

NMEA2000®
RUDDER ANGLE ADAPTOR

FEATURES

- Adapts European or American standard resistive senders to NMEA2000®
- Port / Starboard indicator LEDs simplify mechanical installation
- Switch settable Device Instance
- No calibration required
- No complicated menu setups required
- Very low power
- Manufactured to NMEA2000® network standard



The Oceanic Systems 3165 Rudder Angle Adaptor allows standard European or American standard resistive rudder angle senders to transmit their rudder position over the NMEA2000® network.

The unit is designed to greatly simplify installation with NO user setup or calibration required and NO display menus to struggle through.

In multiple rudder installations the sender type selection and the device instance setup is simply done with the small rotary switch on the unit.

The 3165 has a red port LED and a green starboard LED that flash to indicate the unit is transmitting the appropriate rudder position.

The mechanical setup of the rudder angle sender is greatly simplified by setting the rudder midships and then adjusting the linkage to the sender until both LEDs illuminate when the sender is also at midships.

It comes with a 1 metre NMEA2000® cable and a 2 metre rudder sensor cable to allow the unit to be placed in a convenient location.

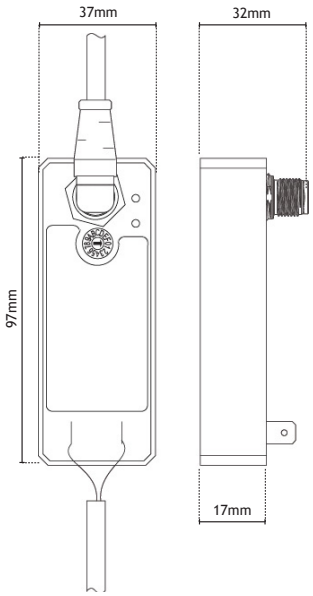
It is fully waterproof to IP67 and ruggedly constructed for years of reliable and accurate service.

The unit comes with a detailed user manual and is manufactured to the NMEA2000® network standard.

NMEA2000® RUDDER ANGLE ADAPTOR

Part Number 3165

Dimensions



Resistive Rudder Angle to NMEA2000® backbone



Certification

NMEA2000®	Compliant
Maritime Navigation & Radiocommunication equipment	IEC60945
CE Mark & FCC	Electromagnetic Compatibility

NMEA2000 Parameter Group Numbers (PGNs)

Type	PGN No.	PGN Name
Periodic	PGN127245	Rudder
Requested	PGN126464	Tx/Rx PGN List
Protocol	PGN126996	Product Information
	PGN059392	ISO Acknowledge
	PGN059904	ISO Request
	PGN060928	ISO Address Claim
	PGN126208	Command/Request Group

Electrical and Mechanical

Operating Voltage	9 - 32 Volts DC
Power Consumption	<50mA
Load Equivalence Number	1
Reverse Battery Protection	Indefinitely
Load Dump Protection	Yes to SAE J1113
Size	97mm x 37mm x 32mm
Weight	175 grams

Environmental

IEC 60954 Classification	Exposed
Degree of protection	IP67
Operating Temperature	-20°C to 50°C
Storage Temperature	-50°C to 70°C
Relative Humidity	93%RH@40C per IEC60945-8.2
Corrosion - Salt mist	As per IEC 60945-8.12
Electromagnetic Emission	Conducted/Radiated per IEC 60945-9
Electromagnetic Immunity	Conducted/Radiated/ Supply and ESDper IEC 60945-10

Resistive Rudder Angle Sender (not included)



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Our policy is one of continuous product improvement, therefore product specifications are subject to change without notice. Oceanic Systems products are designed to be accurate and reliable. However, they should be used only as aids to vessel monitoring, and not as a replacement for traditional navigation and vessel monitoring techniques.

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