

JS-100 Heavy Duty Proportional Joystick

Features

- ✓ Extreme Duty Design
- ✓ Duty cycle 2+ million actuations
- ✓ Dual and single axis versions
- ✓ Integrated above panel LED diagnostics
- ✓ Can be configured and monitored using JS-100 PC Interface
- ✓ CAN participation can be passive (answers only to poll) or active (messages repeated on schedule) to assist in CAN traffic management
- ✓ Linear and all non-linear output curves dynamically selectable via CAN commands. Custom output curves can be easily accommodated
- ✓ Integrated TRUE ZERO Enable – joystick can be configured to require activation of the enable switch while in the zero position before any outputs can occur
- ✓ X Axis and Y Axis signals for steering applications can be coordinated to reach simultaneous maximum values at the 45° position of each quadrant
- ✓ Redundant Hall Effect sensors for each axis
- ✓ CANopen and J1939 CANbus configurations
- ✓ Dual Axis +/-30° deflection
- ✓ IP67 above panel; IP65 below panel



The JS-100 is a heavy duty industrial joystick designed for demanding applications. Engineered with robust overtravel end stops to withstand operator overstress, the unit provides reliable operation while in service. The 2mm thick joystick boot is field replaceable without removing the unit from the panel if damaged in service. There is a secondary seal below the boot that isolates the electronics to protect against cases where the boot may be compromised. Intrinsically safe versions are available for use in hazardous environments.

Specifications

Power

Operating Voltage 6 to 30VDC (30mA@ 12.0VDC)

Environment

Operating Temp -40 to +60°C (-40° to +140°F)
Boot material dependent

Storage Temp -40 to +85°C (-40° to 185°F)

Humidity IP67 above panel/IP65 below panel
O-ring seal at panel

Diagnostic Indicators (LEDs)

Diagnostic LEDs can be controlled by the master controller for application specific projects.

Error	Enable
Watchdog/CAN Activity	Output

Diagnostic/Configuration

Windows compatible software available.

Handle Configurations

Various

Sensors

Redundant Hall Effect

Each axis monitored and compared for consistent tracking with error-state sensing for out of tolerance.

Integrated Hall Effect Enable

Outputs

CANbus J1939 or CANopen
16 addressable nodes via internal dip switch or via hardwired links in connecting cable back-shell

Analog 0-5VDC for each axis
5mA sourcing or sinking, fault monitored

Discrete Four (4) directional 5VDC for each axis
5mA sourcing, 100µA sinking

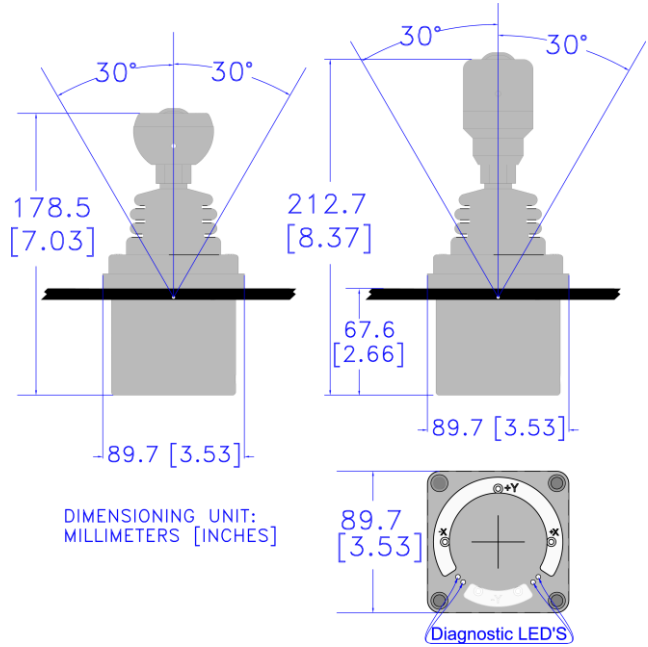
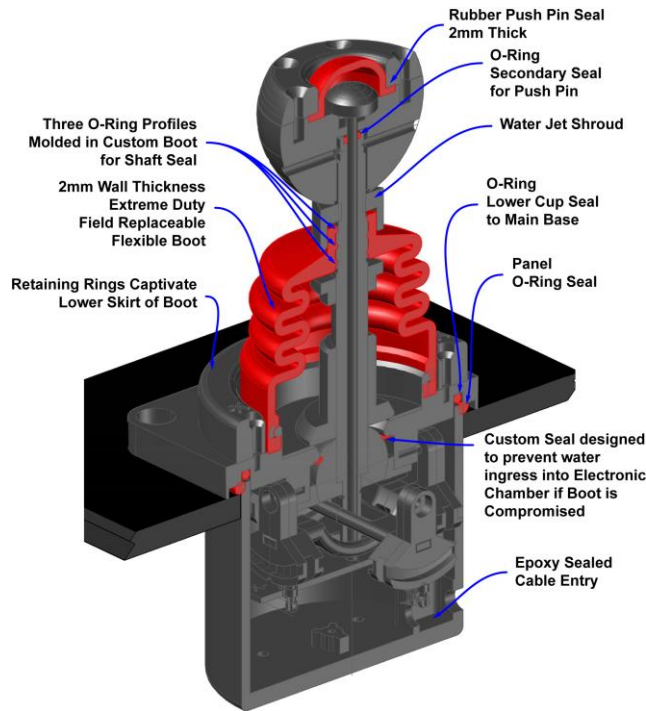
External PWM

Valve driver modules available.

Dimensions

Inch	3.5 x 3.5 x 8.625	mm: 89 x 89 x 21
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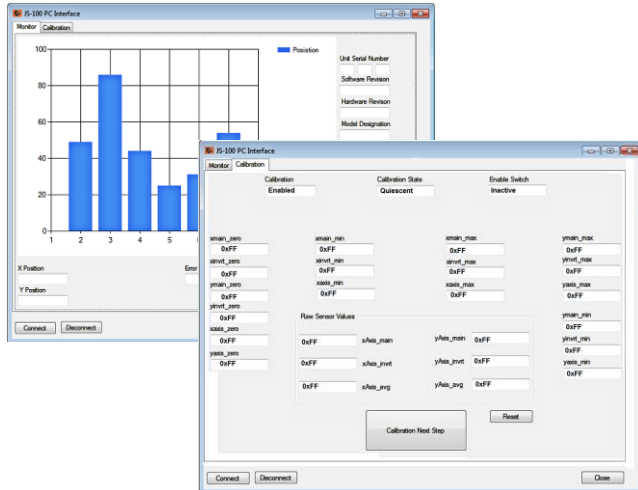
Heavy Duty Design with Unparalleled Sealing



JS-100 PC Interface

The JS-100 can be configured using its CAN port and a Windows based program. The program also allows for the device to be calibrated using the graphical user interface. In Monitor Mode, the program can provide information to allow the joystick functions to be monitored in real time.

Graphical User Interface in Monitor Mode displays joystick operation values including X and Y magnitude and direction.



Calibration Mode shows previously stored quiescent values and raw values for all sensors.

