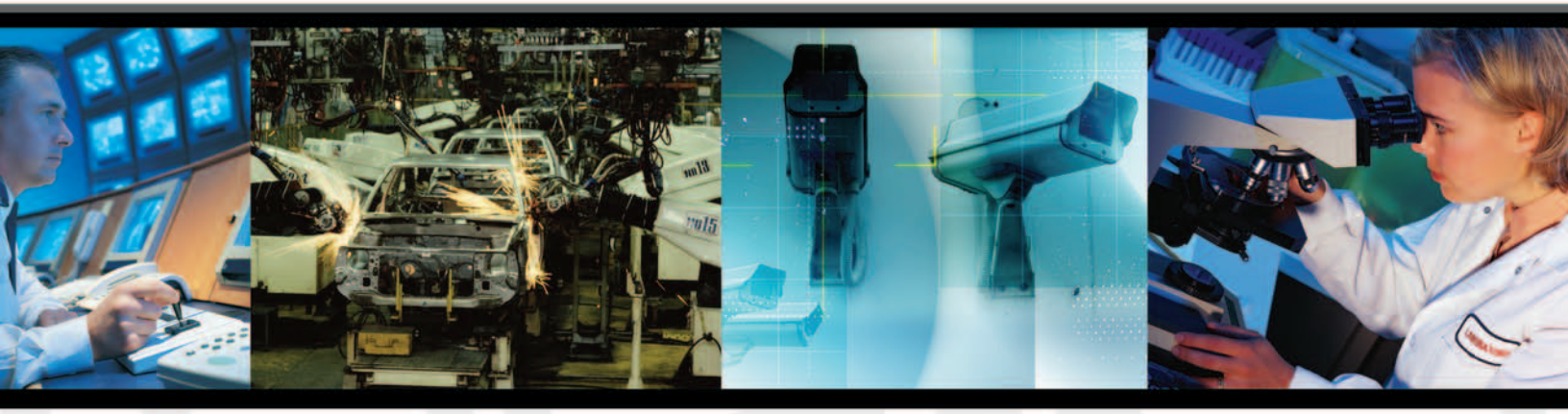
CH Products



Finger Operated
HFX Series I
Hall Effect Joysticks

Finger Operated
HFX Series I Joysticks

The HFX Series I joystick is a contactless, multi-axis controller providing long life fingertip positioning control. A compact, low-profile joystick utilizing non-contact Hall effect technology, the HFX Series I joystick is designed for low operating force, clean environment applications requiring enduring accuracy and precision. Available with several ergonomic handles and in single, dual or triple axis configurations, typical uses include CCTV equipment, robotics, factory automation, electric wheelchairs and medical devices.

Available Models

Model 1100: Two axis
Model 1200: Two axis with buttons
Model 1300: Three axis
Model 1400: Three axis with buttons

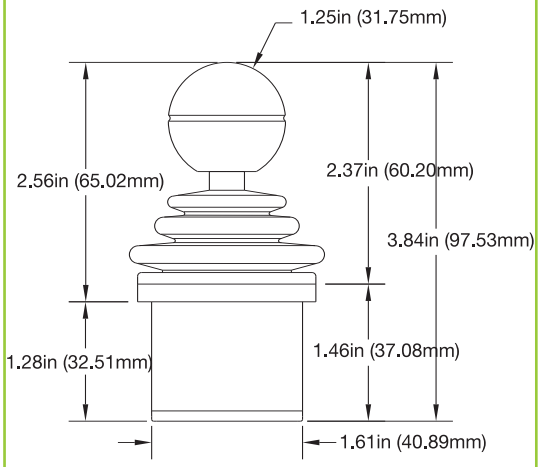
Physical Specifications

- Joystick travel: 36° (18° from center)
- Centering: Single spring, omnidirectional
- Housing: High impact glass-filled nylon
- Breakout force: .109 Nm
- Operational force: .151 Nm
- Maximum force: .169 Nm
- Operating temperature: -40°C to +85°C
- Life cycles: 3,000,000

Electrical Specifications

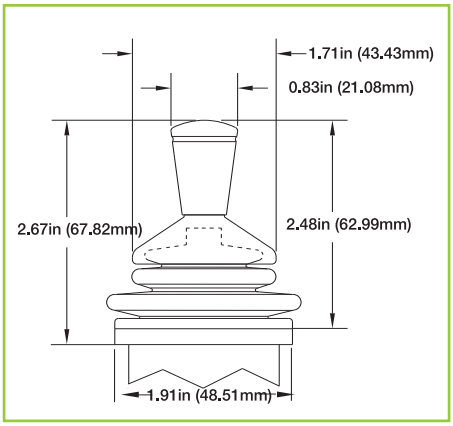
- Supply voltage: 5V
- Center voltage: 2.5V
- Supply current: 6mA max/axis
- Output current: 2mA max/axis
- Output tolerance: ± 2%

Model 1100
Option O



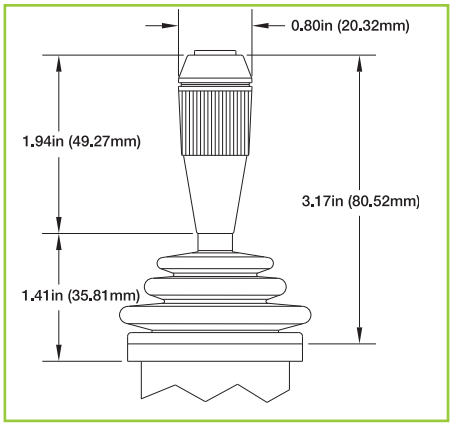
Model 1100

Option 1



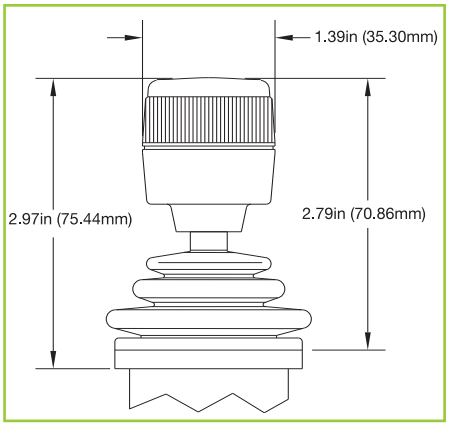
Model 1200

Option 2



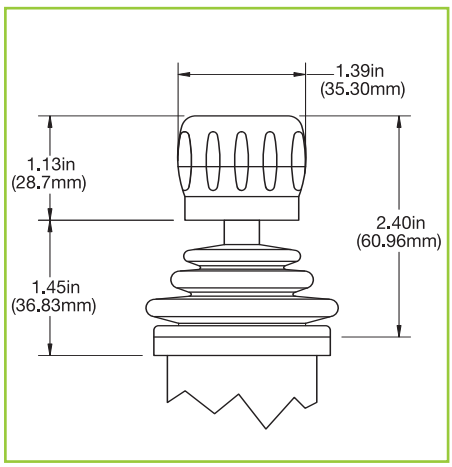
Model 1300

Option 3



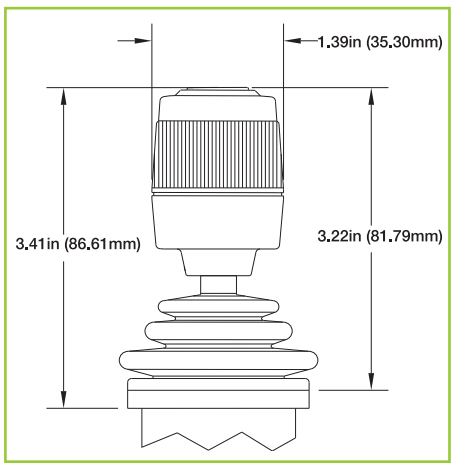
Model 1300

Option 6



Model 1400

Options 4 & 5



Configuration Options

Sensor Output Options

- 0V to 5.0V
- 0.25V to 4.75V

Optional Features

USB
Universal Serial Bus provides USB 1.1 interface. No driver is needed.

Analog Deadband
Assures return to center voltage.

Center Detect/Fault Detect
Produces an electrical HI signal when stick is moved off center and produces an electrical LO signal if the sensor output voltage deviates from range (<0.5V or >4.5V).

Dual Decode
Provides center detect function and monitors dual sensors. If the sum and the difference of the sensor outputs vary by more than 9%, the circuit becomes electrically LO. Requires dual sensors.

Joyball
Cursor emulation available with USB or Sun.

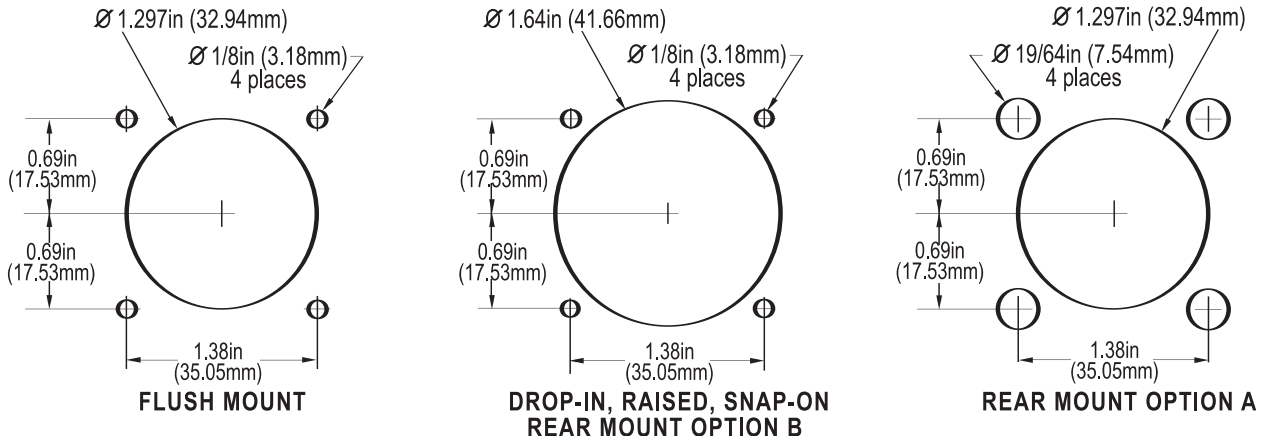
Voltage Regulator
Used when input or output voltage is greater than 5V or when bipolar output is required. Contact factory for available configurations.

Centering Plate
Increases mechanical return to center and repeatability.

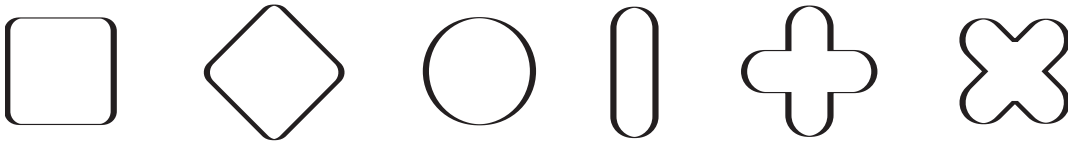
Friction Clutch
The joystick does not mechanically return to center, maintains present position.

Desktop Housing
Visit www.chproducts.com for available configurations.

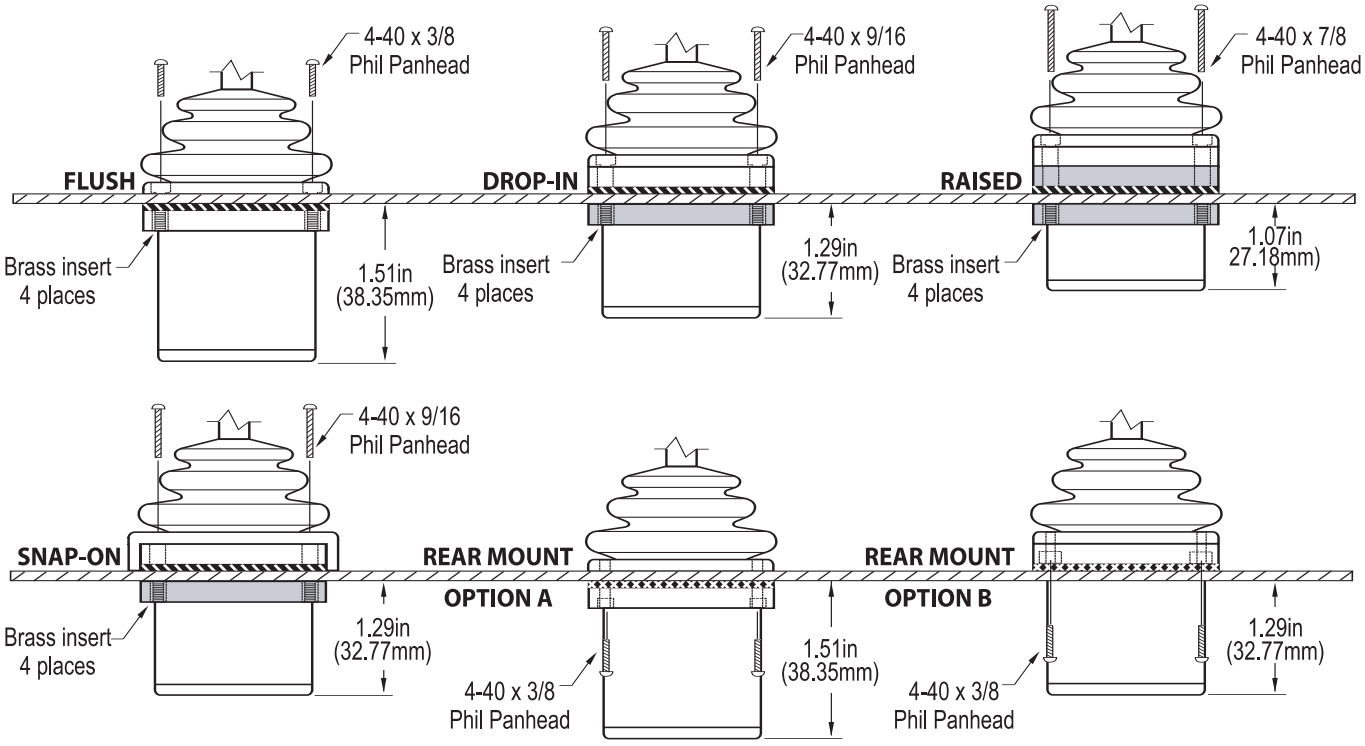
Panel Cutout Dimensions



Limiter Plate Options



Mounting Options



- Panel
- 6mm spacer (0.24in)
- Standard gasket
- Rear mount gasket

Notes -
- The panel thickness can be 0.046in to 0.125in (1.17mm to 3.17mm), except for the Rear Mount Option A, where the maximum panel thickness is 0.063in (1.6mm).
- A panel thickness of 1/16" (0.063in, 1.6mm) was considered for all the below-panel depth values.
- The below-panel depth is extended by 0.40in (10.15mm) with the USB option.

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Typical Applications

- CCTV Camera Control
- Remote Control
- Robotic Systems
- Factory Automation
- Simple Machine Control
- Automated Conveyor Systems
- Medical Devices
- Optical Devices
- Targeting Systems
- Electric Wheelchairs
- Military Robotics
- Unmanned Vehicle Control
- Electron Microscopes

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