

Esterline

Control &
Communication Systems

Harm's Way Controllers (HaWC®)

Rugged, hand-held controllers for unmanned systems

Whether you're using unmanned systems in commercial, search-and-rescue, law-enforcement, or military applications, our dual-use controllers put you in precise control, in any environment, while keeping you out of harm's way.

Mighty HaWC controller with HD display for commercial and military unmanned systems

- Combines a convenient 5.6-inch heads-down display with the intuitive and familiar design of an ergonomic game-style controller.
- Offers the operator full control of the system in an efficient and simple-to-use package.
- Delivers a reliable, robust control solution engineered for air, land, and aquatic environments (UAV, UGV, UUV, and USV), for all types of civilian, law-enforcement, and military operators and applications.



Integrated design with 5.6-inch HD display, engineered for challenging environments



Toggle controls
Four-way D-pad switch with center-push function

Two-axis, precise Hall-effect joystick controls

Hall-effect rockers or triggers

Three push buttons
Including single guarded button for safety functions

Push-button controls
Familiar diamond cluster of four push buttons

Up/down push buttons
For incremental control needs such as brightness/contrast

5.6-inch HD daylight-viewable LCD display

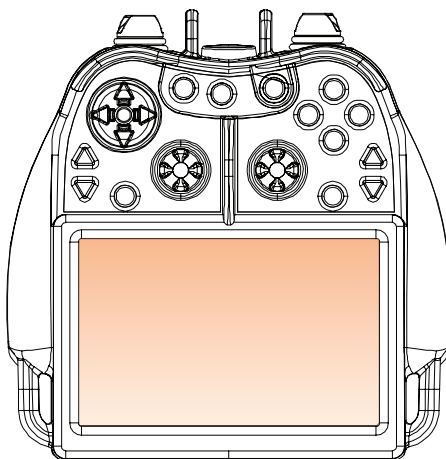
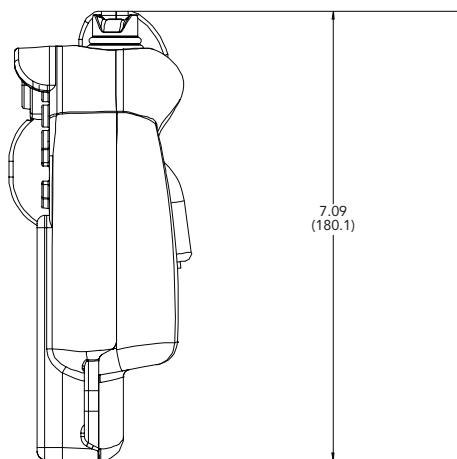
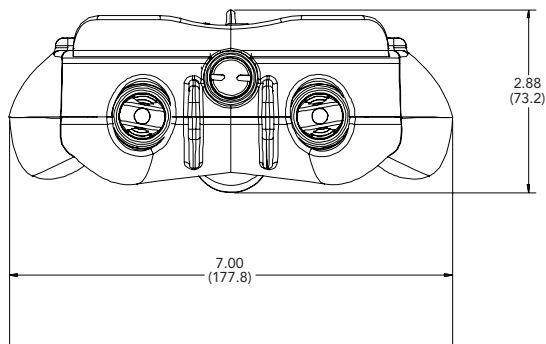


Features and Benefits

- Durable, tough design to withstand high-stress use
- Intuitive and familiar game-style design for minimal training time
- Precise joystick-style Hall-effect controls
- 5.6-inch high-definition sunlight-readable display
- Ruggedized anti-reflective display glass
- Integrated tether loops
- Over-molded button design for user comfort and environmental sealing
- Guarded switching
- Custom switch labeling optional
- Vented for rapid decompression
- Field programmable



Note: dimensions in inches (mm)



US Export Controls

Department of Commerce EAR-99

Specifications and Options

Housing	High-impact, glass-filled plastic
Color	Black with gray buttons Tan with black buttons
Weight	1.50 lbs. maximum without interface cable
Switches and joysticks	9 momentary push buttons with one guarded station 1 4-way D-pad with center-push switch 2 up/down toggles 2 guarded single-stage triggers optional 2 2-palm-enable (dead-man) switches optional 2 2-axis Hall-effect joysticks 2 single-axis Hall-effect joysticks
Software	Windows/Linux HID USB 2.0 and serial RS422 interfaces Field programmable
Power supply	5 VDC for USB 12 VDC for display power 28 VDC for RS422 optional
Interface options	Control: USB or RS422 Display: VGA or RS170A (NTSC)

LCD	5.6 inch 1280x800 high definition 1,000 NITS sunlight readable with adjustable brightness and contrast
Night vision	<i>Nightshield</i> plastic NVIS filter optional

Environmental Performance

Sealing	IP67 Rated Submersible for 30 minutes at 3 feet Impenetrable to dust
Shock and vibration	Functional shock per MIL-STD-810G: Method 516.6, Procedure I Drop shock per MIL-STD-810F: survives 21 drops from 48 inches onto plywood over concrete Vibration per MIL-STD-810F: Method 514.5, Procedure II, Category 5
Temperature	Operating: -40° to +55°C for controls, 0° to +55°C for display Storage: -40° to +71°C

HaWC unmanned-systems controllers keep operators out of harm's way

A global leader in human-machine interface systems, Esterline has engineered the HaWC product line as a superior control solution for unmanned platforms in all environments.

HaWC controllers are ergonomically designed and offer a highly reliable, robust, and easy-to-use solution for all types of users and applications.

Small HaWC

A basic game-style controller offering familiar switch and button layouts.



FLIR Grip

An ergonomically designed dual-handled grip providing all control functionality for the FLIR family of gimballed camera systems.



Rugged HaWC

An intuitive game-style controller designed for use with the USMC V-22 Remote Guardian system.



Mighty HaWC

A fully integrated controller with a built-in 5.6-inch HD display for video and menu information.



Land

HaWC controllers provide a ruggedized solution for reliable control of military and civilian unmanned systems when operating in extreme environments.



Sea

HaWC controllers can be customized for maritime unmanned applications, whether a remotely operated surface vessel or an exploration submersible.



Air

Portable HaWC controllers are ideal for operation of unmanned airborne vehicles (UAVs) in remote locations and harsh conditions.



For more information about the **Mighty HaWC and other HaWC controllers**, please contact us at **818-361-3366** or sales.mason@esterline.com.

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