL MOUNTED SWITCHES** **PCB MOUNTED SWITCHES** **JOYSTICKS** **SWITCH PANELS** **LED INDICATORS**

## ROBUST AND SUITABLE FOR HARSH ENVIRONMENTS

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 MUHAG listed	Sealing boots Specific nuts and washers Safety guards	up to 150,000 cycles
ES	Up to three poles Push Pull, IK10	22.2mm Drop in mounting*	IP69K	EN 60947-5-1 -		up to 100,000 cycles
IQ	Snap In, square or round actuator Illumination, momentary or latching	16mm Snap in mounting	IP67	-	-	up to 1 million cycles
IC	Short body - Very compact behind panel. Customizable : Shape / Color / Marking	13.60mm Drop in mounting*	IP67	-	Sealing boots Specific nuts and washers	up to 1 million cycles
IM	Snap-action mechanism Customizable : Shape / Color / Marking	13.60mm Drop in mounting*	IP67	UL (pending)	Sealing boots Specific nuts and washers	up to 1 million cycles
IP	LED illumination Customizable : Shape / Color / Marking	13.60mm Drop in mounting*	IP67	UL	Sealing boots Specific nuts and washers	up to 1 million cycles
I2	LED illuminated Customizable : Shape / Color / Marking	16mm Rear mounting*	IP67	-	Sealing boots Specific nuts and washers	up to 1 million cycles

\* Drop in available with pin outputs for PCB mounting

## LAND DEFENSE



### APPLICATION

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

### APEM SOLUTION

Control handle equipped with a miniature 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. The Fixed Grip™ provides stability during engagement.



Series	Key Features	Cut-out, Mounting	Sealing	Approvals	Accessories	Lifetime
MEC	Miniature pushbuttons	PCB mounted Through-hole or SMT	-	-	Many different caps, navigators, LEDs	10 million cycles
FG	Fully customizable faceplate with engraving, USB and CAN outputs available	Drop in mounting	Up to IP68	-	Switches, Hall effect sensors, Thumb wheels	Up to 5 million cycles
HG	Up to three axis Several handle styles available Fully customizable faceplate with engraving, USB and CAN outputs available	71.4mm Drop in mounting	IP68	-	Sealing boots Specific nuts and washers	Up to 10 million cycles
3000	Up to three axis Many handle styles available	35mm Drop in or rear mounting	Up to IP68	-	-	Up to 10 million cycles
TS Series	Proportional two axis miniature joystick non-contacting Hall effect technology with multiple linear output options	Drop in or rear mounting	IP68 & IP69K	-	-	1 million cycles
Q Series	High resistant to shock and vibration, low consumption (10 to 25mA), stainless steel	6/8/12/14/16/19/22mm Rear mounting	IP67	UL	-	100,000 hours

# CONTROL SYSTEMS

# LAND DEFENSE



## APPLICATION

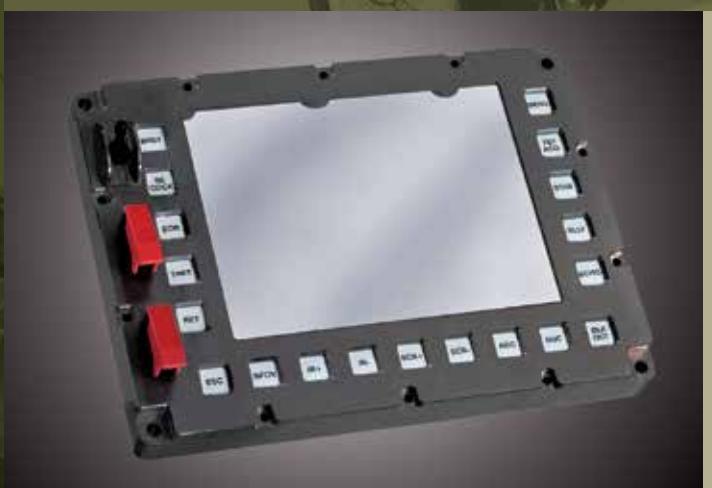
Control panel.

## APEM SOLUTION

A complete set of switches and accessories.

## GLOBAL SOLUTION

This custom solution meets all specifications in terms of ergonomics and functionality.



## APPLICATION

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

## APEM SOLUTION

Custom switch panel with armored window.

## CONTROLLED INNOVATION

This solution combines a MIL-technology keyboard and an armored window.

Series	Key Features	Cut-out, Mounting	Sealing	Approvals	Accessories	Lifetime
	Compact behind panel Suitable for immersion up to 10m Up to 150,000 cycles Locking mechanism available Customizable : many lever styles available	11.9mm Rear mounting	IP67	MIL 395 MIL 83731 CECC QPL, MUHAG listed	Safety guard Sealing boots Specific nuts and washers	Up to 150,000 cycles
	High current rating Locking mechanism available Customizable : many lever styles available	11.9mm Rear mounting	IP69K	CECC	Safety guards Sealing boots Specific nuts and washers	40,000 cycles
	Up to four poles Locking mechanism available Customizable : many lever styles available	12.5mm Rear mounting	IP67	-	Safety guards Sealing boots Specific nuts and washers	-
	Up to four poles Locking mechanism available Customizable : many lever styles available	6.35mm Rear mounting	IP65	CECC	Safety guards Sealing boots Specific nuts and washers	150,000 cycles

ACCESSORIES : Safety guards



Sealing boots





**APEM**

## A GLOBAL FOOTPRINT... OVER 60 YEARS OF EXPERIENCE



## A WORLDWIDE PRESENCE

Whatever your location, an APEM team professional is available to assist you.

### UNITED STATES

63 Neck Road  
Haverhill, MA 01835-8025  
Tel : (+1) 978 372 1602  
Fax : (+1) 978 372 3534  
Email: [info@apem.com](mailto:info@apem.com)  
[www.apem.com](http://www.apem.com)

### FRANCE

55, avenue Edouard Herriot  
BP1  
82303 CAUSSADE Cedex  
Tel : (+33) 5 63 93 14 98  
Fax : (+33) 5 63 93 19 03  
Email : [commercial@apem.fr](mailto:commercial@apem.fr)  
[www.apem.fr](http://www.apem.fr)

### GERMANY

Gewerbehof Giesing  
Paulsdorfferstr. 342. OG  
D-81549 MUNICH  
Tel : (+49) 89 45 99 11 00  
Fax : (+49) 89 48 10 39  
Email : [info@apem.de](mailto:info@apem.de)  
[www.apem.de](http://www.apem.de)

### UNITED STATES

970 Park Center Drive  
Vista, CA 92081-8395  
Tel : (+1) 760 598 2518  
Fax : (+1) 760 598 2524  
Email: [info@apem.com](mailto:info@apem.com)  
[www.apem.com](http://www.apem.com)

### ITALY

Via Marconi 147G  
12030 MARENE (CN)  
Tel : (+39) 0172 74 31 70  
Fax : (+39) 0172 74 31 71  
Email : [apem.italia@apem.it](mailto:apem.italia@apem.it)  
[www.apem.it](http://www.apem.it)

### UNITED KINGDOM

Drakes Drive  
LONG CRENDON, Bucks HP18 9BA  
England  
Tel : (+44) 1844 202400  
Fax : (+44) 1844 202500  
Email : [sales@apem.co.uk](mailto:sales@apem.co.uk)  
[www.apem.co.uk](http://www.apem.co.uk)

### BENELUX

Avenue Excelsiorlaan 21  
1930 ZAVENTEM BELGIUM  
Tel. : (+32) 27 25 05 00  
Fax : (+32) 27 25 22 00  
Email: [sales@apemswitches.be](mailto:sales@apemswitches.be)  
[www.apem.be](http://www.apem.be)

### SWEDEN

Isafjordsgatan 35  
S-6440 KISTA  
Tel. : (+46) 8 626 38 00  
Fax : (+46) 8 626 82 49  
Email : [info@apem.se](mailto:info@apem.se)  
[www.apem.se](http://www.apem.se)

**AND MORE THAN 130  
DISTRIBUTORS WORLDWIDE**

more information available at  
[www.apem.com](http://www.apem.com)