Applications

Electronic Power Steering (EPS) system suitable for vessels from approximately 30 ft to 50 ft* with single or dual rudders.

Features

- Up to two helms stations
- Automatic battery management with sensing, warnings & best battery selection
- On demand hydraulic steering pump minimizing power consumption
- No oil at the helm
- Rugged electronics for 12 or 24 VDC applications
- Color dash display showing rudder command and rudder position graphic
- Displays system health
- Display provides system setup interface
- Communicates faults and any special handling instructions to the operator
- No requirement for tie-bars depending on rudder loads.
- Simple software updating via USB port
- Programmable number of turns lock to lock with speed
- Auto-adjusting steering end stops and resistance with speed
- Dual redundant position sensing on all moving components
- Helm offers both 3/4” taper or 1” straight shaft options
- Utilizes fault tolerant CAN network
- Full autopilot CANbus connectivity and integration. No additional pumps or sensors required
- Adjustable max rudder hard over angle with speed range 25° to 40° Center to hard over
- Rudder toe in or out up to 5° with speed
- Position proportional rudder gain for faster steering response near neutral rudder position
- RPM input: NMEA 2000, J1939 or analog pulse compatible
- Pump features an Integrated service/bypass valve allows a limp home mode
- Meets or exceeds ABYC, CE, ISO and SAE electrical and environmental requirements

Environmental

- Operating temperature: -18°C to +77°C [ISO 25197]
- Storage temperature: -40°C to +85°C [ISO 25197]
- Corrosion resistance: 300 hours salt spay [ASTM B117]
- Water ingress protection: IPX7 [IEC 60529]
- Random vibration: 0.0284 g^2/Hz [ABYC P-27]
- Resonant vibration: 4 G zero-peak, 20-2000 Hz [ABYC P-27]
- Mechanical shock: 50 G, 11 m-sec half-sine shape [ISO 25197]
- Ignition protection: SAEJ-1171
- Meets EN60945 electromagnetic compatibility requirement

* Subject to submission of survey form and rudder load calculation.
## MOUNTING CONFIGURATIONS & SYSTEM SCHEMATIC

While using the table below be sure that your steering cylinder is at mid-stroke as shown in the figure right to ensure the cylinder operates correctly.

<table>
<thead>
<tr>
<th>Model EC5380</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>STEERING ANGLES</strong></td>
</tr>
<tr>
<td>50°</td>
</tr>
<tr>
<td>A</td>
</tr>
<tr>
<td>8.33&quot;</td>
</tr>
<tr>
<td>11,004 in-lbs*</td>
</tr>
</tbody>
</table>

| **STEERING ANGLES** |
| 70° | 80° |
| A | B | A | B |
| 6.14" | 3.91" | 5.48" | 3.07" |
| 7,328 in-lbs* | 6,115 in-lbs* |

* Torque shown is per cylinder.
Example: two cylinders at 60° steering angle will give a combined total of 17,774 in-lbs of torque.

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**Example: twin rudder system schematic.**

*While the table above be sure that your steering cylinder is at mid-stroke as shown in the figure right to ensure the cylinder operates correctly.*