

## Marine NMEA2000® DC Current Sensors Data Sheet

**Across Ocean Systems Ltd.** offers a broad range of digital non-intrusive current measuring sensors. The advantage of this type of current sensors is that they do not interrupt high current circuits, therefore there is no danger of the connections heating up and burning as seen on many DC shunt based systems. Another advantage of our sensor is the easy installation: just clip the split current transformer on the wire that you intend to measure the current flowing through and connect the device to your NMEA2000 network. If during use, the current exceeds the sensor's rated current, the sensor will not overheat and create critical situations as observed with shunt type current sensors in overload mode.



Fig 1. Regular current sensor 10A-200A



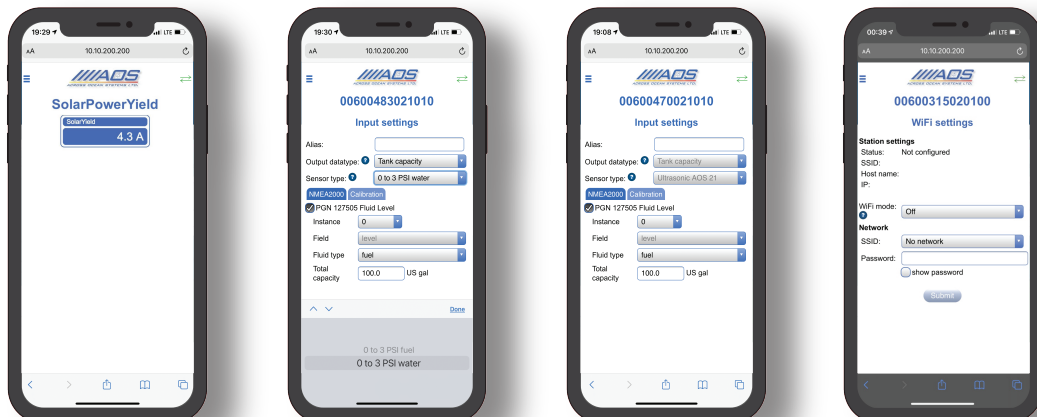
Fig 2. High-Current Sensor 200A-500A



As the unit might need to be installed in an electrical cabinet/compartment, we recommend using certified Electrician.

All local regulations and electrical code must be followed!

**All AOS Ltd. NMEA 2000® Digital Sensors** have our standard Wi-Fi configuration interface that allows configuration directly from your iPhone / Android mobile phone, as well as from a PC or MAC computer. Using a Chrome web browser is preferable. In the configuration pages, one can name the sensor, change the sensor instance as well as modify other sensor settings. Appropriate single or multiple output PGNs can be also selected, as some sensors support an output of multiple PGNs for the data they represents. Multi channel modules can output the same or different type PGNs for each channel. Where applicable, simple multi-point calibration is available e. g. for calibration of tank level sensors.



# Specifications

## Working Current

Parameter	Part Number	Value	Resol./Start	Comment
Current Range  Accuracy +/- 1 % of working range	CS-0-10-N2K	+/- 10 Amp	< 0.05 A / 0.1A	DC current
	CS-0-20-N2K	+/- 20 Amp	< 0.1 A / 0.2A	DC current
	CS-0-50-N2K	+/- 50 Amp	< 0.25 A / 0.5A	DC current
	CS-0-100-N2K	+/- 100 Amp	< 0.5 A / 1A	DC current
	CS-0-200-N2K	+/- 200 Amp	< 1.0 A / 2A	DC current
	CS-0-200-HC-N2K	+/- 200 Amp	< 1.0 A / 2A	DC current
	CS-0-300-HC-N2K	+/- 300 Amp	< 1.0 A / 3A	DC current
	CS-0-500-HC-N2K	+/- 500 Amp	< 1.0 A / 5A	DC current

## Electrical

Parameter	Value	Comment
NMEA 2000® Operating Voltage	9 VDC to 32 VDC	Powered via NMEA 2000® port
NMEA 2000® Power Consumption	< 50 mA / 100* mA	*When Wi-Fi is enabled for configuration
NMEA 2000® LEN	1 LEN / 2 LEN config	NMEA 2000® Spec. (1 LEN = 50 mA)
NMEA 2000® Reverse Polarity	Protected	Indefinite

## NMEA 2000®

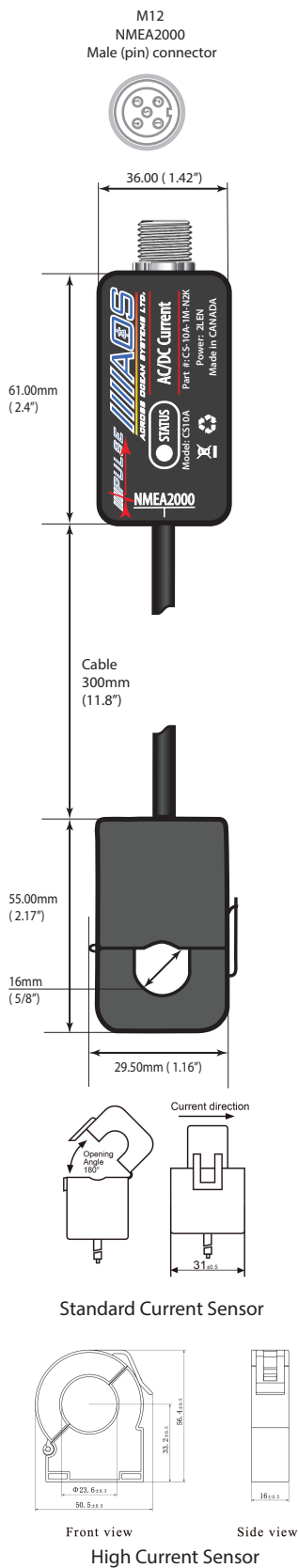
Parameter	PGN	Name	Update rate
System PGNs	059392	ISO Acknowledgment	
	059904	ISO Request	
	060160	ISO Transport Protocol, Data Transfer	
	060416	ISO Transport Protocol, Conn Management	
	060928	ISO Address Claim	
	065240	ISO Commanded Address	
	126208	NMEA Request/ Command/ Acknowledge	
	126464	PGN List - Transmit PGNs group function	
	126993	Heartbeat	60 sec
	126996	Product information	
Data PGNs	126998	Configuration information	
	127508	Battery status	1.5 sec (standard) or user defined
	127751	DC Voltage / Current	

## Mechanical and Environmental

Parameter	Value	Comment
NMEA 2000® Box	36mm X 61mm X 26mm (1.42" X 2.4" X 1.1")	Without the M12 Connector
Cable	300mm (11.8")	Cable length may vary
Current Sensor	55mm X 29.5mm X 31mm (2.17" X 1.16" X 1.22")	In closed position
Weight	248g (8.9 oz)	
Operational / Storage Temp	-30 °C to +60 °C (-22 °F to +140 °F) -40 °C to +70 °C (-40 °F to +158 °F)	
Operational Humidity	90%	Non Condensing
IP Rating	IP66 / IP64 Standard Current IP66 / IP66 High current	NMEA 2000® Box / Current Sensor

## Standards Compliance

Across Ocean System's devices are NMEA 2000® Level A certified and designed to comply with the most stringent marine standards such as IEC 60945 and IEC 61162-3, as well as the European CE standard - Electromagnetic Compatibility section.



NMEA 2000® Level A certified

Across Ocean Systems Ltd.  
North Vancouver, BC, Canada



Tel: +1 (236) 688 8948  
Email: contact\_us@acrossoceansystems.com  
Website: www.acrossoceansystems.com