

POWER & CONTROL

# OPTIMUS 360 JOYSTICK CONTROL SYSTEM

The Optimus 360 Joystick is a non-contact, 3-axis vessel control module providing intelligent position control. It features redundancy for dual sensing inputs for the most demanding joystick control applications. Specially designed for the marine industry.

**INTUITIVE**  
JOYSTICK FUNCTION

**PROGRESSIVE**  
THROTTLING

**TWIN, TRIPLE & QUAD**  
ENGINE APPLICATIONS



Mobile living made easy.

 **DOMETIC** **OUTDOOR**

# GIVE YOUR BOAT A WHOLE NEW DIMENSION OF CONTROL.

Optimus 360 gives your boat a whole new dimension of control. By developing the joystick function to be intuitive, Optimus 360 allows you to move your boat not only forward and back, but also sideways, by pushing the joystick to the left, or to the right, and even, rotate on a dime, all with a simple twist of the joystick.

Optimus 360 is designed for low speed maneuvering, and really excels in the marina, when pulling in and out of your slip, or docking. Optimus 360 uses intelligent programming to minimize the amount of shifting required to complete a maneuver.

Each component has been designed to complement the other, resulting in a seamless experience of steering control in virtually every situation on the water. The high level of engineering also extends to the reliability of the system, with quality materials, careful manufacturing and redundant systems, all to stand up to the rigors of life on the water.

## Specifications

### Electrical

Operating voltage: 9-16 VDC [SAE J1455]

Dual CAN bus

- CAN bus 1: High Speed CAN 250 kbps [SAE J1939]

- CAN bus 2: Fault Tolerance CAN 125 kbps [ISO 11898-3]

Protected from reverse polarity, power interruption.

Power transient protection: Switching transient, starter motor disturbance, and load dump. [SAE J1113-11]

Conducted Immunity: 10 Vrms, Criteria A [IEC 60945]

Radiated Immunity: 10 V/m, Criteria A [IEC 60945]

Electrostatic discharge protection: 6kV contact, 8 kV air [IACS E10]

Compass safe distance: 50 cm, at 1° deflection [IEC 60945]

## Features

- Rugged electronic 3-axis joystick for 12VDC marine or industrial applications.
- Dual redundant, non-contact hall effect sensors on each axis, six sensors total.
- Dual CAN BUS outputs: High-speed CAN and fault tolerant CAN.
- Dual redundant power supplies.
- Designed for recreational and commercial boats and vehicles.
- Ergonomic handle and base design for comfortable precision operation.
- Guided feel for preferential primary axis control.
- Flexible base lip seal.
- Soft-touch elastomeric four-button keypad with blue LED's.
- Take command bicolor blue and red LED for on-board diagnostic.
- Adjustable LED light intensity.
- Backlight for dark environment.
- Meets or exceeds ABYC, ISO, SAE electrical and environmental requirements.
- CE certified.

### Mechanical For X, Y Axes

Mechanical angle of movement: +/- (18° +/- 2°)

Actuator force: 1.0 +/- 0.2 lbf

Typical current drawn: Less than 300mA

Square limiting plate

Guided feel for primary X, Y directions

Durability: Minimum 500,000 cycles

### Mechanical For Z Axis

Mechanical angle of movement: +/- 40 degree

### Connection

2 x 6-Pin male, FCI Apex-2.8 connectors

Built in CAN network tee for multi-station connection

Connector tensile pull resistance: 60 lbf [ISO 10133]

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## Specifications

### ENVIRONMENTAL

Operating temperature: -18°C to +77°C [ISO 25197]

Storage temperature:  
-40°C to +85°C [ISO 25197]

Corrosion resistance:  
1000 hours salt spray [ASTM B117]

Water ingress protection: IPX7 [IEC 60529]

### SHOCK & VIBRATION

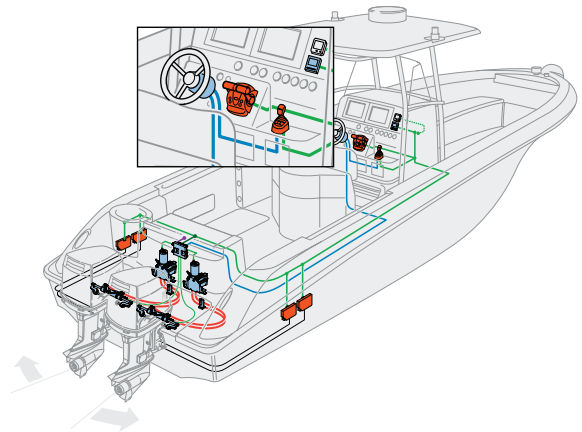
Random vibration:  
0.0284 g<sup>2</sup>/Hz [ABYC P-27]

Resonant vibration:  
4 G zero-peak, 20-2000 Hz [ABYC P-27]

Thermal shock: 100 cycles

Mechanical shock:  
50 G, 11 msec half-sine shape [ISO 25197]

### Example Of Joystick Application.



## Dimensional Data

