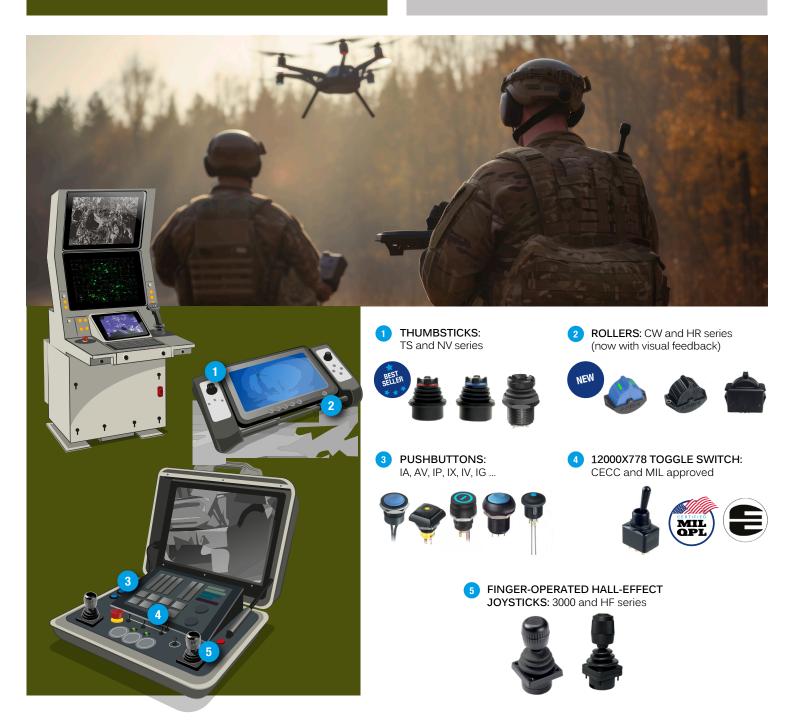


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APEM HMIS ENSURE EFFECTIVE AND SECURE CONTROL FOR UAVS (UNMANNED AERIAL VEHICLES) AND UGVS (UNMANNED GROUND VEHICLES).

DEFENCE UAV + UGV

In the military sector, HMI solutions require reliability, resistance to harsh conditions, adaptability for easy integration and durability for extended missions. The aim is to ensure the safety of the operator and guarantee optimum performance even in the most demanding conditions of complex missions.



COMBAT-PROVEN MIL-GRADE HMIs FOR UAVs AND UGVs

APEM's quality system ensures that number of our switches comply with multiple certifications as MIL-STD-3950, -83731 and CECC quality standard (96401-001, 96201-005, 96201-008) taking into account critical factors such as external design, rigorous testing and expected performance. Our solutions are designed to be robust and reliable to withstand harsh environments, maintaining optimal functionality in dust, humidity and temperature variations during military operations ensuring security of operators.

Flexibility and customisation are also the cornerstone of our defence solutions, which adapt to changing international requirements and evolving standards. This enables their durability through integration into new commands and improves operational efficiency, ensuring a long service life for extended missions.

For these military vehicles, APEM provides HMI solutions making remote control commands more intuitive knowing stressful situations of operators managing complex air and/or ground missions.

These interfaces are specifically designed to facilitate natural and effective interaction between the operator and the vehicle, enabling rapid and accurate decision-making in demanding operational contexts.

From joysticks to pushbuttons and toggles, you will find in this selection, APEM certified products customizable to suit your specific military needs.

Our selection

Custom options available. Please contact APEM for further details.

| 2-axis joysticks | | 1-axis rollers | | Navigators | Switches | | |
|--|---|---|---|--|---|--|---|
| | | | | | | | |
| TS | 3000 | HR | CW | NV | IP | IM | 12000X778 |
| IP67 | IP66 | IP68 | IP68 | IP69K | IP67 | IP67 | IP67 |
| 1M lifecycle | 10M lifecycle | 5M lifecycle | 3M lifecycle | 1M lifecycle | 1M lifecycle | 1M lifecycle | up to 150 000 lifecyle* |
| One or two axis | 1,2, or 3 axis | Single axis | Single axis | 4 or 5-direction switch-based joystick | - | - | - |
| Main features | | | | | | | |
| Analog, PWM or USB outputs Pushbutton option | Analog PWM CAN J1939 & CANopen outputs Class leading installed depth <20mm | Single or dual analog outputs Backlighting option | Analog, PWM or USB outputs Snap-in mounting | Shock, vibration & salt spray resistant Compact and low profile behind panel | Variety of terminal options Wide variety of configurations Flat round actuator for optional marking | NC+NO function Snap-action mechanism | 4 A 30 VDC Pinned lever Double shell case |

* • At 4A 28VDC: 20.000 cycles (10.000 for functions 5, 4-1R, 4-2R)

• At low level (50mV 10mA): 150.000 cycles (switches with 2 maintained positions) 100.000 cycles (switches with 3 maintained positions) 50.000 cycles (momentary functions 7, 8, 4-1R, 4-2R, 5)

Searching for toggles and pushbuttons with MIL-DTL-3950, MIL-DTL-83731 QPL, CECC 96400 and/or CECC 96200 certification? Please reach your regular APEM sales contact or visit apem.com.





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